

# APPENDIX K FIELD NOTE LOGS AND CALIBRATION REPORTS

## Test Run Data Collection and Modeling Report

for the

## Dissolved Oxygen Facility Environmental Testing

for the

## Savannah Harbor Expansion Project

Contract# W912HN-15-D-0023

Task: 07 and 08

August 15, 2019

### PREPARED FOR

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Savannah District**

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**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/11/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 73°F Partly Cloudy, E 10 mph		<b>Tides:</b> N/A
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Sam Booth, Lisa Heise.		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b> None
<b>Work Completed:</b> - See field notes		
<b>Notes:</b> Collected Black Boat from Hale Marine.		
<b>Daily Log Completed by:</b> Hayley DiGiano	<b>Signature:</b> 	
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



2/27/19

59° F Cloudy E 3mph  
 0156 LH, HD, EB, SB arrive at depot  
 0843 LH, HD leave for LFR (white)  
 0854 arrive at LFR  
 0859 start profile line (LT)  
 0902 restart profile in correct timing  
 0940/0945 slack tide  
 0952 end profile  
 0953 profile LFR-S  
 0957 profile LFR-N  
 1017 retrieve LFR-N Buoy  
 1022 retrieve LFR-S Buoy  
 1025 leave LFR  
 1039 arrive at depot  
 1056 upload LFR data  
 1201 prepare sondes for short term storage  
 1230 upload LFR data  
 1315 take white boat out/wash  
 1345 take yellow boat out/wash  
 1430 SB, LH, EB, HD leave depot


3/11/19 29

S. Booth L Heise H. Digiano

1207 arrive at depot  
 -picked up black boat on the way in, in addition to dropping off arch. artifacts  
 1305 Setup lab/house keeping  
 apply antifouling measures to two additional exo3's and sensors  
 1400 planning meeting  
 1430 Calibrate sondes  
 1-12, E+F: C+  
 1-12: DO  
 7, 8, 9, 10, 12 Depth  
 1727 leave depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/12/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 69°F Abundant Sunshine, E 10-15 mph		<b>Tides:</b> N/A
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Sam Booth, Lisa Heise.		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 1 Hour <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b> None
<b>Work Completed:</b> - See field notes		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



3/12/19

0843 LH, HD, SB arrive at depot

0905 SB paint Buoy

LH, HD Calibrate sondes

CT 13-28, ABC DG

DO 13-24, 26-28, GAB

Depth 1, 2, 4-6, 19-24, 26-28, 6

phyco ug / RFU (LH), chloro ug / RFU (LH)

phyco RFU (HD) / ug

Prep for dye test (test pump)

Prep boats to put in H<sub>2</sub>O (gas,  
life jackets, etc)1335 launch boats from depot -  
yellow & black boat1421 return to calibration-HD  
SB, LH leave depot for LFR to  
measure depth for New Buoy  
(Black boat)

1527 SB, LH Return

1625 Complete Calibration

Depth 25, 17, A, B, 11, 18, DC

DO C, D, E, F, 25

Chlorophyll ug / RFU (HD/HD2)

phyco ug / RFU (HD/HD2)

Apply profile / platform / Buoy templates  
update serial tracking & deploymentupdate Site lists on H,  
prepare rope, chain, etc. for LFR-N  
buoy deployment


update - Sonde location diagram

- File name / key

1750 leave depot for evening  
to pick-up generator for  
3/13/19 3-gal dye test



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/13/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 70°F Cloudy, ESE 10-20 mph	<b>Tides:</b> L – 0824 H – 1410	
<b>Client/Stakeholder Interaction (if any):</b> Bryan Robinson		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Sam Booth, Lisa Heise.		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.5 Hours <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b> Dye Pump Generator: Honda EU2000i – Home Depot Rental
<b>Work Completed:</b> - See field notes		
<b>Notes:</b> 3-gallon dye test conducted at Low Slack Tide in the Back River. To maintain image quality, additional images are saved on the OneDrive: Test Run\Pictures\031319_3 gallon dye		
<b>Daily Log Completed by:</b> Hayley DiGiano	<b>Signature:</b> 	
<b>Photos Attached?</b> <input checked="" type="checkbox"/>		<b># of Photos</b> 6

Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring  
Task 7 – Test Run  
Daily Log**



Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring  
Task 7 – Test Run  
Daily Log





3/13/19

50°F partly cloudy WNW 2mph

0718 SB, HD, LH arrive at depot

0804 LH, HD leave depot (black boat)  
for LBR

SB to go to back river pipe  
for dye test 3-gal.

0822 LH, HD arrive at platform  
setup shallow sonde A  
to log

0831 LH drop HD at platform

0842 SB text to say dye is in

0844 dye visible in back river  
dye came up out of plume approx  
ft from SE corner of platform  
spread out, then traveled toward  
SE corner of platform, making  
contact

0953 end shallow drift

1030 deploy sondes 1, 2, 4-12, 24  
on platform

1047 deploy BNW (sonde 17)

1053 deploy BNE (sonde 18)

1102 deploy BSE (sonde 20)

1109 deploy BSW (sonde 19)

1110 leave LBR

1133 arrive at depot

1142 upload data

1147 BR at depot

1230 BR leave

1232 LH, HD, SB phone conf. w/

RM to discuss dye test from AM

1325 LH, SB leave for LFR - Black Boat

1354 LH & SB arrive @ LFR

S + buoy sonde 21

1403 Put sonde 21 in S buoy

1410 Put sonde 22 in N buoy

→ head back to depot

1436 arrive @ depot

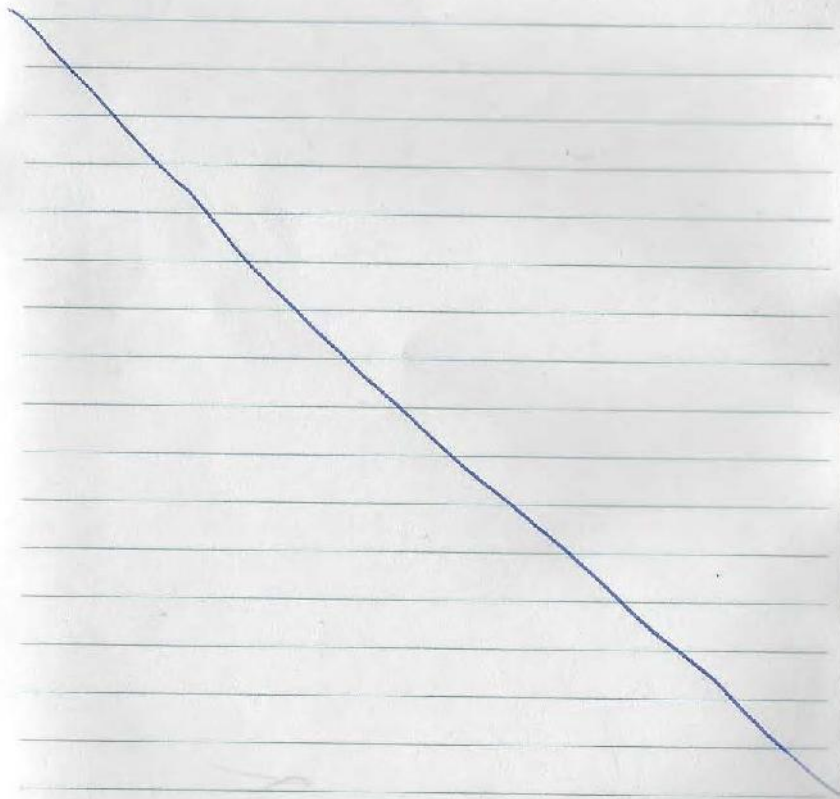
1500 SB, HD, + LH leave depot

for day to return Home  
depot rental generator



- 1101 arrive @ platform to check  
Buoy 9; removed from pipe; checked  
for tightness + cleanliness
- 1103 ~~re~~ re-deployed in pipe 59
- 1125 depart platform/LBR for Depot  
(Between 1103 + 1125 EB + SB tightened  
nuts/bolts and double checked  
platform integrity)
- 1145 arrive @ Depot
- 1426 depart Depot - EB + SB in Black  
bent; headed to LBR
- 1455 arrived at LBR
- ~1500 started profile drifts  
and ~1 meter drifts
- ~1530 ended drifts
- ~1540 ~~the~~ platform profile
- 1545 w platform profile
- 1550 replaced Sander 9 w/  
Sonde 28 on platform
- 1555 left platform
- 1601 Performed BSW profile
- 1604 completed + left Buoy
- 1608 Performed BSE profile
- 1611 completed profile + left buoy
- 1614 Performed BNE profile

- 1616 Completed profile + departed buoy
- 1619 performed B/W profile
- 1621 completed profile + left buoy
- 1623 began ebb tide profile drifts
- 1643 transitioning to ~1 meter drifts
- 1655 profiles completed
- 1657 depart LBR
- 1725 arrive @ Depot





- 1101 arrive @ platform to check  
~~SB buoy~~ ~~sonde 9~~; removed from pipe; checked  
 for tightness + cleanliness  
 1103 ~~redeployed~~ ~~redeployed~~ in pipe 59  
 1125 depart platform/LBR for Depot  
 (Between 1103 + 1125 EB + SB tightchecked  
 nuts/bolts and double checked  
 platform integrity)  
 1145 arrive @ depot  
 1426 depart depot - EB + SB in black  
 boat; headed to LBR  
 1455 arrived at LBR  
 - 1500 started profile drifts  
 and ~1 meter drifts  
 - 1530 ended drifts  
 - 1540 ~~the~~ platform profile  
 1545 w platform profile  
 1550 replaced sonde 9 w/  
 sonde 28 on platform  
 1555 left platform  
 1601 Performed BSW profile  
 1604 completed + left buoy  
 1608 Performed BSE profile  
 1611 completed profile + left buoy  
 1614 Performed BSE profile

- 1616 Completed profile + departed buoy  
 1619 performed BSW profile  
 1621 completed profile + left buoy  
 1623 began ebb tide profile drifts  
 1643 transitioning to ~1 meter drifts  
 1655 profiles completed  
 1657 depart LBR  
 1725 arrive @ Depot



*St. John*



02/27/19 Savannah Dz 2016-2014

cloudy 65

leave depot

0905 arrive at LBR

0911 begin profiling w/ H1

stack started ~0935

1023 stop profiling

1026 tie to SE buoy grab data and profile

1032 SW "

1040 NW "

1045 NE "

1048 move to platform

1051 sample W side

1055 sample E side

begin pulling sondes off of platform

1118 finish " "

1125 leave LBR

1145 arrive at dock

03/14/19 Savannah Dz 2016-054

Sunny, warm, breezy ~69°F

0855, depart Depot in Black Boat  
EB+SB

0915 arrive at LBR platform

0920-0934 Installed Sondes 13-16  
in Variable pipes on platform

\*0937 performed West platform profile

\*0939 performed 2" W profile next  
to S9

0941 performed East platform profile  
Darks left platform

0951 arrive at BSE buoy

0956<sup>48</sup> begin BSE profile

0958 complete BSE profile & depart buoy

1000 arrive at BSW buoy

1001 start BSW profile

1003 end BSW profile & depart buoy

1007 arrive at BNE buoy

1008 begin BNE profile

1010 complete BNE profile & depart buoy

1013 arrive at BWE buoy

1014 begin BWE profile


1016 complete BWE profile & depart buoy

1018 begin drift profiles

1100 end drift profiles



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/14/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 75°F Sunny, SSE 12 mph		<b>Tides:</b> L – 0931 H – 1513
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Sam Booth, Lisa Heise, Ethan Bright		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 5 Hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 4 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b> Sonde 28 was exchanged for Sonde 9 because Jim mentioned Sonde 9 had high DO.		
<b>Daily Log Completed by:</b> Lisa Heise		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



3/14/19

- 58°F, mixed sun/clouds, SSE 10-15 mph  
 0819 SB, LH, HD at depot  
 EB arrive at depot  
 0852 LH, HD leave to profile LFR in yellow  
 0902 arrive at LFR  
 0907 begin profiling in plume (LT)  
 0920 begin profiling at 1m (OT)  
 0935 profile LFR - N - LT  
 0939 profile LFR - S - LT  
 0950 profile @ plume (LT2)  
 1001 profile @ 1m (LT2)  
 1020 Georgia Dept. Nat. Resources  
 approach boat to inquire  
 about sturgeon that was  
 found on shoreline they were  
 trying to find.  
 1047 end profiling  
 1049 leave LFR  
 1103 arrive at depot  
 1118 upload LFR data (sonde D, H<sub>2</sub>)  
 1150 EB, SB back at depot.  
 1204 upload LBR data  
 1426 LH, HD leave for LFR (yellow)  
 1436 begin 1m profile (HT)  
 1439 arrive at LFR

1442 spoke on phone w/  
 Jim Greenfield about proced.  
 and Friday's Sampling; Profiling  
 @ approx 1m in "transects" w/ overlap,  
 do not stop logging & do up-down in  
 profile in the plume. repeat before  
 and after slack tide. For late tide  
 on 3/15/19, will put team members leaving  
 very late.  
 Decision to add an additional 30 before  
 30 min after slack for low tide  
 in morning drift.

- 1518 profile LFR - S (HT)  
 1522 profile LFR - N (HT)  
 1530 profile 1m/plume (HT)  
 1612 end profiling  
 1617 leave LFR  
 1630 arrive at Depot  
 1642 upload LFR data  
 1725 EB, SB arrive at depot  
 1740 Scan/upload Boat 2 FN  
 SB, LH prep for LFR-A Buoy deploy  
 1755 upload LBR data  
 1815 leave depot



3/15/19 Savannah D<sub>2</sub> 2016-094

Sunny, breezy 68°F

0815 - EB + SB depart Depot in  
Black boat to LFR

0835 arrive at LFR

0847 - deployed Dornier weight  
with Crab pot buoys North  
of existing buoys for future  
new LFR buoy/sonde

0852 - left Dornier area and hooked  
up to 'FAS' and setup for drift  
Sonde 26' surface < 1 meter

Sonde A: Shallow 1.5m, connected to H1

Sonde B: mid 3m

Sonde C: Deep 4.5m

0925 began drifting

Ethan accidentally started logging on 1.5m  
so there will be an extra file.

0922 SB called and discussed new buoy w/RDM

0934 SB called B. Robinson to discuss plant out

0952 had to stop/slow our transect  
due to boat traffic

1035 observed slack tide conditions


~~1215~~ 1215 completed drift

1225 depart LFR

1245 arrive Depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/15/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 74°F Sunny, S 15 mph	<b>Tides:</b> L – 1045 H – 1618	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Sam Booth, Lisa Heise, Ethan Bright		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.5 hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 4.5 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b> Installed Dormor anchor in FR for additional buoy. Will install buoy 3/18 if no movement of Dormor observed.		
<b>Daily Log Completed by:</b> Lisa Heise	<b>Signature:</b> 	
<b>Photos Attached?</b> <input checked="" type="checkbox"/>		<b># of Photos</b> 4

Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring  
Task 7 – Test Run  
Daily Log



Photo 1 – Dormor installed in Front River.



Photo 2 – Buoy and Dormor configuration



**Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log**



Photo 3 – View of buoy placement facing east.



Photo 4 – View of buoy placement facing northeast.

3/15/19

65°F, pty cloudy, 5 mph

0730 SB, LH, HD at depot

0748 EB at depot

0800 load up LFR-A Buoy materials

0820 EB, SB leave for LFR (black)

0837 LH, HD leave for LBR (yellow)

0855 arrive at LBR

0912 begin drift

D,  $\approx$  1m (shallow, H<sub>2</sub>)E,  $\approx$  2.5m (mid)F,  $\approx$  4m (deep)

, surface

tide is going out

1050 slack at LBR, profiled at plumb  
w/ D (shallow)

1215 end drift

1230 leave LBR

1313 return to depot

1336 upload LBR/LFR data

1343 Scan/upload Boat2 logs


1354 HD, EB leave depot

1400 Daily log completed

1415 SB, LH leave depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/16/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 59°F Cloudy, NNW 15 mph	<b>Tides:</b> L – 1156 H – 1728	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Sam Booth, Lisa Heise		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 6.5 hours <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Lisa Heise	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____



1701 DO very high, has not gone below 8.90 mg/L approx 200 yds north of platform

1737 observed apparent Slack Tide conditions, but no visible plume  
2 ~~14~~ profiles performed where plume predicted

1744 plume observed and profiles performed (~~8~~) 4 ~~20~~

1751 profile drift started going south from plume zig zag

1835 connected drift/profile

1837 depart LBR

1855 Arrive @ Depot

1902 upload profile data

1905 complete daily log

1915 leave depot

3/17/19  
LH+SB 56°F Cloudy light rain NNE 8 mph

LH+SB depart depot @ 1130

1141 arrive @ LFR

observed plume's surface disturbance higher than usual (video on One drive)

11 Started profile drift, went in plume, 1 ~~8~~ profiles, then started zig zag east to west (Current strong)

low DO @ plume ~ 7.9 mg/L

1214 followed plume south

1255 Plume very violent

1304 profiles (~~8~~) in plume just outside of violent part

1309 started profile drift after slack around plume, then going north to follow plume

1405 connected to ~~buoy~~ & downloaded data LFRS

1412 connected to LFR-A & downloaded data

1417 stopped drift deployment & depart LFR

1430 Arrive @ depot

1445 upload buoy & profile data  
checked EagleIO, & updated "Deployments" spreadsheet



3/15/19

65°F, pty cloudy, 5 kmph

0730 SB, LH, HD at depot

0748 EB at depot

0800 load up LFR-A Buoy materials

0820 EB, SB leave for LFR (black)

0837 LH, HD leave for LBR (yellow)

0855 arrive at LBR

0912 begin drift

D,  $\approx$  1m (shallow, H<sub>2</sub>)E,  $\approx$  2.5m (mid)F,  $\approx$  4m (deep)

, surface

tide is going out

1050 slack at LBR, profiled at plumb  
w/ D (shallow)

1215 end drift

1230 leave LBR

1313 return to depot

1336 upload LBR/LFR data

1343 Scan/upload Boat 2 logs

1354 HD, EB leave depot

1400 Daily log completed

1415 SB, LH leave depot

3/16/19

59°F Partly Cloudy, wind NNW 10 mph

1025 LH SB arrive @ depot

1040 leave for BR to profile

1115 arrive @ LBR

1120 start profile/drift @ LBR

1225 stopped logging 1<sup>st</sup> file ctb/sk1226 started logging again 2<sup>nd</sup> file skt/Ad

1325 stopped profile/drift

no plume profiling conducted  
due to there not being a visible plume

1333 collected BSW buoy data

1339 collected SVE buoy data

1345 collected BSE buoy data

1350 collected BSW buoy data

1351 depart LBR

1410 arrive @ Depot

1425 uploaded profile + buoy data (LBR)

1435 checked EagleIO


1605 LH + SB Depart Depot for LBR

1628 arrive @ LBR - raining

1630 started profile drift from north of  
platform going south. High (to high  
it seemed) Dojo we wiped sensors1648 started profile file #2 (still seems  
going north zig zag past platform <sup>high</sup>)



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/17/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 56°F Cloudy, Light rain, NNE 8 mph	<b>Tides:</b> L – 1300 H – N/A	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Sam Booth, Lisa Heise		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 3 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b> Plume very violent today, video is saved on OneDrive. Specific Conductivity for L2D showed low spikes Sunday early morning hours but has since leveled.		
<b>Daily Log Completed by:</b> Lisa Heise	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____



40 1500 completed daily log  
+ put gas in boats  
1530 SB + LH leave depot for  
Jax

3/18/18  
1000 E. Hess arrive onsite + fuels up

1035 E. Johnson arrive onsite

1100 E. Bright, H. DiGiano at depot.

1150 EB, EH prep due materials

1213 EJ, EB leave for LBR (Black)

1217 EH, HD leave for LFR (Yellow)

1232 arrive at LFR, diver flag  
on shore at plant <sup>1242</sup> in water

1258 Drift (LT) begins (S of Buoy)

D,  $\approx 1.5$  m

E,  $\approx 3.0$  m

F,  $\approx 4.5$  m

25, Surface

No visible plume

1400-1410 approximately, slack tide

diver still in water, No sampling  
near buoys / where plume would  
be (not apparent) - profile at  
plume not conducted

1426 diver out, flag still on shore

1500 Stop drift

1512 leave LFR for depot

1523 arrive at depot

1540 EJ, EB arrive at depot

1547 upload LFR data

1620 upload LBR data



1701 DO very high, has not gone below 8.90 mg/L approx 200 yds north of platform

1737 observed apparent Slack Tide conditions, but no visible plume  
2 ~~14~~ profiles performed where plume predicted

1744 plume observed and profiles performed (~~8~~) 4 ~~th~~

1751 profile drift started going south from plume zig zag

1835 connected drift profile

1837 depart LBR

1855 Arrive @ Depot

1902 upload profile data

1905 complete daily log

1915 leave depot

3/17/19  
LH+SB 56°F Cloudy light rain MNE 8 mph

LH+SB depart depot @ 1130

1141 arrive @ LBR

observed plume's surface disturbance higher than usual (video on One drive)

11 Started profile drift, went in plume, ~~1~~ <sup>1</sup> profiles, then started zig zag east to west (Current strong)

low DO @ plume ~ 7.9 mg/L

1214 followed plume south

1255 Plume very violent

1304 profiles (~~8~~) in plume just outside of violent part

1309 started profile drift after slack around plume, then going north to follow plume

1405 connected to ~~buoy~~ buoy & downloaded data LFRS

1412 connected to LFR-A & downloaded data

1417 stopped drift deployment & depart LBR

1430 Arrive @ depot

1445 upload buoy + profile data  
Checked EngleIO, + updated "Deployments" spreadsheet



3/15/19 Savannah D<sub>2</sub> 2016-094

Sunny, breezy 68°F

0815 - EB + SB depart Depot in  
Black boat to LFR

0835 - arrive at LFR

0847 - deployed Dornier weight  
with Crab pot buoys North  
of existing buoys for future  
new LFR buoy/sonde

0852 - left Dornier area and hooked  
up to 'FAS' and set up for drift  
Sonde 26 surface < 1 meter

Sonde A: shallow 1.5m, connected to H1

Sonde B: mid 3m

Sonde C: Deep 4.5m

0925 began drifting

Ethan accidentally started logging on 1.5m  
so there will be an extra file.

0922 SB called and discussed new buoy w/RDM

0934 SB called B. Robinson to discuss plant out

0952 had to stop/slow our transect  
due to boat traffic

1035 observed slack tide conditions

~~1215~~ 1215 completed drift

1225 depart LFR

1245 arrive Depot

3/18/19 Sunny 70° Ethan, Emily

1210 leave dock

1233 arrive at LFR and begin set up for drift

1255 start drift

A 1m B 2.5m, C 4m, 26 surface

\* plant not running; divers seen on the front  
river

1404 - 1405 profile where plume would have  
been located.

1406 continue drifting

slack started about 1405

1505 stop drift


1515 leave LFR

1540 Arrive at depot

1615 Data backed up



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/18/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 70°F Cloudy, N 10 mph	<b>Tides:</b> L – 1359 H – N/A	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Ethan Bright, Eric Huss, Emily Johnson.		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 3.5 hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 3 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b> System not running – diver in water at front river pipe upon arrival at LFR for drift. In water for duration of sampling period. Specific Conductivity at D2 showing dips and does not follow the other data trends. D3 and S11 BGA sensors are showing possible elevated levels.		
<b>Daily Log Completed by:</b> Hayley DiGiano	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____

1632 sondes at D3 + S11 BGA sensors  
 Showing elevated levels (??), D2  
 sp. cond does not follow other  
 trends (??)

1643 complete daily log

1652 Call From R. McCann w/ updates

1717 EH, EB, ES, HD leave Depot

3/19/19<sup>43</sup>

50°F pty cloudy NNE 11mph

0721 EB, EH, ES, HD arrive at depot



1500 completed daily log

+ put gas in boats

1530 SB + LH leave depot for  
Jax

3/18/15

1000 E Hoss arrive onsite + fuels up

1035 E. Johnson arrive onsite

1100 E. Bright, H. DiGiano at depot.

1150 EB, EH prep due materials

1213 EJ, EB leave for LBR (Black)

1217 EH, HD leave for LFR (Yellow)

1232 arrive at LFR, diver flag  
on shore at plant <sup>1242</sup> in water

1258 Drift (LT) begins (S of Buoy)

D,  $\approx 1.5$  m

E,  $\approx 3.0$  m

No visible plume

F,  $\approx 4.5$  m

25, Surface

1400-1410 approximately, Slack tide

Diver still in water, No sampling  
near buoys / where plume would  
be (not apparent) - profile at  
plume not conducted

1426 Diver out, Flag still on shore

1500 Stop drift

1512 leave LFR for depot

1523 arrive at depot

1540 EJ, EB arrive at depot

1547 upload LFR data

1620 upload LBR data



0750 leave dock

0814 arrive at LBR

0815 tie to SE buoy, profile and collect data

0828 SW H1 H3

0836 NW

0843 NE

0852 profile E side of platform

0856 " W "

0902 begin 1m drift w/ profiles  
in plume

\* System is not running

0910 slack tide started

0920-0923 1st profile

0933-0935 2nd "

0940-0943 3rd "

0958-1000 4th "

1000 stop logging

1005 EB checked/secured loose pipe on  
NW corner of platform

1010 Depart to depot

EA, EB  
1115 leave depot to deploy new buoy

deploy buoy

1208 return to depot

1335 Depart for LBR Profile LT

1355 Arrive at LBR

1403 begin 1m drift w/ profiles

1416 added weight to keep sonde at 1m

1429 Profile #1

1448 " #2

1457 " #3

1504 " #4

1506 stop profile/1m drift

1509 Profile @ Buoy SE

1513 Profile @ Buoy SW

1518 " NW

1522 " NE

1529 Profile E side of platform

1532 " W side "

1535 EB fixed loose pipe on NW corner  
of platform

1535 slack tide

1544 start 1m drift w/ profiles

1549 Profile #1

1555 #2

1612 #3

1626 #4


1628 stop 1m drift w/ profiles

1630 leave LBR

1650 arrive at depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 3/19/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 52°F Overcast, NE 10-20 mph	<b>Tides:</b> L – 1455 H – 0813	
<b>Client/Stakeholder Interaction (if any):</b> Burt Moore – Dredge Chief		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Ethan Bright, Eric Huss, Emily Johnson.		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 3.5 hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 4.5 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes</li><li>- Deployed third buoy in LFR (LFR_A)</li><li>- Additional bracket installed at M5 on platform</li></ul>		
<b>Notes:</b> <p>System not running. Burt Moore stopped by Depot to discuss safety while diver(s) are in the Front River working. Burt Moore provided contact information to give divers the heads up if we are going to be on the water in the area. Tides appear to be delayed by approximately ±30 minutes, tides will be adjusted. Assumption is change in tide is due to Supermoon on 21 March 2019.</p>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input checked="" type="checkbox"/> <b># of Photos</b> 3



**Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log**



to provide instruction regarding  
divers in water

1237 Prep 3/19/19 daily log

Check Eagle IO

Schedule for 3/20/19 tides

1331 EH, HD leave for LFR (yellow)

call Steve/Eric

to announce arrival/work -  
divers in H<sub>2</sub>O

1344 arrive at LFR

1348 begin profile LFR - HT (D, H<sub>2</sub>)

1500 4 surface-bottom-surface profiles

collected 2 outside LFR-S, 2

outside LFRN - divers in water,

did not approach buoys to  
profile

1600 end drift/profile

1603 leave LFR

1615 arrive at depot

1625 upload LFR data

1654 EB, EJ arrive at depot

1703 EH leave depot

1730 EB, EJ, HD leave depot



3/19/1943

40

1632 Sondes at D3 + S11 BGA Sensors  
 Showing elevated levels (??), D2  
 sp. cond does not follow other  
 trends (??)

1643 complete daily log

1652 Call From R. McClann w/ updates

1717 EH, EB, ES, HD leave Depot

60°F pty cloudy NNE 11mph

- Team is set to leave after sunrise for HT-

0721 EB, EH, ES, HD arrive at depot

0749 EB, ES leave for LBR (Black)

0751 EH, HD leave for LFR (yellow)

0803 arrive at LFR

808 collect LFR-S Buoy data

0813 collect LFR-N Buoy data

0819 profile LFR-N (D, H<sub>2</sub>)

0825 profile LFR-S

System does not appear to  
 be running, NO apparent plume

0831 begin profile (HT)

4 surface-bottom-surface profiles  
 collected in "random" spots due  
 to system not running; No plume  
 to profile in.

0934 end profile sampling

0937 leave LFR

0949 arrive at depot

1001 upload LFR data

1115 EH, EB leave for LFR to deploy

LFR-A Buoy

1208 EH, EB return

1211 Burt Moore, Dredge Chief at depot

*Not in the rain*

3/20/19

EJ, SB, LH  
42°F N 7 mph

Arrive @ FR @ 0830

Set up drift

A - shallow 1.5m - connected to H3

B - mid 3.5m - deployed

C - deep 5.5m - deployed

26 - surface - deployed

0845 started logging/began drift

1058 stopped logging end drift

1100 depart LFR

1120 arrive @ depot

1130 Transferred sand data

Afternoon drifting

SB, EJ, LH left depot @ 1445

Arrive @ FR @ 1458 \* set up

1513 start drift/logging

A - shallow 1m connected to H3

B - mid 3m deployed

C - deep 5m deployed

26 - surface deployed

~~1625~~ 1625 slack tide observed


1718 stop drift/logging

1730 depart to depot

1744 arrive back at depot EJ, SB, LH



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/20/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 42°F Sunny, N 4 mph		<b>Tides:</b> L – 1546 ( <i>1614</i> ) H – 0907 ( <i>0937</i> )
<b>Client/Stakeholder Interaction (if any):</b> Bryan Robinson		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Ethan Bright, Sam Booth, Emily Johnson, Lisa Heise		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.5 hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 5.5 hours		<b>Other Equipment Used:</b> Dye and pump materials
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes</li><li>- 10:1 dye test conducted at LBR OPT</li></ul>		
<b>Notes:</b> <p>LBR not sampled at morning High Tide – Dredge pipe was out blocking the entire river. Ethan and Hayley were stopped by dredge crew and notified there would be no passage for 1 (more like 2 hours). Tides adjusted by approximately 30 minutes to account for observed changes are in <i>italics</i> above.</p>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



- 1158 BR leave depot  
 1330 install depth finder - white boat  
 63°F sunny N5-10mph  
 1426 EB, HD leave for LBR (Black)  
 1450 arrive at LBR  
     25, surface  
     D, shallow  $\approx 1\text{m}$   
     E, middle  $\approx 2.5\text{m}$   
     F, deep  $\approx 4\text{m}$   
 1503 start drift LT  
 1518 pull all 4 sondes from H<sub>2</sub>O  
     to correct for tidal movement  
     middle sonde making contact w/  
     propeller  
 1553 pull mid/deep sonde to surface  
     to travel upstream for drift  
 1645 - slack LBR (approx.)  
 1724 end drift  
 1742 leave LBR  
 1804 arrive at depot  
 1831 upload LBR data  
 1845 EB, EJ, LH, SB, HD leave depot
-



to provide instruction regarding  
divers in water

1237 Prep 3/19/19 daily log

Check Eagle IO

Schedule for 3/20/19 tides

1331 EH, HD leave for LFR (yellow)

Call Steve / Eric

to announce arrival/work -  
divers in H<sub>2</sub>O

1344 arrive at LFR

1348 begin profile LFR - HT (D, H<sub>2</sub>)

1500 4 surface-bottom-surface probes  
collected 2 outside LFR-S, 2  
outside LFR-N - divers in water,  
did not approach buoys to  
profile

1600 end drift/profile

1603 leave LFR

1615 arrive at depot

1625 upload LFR data

1654 EB, EJ arrive at depot

1703 EH leave depot

1730 EB, EJ, HD leave depot

41°F, sunny, N4 MPH

0738 SB, LH, EB, HD at depot

0750 EJ at depot

0814 EB, HD leave for LBR (black)

0825 Stopped at mouth of LBR by  
dredge crew - metal pipeline  
across river (NO PASSAGE!!)  
could be done in 1 hour, but  
could be more like 2 hours

0835 arrive back at depot.

0911 EB, HD leave to get boat gas

0950 pipe still seen across river

1037 leave depot EB, HD w/ B. Robinson  
for LBR pipe 10:1 dilution dye test  
to check pipes

1049 arrive at LBR pipe, Chris on  
site, 2 Ballard marine construction, 1 CDM

1057 Lon on site

1106 pump on at 2.6 gpm  
dye visible at point in question  
"almost immediately"

1116 pump off:

1118 Lon / Ballard offsite

1138 BR, EB, HD leave LBR pipe

1149 @ depot



50°F sunny, SW 3 mph

0915 left depot

0925 arrive at FR + set up

Super high tide, tons of debris

slightly inhibiting desired path

0930 start profile drift north of

plume ~~24~~ 4

0948 started ~~8~~ profiles in plume

0955 started zig zag patterns north of plume maneuvering around debris

1025 ~~3~~ 3 profiles in plume

1043 zig zag going south of plume

1100 Plume not visible, DO very low over predicted plume

1113 ~~2~~ 2 profiles in plume then zig zag south

1131 Profile at LFR S buoy

1135 " " N buoy

1137 ~~stoppage~~ breakdown + head back to depot

1200 arrive @ depot + upload data

1535 depart to ~~LFR~~ LFR (SB, LH, EJ)

1551 arrive at ~~LFR~~ LFR

1557 start logging IM drift with profiles

1637 profiles performed in plume area; 4 completed; end 1644

1702 more profiles performed in plume area; 2 completed by 1805

1707 arrived at FS buoy + stopped logging; began FS profile

1709 FS profile stopped

remained attached to FS buoy for several minutes for floating debris and a ship/tug boat to pass

1713 depart FS buoy

1714 arrive FN buoy

1717 end profile @ FN buoy

1719 started logging for and drift/monitor

1720.2 plume profile performed

beginning at ~ 1720 stronger wind picked up ~~that~~ that made boat steering more challenging

1741 performed 3 plume profiles

1745 plume profiles end/resume drift

1748 wind and waves making

low-speed maneuvering almost impossible

1750 - stopped logging; downloaded FN data


1755 - downloaded FS buoy data

1800 depart LFR

1815 arrive @ depot ✓



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/21/19	<b>Task:</b> <u>7 – Test Run (TR)</u>	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 50°F Sunny, SW 3 mph		<b>Tides:</b> L – 1634 ( <i>1704</i> ) H – 0957 ( <i>1027</i> )
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Ethan Bright, Sam Booth, Emily Johnson, Lisa Heise		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: <u>7 hours</u> <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: <u>5.5 hours</u>		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b> LD2 Specific Conductivity is showing dips along the chart line on EagleIO, may want to swap out sonde? Tides still observed approximately 30 minutes after estimated tides provided, adjusted tides in <i>italics</i> above.		
<b>Daily Log Completed by:</b> Lisa Heise		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



1557 arrive at LBR  
 71°F, pthly cloudy, SW 13 mph  
 1600 begin profile (LT)  
 1709 profile BSE + retrieve <sup>Don't</sup> BSE  
 1714 Profile BSW + " " BSW  
 1720 Profile BNW + " " BNW  
 1726 Profile BNE + " " BNE  
 1732 profile platform E  
 1737 profile Platform W  
 1742 profile LBR (LT(2))  
 1828 end profile  
 1831 leave LBR  
 1858 arrive at depot  
 1915 upload LBR data  
 1927 EJ leave  
 1945 EB, SB, HD, LH leave depot



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1158 BR leave depot

1330 install depth finder - white boat

63°F sunny N5-10mph

1426 EB, HD leave for LBR (Black)

1450 arrive at LBR

25, surface

D, shallow = 1m

E, middle = 2.5m

F, deep = 4m

1503 start drift LT

1518 pull all 4 sondes from H<sub>2</sub>O  
to correct for tidal movement  
middle sonde making contact w/  
propeller

1553 pull mid/deep sonde to surface  
to travel upstream for dr. F1

1645 slack LBR (approx.)

1724 end drift

1742 leave LBR

1804 arrive at depot

1831 upload LBR data

1845 EB, EJ, LH, SB, HD leave depot

46°F, sunny, ESE 2MPH

0815 EJ at depot

0830 EB, HD at depot

0835 SB, LH at depot

0914 EB, HD leave for LBR (Black)

EJ, LH leave for LBR (Yellow)

SB stay at depot to prep new buoys

0937 EB, HD at LBR

0940 begin LBR profile (HT) H<sub>2</sub>, D<sub>plume</sub> (black) <sup>No visible</sup>

1040 profile BSE

1044 profile BSW

1049 profile BNO

1052 profile BNE

1057 profile platform E

1101 profile platform W

Do values not observed greater than 8

1109 LBR profile (HT(2))

1110 fishtank-like bubbles on NW corner

1200 end profile

1202 platform pipe maintenance, raise M7, tight  
nuts/bolts

1230 leave LBR

1247 arrive at depot

1255 upload LBR data

1535 EB, HD leave for LBR (Black)



LH, EJ, SB

3/22/19

52°F Sunny WNW 11 mph

0938 left depot for LFR (SB, LH, EJ <sup>yellow boat</sup>)

0950 arrive @ LFR; set up for drift

1000 logging started

A - shallow 2m - connected to H3

B - intermediate 4m

C - deep 6m

26 - surface

1100 slight course changes due to

ship / tug boat traffic

1105 tug + ship passed

1125 slack tide conditions observed

1257 stopped logging

1300 depart LFR


1319 arrive @ depot

1325 uploaded data

1337 <sup>up</sup> checked ~~last~~ Eagle IO



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/22/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 52°F Sunny, WNW 11 mph	<b>Tides:</b> L – 1720 H – 1042 ( <i>1112</i> )	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Ethan Bright, Sam Booth, Emily Johnson, Lisa Heise		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4 hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 3.5 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b> LD2 Specific Conductivity is showing dips along the chart line on EagleIO, may want to swap out sonde. Sonde was not swapped out when the sensor started to show dips, the dips appear to be following a curve/pattern. Will replace on 3/23/2019. Tides still observed slightly delayed, adjusted tides in <i>italics</i> above.		
<b>Daily Log Completed by:</b> Lisa Heise	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____



3/22/19

52°F Sunny WNW 11mph

0900 EJ at depot

0909 EB, SB, HD, LH at depot

0938 EB, HD leave for LBR (Black)

1003 arrive at LBR

1017 begin Drift HT <sup>D-shallow F-deep (4.5)</sup>  
<sup>E-mid (2.5) 2.5-surface</sup>

1040 boat crew at back River (Ballard)

between platform + west bank

unable to drift in that area

1100 Survey crew working in  
various areas, adjusting  
drift patterns as they move

1220 survey crew left the area

1301 end drift

1313 leave LBR

1333 at depot

1350 upload data

prep 2 buoys for deployment

1412 SB, EB, LH leave for Jax

1415 EJ, HD leave depot


3/23/19<sup>3</sup>

53°F Sunny NNE 8mph

0850 HD at depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/23/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 53°F Sunny, NNE 8 mph		<b>Tides:</b> L – 1803 H – 1128 ( <i>1150</i> )
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Emily Johnson.		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 4.0 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b> CT sensor on sonde D2 replaced. Slack tide observed delayed and reported in <i>italics</i> above.		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



3/22/19

52°F Sunny WNW 11 mph  
 0900 EJ at depot  
 0909 EB, SB, HD, LH at Depot  
 0938 EB, HD leave for LBR (Black)  
 1003 arrive at LBR  
 1017 begin Drift HT <sup>D-shallow F-deep(4.5)</sup>  
<sup>E-mid(2.5) 2.5-surface</sup>  
 1040 boat crew at back River (Ballard)  
 between platform + west bank  
 unable to drift in that area  
 1100 Survey crew working in  
 various areas, adjusting  
 drift patterns as they move  
 1220 survey crew left the area  
 1301 end drift  
 1313 leave LBR  
 1333 at depot  
 1350 upload data  
 prep 2 buoys for deployment  
 1412 SB, EB, LH leave for Jax  
 1415 EJ, HD leave depot

---


3/23/19<sup>3</sup>

53°F Sunny NNE 8 mph  
 0850 HD at depot  
 Scan/upload 3/22/19 FN  
 update deployment + active serial  
 tracking log + TR schedule  
 0917 EJ at depot  
 0943 EJ, HD leave for LBR (yellow)  
 1000 arrive at LBR  
 1004 begin profile  
 1047 profile in plume  
 1105 HD took 2 profiles in plume  
 1119 HD took 1 profile in plume  
 1150 slack tide / stop at platform  
 HD replaced conductivity sensor on D2  
 1153 EJ resumed drift  
 1205 Stop at buoy NE, collected data, profile <sup>H3</sup>  
 1215 Buoy SE data, profile  
 1218 Buoy NW data, profile  
 1239 Buoy SW data, profile  
 1302 end profile  
 1305 leave LBR  
 1337 arrive at depot  
 1345 upload LBR data  
 1350 HD, EJ leave depot

---



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/24/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 64°F Sunny, SE 10 mph	<b>Tides:</b> L – 1803 H – 1128	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Emily Johnson.		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 3.5 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b> Sonde 23 deployed in Buoy LBR_A. Tides appear to have returned to estimated times supplied to the team.		
<b>Daily Log Completed by:</b> Hayley DiGiano	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____



3/24/19

4

63°F Sunny SE 10 mph

0955 HD at depot

1010 EJ at depot

1026 leave depot for LFR (yellow)

1036 arrive at LFR

1038 start logging 1m drift w/ profiles

1104 "bank to bank" transects limited

due to increased Tug/Ship traffic

1227 retrieve LFR-N data

1231 retrieve LFR-S data

~~1313~~ 1313 deploy LFR-A Booy Sndr 23

1335 stop logging

1339 depart to depot

1351 arrive at depot

1358 upload LFR data (profile/Booy)

1415 leave depot HD, EJ

5

LH, EJ, SB

3/22/19

52°F Sunny WNW 11 mph

0938 left depot for LFR (SB, LH, EJ <sup>to be</sup> ~~to be~~)

0950 arrive @ LFR, set up for drift

1200 logging started

A - Shallow 2 m - connected to H3

B - intermediate 4 m

C - deep 6 m

26 - surface

1100 slight course changes due to

Ship / tug boat traffic

1105 tug &amp; ship passed

1125 slack tide conditions observed

1257 stopped logging

1300 depart LFR

1319 arrive @ depot

1325 uploaded data

1337 <sup>HH</sup> ~~up~~ checked ~~data~~ Engle ID

3/25/19

LH &amp; EJ

73°F

partly cloudy SW 12 mph

Arrive @ FR @ 1120 &amp; set up

D 2 m - HH

E 4 m

F 6 m

Started drifting w/ everything set up 1140

from plume → north w/ tide 215 deg

1315 drifted from plume → 50 m

to follow tide

1437 stopped drifting &amp; broke down

equipment


1450 left for depot

1500 arrive @ depot &amp; upload data





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/25/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 73°F Partly cloudy, SW 12 mph	<b>Tides:</b> L – N/A H – 1306	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Emily Johnson, Sam Booth, Lisa Heise		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4 hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 4 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Lisa Heise	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____

3/24/19

- 63°F Sunny SE 10 mph  
 0955 HD at depot  
 1010 EJ at depot  
 1026 leave depot for LFR (yellow)  
 1036 arrive at LFR  
 1038 start logging 1m drift w/ profiles  
 1104 "bank to bank" transects limited  
 due to increased Tug/Ship traffic  
 1227 retrieve LFR-N data  
 1231 retrieve LFR-S data  
 1313 deploy LFR-A Booy Snd, 23  
 1335 stop logging  
 1339 depart to depot  
 1351 arrive at depot  
 1358 upload LFR data (profile/Booy)  
 1415 leave depot HD, EJ

3/25/19 5

- 68°F ptly cloudy SW 8 mph  
 1000 EJ at depot  
 1015 SB, LH at depot  
 1030 HD at depot  
 1107 HD, SB leave for LBR (yellow)  
 1127 arrive at LBR  
 1138 begin drift (HT)  
 A, shallow  $\approx 1$  m  
 B, middle  $\approx 2.5$  m  
 C, deep  $\approx 4$  m  
 Z6, Surface  
 1309 (range) Slack LBR (profile)  
 1437 end drift  
 1449 depart LBR  
 1510 arrive @ Depot  
 1525 upload LBR data  
 1545 EJ, SB, LH, HD leave depot




LH + SB - Yellow Boat 3/26/19  
~~at~~ 24 56°F Mostly cloudy, NNW 8 mph

0752 left depot for LBR  
 0812 arrive @ LBR  
 0819 start logging on Sonde ~~A~~ A  
 for profile/drift south of  
 platform to follow plume  
 0846 profile BSE buoy  
 0848 end BSE buoy + depart BSE buoy  
 0850 arrive @ BSW buoy + perform profile  
 0852 end BSE profile + depart buoy  
 0856 arrive @ BSW buoy + perform profile  
 0857 end BSW buoy profile + depart  
 0902 arrive @ BNE buoy + perform profile  
 0903 end BNE profile + depart  
 0909 arrive @ platform  
 0911 begin W platform profile  
 0913 end W platform profile  
 0915 begin E platform profile  
 0917 end E platform profile  
 0917 depart platform + begin 2<sup>nd</sup> profile  
 0920 begin logging on Sonde A  
 0953 end profile + depart LBR  
 1019 arrive @ Depot

1232 LH + SB depart Depot for LBR  
 in Yellow Boat  
 1253 arrive @ LBR  
 1254 start logging on Sonde A for  
 profile drift  
 1355 stopped logging + arrived @  
 BNE buoy to profile +  
 retrieve buoy data (H3) (3/23)  
 1401 arrived @ BSW buoy to  
 profile + retrieve buoy data  
 1407 arrived @ BSW buoy to profile  
 + retrieve buoy data  
 1412 arrived @ BSE buoy to profile  
 + retrieve buoy data  
 1420 arrive @ platform  
 1421 perform ~~W~~ BSE platform profile  
 1423 perform W platform profile  
 1428 depart platform  
 1428 started logging on Sonde A for profile  
 1500 stopped logging, broke down equip.  
 left for depot  
 1523 arrive @ depot + uploaded data



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/26/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 65°F Ptly Cloudy, ENE 8 mph	<b>Tides:</b> L – 0811 H – 1358	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Eric Huss, Ethan Bright, Sam Booth, Lisa Heise.		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <div style="display: flex; justify-content: space-between;"><div><input checked="" type="checkbox"/> Black Boat – Duration:</div><div>5.0 hours</div></div> <div style="display: flex; justify-content: space-between;"><div><input type="checkbox"/> White Boat – Duration:</div><div></div></div> <div style="display: flex; justify-content: space-between;"><div><input checked="" type="checkbox"/> Yellow Boat – Duration:</div><div>5.5 hours</div></div>		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b> Marine Weather Message 1223, 26 March 2019: Small craft advisory 1600 – 2300, Gale warning 2300 – 1200 27 March 2019.		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



3/26/19

56°F Pth ddy NW 9 mph  
 0709 LH, EB, HD at depot  
 0715 EH at depot  
 0724 put gas in yellow + black boots  
 0752 EH, HD leave for LFR (black)  
 0802 arrive at LFR  
 0806 begin LFR-LT profile (H<sub>2</sub>, D)  
 0824 profile LFR-S LT  
 0828 profile LFR-N LT  
 0832 profile LFR-A LT  
 0836 profile LFR-LT (2)  
 0941 end profile  
 0945 leave LFR  
 0957 arrive at depot  
 1007 upload LFR data  
 1211 EB at depot  
 1221 HD stay at depot for admin/clerical  
 1235 leave depot for ~~EB~~ LFR (EH, EB black)  
 1255 arrive at LFR and check on buoy LFR-A  
 1327 start ~~data~~ LFR-HT profile  
 1352 profile LFR-S HT  
 1357 profile LFR-N HT  
 1401 profile LFR-A HT  
~~1405 profile LFR-HT (2)~~  
 ~1409 profile in plume ~~(2)~~

~1412 profile in plume (2)  
 1414 profile LFR-HT (2)  
 1507 stop profile, tie to LFR-S and collect data  
 1514 collect data from LFR-N  
 ~1519 " " LFR-A  
 1523 leave LFR  
 1540 arrive at Depot  
 1624 EH leave depot  
 1630 EB, LH, SB, HD leave depot



3/26/19

56°F Pky ddy NW 9 mph  
 0709 LH, EB, HD at depot  
 0715 EH at depot  
 0724 put gas in yellow + black boots  
 0752 EH, HD leave for LFR (black)  
 0802 arrive at LFR  
 0806 begin LFR-LT profile (H<sub>2</sub>, D)  
 0824 profile LFR-S LT  
 0828 profile LFR-N LT  
 0832 profile LFR-A LT  
 0836 profile LFR-LT (2)  
 0941 end profile  
 0945 leave LFR  
 0957 arrive at depot  
 1007 upload LFR data  
 1211 EB at depot  
 1221 HD stay at depot for admin/clerical  
 1235 leave depot for LFR (EH, EB black)  
 1255 arrive at LFR and check on buoy LFR-A  
 1307 start ~~LFR~~ LFR-HT profile  
 1352 profile LFR-S HT  
 1357 profile LFR-N HT  
 1401 profile LFR-A HT  
~~1401 profile LFR-HT (2)~~  
 1409 profile in phone (2)

~ 1412 profile in phone (2)  
 1414 profile LFR-HT (2)  
 1507 stop profile, tie to LFR-S and collect data  
 1514 collect data from LFR-N  
 1519 " " LFR-A, remove 5 lb weight  
 1523 leave LFR from buoy LFR-A so it  
 sits better in the water  
 1540 arrive at Depot  
 1624 EH leave depot  
 1630 EB, LH, SB, HD leave depot



Yellow Boat; clear, windy, 47°F, Wind 15 mph  
0750 leave dock

0815 arrive @ LBR + realized we  
did not have a handheld

0817 depart LBR to retrieve handheld

0835 arrive @ Depot and get handheld (H2)

0840 depart Depot with all equipment

0900 arrive at LBR and set up for drift

0920 all sondes deployed for drift; drift begins

Sonde B - shallow @ 1m - connected to H2

Sonde C - intermediate @ 2.5m

Sonde D - deep @ 4m

Sonde 26 - surface

1035 stopped logging

1240 arrived at BRW buoy

replaced buoy with a new one  
that has antifouling paint at  
the bottom of the pipe where the  
sonde sits. Sonde was out of  
the water for ~10 mins

1100 depart BRW + depart LBR

1125 arrive @ Depot

1340 depart Depot

1405 arrive @ LBR + setup  
for ~~drift~~ drift

1414 All sondes deployed and  
logging; Sonde B shallow 1m (H2)

Sonde C - mid 2.5m

Sonde D - deep 4.5m

Sonde 26 - surface

1415 drift started

1617 stop drift

1625 tie to the platform


1650 depart LBR

1712 arrive at depot

Saul B. A.



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/27/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 46°F Sunny, 9-15 mph		<b>Tides:</b> L – 0903 H – 1452
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Ethan Bright, Sam Booth, Lisa Heise, Emily Johnson		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 5.5 hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 7.0 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b> Marine Weather Message 1223, 26 March 2019: Small craft advisory 1600 – 2300, Gale warning 2300 – 1200 27 March 2019. Replaced NW Buoy in LBR.		
<b>Daily Log Completed by:</b> Lisa Heise		<b>Signature:</b> 
		<b>Photos Attached?</b> <input checked="" type="checkbox"/> <b># of Photos</b> 1



Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring  
Task 7 – Test Run  
Daily Log



Photo 1: LBR NW Buoy install.

3/27/19

46° Clear Sunny, 9 MPH

0750 Depart depot to LFR w/ EJ + LH

0720 EH, LH, SB, EJ arrive at depot

0800 Arrive at LFR + set up drift

EJ, LH 25 surface deployed

A 2.0m shallow deployed/logging <sup>HH</sup>

E 4.0m middle deployed

F 6.0m deep deployed

\*depth near buoys ~ 3-4m so stayed further into channel to avoid hitting ground w/ sonde

0824 start logging

Plume not visible

0904 stopped logging to use handheld to stop deployment on middle sonde.

Middle sonde at 4 meters, coral ~~st~~ <sup>st</sup> hit propeller + exposed wires.

- New adjusted depths -

25 still deployed

A 2m (H1) started logging @ 0909

E not using

F 4m (still deployed)

Current + wind strong, hard to get back to plume

0955 Plume visible

1005 profile in plume

1007 broke down equip + left FR

1028 arrive @ depot

1145 SB + EB arrive @ depot after drift + replacing buoy in back river

1340 depart depot for LFR

1351 Arrive @ LFR + set up

1404 Started logging + deployments (drift)

sonde 25 surface

A 1m

E 3m

F 5m

1408 To "plume" then north of "plume"  
Plume not visible

1605 profile in plume

1608 stop logging + clean up

1618 depart to depot from LFR

1630 Arrived at depot

1640 EJ backup + upload data + Eagle IO

1702 Completed daily log

1715 EB + SB arrive @ depot + upload data

1800 EB, SB, LH + EJ leave depot



3/28/2019

48°F, clear sunny; ~~24~~ mph wind  
 0815 EJ Arrives at depot; EH, SB, LH Boat gas  
 0820 EH, SB, LH arrive at depot w/ gas  
 0826 EH fills boats with gas  
 0915 EJ + LH depart to LFR  
 0925 arrive @ LFR  
 0930 started logging for profiling  
 0934 (2) profiles in predicted plume, no plume visible  
 - From recollection, bubbles noted over DO  
 pipe in between buoys since project start  
 Bubbles noted now  
 DO seems low, 6.9 mg/L at bottom  
 8.4 mg/L at top  
 0955 (2) Profiles in predicted plume  
 1004 EJ profile at buoy LFR-S  
 1008 Transfer buoy LFR-S data  
 1013 EJ profile @ buoy LFR-N  
 1015 Transfer buoy LFR-N data  
 1019 LH profile @ buoy ~~SB~~ LFR-A  
 1021 Transfer buoy LFR-A data  
 1025 start logging in drift w/ profiles  
 1037 plume visible (1) profile in plume  
 1048 (1) profile in plume  
 1055 (2) profiles in plume  
 DO around 9.6 mg/L in plume  
 DO consistently higher south of plume  
 during targeted sampling time

1105 Left LFR

1125 arrive @ ~~LFR~~ <sup>24</sup> Depot

1135 uploaded data + checked Eagle IO

1420 Left For LFR ~~SB~~ <sup>EJ</sup> (LH, EJ)

1428 Arrive at LFR + set up

1431 start logging in drift w/ profiles

1523 LH (3) profiles in predicted plume

1535 (1) profile in predicted plume

1544 stop logging for profiles

1545 profile at LFR-A buoy

1550 profile at LFR-N buoy

1555 profile at LFR-S buoy

1557 start logging in drift w/ profiles  
south of buoys

1644 (4) profiles in predicted plume

1650 stop logging

1656 depart LFR to depot

1709 arrive at depot

1725 uploaded data

1800 completed daily log

1830 All left depot



EB + SB 3/28/19 Savannah Oz  
Yellow Boat; Sunny/Clear 51°F 2016-094  
wind NNE ~8 mph

0915 Depart Depot

0945 drove past platform +  
talked w/ divers; agreed we'd stay  
~100+ feet away from them

0948 started logging / started profile/drift

1007 stop drift

1008 profile at SE buoy

1012 " SW

1018 " NW

1023 " NE

1026 start profile/drift 1m

1057 stopped logging

1100 arrived at ~~SE~~ BNE buoy

and replaced it with a different  
one that has been prepped with  
anti fouling paint; sonde temporarily  
removed

1114 sonde reinserted into new buoy

1115 depart LBR

1140 arrive at depot

1425 leave depot for LBR

1445 arrive at LBR

1451 start drift

1547 stop drift

1548 tie to SE buoy, profile + collect data

1552 SW

1557 NW

1609 NE

1619 tie to platform and profile E side

1622 " W side

1626 start profile

plume very visible

1712 stop profile

1715 arrive at platform to  
tighten some of the brackets

1730 depart platform + depart LBR


1753 arrive at Depot

*Sal Bad*





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/28/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 48°F Sunny, 6 mph		<b>Tides:</b> L – 1000 H – 1544
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Ethan Bright, Sam Booth, Lisa Heise, Emily Johnson		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 5 hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 6 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b> Replaced NE Buoy in LBR. Divers working in LBR at low slack (1000), system did not run at LBR during this time, but we were told it was running at LFR. Sampling completed outside of buoys away from divers at LBR. At LFR, plume did not appear until 1035.		
<b>Daily Log Completed by:</b> Lisa Heise		<b>Signature:</b> 
		<b>Photos Attached?</b> <input checked="" type="checkbox"/> <b># of Photos</b> 1

**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring  
Task 7 – Test Run  
Daily Log**




Photo 1: Divers at LBR platform.





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 3/29/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 72°F Sunny; wind: 6 mph. Heavy fog in the morning		<b>Tides:</b> L – 1058 Add <b>H – 1637 (did not sample)</b>
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Ethan Bright, Sam Booth, Lisa Heise, Emily Johnson		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4 hours <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		
<b>Other Equipment Used:</b> Dye Pump and hoses		
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes</li><li>- 10-gallon dye test; Dye test ended up being ~16 gallons</li><li>- Dye pump ran at ~2 gpm for 8 minutes (1102 – 1110)</li><li>- SB and EJ ran dye pump</li><li>- EB and LH were in boat sampling</li><li>- Since all dye injection, cleanup, unloading and other work was complete until the boat returned, EJ departed at 1230 to return to Atlanta</li></ul>		
<b>Notes:</b> Utilized the USACE's generator that was chained to the LBR pipe to power the dye pump.		
<b>Daily Log Completed by:</b> Sam Booth	<b>Signature:</b> 	
<b>Photos Attached?</b> <input checked="" type="checkbox"/>		<b># of Photos</b> _____

**Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log**



View of platform after dye injection





12 EB LH, Dye Test 10-gallon 5/29/19

55°F Very Foggy NNE 2 mph

0945 left depot for LBR

1030 Arrived at LBR

1040 Start drift

A 1 m

B 2.5 m

C 4 m

26 Surface No BGA sensor

1106 dye injected (see photos)

~~1112 dye appeared to reach platform:~~

Could not tell if it reached platform yet

small clumps of bubbles around plume, foamy

1308 stopped logging + stopped deployment  
Broke down equipment

1320 left LBR for depot

1340 arrived at depot


1420 LH left depot for Tax

1430 finish data and logs and put gas in boat

1515 leave depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 3/30/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 75°F Sunny; wind: 8 mph.		<b>Tides:</b> L – 1153 Add <b>H – 1730 (did not sample)</b>
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Ethan Bright, Sam Booth		
<b>Boat(s) Used:</b>		
<input checked="" type="checkbox"/> Black Boat – Duration: 5 hours		<b>Other Equipment Used:</b>
<input type="checkbox"/> White Boat – Duration: _____		
<input type="checkbox"/> Yellow Boat – Duration: _____		
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes</li><li>- EB and SB were profiling at LBR</li><li>- It was decided to ADD to the Low tide because only one boat crew being present and the late tide was close to sunset. If there happened to be a problem at LBR during the late tide with only one boat crew present, there would be no one to assist.</li><li>- Platform maintenance was conducted.</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Sam Booth		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



12 EB LH, Dye Test 10-gallon 3/29/19

55°F Very Foggy NNE 1 mph

0945 left depot for LBR

1030 Arrived at LBR

1040 Start drift

A 1 m

B 2.5 m

C 4 m

26 Surface No BGA sensor

1106 dye injected (see photos)

~~1112 dye appeared to reach platform~~

Could not tell if it reached platform yet

small clumps of bubbles around plume, foamy

1308 stopped logging + stopped deployment  
Broke down equipment

1320 left LBR for depot

1340 arrived at depot

1420 LH left depot for Tax

1430 finish data and logs and put gas in boat

1515 leave depot

SB, EB 3/30/19 Savannah 02 24685

66°F Clear, Sunny SW 3 mph

0940 EB + SB arrive @ Depot

0950 EB + SB depart Depot in Black Boat

1020 arrive at LBR; slight

delay caused by dredgers + ship traffic

1028 started logging/began profile

1203 stopped logging for slack profile

1204 arrived @ BNE buoy + collected data

+ performed BNE profile

1207 depart BNE buoy

1210 arrive @ BSW buoy, collect data

+ perform BSW profile

1213 depart BSW buoy

1215 arrive @ BSW buoy, collect data

+ perform profile

1219 depart BSW buoy

1221 arrive @ BSE buoy, collect data, +

perform profile

1224 depart BSE buoy

1227 arrive at platform

1228 perform E profile

1230 perform W profile

1235 depart platform

1237 started logging/began profile/drift

1413 ended profile/drift



1415 went to platform to perform maintenance  
 Divers had opened South gate of  
 platform and did not replace the  
 pin which caused the sides to flex  
 apart. We had to replace the pin  
 and pull the sides back together.  
 The extra flex in the sides caused  
 loosening of some of the brackets  
 and u-bolts. We retightened every-  
 thing ~~and~~ <sup>to and</sup> inserted screws in the  
 gates so they can't be opened.  
 Gates will not open unless the  
 screws are removed.

1500 departed platform / LBR

1518 arrive c Depot


1545 depart Depot

Sam Bost





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 3/31/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 75°F mostly sunny, W 15 mph	<b>Tides:</b> L – 1244 H – N/A	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Sam Booth, Ethan Bright		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 3.75 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Sam Booth	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____

1145 went to platform to perform maintenance.  
 Divers had opened South gate of platform and did not replace the pin which caused the sides to flex apart. We had to replace the pin and pull the sides back together. The extra flex in the sides caused loosening of some of the brackets and u-bolts. We retightened everything ~~and~~ <sup>to and</sup> inserted screws in the gates so they can't be opened. Gates will not open unless the screws are removed.

1500 departed platform / LBR

1518 arrived @ Depot

1545 depart Depot

Sam Burt

SB EB 3/31/19 Sargassh O<sub>2</sub> 2016 ~~03.4~~

5<sup>th</sup> Mostly sunny, 75°F wind SW 12 mph

1045 arrived @ Depot

1105 departed Depot in Yellow Boat

1120 arrived @ LFR

1124 began logging / began profile drift

1248 stop logging

1250 arrive at LFR-S, profile + collect data

1255 LFR-N

1300 LFR-A

LFR data was collected from 326

1304 start logging profile drift ~1 min

1420 stop logging

1433 depart LFR

1444 arrive at depot

1500 EB put gas in boats; SB uploaded data

1530 Depart Depot (to Jx)

Sam Burt



EH, LH

4/1/19

54°F Cloudy NE 12 mph

1129 LH &amp; EH leave for LBR

1210 arrive @ LBR (extreme waves)

D 1.5 m

E 2.75 m

F 4 m

25 surface

1225 start drift from plume +  
went south zig zag + straights1350 After slack north of plume  
straight1422 Do seems to be higher than  
it should be based on tide  
It is reading more south of  
plume when tide is going in.1508 Logging + deployments stopped  
Broke down equipment1524 checked on status of BSE  
according to handheld, its  
only parameters are, temp.  
pressure, DO, DO<sub>sat</sub>, Sp cond.,  
Sal, battery, Lat Long  
No depth. We didn't see  
any obvious issues. Will change  
out whole sonde tomorrow


1530 left LBR

1553 arrive @ depot + uploaded data

Did not  
stop  
deploy



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 04/01/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 55°F mostly cloudy, NE 11 mph	<b>Tides:</b> L – 1331 H –N/A	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Lisa Heise, Eric Huss, Rick McCann		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.5 hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 3.0 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b> Jeremy Wyss (TT) sent email notification of BSE (20) not showing depth on Buoy Data pulled 28-30 March 2019. 1524 checked on status of BSE, no depth reading on handheld. LG2 will replace sonde on 4/2 sampling event.		
<b>Daily Log Completed by:</b> Hayley DiGiano	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____



EH, LH

4/1/19

54°F Cloudy NE 12 mph

1129 LH + EH leave for LBR

1210 arrive @ LBR (extreme waves)

D 1.5 m

E 2.75 m

F 4 m

25 surface

1225 start drift from plume +  
went south zig zag + straight1350 After slack north of plume  
straight1422 Do seems to be higher than  
it should be based on tide  
It is reading more south of  
plume when tide is going in.1508 Logging + deployments stopped  
Broke down equipment1524 checked on status of BSE  
according to handheld, its  
only parameters are, temp.  
pressure, DO, DO<sub>mg/L</sub>, Sp cond.,  
sal, battery, lat long  
No depth. We didn't see  
any obvious issues. Will change  
out whole sonde tomorrow

1530 left LBR

1553 arrive @ depot + uploaded data

4/1/19  
4/2/19

52°F Mostly Cloudy 1200/14/19 4/2/19

1225 EH + LH Leave for LFR

1242 arrive @ LFR Set up

1245 Start Logging South of "plume"  
(before slack)

1250 No plume visible

Per R. McCann, no need to profile  
in plume, if <sup>not</sup> plume visible

Current very strong

1321 Plume visible West of LFR S Buoy

1323 Plume <sup>not</sup> visible once we went back  
to profile

1332 Plume visible, (4) profiles completed

1416 Stopped logging

1417 Profile LFR S Buoy

1419 Transferred LFR S Buoy data

1425 Profile LFR N Buoy

1427 Transferred LFR N Buoy data

1433 Profile LFR A Buoy

1435 Transferred LFR A Buoy data

1438 Started logging after slack

1441 (1) profile in plume

1450 (3) profiles in plume

1520 Bubbles noted in 3 places from  
approx dive buoy out west in  
middle of buoys

1611 Stopped logging + broke down equipment


1615 Left LFR

1630 Arrive @ depot + uploaded data

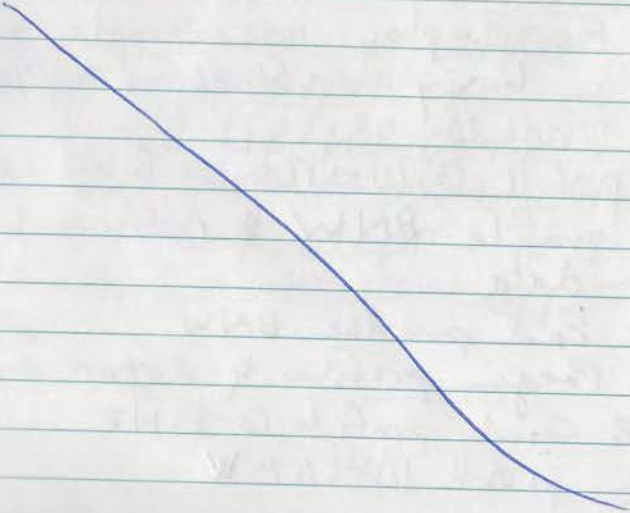
Rite in the Rain



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 04/02/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 52°F mostly cloudy, NNW 12 mph	<b>Tides:</b> L – 1416 H –N/A	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Lisa Heise, Eric Huss, Rick McCann		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 5.0 hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 4.0 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes</li><li>- Replaced BSE (20) that was not showing depth with sonde 27.</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Lisa Heise	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____



- 1520 profile platform E  
 1522 plume visible LBR  
 1530 begin LBR profile LT122  
 1543 plume no longer visible,  
 will attempt profiles where last  
 sighted  
 1624 unable to profile due to increased wind/wave  
 1643 end profile LT  
 1648 leave LBR  
 1718 arrive at depot  
 1732 upload LBR data  
 EH left depot at 1710  
 1855 RM, HD, LH leave depot
- 

4/1/19

55°F mostly cloudy NE 11 mph

1037 LH, HD at depot

1047 EH at depot

1124 EH, LH leave for LBR (Black)

HD at depot, RM to arrive soon

1214 RM at depot

1226 RM HD leave for LFR (yellow)

1248 arrive at LFR

1304 begin drift LT

A, shallow  $\approx 1m$ B, middle  $\approx 2.5m$ C, deep  $\approx 4m$ 

26, surface

1347 no visible plume to profile in

1504 end drift

1522 leave LFR for depot

1538 arrive at depot

1609 upload LFR/LBR data

1650 team meeting - planning

1732 EH leave depot

1740 LH, RM, HD leave depot

4/2/19

49°F mostly Cloudy NW 14 mph

2055 E. Harries at depot + RM

1107 LH, HD at depot

1125 prep Sonde 27 to deploy in  
BSE to replace sonde 20

1223 RM HD leave for LBR

1253 Arrive at LBR, poor water cond.

1300 begin LBR profile LT (H, , A)

1406 plume not visible from surface  
to profile in1437 Begin profile top to bottom  
@ BSE1439 End profile bottom to top  
@ BSE

1441 Retrieve BSE sonde data (#3)

1444 Re-deploy BSE sonde  
in buoy with Sonde 27 to replace  
sonde 20

1450 profile BSW &amp; retrieve Buoy data

1458 profile BNW & retrieve buoy  
data

1502 End profile BNW

1505 Begin profile &amp; data retrieval

1508 end profile @ BNE

1515 profile platform



LH, SB

4/3/19

66°F Sunny, NE 5 mph

1240 - LH + SB depart Depot in Black Boat

1305 - arrive LBR

1316 - all 4 sondes deployed for drift

Sonde 26 - surface

Sonde A - shallow - 1.5 m - connected to H2

Sonde B - mid. - 2.75 m

Sonde C - deep - 4 m

1317 - start logging/begin drift


1422 - adjusted depths of Deep sonde  
to ~ 3 m due to constant dragging1423 - adjusted intermediate sonde to ~ 2 m;  
adjusted shallow sonde to ~ 1 m1623 - stopped logging & broke down  
equipment

1635 - Left LBR

1656 - arrive @ depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 04/03/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 64°F Sunny, ENE 3 mph		<b>Tides:</b> L – 1458 H –N/A
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Lisa Heise, Ethan Bright, Sam Booth		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.0 hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 4.0 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



- 1520 profile platform E  
 1522 plume visible LBR  
 1530 begin LBR profile LT/22  
 1543 plume no longer visible,  
 will attempt profiles where last  
 sighted  
 1624 unable to profile due to increased wind/wave  
 1643 end profile LT  
 1648 leave LBR  
 1718 arrive at depot  
 1732 upload LBR data  
 EH left depot at 1710  
 1855 RM, HD, LH leave depot

4/3/19 19

- 64°F Sunny ENE 3mph  
 1153 LH, HD at depot  
 1207 EB, SB at depot  
 1247 EB, HD leave for LFR (yellow)  
 1259 arrive at LFR  
 1312 begin LFR drift LT  
 D, ~1m ~~deep~~ shallow (H, I)  
 E, ~2.5m ~~deep~~ middle  
 F, ~4.5m deep  
 25, surface  
 1503 profile in plume (approx. slack)  
 1630 end drift LFR LT  
 1642 leave LFR for depot  
 1657 arrive at depot  
 1711 upload LFR/LBR data  
 1730 EB, SB, LH, HD leave depot

1030 Stopped logging, broke down equip.

1034 Left ~~LBR~~ for depot

1048

nr

↓ arrive @ depot

1406 Left depot for LBR

1430 arrived @ LBR

1435 started logging

1540 <sup>stopped</sup> ~~logging~~ Profile BSE +

1540 transferred BSE data

1546 Profile BSW

1547 transferred BSW data

1553 Profile BNW

1554 transferred BNW data

1558 Profile BNE

1600 transferred BNW data

1604 Put small toolbox on platform

1605 Profile west platform

1608 Profile east platform

1612 started logging


1716 Stopped logging + broke down equip. left for depot

1740 arrived @ depot





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 04/04/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 49°F Sunny, WNW 1 mph	<b>Tides:</b> L – 1538 H – 0914	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Lisa Heise, Ethan Bright, Sam Booth		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 6.5 hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 6.0 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Profiling efforts today reflect the changes made to sampling procedures as emailed to the Team this morning: email attached as photo below.</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Lisa Heise	<b>Signature:</b> 	
<b>Photos Attached?</b> <input checked="" type="checkbox"/>		<b># of Photos</b> 1

**Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log**

**From:** James Greenfield <jimg13@att.net>  
**Sent:** Thursday, April 4, 2019 11:31 AM  
**To:** Hayley DiGiano  
**Subject:** Re: Proposed sampling route change

Focus on the chase

On Apr 4, 2019 8:36 AM, Hayley DiGiano <hdigiano@lg2es.com> wrote:  
Sounds great! We will implement this new sampling route change while we are out today/ tomorrow to test with a profile and drift day.

We were wondering if you still would like us to do the 4 up-down-up through the plume on profiling days or focus more on "the chase"?

Thanks,  
Savannah Team

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---

**From:** jimg13@att.net  
**Sent:** Thursday, April 4, 2019 7:48 AM  
**To:** Samuel Booth; Hayley DiGiano; Rick McCann; Lisa Heise  
**Subject:** Proposed sampling route change

Now that the O2 plant is operating somewhat continuously and the water around the diffusers is getting saturated, the overall plume is spreading ( as it should) farther away from the diffusers.

We have collected a lot of detailed data around the buoys, now lets get more data up and downstream. Still make a couple of passes around the diffuser but continue upstream on LT and downstream on HT.

Below figure is an example – see how it works and we will reevaluate after a few days. Again figure is just an example, you know how best to cover the area. Same amount of time and measurements just spread out more.

Thanks Jim

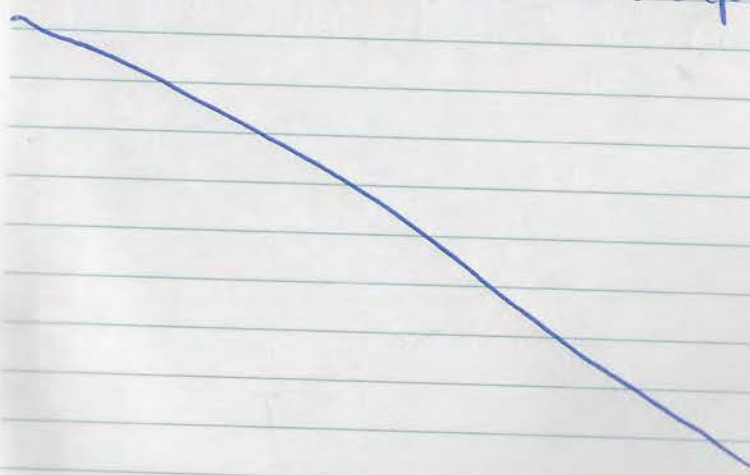
PS: This weekend I will send out a draft schedule for the dye study on April 11 and 12, for your comments and suggestions.



4/4/19

48°F Sunny WNW 1mph  
 0723 HD, LH, EB, SB at depot  
 0805 HD & EB leave for LBR (yellow)  
 0824 arrive at LBR  
 0826 begin LBR profile HT (F, H, )  
 0923 end LBR profile HT (did not see plume)  
 0924 profile at LBRBNE  
 0928 " BNW  
 0933 " BSW  
 0938 " BSE  
 0941 profile on E side of platform  
 0947 " W "  
 0950 start 2nd LBR profile HT(2)  
 Fish Tank-like bubbles at NW corner  
 of platform  
 1050 end profile  
 1052 leave LBR  
 1111 arrive at depot  
 1121 upload LBR data  
 1243 get = 20 gallons of gas for boats  
 1400 EB HD leave for LFR (yellow)  
 1424 arrive at LFR  
 1426 begin LFR profile LT (H, , F)  
 73°F partly cloudy ESE 12 mph  
 1537 stopped profile

1538 profile LFR\_A  
 1541 retrieve LFR-A buoy data  
 1545 retrieve LFR-N buoy data  
 1547 profile LFR-N  
 1551 profile LFR-S  
 1554 retrieve LFR-S buoy data  
 1556 begin LFR profile LT(2)  
 1631 unable to make full passes  
 across river due to fugs(3)  
 1655 end profile  
 1659 leave LFR for depot  
 1711 arrive at depot  
 1726 upload LFR data  
 1757 upload LBR data  
 1815 EB, LH, SB, HD leave depot





1030 Stopped logging, broke down equip.  
 1034 Left ~~LBR~~ for depot  
 1048  
 ↓ arrive @ depot

1406 Left depot for LBR  
 1430 arrived @ LBR  
 1435 started logging  
 1540 <sup>stopped</sup> Profile BSE +  
 1540 transferred BSE data  
 1546 Profile BSW  
 1547 transferred BSW data  
 1553 Profile BNW  
 1554 transferred BNW data  
 1558 Profile BNE  
 1600 transferred BNW data  
 1604 Put small toolbox on platform  
 1605 Profile west platform  
 1608 Profile east Platform  
 1612 started logging  
 1716 Stopped logging + broke down  
 equip. left for depot  
 1740 arrived @ depot

64°F Cloudy, SW 2 mph  
 SB, LH

805 depart Depot in Black Boat  
 0815 arrive @ LBR + set up

A 1.5m

B 3m

C 5m

OB surface

0833 Started logging zig zagged north  
 Bubbles noted in 3 places along

pipe in between buoys N + S  
 0840 ship impeded zig zag pattern  
 - went straight north instead


1100 Large ship impeded zig zag going  
 straight North instead

1121 Stopped logging + stopped deployment  
 broke down equip + left for depot  
 1143 arrived @ depot + uploaded data





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 04/05/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 64°F Cloudy, SW 2 mph		<b>Tides:</b> L – N/A H – 0945
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Lisa Heise, Ethan Bright, Sam Booth		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 3.5 hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 4.0 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Drifting efforts today reflect the changes made to sampling procedures as emailed to the Team yesterday (see 040419 Daily Log) and today: email from today attached as photo below.</li></ul>		
<b>Notes:</b> According to EagleIO, Sonde 7 Middle DO dropped to 0 multiple times within the last 24 hours but now appears normal. Will check and possibly replace tomorrow, if needed.		
<b>Daily Log Completed by:</b> Lisa Heise		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> 1

# Savannah Harbor Expansion Project - O2 Injection Monitoring Task 7 – Test Run Daily Log

From: jimg13@att.net  
Sent: Friday, April 5, 2019 7:54 AM  
To: Hayley DiGiano; Samuel Sooth; Lisa Heise  
Cc: Rick McCann  
Subject: Good job

I like the new chase profile sampling routes, a couple of suggestions on below diagram. In Orange

This Friday's aft sampling is late, so I think we are doing an ADD instead. If possible extend both FR and LBR routes up and down stream, if time allows for morning route. Blue

Also on Profile days, I do not think there is a need to conduct Buoy and Platform profiles on both slack tides in the same day. Do on one slack tide and use the time for extra chase profiles. Let's try this next week and discuss on Thursday. I will be down for the dye tests.

Thanks Jim





4/5/19

64°F Cloudy Sw 2 mph

0733 HD, LH, SB, EB at depot

0755 HD EB leave for LBR (yellow)

0815 arrive at LBR

0825 begin LBR drift HT (ADD)

D, shallow  $\approx 1m$  (H,)E, middle  $\approx 2.5m$ F, deep  $\approx 4.5m$ 

2, Surface

0953 pulled sondes from water in  
order to return to platform area  
by slack tide (logging / deployment <sup>NOT</sup> stopped)

0958 sondes returned to water

1125 stop drift

1131 leave LBR

1148 arrive at depot


1210 upload LFF/LBR data

1228 SB, EB, ~~HD~~ LH leave for Jax

1230 HD leave depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 04/06/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 62°F Mostly Cloudy, NE 4 mph	<b>Tides:</b> L – 1653 H – 1014	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Emily Johnson.		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.0 hours <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Profiling efforts today reflect the changes made to sampling procedures as emailed to the Team (see 040419 and 040519 Daily Log).</li><li>- DO sensor on M7 was replaced with new DO sensor.</li><li>- Calibrated Sonde 9 DO sensor via H<sub>3</sub>. Deployed at M7 to replace Sonde 7</li><li>- Afternoon LT profiling not conducted due to thunder/approaching storms.</li></ul>		
<b>Notes:</b> As seen yesterday on EagleIO M7 was not reading DO, upon checking prior to HT sampling the DO was once again not reading – Sensor was replaced. Upon further investigation it appears that temperature is no longer reading on Sonde M7, however salinity/conductivity still are.		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



1240 print week 4 daily logs  
 update deployments / serial tracking  
 print updated Scientist Schedule

1353 Calibrate Do on Sonde 9  
 to replace Sonde 7

1453 started to rain w/ thunder

1516 no thunder heard for >10 mins,  
 rain stopped, going to replace sonde  
 M7 at LBR platform + gauge  
 weather safety as we go.

1524 depart depot to LBR

1547 arrive at LBR - platform

1548 remove M7 - Sonde 7

1549 thunder heard, will leave  
 LBR immediately

1552 Sonde #9 deployed at M7

1553 leave LBR for depot

1621 arrive at depot

1640 HD, EJ leave depot, LT  
 Sampling will not be conducted due  
 to <sup>heard</sup> Thunder + severe weather  
 approaching.



4/5/19

64°F Cloudy Sw 2 mph  
 0733 HD, LH, SB, EB at depot  
 0755 HD EB leave for LBR (yellow)  
 0815 arrive at LBR  
 0825 begin LBR drift HT (ADD)  
     D, shallow  $\approx 1\text{m}$  (H<sub>1</sub>)  
     E, middle  $\approx 2.5\text{m}$   
     F, deep  $\approx 4.5\text{m}$   
     2, Surface  
 0953 pulled sondes from water in  
     order to return to platform area  
     by slack tide (logging deployment <sup>NOT</sup> stopped)  
 0958 sondes returned to water  
 1125 stop drift  
 1131 leave LBR  
 1148 arrive at depot  
 1210 upload LFF/LBR data  
 1228 SB, EB, ~~HD~~ LH leave for Jax  
 1230 HD leave depot

62°F mostly cloudy NE 4 mph  
 0800 arrive at depot HD  
 0812 ES at depot  
 0855 depart depot to LBR (black)  
 0916 arrive at LBR  
 0919 begin profile LBR HT  
     Sonde A, H<sub>2</sub>  
 1023 pulled sonde from H<sub>2</sub>O, did  
     not stop logging to return  
     to platform for slack  
 1027 sonde returned to water  
 1128 stop logging  
 1133 collect buoy data @ LBR-BSE  
 1137 collect buoy data @ LBR-SSW  
 1141 collect buoy data @ LBR-BNW  
 1145 collect buoy data @ LBR-INE  
 1149 stop at platform to replace  
     DO sensor on ~~M7~~  
 1151 Sonde ID tag has fallen off  
 1153 DO sensor replaced on M7  
 1155 leave LBR for depot  
     plume was not visible for duration  
     of HT sampling  
 1217 arrive at depot  
 1227 upload LBR data



4/8/19 Savannah 2016-094

670°F Cloudy, wavy NE 2 mph

0920 Fill black boat gas

0929 Depart depot to LFR; EJ+SB in Black Boat

0938 arrive @ LFR; prep sondes for drift

Sonde 26 - Surface

Sonde D - Shallow - 1.5 m - connected to H2

Sonde E - mid, - 3.5 m

Sonde F - deep 5.5 m

0948 All sondes launched/deployed - Start logging

1115 bank-to-bank transects stopped due to incoming tug boat & approaching slack tide

1156 incoming tug + ship, narrow transects

1159 changed direction due to tug and ship altering their course; ship turned around making the area impassable for us

1210 remained in place area while tug and ship made their turn

1212 tug & ship have turned; resume previous direction

1233 changed course due to incoming ship

1251 stopped logging


1257 stop at buoy LFR-A to clean depth

1308 depart LFR

1320 Arrive at depot



## Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring Daily Log

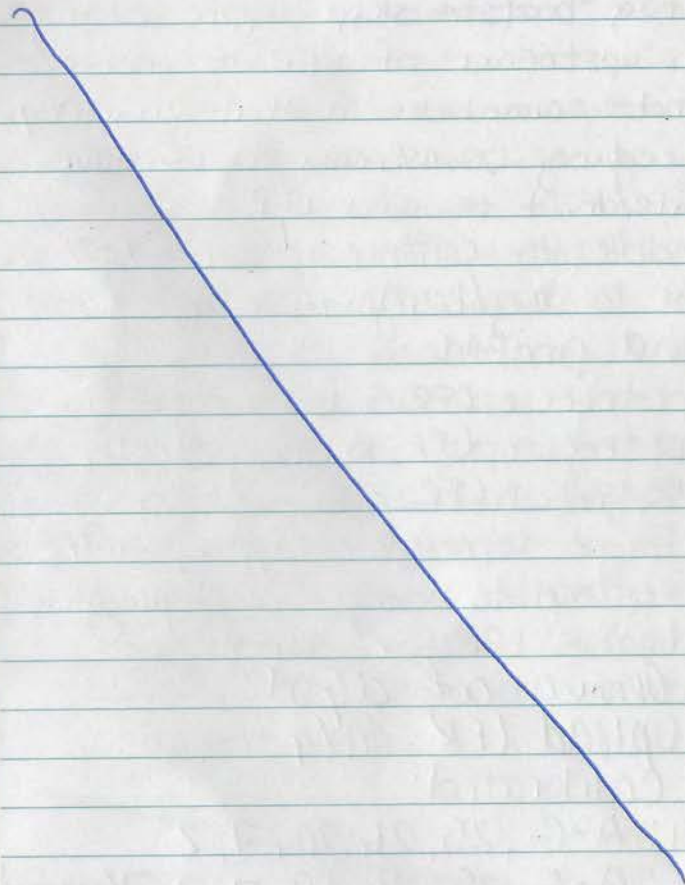
<b>Date:</b> 04/07/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 62°F Mostly Cloudy, NE 4 mph	<b>Tides:</b> L – 1730 H – 1045	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Emily Johnson.		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.0 Hours <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____	<b>Other Equipment Used:</b>	
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Profiling efforts today reflect the changes made to sampling procedures as emailed to the Team (see 040419 and 040519 Daily Log).</li><li>- Calibrations of Profiling Sondes and those sondes that were removed between 04/07/19 and start of Test Run were performed in lieu of evening low tide profiling. Calibration of:<ul style="list-style-type: none"><li>o CT: A-G, 25, 26, 20, 7, 2</li><li>o DO: A-F, 25, 26, 20, 7, 3, 7(removed)</li><li>o Depth: 25, 26, 20, 7, A-G</li><li>o New Batteries Installed in: 26 and A</li><li>o BGA: A-F</li></ul></li></ul>		
<b>Notes:</b> Low Slack Tide Profiling was not conducted; this morning's High Tide was conducted with ADD.		
<b>Daily Log Completed by:</b> Hayley DiGiano		
<b>Signature:</b> 		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



Depth: 25, 26, 20, 7, A-G  
New batteries in Sondas 26 + A  
(profiling Sondas/ battery 7.  
below 80%.)

BGA: A-F

1730 ES + HD leave depot





- 1240 print week 4 daily logs  
update deployments / serial tracking  
print updated Scientist Schedule
- 1353 Calibrate DO on Sonde 9  
to replace Sonde 7
- 1453 started to rain w/ thunder
- 1516 no thunder heard for >10 mins,  
rain stopped, going to replace sonde  
M7 at LBR platform + gauge  
weather safety as we go.
- 1524 depart depot to LBR
- 1547 arrive at LBR - platform
- 1548 remove M7 - Sonde 7
- 1549 thunder heard, will leave  
LBR immediately
- 1552 Sonde #9 deployed at M7
- 1553 leave LBR for depot
- 1621 arrive at depot
- 1640 HD, EJ leave depot, LT  
Sampling will not be conducted due  
to <sup>heard</sup> thunder + severe weather  
approaching.

63°F Cloudy NE 1 mph

0737 HD at depot

0816 EJ at depot

0903 depart to LFR (black)

0915 arrive at LFR

0919 begin profile HT (A, H<sub>2</sub>)

1018 tug boats + ship approaching  
basin upstream of LFR to turn  
around - cannot be in that vicinity,  
proceeding downstream to continue  
profile/drift toward LFR

1158 unable to continue in bank-to-bank  
due to tug/barge in path

1215 end profile

1224 retrieve LFR S buoy data

1228 retrieve LFR N buoy data

1232 retrieve LFR A Buoy data

1235 Forget to re-start logging on LFR S  
return to buoy to re-deploy

1237 Leave LFR for depot

1248 Arrive at depot

1300 Upload LFR data

1432 Calibrated:

CT: A-G, 25, 26, 20, 7, 2

DO: A-F, 25, 26, 20, 7, 3, 7 (removed)



4/8/19 Savannah O<sub>2</sub> 2016-094

67°F Cloudy, wavy NE 2 mph

0920 Fill ~~the~~ black boat gas

0929 Depart depot to LFR; EJ+SB  
in Black Boat

0938 arrive @ LFR; prep sondes  
for drift

Sonde 26 - Surface

Sonde D - shallow - 1.5 m - connected to H/2

Sonde E - mid. - 3.5 m

Sonde F - deep 5.5 m

0948 All sondes launched/deployed - start logging

1115 bank-to-bank transects stopped due  
to incoming tug boat & approaching slack tide

1156 incoming tug & ship, narrow  
transects

1159 changed direction due to tug and  
ship altering their course; ship  
turned around making the area  
impassable for us

1210 remained in plume area while  
tug and ship made their turn

1212 tug & ship have turned; resume previous direction

1233 changed course due to incoming ship

1251 stopped logging


1257 stop at buoy LFR-A to clean depth

1308 depart LFR

1320 Arrive at depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

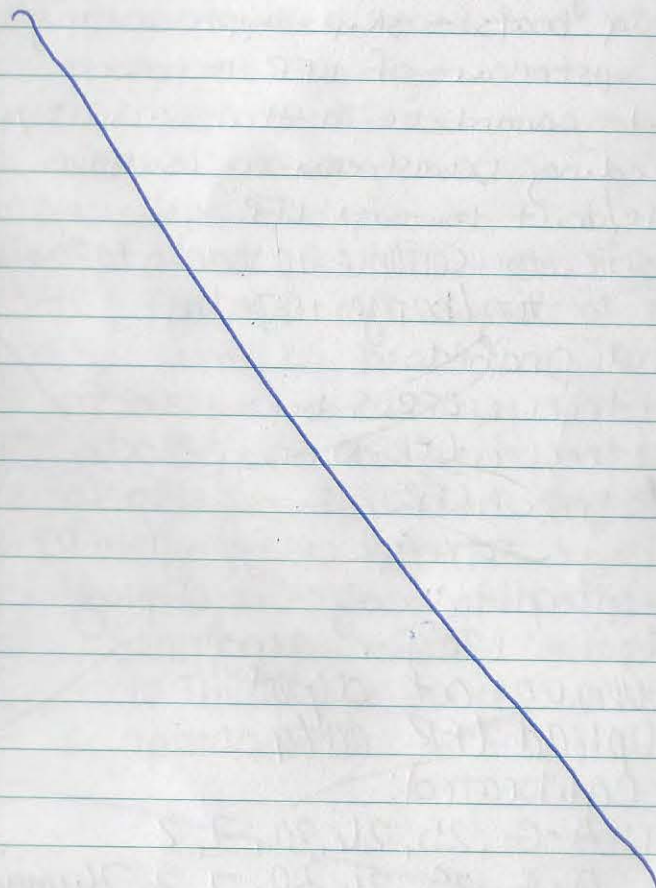
<b>Date:</b> 04/08/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 67°F Mostly Cloudy w/ Dense Fog, NE 2 mph		<b>Tides:</b> L – N/A H – 1120
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Emily Johnson, Ethan Bright, Sam Booth		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.0 Hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 4.0 Hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Drifting efforts today reflect the changes made to sampling procedures as emailed to the Team (see 040419 and 040519 Daily Log).</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



Depth: 25, 26, 20, 7, A-G  
 New batteries in Sondes 26 + A  
 (profiling Sonda w/ battery 7.  
 below 80%).

BGA: A-F

1730 EJ + HD leave depot



67°F Cloudy w/ dense fog NE 2 mph

0732 HD at depot

0844 SB at depot

0902 EJ at depot

0904 EB at depot

~~0924~~ 0924 HD, EB leave for LBR (yellow)

0944 arrive at LBR 72°F, cloudy 5.13 mph

0953 begin LBR drift HT (Add)

A, Shallow  $\approx 1m$  (H.)

B, mid  $\approx 2.5m$

C, Deep  $\approx 4m$

25, Surface

1120 pulled all 4 Sondas from H<sub>2</sub>O  
 did not stop deployment/ logging to  
 run back to platform by slack

1125 Sondas returned to water

1255 end LBR drift HT

1302 remove LBR - BNE body to clean  
 depth sensor, tiny "shrimp" shot out

1305 ~~BSE~~ BNE returned to water

1308 leave LBR for depot

1331 return to depot

1353 upload LBR data

1400 HD leave depot for Jax

1410 EJ, SB + EB leave depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 04/09/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 75°F Mostly Cloudy, SW 8 mph	<b>Tides:</b> L – 0637 H – 1203	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Emily Johnson, Ethan Bright, Eric Huss, Sam Booth		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.0 Hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 5.0 Hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Profiling efforts today reflect the changes made to sampling procedures as emailed to the Team (see 040419 and 040519 Daily Log).</li><li>- Calibrations of Buoy Sondes were performed following profiling of HT. Calibration of:<ul style="list-style-type: none"><li>o CT: 17, 18, 19, 21, 22, 23, 27</li><li>o DO: 17, 18, 19, 21, 22, 23, 27</li><li>o Depth: 17, 18, 19, 21, 22, 23, 27</li><li>o New Batteries Installed in: 17, 18, 19, 21, 22, 23</li><li>o BGA: 18, 19, 21, 23</li></ul></li><li>- Redeployment of buoy sondes was scheduled for later in the day (04/09/19), however, thunderstorms were in the vicinity for the remainder of the afternoon and evening. Buoy sonde redeployment is scheduled for tomorrow morning (4/10/19).</li></ul>		
<b>Notes:</b> Low Slack Tide Profiling was not conducted; today's High Tide was conducted with ADD.		
<b>Daily Log Completed by:</b> Sam Booth		<b>Signature:</b>
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



28 Savannah, GA 2716-054 SW 04/09/2019  
74°F, partly cloudy, 6 mph

0905 EJ arrives at depot  
0935 EB + SB arrive  
0940 EB put gas in boats  
0945 EH arrives  
1015 EJ + SB depart Depot in Yellow Boat  
1036 arrive at LBR  
1038 start logging 1m profile/drift  
1202 stop logging  
1207 arrive @ L<sup>th</sup> BSW buoy; perform profile  
1210 arrive @ BNE buoy; perform profile  
1214 arrive @ BSE buoy; perform profile  
1222 arrive @ BSW buoy; perform profile  
1226 arrive @ platform  
1227 profile @ platform west side  
1231 profile @ platform east side  
1237 SB replaced pinson platform all  
shackles ~~that~~ that had rusted off  
1244 start logging 1m profile/drift  
1246 saw plume at surface  
1414 stop logging  
1416 arrived at BNE, removed sonde for calibration  
1422 arrived @ BSW buoy, removed sonde for cal.  
1427 arrived @ BSE, removed sonde for calibration  
1431 arrived @ BSE, removed sonde for calibration  
1434 depart LBR  
1456 arrive at Depot

1515 SB download profile + buoy data<sup>29</sup>  
+ fill out chain of custody

1515 EB + EJ begin calibration of buoy  
sondes

1805 all buoy sondes calibrated  
- It has been thunderstorming since  
~1600, so we have not been able  
to go back out to redeploy the  
sondes

1815 - still thunderstorming; frequent lightning  
1830 - break in rain allowed us to  
go check the boats and run the bilge  
pumps; Yellow Boat had a minor clog  
that wasn't allowing water to drain  
EB fixed it.

1840 rain restarts and radar shows  
more incoming thunderstorms

1845 scan field notes

1850 EB, EJ, SB depart Depot

Save 

*Write in the Rain.*

4/9/19 2016-094 70° cloudy SW 7 mph 45

EB EH (it rained last night)

1215 leave depot used handheld #2

~1030 arrive at LFR, start logging for profile/drift

1210 stop profile/drift (1m)

1212 profile at LFR-S

1216 " LFR-N

1219 " LFR-A

1222 start logging for profile ~~#2~~ drift #2 (1m)

1345 stop logging

1349 go to LFR-S, take sonde out to calibrate

1352 " LFR-N and collect data

1357 " LFR-A

1400 leave LFR

1412 arrive at depot

did not go back out due  
to lightning/thunderstorm



4/10/19 Savannah OZ 2016-094

EB EH Sunny ES, 75°F

1020 leave dock for LBR

1045 arrive LBR

1046 go to SE buoy to redeploy sonda  
after calibration

1050 " SW buoy "

1055 " NW "

1100 " NE "

1105 set up for drift

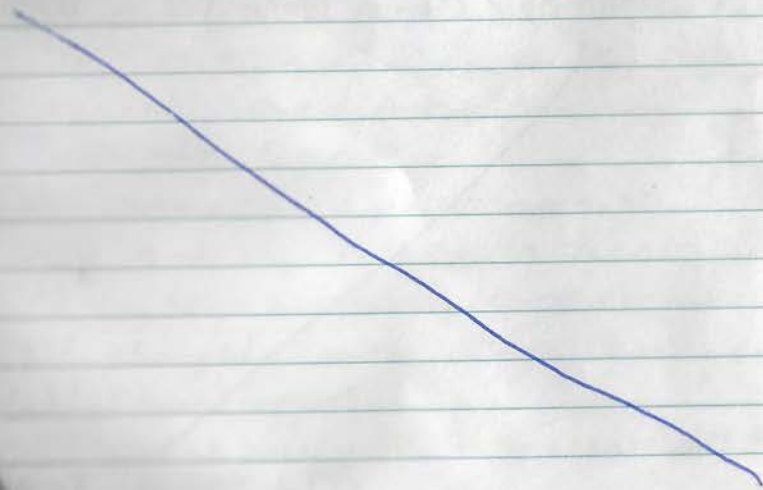
1116 start drift w/ 4 sondes  
surface, 1m, 2.5m, 4m

1319 1 profile in plane

1401 stop drift


1410 leave LBR

1430 arrive at depot





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 04/10/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 69°F Partly Cloudy, N 0-3 mph	<b>Tides:</b> L – N/A H – 1255	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Emily Johnson, Ethan Bright, Sam Booth, Eric Huss, Rick McCann, Jim Greenfield		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.0 Hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 3.5 Hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Drifting efforts today reflect the changes made to sampling procedures as emailed to the Team (see 040419 and 040519 Daily Log).</li><li>- All Buoy Sondes were deployed in the morning following calibration on 040919 (see 040919 Daily Log)</li><li>- Drifting efforts on the Lower Front River were shortened due to fuel leak in the Yellow Boat (see Field Notes). Yellow Boat was pulled out of the water and taken to receive maintenance. White Boat was put in the water to replace.</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> S. Booth	<b>Signature:</b> 	
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



<sup>30</sup> 69°F Partly cloudy; 0-3 MPH N 04/10/2019

0920 EJ, SB, EH arrive at depot

1020 EJ, SB, JG depart to LFR in <sup>yellow</sup> boat

1034 Arrive at LFR

1039 Start deployment LFR-S buoy sonde (21)

1046 Deploy LFR-N buoy sonde (22)

1051 Deploy LFR-A buoy sonde (23)

1055 Deploy surface for drift

1058 " deep " at 5.5m

1102 " middle " at 3.5m

1104 Start logging shallow at 1.5m

1110 drifted through plume + visible  
bubbles slightly larger than "fishtank"

\*Noticing gasoline smell apparently  
coming from yellow boat

1212 turned back south due to  
incoming tugs from the north  
and ship <sup>off</sup> coming in from the south

1317 pulled all sondes due to visible  
gas leak from engine

1329 pulled all sondes and transferred  
data to handheld

1330 depart LFR

1342 arrive @ Depot

1354 EJ transferred data + chain of custody  
while RM, JG + SB pulled yellow boat  
+ put white boat in due to fuel leak

1445 Black boat returns; EH + EB <sup>31</sup>

1500 LBR data transferred + chain cust.

1523 SB put gas in white boat - taking  
cans to refill tonight

~~EJ transferred data to handheld~~

1530 EB departs depot + RM + JG + EH

1600 SB Departs Depot taking  
Yellow Boat to Hale Marine for  
service

Sam Bot

Rite in the Rain



46 4/10/19 Savannah OZ 2016-094

EB EH Sunny ES, 75°F

1020 leave dock for LBR

1045 arrive LBR

1046 go to SE buoy to redeploy sonde  
after calibration

1050 " SW buoy "

1055 " NW "

1100 " NE "

1105 set up for drift

1116 start drift w/ 4 sondes  
surface, 1m, 2.5m, 4m

1319 1 profile in plane

1401 stop drift

1410 leave LBR

1430 arrive at depot

47 4/11/19 Savannah OZ 2016-094

SB + EJ in White Boat

Depart Depot @ 0800

0815 arrive @ LFR + set up for dye  
test drifts; Sonde A - shallow - 1m

Sonde B: mid - 3m attached to H1

Sonde C: deep - 5m

0832 Dye appears - start drift in  
and around plume until tide switches

0900 made turn to the north as  
the tide appears to have changed  
performing bank-to-bank transects

1000-1007 tug boats passing - had to  
make transects narrower

\* Pink dye became visible at surface  
after tug boat(s) passed - appears to  
be churned up from deeper

1055 Transects paused due to  
log & ship traffic


1400 depart LFR

1420 arrive @ Depot





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 04/11/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)						
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes								
<b>Weather:</b> 70°F Partly Cloudy, NNE 4 mph	<b>Tides:</b> L – 0816 H – NA							
<b>Client/Stakeholder Interaction (if any):</b> Brian Robinson was at the system with RM and EH during dye injection								
<b>Personnel/Visitors on site:</b> Emily Johnson, Hayley DiGiano, Sam Booth, Eric Huss, Rick McCann, Jim Greenfield								
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>								
<b>Boat(s) Used:</b> <table style="width: 100%; border-collapse: collapse;"><tr><td style="width: 20%;"><input checked="" type="checkbox"/> Black Boat – Duration:</td><td style="border-bottom: 1px solid black; width: 30%;">6.5 Hours</td></tr><tr><td><input checked="" type="checkbox"/> White Boat – Duration:</td><td style="border-bottom: 1px solid black;">6.5 hours</td></tr><tr><td><input type="checkbox"/> Yellow Boat – Duration:</td><td style="border-bottom: 1px solid black;"></td></tr></table>		<input checked="" type="checkbox"/> Black Boat – Duration:	6.5 Hours	<input checked="" type="checkbox"/> White Boat – Duration:	6.5 hours	<input type="checkbox"/> Yellow Boat – Duration:		<b>Other Equipment Used:</b> Rental generator, dye pump, flatbed trailer
<input checked="" type="checkbox"/> Black Boat – Duration:	6.5 Hours							
<input checked="" type="checkbox"/> White Boat – Duration:	6.5 hours							
<input type="checkbox"/> Yellow Boat – Duration:								
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Rick McCann:<ul style="list-style-type: none"><li>o Injection start at 0830, end at 0844. Injected at approximately 2.1 gpm. Total injected 29.8 gallons of 20% Rhodamine dye at full strength (undiluted).</li></ul></li></ul>								
<b>Notes:</b>								
<b>Daily Log Completed by:</b> S. Booth		<b>Signature:</b> 						
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____						

2 4/12/19 Savannah O<sub>2</sub> 2016-094  
71°F, partly cloudy, SSE 6 mph  
0858 SB + JB depart Depot in  
Black Boat

0920 arrived at LBR

0925 heavy rain started; JB  
delayed dye to 0945

0940 rain stopped; sondes  
deployed for Dye Test Drift

Sonde D - shallow - 1 m - attached to H3

Sonde E - mid - 3 m

only 2 sondes so we can get  
closer to banks

0945 RM signaled start of Dye Pump

0947 dye visible; darts/transsects started

1007 2nd dye plume appeared @ dieters

1014 RM + EH signaled that dye  
pump stopped

1015 JB decided to follow 2<sup>nd</sup> plume

1100 JB decided that both boats will  
focus on the South Carolina side of

the river as sensors were only reading  
dye between SC bank & middle

1130-1140 JB discusses dye + units  
with USGS boat

1315 stop logging, pull sondes, depart LBR

1345 arrive @ Depot





04/12/19


71°F partly Cloudy SSE 6 mph  
 0745 JG, EH at depot  
 0756 ~~EJ~~ RM at depot  
 0800 EJ at depot  
 0809 HDSB at depot  
 0840 EH, RM leave for system  
 0900 EJ + HD leave for LBR (white)  
 0916 arrive at LBR - raining  
 0927 begin drift LBR (LT) dye test  
     A - Shallow 1.0m (H)  
     B - middle = 2.5m  
     C - deep = 3.5m  
 0945 dye injected  
 0948 dye visible in plume  
 1014 end dye injection  
 1303 end drift  
 1315 leave LBR for depot  
 1335 arrive at depot  
 1409 Upload LBR data  
 1442 RM, JG, EH, HD leave depot  
 1446 EJ, SB leave depot

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**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 04/13/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 71°F Mostly Cloudy, ESE 4 mph	<b>Tides:</b> L – 1028 H - NA	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Sam Booth, Emily Johnson.		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.0 Hours <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Profiling efforts today reflect the changes made to sampling procedures as emailed to the Team (see 040419 and 040519 Daily Log).</li><li>- Collected data from all Buoy Sondes at LBR</li></ul>		
<b>Notes:</b> High Slack Tide Profiling was not conducted; this morning's Low Tide was conducted with ADD.		
<b>Daily Log Completed by:</b> Sam Booth	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____

04/12/19

71°F partly Cloudy SSE 6 mph

0745 JG, EH at depot

0750 RM at depot

0800 EJ at depot

0809 HDSBAJ depot

0840 EH, RM leave for system

0900 EJ + HD leave for LBR (ywhite)

0916 arrive at LBR - raining

0927 begin drift LBR (LT) dye test

A - Shallow 1.0m (H)

B - middle 2.5m

C - deep 3.5m

0945 dye injected

0948 dye visible in plume

1014 end dye injection

1303 end drift

1315 leave LBR for depot

1335 arrive at depot

1409 Upload LBR data

1442 RM, JG, EH, HD leave depot

1446 EJ, SB leave depot

04/13/19

71°F Mostly cloudy, ESE 4 mph

0805 EJ + SB arrive at depot

0849 Depart to LBR in black boat

0857 Dredge ships &amp; pipe blocking channel

0913 start logging in drift at Train Bridge

headed N to system

0920 spoke to Jim - moving up to Hog

Island &amp; drifting back toward system

to work with tide/current.

0924 Passed platform - appears to be

twisted, possibly something caught

on chains/moorings

0931 start logging in drift moving S from

USPS station to system

1030 arrived at BSE buoy, collect

data &amp; perform profile

1038 arrived at BSW, collect data, perform profile

1045 arrived at BRW, collect data, perform profile

1050 arrived at BVE, collect data, perform profile

1056 profile performed to East of platform

1058 sonde reset at water, drift resumes

1203 stop logging

1208 depart LBR to depot

1230 arrive at depot

1245 Upload data, chain of cust., field notes


1300 EJ + SB leave depot

Return on Rain





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 04/14/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 75°F Mostly Cloudy, SSE 15 mph	<b>Tides:</b> L – 1134 H - NA	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Sam Booth, Emily Johnson		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 3.0 Hours <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Collected data from all Buoy Sondes at LFR</li><li>- Heavy winds and large waves forced alterations to the usual profiling methods. We were unable to go into the channel/middle of the river due to the high waves. We focused primarily on the side of the river where the system is due to the conditions.</li><li>- Due to worsening conditions and SB's worsening seasickness, profiling was completed at 1230 (rather than 1300).</li><li>- Waves were 3-5 feet with winds of 15mph and gusts of 25+ by the time we stopped. The National Weather Service had a small craft advisory in effect for the area, this aided SB's decision to end early.</li><li>- Profiles were performed at each LFR buoy; logging on the Handheld was not stopped so it's all in one file.</li><li>- The deeper, in-channel profiles that Jim G. was hoping for were unable to be performed due to the conditions.</li></ul>		
<b>Notes:</b> High Slack Tide Profiling was not conducted; this morning's Low Tide was conducted with ADD.		
<b>Daily Log Completed by:</b> Sam Booth	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____

04/14/19

75°F Overcast, SSE 15MPH

0930 SB + EJ arrive at depot

1000 depart Depot in Black Boat

1020 Arrive at LFR - heavy wind/waves

1021 Start Logging

1030 adjusted length of bank to bank  
+ transects due to very heavy, large  
wave action in the main channel  
focusing on "North Bank" on the side of  
the  $\phi_2$  system

1130 arrived @ LFR-4, downloaded data  
+ perform profile; logging not stopped

1138 arrived @ LFR-11; downloaded data  
+ perform profile

1143 arrived @ LFR-5; download data  
+ perform profile

1146 resumed drift/transects

1148 adjusted course due to incoming ship

1230 stopped logging + departed LFR

1249 Arrive @ Depot

1415 EJ departs Depot

\*Profiling ended earlier than planned, see

Daily Log


1445 SB depart Depot

Sam Banks





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 04/15/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 60°F Sunny, W 18 mph	<b>Tides:</b> L – 1236 H - NA	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Sam Booth, Lisa Heise, Hayley DiGiano		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input checked="" type="checkbox"/> White Boat – Duration: 4.0 Hours <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Due to scheduling conflicts, only three personnel on site; only LBR Drift performed today</li></ul>		
<b>Notes:</b> High Slack Tide Profiling was not conducted; today's Low Tide was conducted with ADD.		
<b>Daily Log Completed by:</b> Sam Booth	<b>Signature:</b> 	
		<b>Photos Attached?</b> <input checked="" type="checkbox"/> <b># of Photos</b> 2

**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring  
Task 7 – Test Run  
Daily Log**

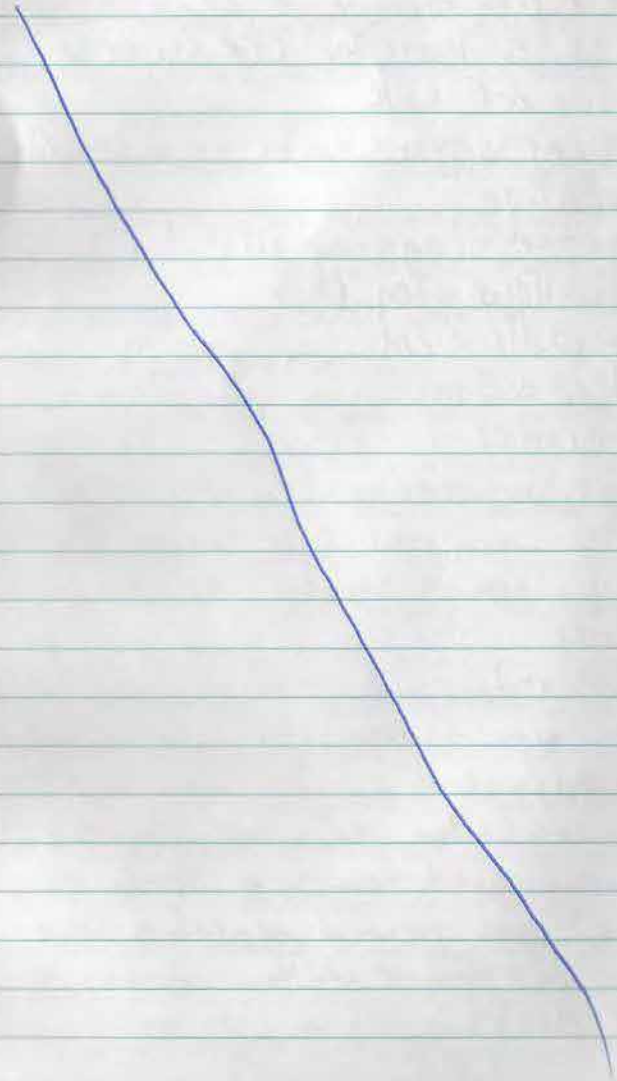




**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring  
Task 7 – Test Run  
Daily Log**



1453 Upload LBR data  
1515 SB, LD, LH leave depot





04/14/19

75°F Overcast, SSE 15MPH

0930 SB + EJ arrive at depot

1000 depart Depot on Black Boat

1020 Arrive at LFR - heavy wind/waves

1021 Start logging

1030 adjusted lengths of bank to bank  
transsects due to very heavy, large  
wave action in the main channel  
focusing on "North Bank" on the side of  
the O<sub>2</sub> system

1130 arrived @ LFR-A, downloaded data  
perform profile; logging not stopped

1138 arrived @ LFR-N; downloaded data  
+ perform profile

1143 arrived @ LFR-S; download data  
+ perform profile

1146 resumed drift/transsects

1148 adjusted course due to incoming ship

1230 stopped logging + departed LFR

1249 Arrive @ Depot

1415 EJ departs Depot

\*Profiling ended earlier than planned, see  
Daily Log

1445 SB depart Depot

Sam Beards

04/15/19 Savannah O<sub>2</sub> 2016-094 37

60°F, Sunny, breezy Wind: W18mph

0900 SB arrive @ Depot

0940 LH + HD arrive @ Depot

1033 HD LH SB leave for LBR (white)

1100 arrive at LBR

platform appears to be in a NW/SW  
orientation

1112 Started logging Drift LT

A, shallow = 1m (11,1)

B, middle = 2m

C, deep = 3m

26, surface

1144 transects (bank to bank) very narrow  
due to very low tide (approx. 3.6)

1200 raise C approx. 0.5m to adjust for  
low tide

1310 - 1320 adjusted course due  
to shallow depth causing the sonde  
to drag. Adjusted sonde depths  
appropriately; also adjusted course  
for a passing boat towing a dredge Apr

1370 turned back toward platform due  
to consistent ~~low~~ <sup>sh</sup> shallow depths

1408 end drift

1421 Leave LBR

1445 arrive @ Depot



1419 Richard reenters water to  
pull out the anchor that had washed  
out; tied a rope to the mooring  
and dragged it back; Josh, Tim + RM  
hailed the mooring setup (rope, electric  
line, chain, porta ray anchor, & weights)  
onto the platform

1429 most of line pulled up

1432 Richard gets out of water; all  
of the SE anchor setup is up on  
the platform

1435-1445 RM discusses options  
for reanchoring w/ TIC team

1445- TIC off site; RM on phone  
w/ B. Robinson; Symon on

1512 Depart LBR

1536 ~~Arrive @ Dept~~

LA Boat




2 4/12/19 Savannah Oz 2016-094  
 71°F, partly cloudy, SSE 6 mph  
 0858 SB + JB depart Depot in  
 Black Boat  
 0920 arrived at LBR  
 0925 heavy rain started; JB  
 delayed dye to 0945  
 0940 rain stopped; sondes  
 deployed for Dye Test Drift  
 Sonde D - shallow - 1m - attached to H3  
 Sonde E - mid - 3m  
 only 2 sondes so we can get  
 closer to banks  
 0945 RM signaled start of Dye Pump  
 0947 dye visible; drift/transsects started  
 1007 2nd dye plume appeared e diffusers  
 1014 RM + EH signaled that dye  
 pump stopped  
 1015 JB decided to follow 2nd plume  
 1100 JB decided that both boats will  
 focus on the South Carolina side of  
 the river as sensors were only reading  
 dye between SC bank & ~middle  
 ~1130-1140 JB discusses dye + units  
 with USGS boat  
 1315 stop logging, pull sondes, depart LBR  
 1345 arrive e Depot

1215 RM + SB depart Depot in Black Boat  
 1243 arrive e LBR  
 1303 TIC Divers arrive e  
 1305-1319 RM expanding issues  
 to divers: 1330: diver enters water  
 1335 - diver <sup>(Richard)</sup> determined there was  
 no issue with the NE mooring  
 1340 - diver <sup>(Richard)</sup> determined that the  
 SW mooring was wrapped around  
 a diffuser head and that the  
 O<sub>2</sub> system must be turned off to  
 fix it; RM called B. Robinson (USACE)  
 1350 B. Robinson informed RM that  
 system has been turned off and to  
 give it ~10 minutes for water  
 to flow out  
 1358: Richard Steele (Diver) reentered  
 water to unwrap mooring  
 Tim Manderhall } Divers names  
 Josh Cahall } JB  
 Richard Steele }  
 1407 Richard Surfaces - explains  
 that mooring line was wrapped  
 around two diffusers and that  
 the diffuser had blown the anchor  
 out of the ground; no longer  
 attached on that corner  
 Rite in the Rain



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 04/16/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 51°F Sunny, NNE 5 mph	<b>Tides:</b> L – 1333 H – N/A	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Sam Booth, Lisa Heise, Hayley DiGiano, Rick McCann		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 3.5 Hours <input checked="" type="checkbox"/> White Boat – Duration: 2.5 Hours <input type="checkbox"/> Yellow Boat – Duration:		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Due to scheduling conflicts, only three personnel on site; sondes collected from Platform for Calibration.<ul style="list-style-type: none"><li>o CT, DO, Depth: 1, 2, 4, 5, 6, 8, 9, 10, 11, 12, 14, 15, 16, 24, 28</li><li>o Algae: 11 and 24</li></ul></li></ul>		
<b>Notes:</b> Upon arrival to LBR in the morning to gather sondes for calibration, LG2 noticed platform was tilted and rotated 180 degrees. The north side of the platform was facing west and the south side was facing east. The SE corner was pulled underwater. Divers found that the SE corner line was wrapped three times around the diffuser pipes and the manta ray anchor was laying on the top of the river bed approximately 4 feet deeper than surrounding anchors securely placed in typical river bottom sediments. This manta ray was retrieved and currently 3 anchors are engaged. It was concluded that the scouring from the diffuser pipes unearthed the SE anchor.		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input checked="" type="checkbox"/> <b># of Photos</b> 5



**Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log**



Photo 1 – Platform status in morning upon arrival to LBR.



Photo 2 - Platform status in morning upon arrival to LBR.

**Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log**



Photo 3 – Diver



Photo 4 – Southeast Manta ray anchor being extracted from river.



Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log



Photo 5 – Southeast Manta ray anchor extracted from river.

Algar: 11 + 24  
update platform sonde templates  
1700 SB, RM, LH, HD leave depot





1419 Richard reenters water to  
pull out the anchor that had washed  
out; tied a rope to the mooring  
and dragged it back; Josh, Tim + RM  
hailed the mooring setup (rope, elastic  
line, chain, Montoya anchor, & weights)  
onto the platform

1429 most of line pulled up

1432 Richard gets out of water; all  
of the SE anchor setup is up on  
the platform

1435-1445 RM discusses options  
for reanchoring w/ TIC team

1445 - TIC off site; RM on phone  
w/ B. Robinson; Symon on

1512 depart LBR

1536 ~~more~~ ~~at~~ ~~Dept~~

in Boat

1419 Richard reenters water to pull out the anchor that had washed out; tied a rope to the mooring and dragged it back; Josh, Tim + RM hauled the mooring setup (rope, electric line, chain, porta ray anchor, & weights) onto the platform

1429 most of line pulled up

1432 Richard gets out of water; all of the SE anchor setup is up on the platform

1435-1445 RM discusses options for reanchoring w/ TIC team

1445- TIC off site; RM on phone w/ B. Robinson; Symon on

1512 depart LBR

1536 arrive @ Depot

LR Boat

4/17/19 Savannah O2 2016-094 5

1215 - SB + LH depart Depot in white boat

1228 - arrive @ LFR & setup for drift

1239 - start logging / begin drift

Sonde 26 - surface

Sonde A - shallow ~1m - connected to #1

Sonde B - mid ~3m

Sonde C - deep ~5m

1300 - had to adjust course due to tug boat

1306 adjust course again for ironing ship and tugs

1313 adjusted course for another tug boat

1318 ended logging & pulled in parcels


1320 depart LFR

1401 arrive @ depot & uploaded data





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 04/17/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)						
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes								
<b>Weather:</b> 78°F Partly cloudy, SSE 10 mph	<b>Tides:</b> L – 1427 H – N/A							
<b>Client/Stakeholder Interaction (if any):</b>								
<b>Personnel/Visitors on site:</b> Sam Booth, Lisa Heise, Hayley DiGiano, Ethan Bright								
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>								
<b>Boat(s) Used:</b> <table style="width: 100%; border-collapse: collapse;"><tr><td style="width: 20%;"><input checked="" type="checkbox"/> Black Boat – Duration:</td><td style="width: 30%; border-bottom: 1px solid black;">5.0 Hours</td></tr><tr><td><input checked="" type="checkbox"/> White Boat – Duration:</td><td style="border-bottom: 1px solid black;">4.0 Hours</td></tr><tr><td><input type="checkbox"/> Yellow Boat – Duration:</td><td style="border-bottom: 1px solid black;"></td></tr></table>		<input checked="" type="checkbox"/> Black Boat – Duration:	5.0 Hours	<input checked="" type="checkbox"/> White Boat – Duration:	4.0 Hours	<input type="checkbox"/> Yellow Boat – Duration:		<b>Other Equipment Used:</b>
<input checked="" type="checkbox"/> Black Boat – Duration:	5.0 Hours							
<input checked="" type="checkbox"/> White Boat – Duration:	4.0 Hours							
<input type="checkbox"/> Yellow Boat – Duration:								
<b>Work Completed:</b> - See field notes.								
<b>Notes:</b> Platform appeared normal today.								
<b>Daily Log Completed by:</b> Lisa Heise	<b>Signature:</b> 							
		<b>Photos Attached?</b> <input checked="" type="checkbox"/> <b># of Photos</b> 1						

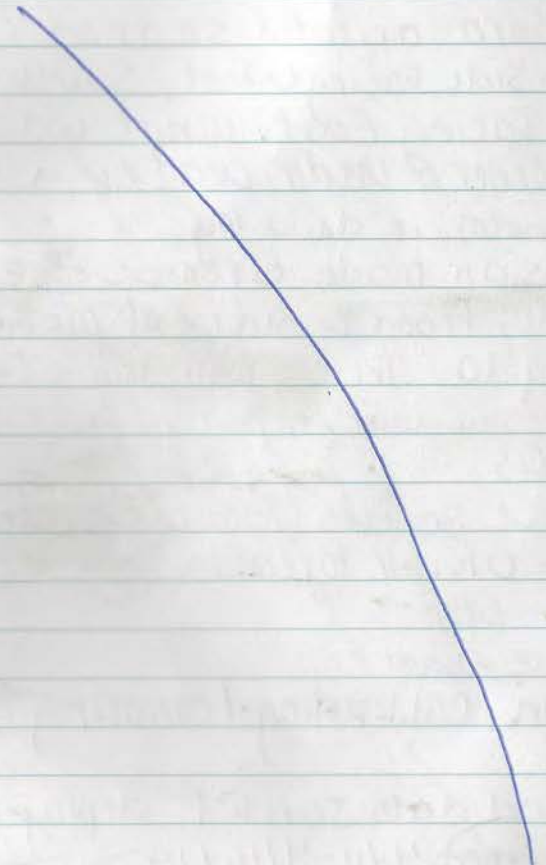
**Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log**



Photo 1 – Platform, normal status for afternoon drift sampling upon arrival to LBR.



Algae: 11 + 24  
 update platform sonde templates  
 1700 SB, RM, LH, HD leave depot



4/17/19 41

76°F fair SSE 7 mph  
 1053 SB, HD, LH at depot  
 1126 EB at depot  
 1132 EB HD leave for LBR (black)  
 1213 arrive at platform  
 1217 remove sonde 13  
 1225 trim pipes U13 + U14  
 1236 redeploy sondes at;  
     S-9-12  
     M-5-8  
 1300 start drift LBR-LT Add  
     F, shallow  $\approx 1\text{m}$  (#13)  
     E, middle  $\approx 2\text{m}$   
     D, deep  $\approx 3\text{m}$   
     25-surface  
 1340 South of the train bridge is shallow (43m)  
     2.3m is deepest seen on depth gauge  
 1516 tide changed to incoming  
 1600 end drift  
 1623 leave LBR  
 1641 arrive at depot  
 1648 SB leave for Jax  
 1653 upload LBR/LFR data  
 1715 LH, EH, EB leave depot

LH + EH

4/18/19

64°F Sunny, N 2 mph

0817 LH + EH arrive at LBR setup to profile with Sonde E + Handheld H2

0828 replaced Sonde E batteries

0833 started logging no plume visible

0916 NE Buoy profile + buoy data transferred

0926 NW buoy profile + data transfer

0932 SW buoy profile + data transferred

0940 SE buoy profile + data transferred

0949 Depth finder @ 9.2 ~ 20 ft from SE  
8.4 ~ 30 ft from SE  
7.3 ~ 40 ft from SE

0952 W Plat Profile

Platform is rotated 45° from original

S edge is S ~ 90° on compass

N edge is N ~ 18° on compass

0956 SE Plat Profile

Plume visible

1004 1 profile in plume then plume not visible wind SE 12 mph

1100 stopped logging + broke down spring

1102 left LBR

1130 arrive @ depot

1427 left depot for LFR

1440 arrive @ LFR

1443 started logging plume visible

- 2 places of bubbles noted above pipe 1 profile until plume not visible

1450 (4) profiles in plume

1649 stopped logging plume not visible


1655 left LFR

1706 arrive @ depot





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 04/18/19	<b>Task:</b> <u>7 – Test Run (TR)</u>	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 64°F Sunny, N 2 mph		<b>Tides:</b> L – 1518 ( <i>1548</i> ) H – 0842 ( <i>0912</i> )
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Eric Huss, Lisa Heise, Hayley DiGiano, Ethan Bright		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;"><input checked="" type="checkbox"/> Black Boat – Duration: <u>5.5 Hours</u></div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;"><input checked="" type="checkbox"/> White Boat – Duration: <u>6.0 Hours</u></div> <div style="border: 1px solid black; padding: 2px;"><input type="checkbox"/> Yellow Boat – Duration: _____</div>		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Tides adjusted by 30 minutes (in <i>italics</i>) to account for full moon / delay in tides observed yesterday.</li></ul>		
<b>Notes:</b> Platform appeared normal today.		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input checked="" type="checkbox"/> <b># of Photos</b> <u>1</u>

**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring  
Task 7 – Test Run  
Daily Log**



Photo 1 – Platform status, normal



Photo 2 – Deep pipes raised



4/18/9

64°F Sunny N2 mph  
 0726 EB, HD, LH at depot  
 0740 EH at depot  
 0800 EB HD leave for LFR (white)  
 0809 arrive at LFR  
 0812 begin profile HT (A, H, I)  
 0820-0827 adjust transect for tugs  
 0850-0907 adjust path for cargo  
 Ship, 3 dredge barges & assoc.  
 tugs  
 0920 end profile  
 0922 profile LFRA & retrieve <sup>data</sup> buoy  
 0929 profile LFRN & retrieve <sup>data</sup> buoy  
 0934 profile LFRS & retrieve <sup>data</sup> buoy  
 0938 begin profile HT (Z)  
 1038 end profile  
 1040 leave LFR  
 1050 arrive at depot  
 1108 upload LFR data  
 1127 print week 5 daily logs  
 1155 upload LBR data  
 1203 check profile sonde batteries  
 1429 EB, HD leave for LBR (white)  
 1452 arrive at LBR  
 1455 begin LBR profile LT (A, H, I)  
 79°F pty cldy, SSE 11 mph

1600 drop EB at platform  
 to raise Deep pipes  
 1702 stop profile, retrieve EB  
 1706 leave LBR  
 1729 arrive at depot  
 1736 upload LBR data  
 1738 EH leave depot  
 1745 HD, LH, EB leave depot

8 L+H + EH

4/19/19

72°F, 512 mph extreme wind + current

0753 left depot for LBR

0810 arrive @ LBR

0828 started logging + deployed

25 - surface

~~at~~ D - shallow - 1.5 m

E - Middle - 2.75 m

F - deep - 4.0 m

0833 batteries died then came back on  
in sonde D

Sonde D deployed so we could check  
other sondes' batteries

Sonde E - ok batts

Handheld not acting right

0° for location

~~Sonde D left deployed at~~

Sonde D 0838 stopped deployment

Started logging 0839

Sustained winds ~ 18 mph

gusts @ ~ 25 mph

0927 Stopped logging

Conditions too poor to  
continue


1010 arrive @ depot

Sonde E did not log data





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 04/19/19	<b>Task:</b> <u>7 – Test Run (TR)</u>	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 72°F Cloudy and windy, S 12 mph	<b>Tides:</b> L – 1607 ( <i>1637</i> ) H – 0930 ( <i>1000</i> )	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Eric Huss, Lisa Heise, Hayley DiGiano, Ethan Bright		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: <u>2.5 Hours</u> <input checked="" type="checkbox"/> White Boat – Duration: <u>2.5 Hours</u> <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Tides adjusted by 30 minutes (in <i>italics</i>) to account for full moon / delay in tides observed 4/17-4/18.</li><li>- Ended drift early due to poor weather conditions. See photos below for weather statements.</li></ul>		
<b>Notes:</b> Platform appeared normal today.		
<b>Daily Log Completed by:</b> Hayley DiGiano	 <b>Signature:</b>	
		<b>Photos Attached?</b> <input checked="" type="checkbox"/> <b># of Photos</b> <u>5</u>

**Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log**



Photo 1 – Platform status, normal

**Message:** NOAA-NWS-ALERTS-  
GA125CF2C2C9BC.WindAdvisory.125CF2C3CF10GA.CHSNPWCHS.0b28706ecf69cb32e4446a0bff4a30e1  
from w-nws.webmaster@noaa.gov

**Sent:** 10:31 EDT on 04-19-2019

**Effective:** 10:31 EDT on 04-19-2019

**Expires:** 17:00 EDT on 04-19-2019

**Event: Wind Advisory**

**Alert:**

...WIND ADVISORY REMAINS IN EFFECT UNTIL 5 PM EDT THIS  
AFTERNOON...

\* WINDS...South 20 to 30 mph with gusts up to 45 mph.

\* TIMING...Friday morning through the afternoon.

\* IMPACTS...Gusty winds will blow around unsecured objects. Tree  
limbs could be blown down and a few power outages may result.

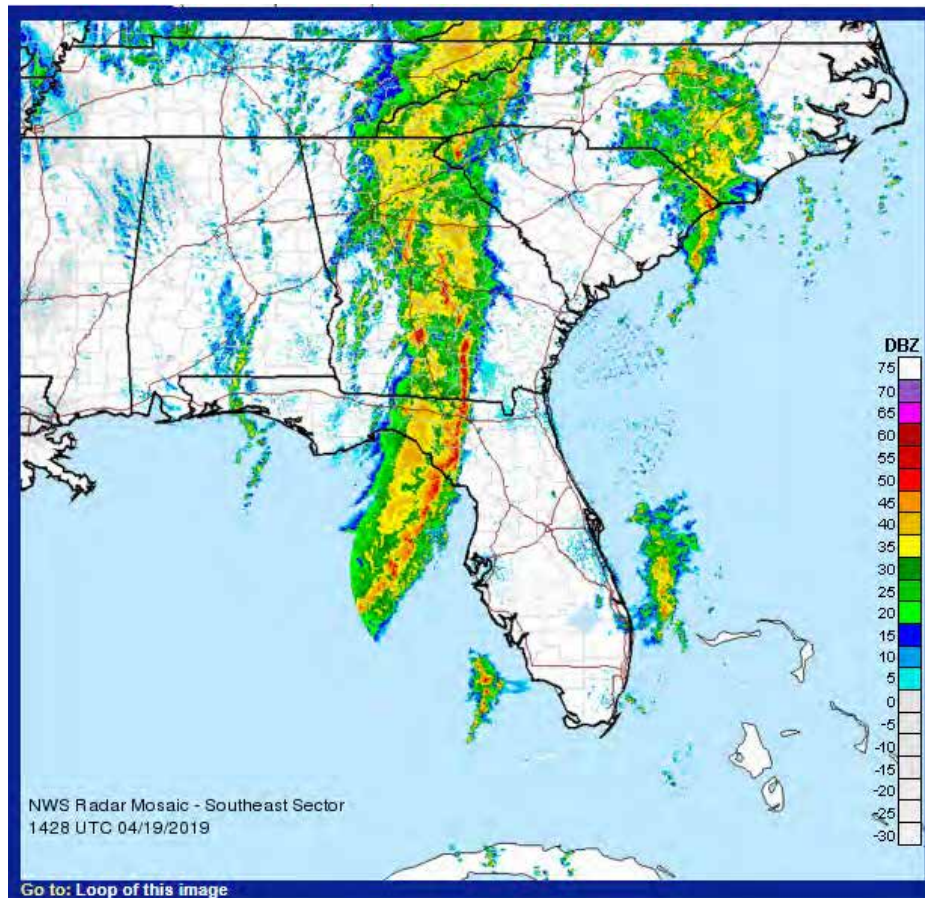
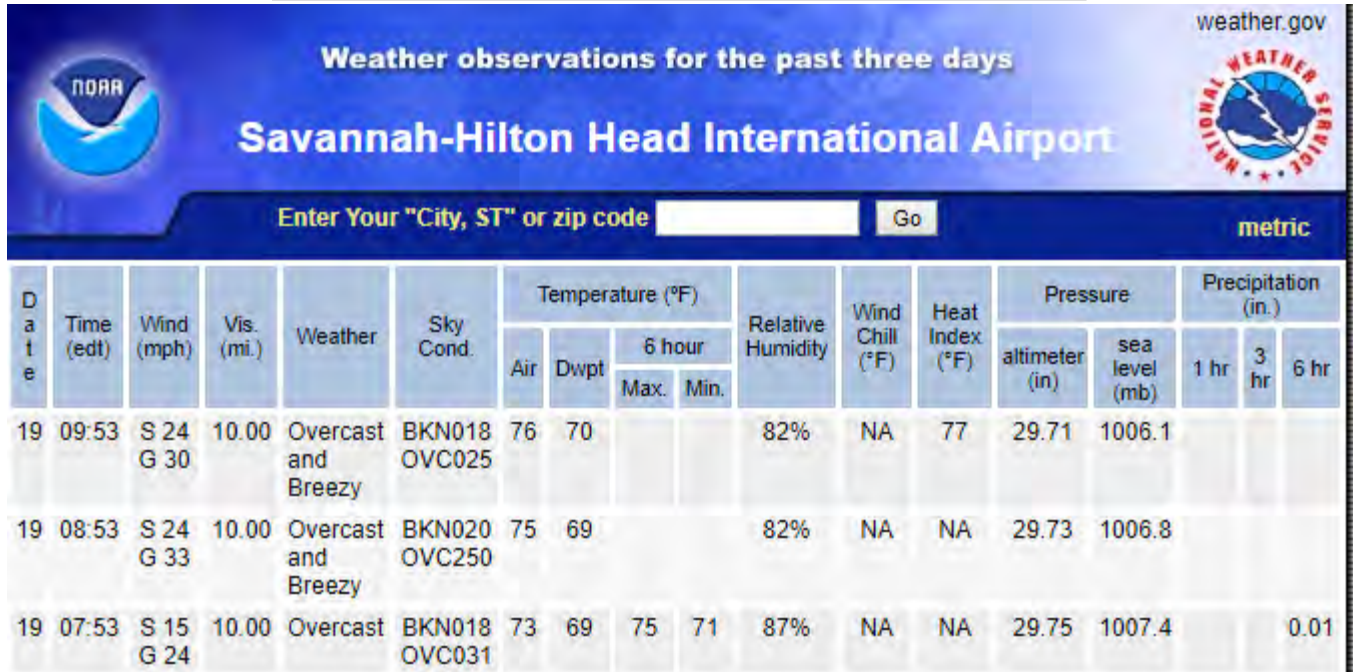
**Instructions:** Be prepared for strong winds. Extra caution should be taken while driving high profile vehicles and on  
bridges and overpasses. Light weight objects such as trash cans and lawn furniture should be secured.  
Mariners should avoid venturing onto Lake Moultrie.

**Target Area:** Coastal Chatham

**Forecast  
Office:** NWS Charleston (the Southern end of South Carolina and Eastern Georgia)



**Savannah Harbor Expansion Project - O2 Injection Monitoring**  
**Task 7 – Test Run**  
**Daily Log**



**Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log**

[Home](#) > [Alerts](#) > Chatham (GAC051) Georgia

## Watches, Warnings or Advisories for Chatham (GAC051) Georgia

This page shows alerts *currently* in effect for Chatham (GAC051) Georgia and is normally updated every two-three minutes. Please see [here](#) for other state and listing by county.

Last updated: 10:41 EDT on 04-19-2019

<b>Tornado Watch</b> <b>Issued:</b> April 19 at 10:41AM EDT <b>Expiring:</b> April 19 at 6:00PM EDT <b>Areas affected:</b> Baldwin; Bryan; Bulloch; Burke; Candler; Chatham; Columbia; Dodge; Effingham; Emanuel; Evans; Glascock; Hancock; Jefferson; Jenkins; Johnson; Laurens; Liberty; Lincoln; Long; McDuffie; McIntosh; Montgomery; Richmond; Screven; Taliaferro; Tattnall; Telfair; Toombs; Treutlen; Warren; Washington; Wheeler; Wilkes; Wilkinson	<b>Urgency:</b> Expected <b>Status:</b> Actual
<b>Wind Advisory</b> <b>Issued:</b> April 19 at 10:31AM EDT <b>Expiring:</b> April 19 at 5:00PM EDT <b>Areas affected:</b> Coastal Chatham	<b>Urgency:</b> Expected <b>Status:</b> Actual
<b>High Surf Advisory</b> <b>Issued:</b> April 19 at 10:14AM EDT <b>Expiring:</b> April 19 at 8:00PM EDT <b>Areas affected:</b> Coastal Bryan; Coastal Chatham; Coastal Liberty; Coastal McIntosh	<b>Urgency:</b> Expected <b>Status:</b> Actual
<b>Rip Current Statement</b> <b>Issued:</b> April 19 at 10:14AM EDT <b>Expiring:</b> April 19 at 8:00PM EDT <b>Areas affected:</b> Coastal Bryan; Coastal Chatham; Coastal Liberty; Coastal McIntosh	<b>Urgency:</b> Expected <b>Status:</b> Actual



4/19/19

72°F mostly cloudy S 11 mph (windy)

0725 LH, HD at depot

0730 EH at depot

0736 EB at depot

0801 EB HD leave for LFR (white)

0813 arrive at LFR

A-shallow  $\approx 1$  m 26, surface

B-middle  $\approx 3$  m

C-deep  $\approx 4.5$  m

0825 begin LFR drift (Add) HT

0859 winds increased to S 20 mph

NWS 0900-1700 wind 20-30 mph

w/gusts up to 45 mph

0927 S 24 mph G 33 mph

1005 end drift early due to worsening  
water + weather conditions - see daily log

1016 leave LFR for depot

1032 arrive at depot


1059 upload LFR data

1130 EH, leave depot

EB, LH, HD leave for Jax



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 04/20/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 58°F Sunny, WSW 15 mph	<b>Tides:</b> L – NA H - 1016	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Sam Booth, Eric Huss		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input checked="" type="checkbox"/> White Boat – Duration: 4.5 hours <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Tide time was delayed ~30 minutes due to full moon tidal effects.</li><li>- Collected data from all Buoy Sondes at LBR</li><li>- Profiles were performed at each LBR buoy.</li><li>- The platform was flat, stable, and correctly aligned the whole time we were at LBR.</li></ul>		
<b>Notes:</b> Low Slack Tide Profiling was not conducted; this morning's High Tide was conducted with ADD.		
<b>Daily Log Completed by:</b> Sam Booth	<b>Signature:</b> 	
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



4/20/19 Savannah O<sub>2</sub> 2016-094 45

58°F, Sunny, WSW 8mph - light breeze

0805 SB arrive @ Depot

0845 EH arrive @ Depot

0850-0858 running bilge pump

0900 Depart Depot in white boat

0920 arrive at LBR

0923 start logging for profile drift

Sonde A ~1m on HI

0945 - wind has increased; ~15mph SW  
with gusts of 20+ mph

1052 - stopped logging; drone faster  
back towards platform to perform  
profiles @ slack tide

1056 - arrive @ BvL buoy; collect data, profile

1107 arrive @ BvE buoy; collect data, profile

1108 arrive @ BSE; collect data, profile

1113 arrive @ BSW; collect data, profile

1120 arrive @ platform; E+W profiles

1130 start logging for profile  
wind has increased again ~20mph  
WSW, gusts to 25+

1300 stopped logging; depart LBR

\* Platform was flat, straight, & perfectly  
aligned the whole time we were out


1327 arrive @ Depot; 1337 upload data

1400 SB + EH depart Depot

*Robert R. Rine*



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 04/21/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 60°F Sunny, WSW 10 mph		<b>Tides:</b> L – NA H - 1100
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Sam Booth, Eric Huss		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 3.5 Hours <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Tide time was delayed ~15 minutes due to remaining full moon tidal effects.</li><li>- Collected data from all Buoy Sondes at LFR</li><li>- Profiles were performed at each LFR buoy</li><li>- Several course adjustments had to be made due to shipping traffic (see field notes)</li><li>- During the drive out to LFR, the boat motor struck a submerged piece of debris, no damage was visible, and the motor ran correctly for the rest of the trip.</li></ul>		
<b>Notes:</b> Low Slack Tide Profiling was not conducted; this morning's High Tide was conducted with ADD.		
<b>Daily Log Completed by:</b> Sam Booth		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



4/21/19 Savannah O<sub>2</sub> 2016-094

60°F WSW 9mph Sunny, light breeze

0900 SB arrives at Depot

0915 EH arrives at Depot

0935 depart Depot in Black Boat

0945 boat engine struck a piece  
of subsurface debris; stopped  
and checked engine - no apparent  
damage; caused water to flow over  
rear of boat, ran bilge - no issues  
no propeller damage - will continue to monitor

0955 arrive at LFR + begin logging  
for profile - Sonde A @ ~1m w/ H2

1040 altered course due to incoming barge

1055 changed course + speed due to tug boat

1115 - stopped profile; arrived @

LFR - A buoy; downloaded data + profiled

1121 arrive @ LFR - N; downloaded data + profiled

1126 arrive @ LFR - S; downloaded data + profiled

1131 start logging

1200 altered course due to turning ship

1215 altered course for tug + dredge barge

124 altered course for outgoing ship

1300 stop logging; depart LFR

1310 arrive @ Depot

1320 SB upload data, EH put gas in boats

1345 SB + EH Depart depot

4/14/19

2 mph extreme wind + current  
depot for LBR  
@ LBR

logging + deployed

-1.5 m

-2.75 m

-4.0 m

dred then came back on

D

oyed so we could check  
sondes' batteries

ok batts

+ acting right

location

+ deployed 24

0838 stopped deployment

ing 0839

winds ~ 18 mph

ts @ ~ 25 mph

pped logging

ditions too poor to

time

@ depot

E did not log data

4/22/19 Savannah O<sub>2</sub> 2016-054

65°F Sunny; wind 5 mph SSE

1000 - SB + EJ depart Depot in White Bay

1012 - arrive @ LFR; set up for drift

1019 - deploy sondes

2S @ surface

D @ 1.5m

E @ 2.5m

F @ 5m

\*Depth on Sonde E not displaying on handheld, cleaned w/ syringe + deployed + estimated depth by eye. All others work

1038 start logging/restart

1200 - did not begin bank-to-bank

transsects due to 2 incoming ships + tugs  
1812 ships have passed, restarted bank-to-bank transsects

1233 changed direction of transect due to a survey boat (Bottom Line Edo Company) traveling along the far bank

1242 adjusted course due to incoming ship

1307 adjusted course again due to another ship

1325 stopped logging; removed sondes

Appears that Sonde E (mid depth) did not collect any data during deployment


1333 depart LFR

1343 arrive @ Depot





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 04/22/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 65°F Sunny, SSE 1 mph	<b>Tides:</b> L – NA H - 1145	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Sam Booth, Eric Huss, Emily Johnson, Hayley DiGiano		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.0 Hours <input checked="" type="checkbox"/> White Boat – Duration: 4.0 hours <input type="checkbox"/> Yellow Boat – Duration:		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Tide time was delayed ~10 minutes due to remaining full moon tidal effects.</li><li>- Sonde E would not display depth when connected to the handheld. Deployment was started, but no data was collected by the sonde. Therefore, there is no middle-depth data from LFR for today. Sonde E has been removed from use and replaced with Sonde G.</li></ul>		
<b>Notes:</b> Low Slack Tide Profiling was not conducted; this morning's High Tide was conducted with ADD.		
<b>Daily Log Completed by:</b> Sam Booth	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____

4/21/19 Savannah O<sub>2</sub> 2016-094  
 60°F WSW 9mph Sunny, light breeze  
 0900 SB arrives at Depot  
 0915 EH arrives at Depot  
 0935 depart Depot in Black Boat  
 0945 boat engine struck a piece  
 of subsurface debris; stopped  
 and checked engine - no apparent  
 damage; caused water to flow over  
 rear of boat, ran bilge - no issues  
 no propeller damage - will continue to monitor  
 0955 arrive at LFR & begin logging  
 for profile - Sonde A @ ~1m w/ H<sub>2</sub>  
 1040 altered course due to incoming barge  
 1055 changed course & speed due to tug boat  
 1115 - stopped profile; arrived @  
 LFR - A buoy; downloaded data & profiled  
 1121 arrive @ LFR - N; downloaded data & profiled  
 1126 arrive @ LFR - S; downloaded data & profiled  
 1131 start logging  
 1200 altered course due to turning ship  
 1215 altered course for tug & dredge barge  
 1254 altered course for outgoing ship  
 1300 stop logging; depart LFR  
 1310 arrive @ Depot  
 1320 SB upload data, EH put gas in boats  
 1345 SB & EH Depart depot

4/22/19

Savannah O<sub>2</sub> 2016-094

65°F, Sunny Wind: 1 mph SSE

0900 SB arrives at Depot  
 0915 EJ arrives at Depot  
 0930 HD arrives at Depot  
 0935 EH arrives at Depot  
 1001 EH, HD leave for LBR (Black  
 1021 arrive at LBR  
 1030 begin drift HT  
 A, shallow  $\approx 1\text{m}(H_1)$  26, surface  
 B, middle  $\approx 2.5\text{m}$   
 C, deep  $\approx 4\text{m}$   
 1147 change course to return to platform  
 by slack  
 1210 resume drift pattern  
 1330 end drift HT  
 1337 leave LBR  
 1357 arrive at depot  
 1410 prep Sonde & AS replacement  
 for Sondez, prep dye for 4/23/19  
 dye test  
 1511 EJ leave depot  
 EH leave depot  
 1515 SB, HD leave depot to go  
 generator for dye test



4/23/19

Savannah O2

2016-094

1142 depart to LBR - SB+ED in ~~black~~ <sup>white</sup> boat

1205 arrive @ LBR; tied to platform to set up for Dye Test drift

C - profiling sonde

D - shallow drift sonde ~ 1 meter

1233/1215 received call from Jim G. that there would be a delay because RM had to go retrieve a gasket from the Depot

1233 observed RM returning to the injection point

1235 - started logging; began drifting/ profiling for some pre-dye data

1237 received signal from RM that dye pump started

1240 3.7 RFU; 10.5 ug/L - "background"

PE readings

1241 received call from JB - another delay due to flow meter malfunction

1244 - RM signaled pump restart

1302 - RM horked 3 times

1408 - end profile/drift/dye test


Stopped logging & removed sondes

1414 depart LBR

1434 arrive @ Depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 04/23/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 74°F Sunny, SSW 8 mph	<b>Tides:</b> L – NA H - 1233	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Sam Booth, Eric Huss, Emily Johnson, Hayley DiGiano, Rick McCann, Jim Greenfield		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 3.0 Hours <input checked="" type="checkbox"/> White Boat – Duration: 3.0 hours <input type="checkbox"/> Yellow Boat – Duration:		<b>Other Equipment Used:</b> Rental generator, dye pump, flatbed trailer
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Initial Dye Test Plan per Jim Greenfield 4/18/2019:<ul style="list-style-type: none"><li>Tuesday LBR at 12:30 (High Tide) near-field study</li><li>Shoot for 30 gallons 10:1 dilution (about 3 gallons dye in old 30 dye gallon container) at 2 gallons/minute – hopefully this will not peg out the meters</li><li>Both boats sampling LBR that day<ul style="list-style-type: none"><li>1<sup>st</sup> boat stays sampling in the visible plume</li><li>2<sup>nd</sup> boat circles the plume staying on the outer edge</li></ul></li><li>Most likely 2 hours sampling</li></ul></li></ul> <div style="background-color: yellow; padding: 2px; margin-top: 10px;">- Rick McCann Dye Test Notes</div>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



4/23/11

- 74°F Sunny SSW 8mph  
 1010 RM, JG at depot  
 1020 SB, HD, EJ at depot  
 1035 EH at depot  
 1135 JG + RM leave for back river  
 System dye test  
 1143 HD, EH leave for LBR (black)  
 1159 arrive at LBR  
 1234 begin profile HT dye test  
 A - profile (H.)  
 B - Shallow  $\approx$  1m  
 1237 RM begin dye injection  
 1244 RM give signal for dye  
 injection (see boat 2 Notes)  
 1247 dye visible  
 1302 signal from RM dye pump  
 off  
 1304 No apparent dye coming  
 from plume  
 1403 upon crossing under train  
 bridge, visualization of dye  
 was lost  
 1408 end dye test profile per  
 Jim's instruction via phone  
 call as PE values not  
 "baseline"

- 1414 leave LBR for depot  
 1434 arrive at depot  
 1447 upload dye test data  
 1530 SB, HD, EJ, EH, RM, JG  
 leave depot



10

4/23/19

Savannah O<sub>2</sub>

2016-094

1142 depart to LBR - SB + EJ in ~~black~~ <sup>white</sup> boat1205 arrive @ LBR; tied to platform to  
set up for Dye Test drift

C - profiling sonde

D - shallow drift sonde ~ 1 meter

1233 received call from Tim G. that  
there would be a delay because RM  
had to go retrieve a gasket from the  
Depot1233 observed RM returning to the  
injection point1235 - started logging; began drifting  
profiling for some pre-dye data1237 received signal from RM that  
dye pump started

1240 3.7 RFU; 10.5 ug/L - "background"

PE readings

1241 received call from JB - another delay  
due to flow meter malfunction

1244 - RM signaled pump restart

1302 - RM harked 3 times

1408 - end profile/drift/dye test  
stopped logging & removed sondes

1414 depart LBR

1434 arrive @ Depot

11

4/24/19 Savannah O<sub>2</sub> 2016-094

1255 SB + EJ depart Depot in white

1307 arrive @ LFR; tie to ~~boat~~  
buoy to set up profile/driftSonde ~~D~~ shallow ~ 1 meter

Sonde G - profile sonde

1321 started deployment/logging to  
get some pre-dye data\* @ 2.5m, 12 ug/L + 4.5 RFU physos prior  
to start of dye

1330 RM signals start of dye release

1332 dye visible

1345 RM signals stop of dye release

1450 perform final profile &  
end dyetest drift


1454 depart LFR

1505 arrive @ Depot





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 04/24/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 76°F Fair, WSW 5 mph	<b>Tides:</b> L – 742 H – 1325	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Sam Booth, Eric Huss, Emily Johnson, Hayley DiGiano, Rick McCann, Jim Greenfield, Lisa Heise		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 2.0 Hours <input checked="" type="checkbox"/> White Boat – Duration: 2.0 hours <input type="checkbox"/> Yellow Boat – Duration:		<b>Other Equipment Used:</b> Rental generator, dye pump, flatbed trailer
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Dye Test Plan Wednesday FR 13:30 near field study per Jim Greenfield (4/18/2019)<ul style="list-style-type: none"><li>o Shoot for 30 gallons 5:1 dilution (about 6 gallons dye in old 30 dye gallon container) at 2 gallons/minute</li><li>o Both boats sampling FR that day<ul style="list-style-type: none"><li>▪ 1<sup>st</sup> boat stays sampling in the visible plume</li><li>▪ 2<sup>nd</sup> boat circles the plume staying on the outer edge</li></ul></li><li>o Most likely 2 hours sampling</li></ul></li><li>- Rick McCann Dye Test Notes</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____

4/24/19

76°F Fair WSW 5mph

1026 EJ, HD, SB at depot

1037 JG at depot

1042 EH at depot

1115 RM at depot

1212 LH at depot

1240 EH + RM leave for LFR pipe

1257 ZH, HD, JG leave for LFR (w/ads)

1307 arrive at LFR

1320 begin LFR profile HT dye test

A - profile (H<sub>2</sub>)B - shallow  $\approx 1.5$  m

1330 receive signal that dye injection has begun

1331 dye visible in front river

1344 receive signal dye injection stopped

1415 end profile

1456 leave LFR for depot

1504 return to depot

1520 upload LFR data

1544 SB leave for Jacksonville

1615 RM, LH, EJ, JG, EH leave depot



12 4/25/19

0741 depart to LBR in black boat EJ + LH  
0758 arrive @ LBR

26 Surface

A 1m

B 2m

C 3m

0809 Started logging

0818 Bubbles noted @ SW corner of plat

0828 shallow spot - had to pull up deep sonde  
briefly to avoid dragging

0839 sped up to get to platform/system

0842 at platform - dye visible, began/resume  
normal drift moving upstream to USGS

0848 dye appears to be flowing downstream

0906 "fresh" dye still coming out in plume

0945 Stop logging + clean up

0951 download data Buoy - NW

1000 " " Buoy - NE

1007 " " Buoy - SW

1011 " " Buoy SE

1015 Depart LBR to depot

1033 Arrive at depot

1248 Depart depot for LFR

1300 Arrive at LFR

13

1312 start logging

26 surface

A 1m

B 3m

C 5m

\* Barge operating crane upstream of system  
at old gang plank location - avoiding  
that vicinity for safety

1325 Barge departed

1339 Transect cut short due to incoming  
cargo ship..

1437 Transect north → south + not zig zag  
due to incoming cargo ship

1512 Stop logging

1518 transferring sonde data

1521 depart LFR

1530 arrive @ depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 04/25/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)						
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes								
<b>Weather:</b> 76°F Sunny, W 5 mph	<b>Tides:</b> L – 0829 H – 1419							
<b>Client/Stakeholder Interaction (if any):</b> Bryan Robinson								
<b>Personnel/Visitors on site:</b> Lisa Heise, Eric Huss, Emily Johnson, Hayley DiGiano, Rick McCann, Jim Greenfield								
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>								
<b>Boat(s) Used:</b> <table style="width: 100%; border-collapse: collapse;"><tr><td style="width: 20%;"><input checked="" type="checkbox"/> Black Boat – Duration:</td><td style="width: 30%; border-bottom: 1px solid black;">5.5 Hours</td></tr><tr><td><input checked="" type="checkbox"/> White Boat – Duration:</td><td style="border-bottom: 1px solid black;">6.0 hours</td></tr><tr><td><input type="checkbox"/> Yellow Boat – Duration:</td><td style="border-bottom: 1px solid black;"></td></tr></table>		<input checked="" type="checkbox"/> Black Boat – Duration:	5.5 Hours	<input checked="" type="checkbox"/> White Boat – Duration:	6.0 hours	<input type="checkbox"/> Yellow Boat – Duration:		<b>Other Equipment Used:</b> Rental generator, dye pump, flatbed trailer
<input checked="" type="checkbox"/> Black Boat – Duration:	5.5 Hours							
<input checked="" type="checkbox"/> White Boat – Duration:	6.0 hours							
<input type="checkbox"/> Yellow Boat – Duration:								
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Thursday LBR undiluted dye dump Plan 8:30 low tide per Jim Greenfield (04/18/19)<ul style="list-style-type: none"><li>o 30 – 35 gallons full container undiluted dye at 2 gallons/minute</li><li>o Normal sampling routine – 1 boat LBR; 1 boat FR<ul style="list-style-type: none"><li>▪ LBR Boat<ul style="list-style-type: none"><li>• Drift sampling</li><li>• Make 2 runs from Hog Island USGS station to Platform area</li></ul></li><li>▪ FR Run<ul style="list-style-type: none"><li>• Normal drift</li><li>• 1 depth profile in main channel near O2 plant</li></ul></li></ul></li></ul></li></ul> <div style="background-color: yellow; padding: 2px; margin-top: 5px;">- Rick McCann Dye Test Notes</div>								
<b>Notes:</b>          								
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b>						
		<b>Photos Attached?</b> <input checked="" type="checkbox"/> <b># of Photos</b> <u>1</u>						



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring  
Task 7 – Test Run  
Daily Log**



Photo 1 – View of platform facing west during Dye Test.

1356 due to no "clear" channel  
and very shallow depths, drifts  
with Sondas 725m drag easily  
and must constantly be moved  
Depth is averaging 3.3 - 3.5m  
path adjusted

1508 end drift

1514 leave LBE for depot

1544 arrive at depot

1604 upload HT drift data

1606 EJ leave for Atlanta

1615 EH leave depot

1617 LH, HD leave to return  
generator + get boat gas



4/24/19

2

- 7 Fair WSW 5mph  
 EJ, HD, SB at depot  
 1037 JG at depot  
 1042 EH at depot  
 1115 RM at depot  
 1212 LH at depot  
 1240 EH + RM leave for LFR pipe  
 1257 ZH, HD, JG leave for LFR (bags)  
 1307 arrive at LFR  
 1320 begin LFR profile HT dye test  
 A - profile (H<sub>2</sub>)  
 B - Shallow  $\approx 1.5$  m  
 1330 receive signal that dye injection has begun  
 1331 dye visible in front river  
 1344 receive signal dye injection stopped  
 1451 end profile  
 1456 leave LFR for depot  
 1504 return to depot  
 1520 upload LFR data  
 1544 SB leave for Jacksonville  
 1615 RM, LH, EJ, JG, EH leave depot

4/25/19 5

64°F Fair Light winds Forecast 84°F  
 0630 EH at Depot.

0705 LH HD at depot

0712 EJ at depot

0738 JG at depot

0741 EH, HD leave for LFR (white)

0751 arrive at LFR

0754 retrieve LFR\_S data

0758 retrieve LFR\_N data

0801 retrieve LFR\_A data

0810 begin Drift LFR LT

D  $\approx 1$  m shallow (H<sub>1</sub>)

F  $\approx 2.5$  m mid

G  $\approx 4$  m deep

25, Surface

0841 Profile in Channel

0940 end Drift LT

0950 leave LFR

1000 arrive at depot

1023 upload LFR data

1046 JG, RM, BR leave depot

1238 EH, HD leave for LFR (white)

1257 arrive at LFR: 84°F <sup>phy</sup> city SSW will

1307 begin HT drift LFR

(H) D  $\approx 1$  m shallow 25 - Surface

F - mid  $\approx 2.5$  m G - deep  $\approx 4$  m

Rite in the Rain



RM + LH

4/26/19

0-

0-

69°F 5 mph

0730 Left depot for LBR

0753 arrive @ LBR

0810 started logging

D 1 m

G 2 m

09

F 3 m

08

0900 water very shallow north  
of platform on way to USGS  
station, Had to pull sondes  
up to almost surface ~ 2 ft

09

08

0908 dropped down sondes but  
F @ 2.5 m

08

0947 pulled sondes up to surface  
too shallow

09

0951 dropped down sondes

09

1024 stopped logging

10

1035 left LBR

10

1100 arrive @ depot

10

10

10


12

13





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 04/26/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 68°F Partly Cloudy, SSW 5 mph	<b>Tides:</b> L – 0921 H – 1511	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Lisa Heise, Eric Huss, Hayley DiGiano, Rick McCann.		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;"><input checked="" type="checkbox"/> Black Boat – Duration: 6.0 Hours</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;"><input checked="" type="checkbox"/> White Boat – Duration: 3.5 hours</div> <div style="border: 1px solid black; padding: 2px;"><input type="checkbox"/> Yellow Boat – Duration:</div>		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Friday (April 26) Detailed LBR Sampling per Jim Greenfield (04/18/19)<ul style="list-style-type: none"><li>• Both boats in LBR – 3 sondes drift sampling (shallow, mid, deep – all with algal sensors)</li><li>• Longer LT morning sampling, 1 boat FR for HT sampling</li><li>• Start sampling around 8:00 am</li><li>• 1<sup>st</sup> boat start at platform and head upstream to Hog Island USGS station, if dye is still present (greater than 25 ug/L BGA) keep going upstream until out of dye cloud. Then head down to RR bridge and sample back to platform.</li><li>• 2<sup>nd</sup> boat at railroad bridge and sample past platform until out of the dye cloud. Repeat</li><li>• Normal S curve sampling but stay in the deeper water – do not need to get close to shore</li></ul></li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____

4/21/19

169°F pth cloudy 55w 5mph  
0645 pm at depot

0647 LH HD at depot

0704 EH at depot

0728 EH, HD leave for LBR (black)

0752 arrive at LBR

0801 begin drift LT

A - shallow  $\approx$  surface

B - mid  $\approx$  1.5m (H<sub>1</sub>)

C - deep  $\approx$  3m

1021 end drift

1026 leave LBR

1053 arrive at depot

1102 upload LBR data from H<sub>1</sub>

1130 upload Boat 2 data

1133 HD leave for JAX (20:31) (25:34)

Strong winds from NW sustained & gusts

1329 left depot for LFR

1340 arrive @ LFR

1353 started logging

A 1 m

B 3 m

C 5 m

1432 transect cut short due to tug boat

1535 stopped logging

1555 arrive @ depot


1630 LH & EH leave depot

Return to base





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 04/27/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 64°F Sunny, E 5 mph	<b>Tides:</b> L – 1015 H – 1603	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Lisa Heise, Eric Huss.		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 6.0 Hours <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Adjustment to Saturday's morning LT sampling (per Jim): Started upstream half way between Hog Island USGS gage and platform and sampled to the RR bridge, then continued downstream toward Hwy 17 bridge.</li><li>- HT sampling: Started at halfway between 17 bridge and railroad, continued north to Hog Island USGS Station. Mid tide sampling OK, 2-3 PM start.</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Lisa Heise	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____

04/27/19

64°F Sunny Light winds Force Hg 78.7  
0833 Effuss arrives at Depot  
0855 Lt at Depot  
0908 Lt + Elk leave for LBR  
0933 Arrive @ LBR  
0948 Begin Dist LT between Platform & LBR  
A - 0.5 m Shallow Logging  
B - 1.5 m Mid Deploy  
C - 2.5 m Deep Deploy  
~~0948~~ 1147 End Dist  
1152 Leave LBR  
1216 Arrive @ Depot


1323 left depot for LBR  
1348 started logging, started transect  
halfway between 17 bridge  
& railroads  
1558 stopped logging & left for depot  
1632 arrived @ depot & unplanted seeds  
1700 left depot for day

Rite in the Rain





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 04/28/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 66°F Sunny, SW 5 mph		<b>Tides:</b> L – 1109 H – N/A
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Lisa Heise, Eric Huss.		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.5 Hours <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Per Jim email on 4/27: Profile from north buoys to halfway between railroad and Hwy 17.</li><li>- BSE only had data from 4/25 for approximately 4 hours. Will check sonde Tuesday, 4/30.</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Lisa Heise		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____

04/27/19

- 64°F Sunny Light winds Force High 78°F  
 0833 Effuss arrives at Depot  
 0855 LT at Depot  
 0908 LH+EH leave for LBR  
 0933 Arrive @ LBR  
 0942 Begin Drift LT between Platform & LBR  
     A - 0.5 m Shallow Logging  
     B - 1.5 m Mid Deploy  
     C - 2.5 m Deep Deploy  
~~0942~~ 1144 End Drift  
 1152 Leave LBR  
 1214 Arrive @ Depot  
 1323 left depot for LBR  
 1348 started logging, started transects  
     halfway between I7 bridge  
     + railroad  
 1558 stopped logging + left for depot  
 1632 arrived @ depot + uploaded data  
 1700 left depot for day

04/28/19 9

- 66°F Sunny Wind SW 5 to 8 mph  
 0837 ELT at Depot  
 0900 LT at Depot  
 0930 EH+LT leave for LBR  
 0948 Arrive @ LBR Setup for Profile  
 0952 Begin Profile LT between I7 + RR bridge  
     A - 1.1 m  
 1115 stopped logging  
 1116 BSE buoy profile + data collection  
 1123 BSW buoy + profile + data collection  
 1130 BNW buoy profile + data collection  
 1135 BNE buoy profile + data collection  
 1142 W platform profile  
 1144 E platform profile  
 1153 Start logging  
 1330 stopped logging  
 1333 left LBR  
 1354 arrive @ Depot  
 1515 LH + EH left depot for day



12 14

RM + LH

4/26/19

69°F 5 mph

0730 Left depot for LBR

0753 arrive @ LBR

0810 started logging

D 1 m

G 2 m

F 3 m

0900 water very shallow north  
of platform on way to USGS  
station, Had to pull sondes  
up to almost surface ~ 2 ft - 3 ft

0908 dropped down sondes but  
F @ 2.5 m

0947 pulled sondes up to surface  
too shallow

0951 dropped down sondes

1024 stopped logging

1035 left LBR

1100 arrive @ depot + uploaded data

SB + LH

4/29/19

77°F SW 6 mph

1000 left depot for LBR

1025 arrived @ LBR

1033 started logging

D 1 m

F 2 m

G 3 m

1112 pulled up deep sonde to 2.5 m  
shallow just north of RR

1210 weight comes off sonde F  
1214 pulled sonde out to check  
guard threads

1230 stopped logging + deployments

1240 left LBR for depot

1405 arrive at Depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 04/29/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 65°F Sunny, Calm		<b>Tides:</b> L – 1200 H – N/A
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Lisa Heise, Sam Booth, Emily Johnson, Hayley DiGiano, Jon Fajans		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"><input checked="" type="checkbox"/> Black Boat – Duration: 4 Hours</div> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"><input checked="" type="checkbox"/> White Boat – Duration: 4 Hours</div> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"><input type="checkbox"/> Yellow Boat – Duration:</div>		<b>Other Equipment Used:</b>



**Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log**

**Work Completed:**

- See field notes.
- **Per Jim email on 4/28:**
- April 29, 2019
  - o Sampling adjustments:
    - Drift – 3 sondes Surface (1 meter), Mid and Deep
    - Profile – 2 sondes Surface (1 meter) and Deep (may need to pull up in shallower areas such as upstream LBR)
    - S curve sampling but concentrate on Main Channels
    - No need to sample platform area at slack tide
    - Crew determines best way to sample the designated areas
  - o Little Back River:
    - Low Tide
      - Half way between RR bridge and US 17 to just upstream northern buoys.
    - Low Tide ADD days.
      - US 17 bridge to upstream northern buoys.
    - High Tide
      - South of southern buoys to horseshoe bend upstream of Hog Island USGS gage
      - If DO % saturation greater than 100 at end of run keep going til less than 100
  - o Front River:
  - o Normal High and Low Tide sampling
    - Include 7 main channel depth profiles: 3 up steam of diffuser, 1 at diffuser, 3 downstream of diffuser
- **Notes from Jon:**
  - o Depth on Sonde E was looked into, it appears to be working now. If not fixed, you can do a warranty replacement. Sonde 7 still shows port error.
  - o If necessary, remove batteries to “restart” or can “factory reset” calibrations.
  - o Data collection from platform:
    - Set to one-week window (0900 Mon – 0859 Mon)
    - Still can only see 48-hour window via the logger
  - o Possible buoy suggestion; use buoy with weighted line and two moorings.
  - o Buoy SE: no data after 25 April 2019. Probably not a battery issue – after looking at battery voltage on data.
  - o Calibration records can be exported for records from KOR as .csv/.xml
  - o Brain Box is weatherproof NOT waterproof.
  - o Brass guard for EXO2 adds approximately 2 lbs to add even more weight without risking breaking the guard. Estimated to hold up to 15 lbs.

**Notes:**

**Daily Log Completed by:** Hayley DiGiano

**Signature:**



**Photos Attached?** ☐

**# of Photos** \_\_\_\_\_



## **FIELD SERVICE REPORT**

Savannah Harbor Enhancement Project (SHEP)

Client: LG2

POC: Rick McCann

ISS Field Engineer: Jon Fajans

April 29, 2019

Rick,

I met with the team at the Depot on Monday April 29<sup>th</sup>, and we spent time discussing field operations, data download issues, specific sonde issues and upcoming operations. The team is well versed in sonde maintenance and the record keeping. We spent time going over the archiving and transferring of calibration records from one system to another and introduced the various record search methods.

Two sondes were examined for possible hardware issues. One was found to be fully operational and the previously reported depth sensor issue was not able to re-created. We discussed some additional troubleshooting options that could be employed should the issue re-present itself. The second sonde was found to have an unresponsive port #1 and it is recommended that the sonde be sent in to YSI OH for evaluation and possible warranty repair sooner rather than later. The team can contact YSI EXO tech support for an RMA.

Finally, please let us know if you need any additional information regarding buoy platform options for the up-river phase of the monitoring effort. We may have some low cost or rental solutions that would provide suitable buoyancy for tethering multiple sondes.

Your team was extremely knowledgeable and a pleasure to work with as usual.

Jon Fajans  
Field Service Engineer

**Y S I Integrated Systems &  
Services**

ISS-FL  
9843 18<sup>th</sup> Street N #1200-A  
St. Petersburg, FL  
33716USA

727-565-2201  
866-778-8431

[www.y si.com](http://www.y si.com)



16 Profile day, slack @ 1247 4/30/19

83°F SE 10 mph

1100 SB + LH depart Depot  
in White Boat to LFR

1112 arrive @ LFR + prep sonde  
F - shallow - 1 m - connected to H  
G - deep - 5 m

1122 started logging

\* wind, waves, + fast outgoing  
currents are affecting navigation

1210 1 profile south of diffuser

1232 1 profile south of diffuser

1237 transect changed to straight  
south due to tug boat passing

1248 1 profile south of diffuser

1250 pulled up deep sonde to shallow  
to travel to buoys and kept  
it shallow while @ buoys 2H

1252 decided to pull sondes in boat  
to go faster to buoys, left  
them deployed + logging

1259 put sondes back in water @ 1 m  
+ tied up to LFR S Buoy 2H

1300 collected FR S Buoy data  
4/25 - 4/30 data

1308 collected FR N buoy data

1312 collected FR add buoy data

1313 started logging shallow sonde

1315 reset deep sonde to 5 m

Still deployed

1317 1 profile @ diffuser

1348 adjust course b/c of tug boat

1400-1410 - changed course for  
2 tugs + 2 smaller passing boat

1411 - 1 profile N of system

1417 - course still adjusted due to  
passing fuel barge

Did not resume boat to boat due to Port tug

1416 1 profile N at system (near port)

1450 1 profile N of system (in basin)


1451 stopped logging; pull in sondes

1456 depart LFR

1458 arrive @ depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 04/30/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 78°F Cloudy, ESE 3 mph	<b>Tides:</b> L – 1247 H – N/A	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Lisa Heise, Sam Booth, Emily Johnson, Hayley DiGiano		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4 Hours <input checked="" type="checkbox"/> White Boat – Duration: 4 Hours <input type="checkbox"/> Yellow Boat – Duration:		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- <b>Per Jim email on 4/28:</b></li><li>- April 29, 2019<ul style="list-style-type: none"><li>o Sampling adjustments:<ul style="list-style-type: none"><li>▪ Drift – 3 sondes Surface (1 meter), Mid and Deep</li><li>▪ Profile – 2 sondes Surface (1 meter) and Deep (may need to pull up in shallower areas such as upstream LBR)</li><li>▪ S curve sampling but concentrate on Main Channels</li><li>▪ No need to sample platform area at slack tide</li><li>▪ Crew determines best way to sample the designated areas</li></ul></li><li>o Little Back River:<ul style="list-style-type: none"><li>▪ Low Tide<ul style="list-style-type: none"><li>• Half way between RR bridge and US 17 to just upstream northern buoys.</li></ul></li><li>▪ Low Tide ADD days.<ul style="list-style-type: none"><li>• US 17 bridge to upstream northern buoys.</li></ul></li><li>▪ High Tide<ul style="list-style-type: none"><li>• South of southern buoys to horseshoe bend upstream of Hog Island USGS gage</li><li>• If DO % saturation greater than 100 at end of run keep going til less than 100</li></ul></li></ul></li><li>o Front River:</li><li>o Normal High and Low Tide sampling<ul style="list-style-type: none"><li>▪ Include 7 main channel depth profiles: 3 up steam of diffuser, 1 at diffuser, 3 downstream of diffuser</li></ul></li></ul></li></ul>		
<b>Notes:</b> Male pin on BSE appears to be bent, will replace tomorrow.		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



04/29/19

Sunny calm  
 SB, HD at depot  
 0830 Jon Fajans (Xg/cm) arrive @ Depot  
 0859 EJ at depot  
 0900 LH at depot  
 0940 see daily log for notes with Jon  
 1009 EJ, HD leave for LFR (black)  
 1018 arrive at LFR  
 1029 begin drift LT  
 A - shallow,  $\approx 1\text{m}$  (H<sub>1</sub>)  
 B - mid  $\approx 2.5\text{m}$   
 C - deep  $\approx 4\text{m}$   
 1135 adjust path for tug/ship  
 1159 pulled sondes into boat to drive to LFR  
 1206 sondes back in water, drift resumed  
 1329 stop logging  
 1339 depart LFR to depot  
 1353 arrive at depot  
 1401 Upload LFR data  
 1422 upload LBR data  
 1500 EJ, LH, SB, HD, JF  
 leave depot

4/30/19 11

78°F partly cloudy ESE 3mph

1023 EJ, SB, LH, HD arrive at  
 depot after westmarine +  
 picking up yellow boat  
 1054 EJ, HD leave for LBR (Black)  
 1105 arrive at LBR  
 1123 begin pre-fil LT  
 A - shallow  $\approx 1\text{m}$  (H<sub>1</sub>)  
 B - deep  $\approx 3\text{m}$   
 1211 max depth  $\approx 1.2\text{m}$   
 pulled both A/B to surface  
 1420 stop logging + pull sondes  
 1426 download BNE data (H<sub>1</sub>)  
 1436 download BNW data  
 1440 Download BSW data  
 1452 Download BSE data (4/25-4/30?)  
 1455 leave LBR for depot  
 1516 arrive at depot  
 1523 Upload LFR + LBR data  
 1548 prep dye for tomorrow  
 1601 prep #14 for deployment BSE  
 1615 SB, HD, LH, EJ leave depot

18 5/1/19 Savannah 02 2016-094

80°F E10 mph

1130 left depot for LBR

1149 arrived @ LBR

1153 started deployment on  
Sonde 14 (new BSE) to  
replace Sonde 27 that  
had issues potentially

1155 ~~started~~ stopped deployment  
on sonde 27 + transferred  
data 4/30-5/1

1157 set up drift

Sonde O - 1 meter (shallow)

Sonde F - 2 meter (mid)

Sonde G - 3 meter (deep)

1211 start logging; SCDHEC boat  
arrives @ LBR

\* Platform is sitting flat; but  
appears to be turned slightly off  
of its normal orientation +30° W  
off; notified RM via text message

1255 adjusted deep sonde due to  
shallower depths E/NE of island

1320 adjusted mid. & deep sondes  
due to shallow depth


\* did not approach buoy area  
because SCDHEC operation

1503 stopped logging + left LBR  
1535 arrived @ depot





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 05/01/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 83°F Mostly Cloudy, E 10 mph	<b>Tides:</b> L – 1333 H – N/A	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Lisa Heise, Sam Booth, Emily Johnson, Hayley DiGiano		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4 Hours <input checked="" type="checkbox"/> White Boat – Duration: 4 Hours <input type="checkbox"/> Yellow Boat – Duration:		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"> <li>- See field notes.</li> <li>- Platform was off approximately 45°</li> <li>- Replaced Sonde 27 with Sonde 14 at BSE</li> <li>- <b>Per Jim email on 4/28:</b></li> <li>- April 29, 2019           <ul style="list-style-type: none"> <li>o Sampling adjustments:               <ul style="list-style-type: none"> <li>▪ Drift – 3 sondes Surface (1 meter), Mid and Deep</li> <li>▪ Profile – 2 sondes Surface (1 meter) and Deep (may need to pull up in shallower areas such as upstream LBR</li> <li>▪ S curve sampling but concentrate on Main Channels</li> <li>▪ No need to sample platform area at slack tide</li> <li>▪ Crew determines best way to sample the designated areas</li> </ul> </li> <li>o Little Back River:               <ul style="list-style-type: none"> <li>▪ Low Tide                   <ul style="list-style-type: none"> <li>• Half way between RR bridge and US 17 to just upstream northern buoys.</li> </ul> </li> <li>▪ Low Tide ADD days.                   <ul style="list-style-type: none"> <li>• US 17 bridge to upstream northern buoys.</li> </ul> </li> <li>▪ High Tide                   <ul style="list-style-type: none"> <li>• South of southern buoys to horseshoe bend upstream of Hog Island USGS gage</li> <li>• If DO % saturation greater than 100 at end of run keep going til less than 100</li> </ul> </li> </ul> </li> <li>o Front River:</li> <li>o Normal High and Low Tide sampling               <ul style="list-style-type: none"> <li>▪ Include 7 main channel depth profiles: 3 up steam of diffuser, 1 at diffuser, 3 downstream of diffuser</li> </ul> </li> </ul> </li> </ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____

05/01/19

- 80°F mostly cloudy SE 7 mph  
 1051 ES, SB, HD, LH at depot  
 1130 EJ + HD depart to LFR (black)  
 1141 Arrive at LFR  
 1152 Begin LFR Drift LT  
     A - shallow  $\approx 1m$   
     B - mid  $\approx 2.5m$   
     C - deep  $\approx 4.0m$   
 1322 Tugs on both sides of river, sampling  
     restricted to mid-channel  
 1453 end drift  
 1513 profile in channel near USACE dock  
 1521 arrive at depot  
 1556 Upload LBR/LFR data  
 1552 ~~at~~ <sup>HD</sup> ES leave for Atlanta  
 1607 prep black boat to be pulled  
     tomorrow, put gas in boots  
 1630 SB, LH, HD leave depot



1525 1 profile North of diffusers  
1537 2 profile north of diffuser  
1555 1 profile north of diffuser  
1600 stopped logging + left LFR  
1620 arrived @ depot

24



18 5/1/19 Savannah Dz 2016-094  
80°F E10 mph

1130 left depot for LBR

1149 arrived @ LBR

1153 started deployment on  
Sonde 14 (new BSE) to  
replace Sonde 27 that  
had issues potentially

1155 ~~started~~ stopped deployment  
on sonde 27 + transferred  
data 4/30-5/1

1157 set up drift

Sonde D - 1 meter (shallow)

Sonde F - 2 meter (mid)

Sonde G - 3 meter (deep)

1211 start logging; SC DHEC boat  
arrives @ LBR

\* Platform is sitting flat; but  
appears to be turned slightly off  
of its normal orientation +30-45°  
off; notified RM via text message

1255 adjusted deep sonde due to  
shallower depths E/NE of railroad

1320 adjusted mid. & deep sondes  
due to shallow depth

\* did not approach buoy area  
because SC DHEC operation

1503 stopped logging + left LBR  
1535 arrived @ depot

5/2/19 Savannah Dz 2016-094 19

83°F; mostly sunny; wind: 15 mph SE

1225 LH + SB depart Depot in White Swan

1245 arrive at LFR; prepare sondes  
Sonde D - 1 meter (shallow) + profiles  
Sonde F - 5 meters (deep)

1248 logging started

\* Due to high winds + waves, transects  
bank to bank not possible. Side  
to side rocking unsafe and not  
able to do straight line. N to S  
transects conducted

1324 1 profile south of diffuser

1332 1 profile south of diffuser

1340 1 profile south of diffuser @ bridge

1345 pulled up deep sonde to travel  
back to buoy + diffuser area  
approx 1m

1424 stopped logging

1425 LFR-S profile complete

1426 collect LFR-S data

1434 collect LFR-N data; profile done

1440 collect LFR-A data; profile complete

1444 started logging

1447 1 profile near diffuser

1448 reset Sonde F to 5 meters

\* reengaged regular bank to bank  
transects; conditions improved after tide





## Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring Daily Log

<b>Date:</b> 05/02/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 81°F Partly Cloudy, ESE 11 mph	<b>Tides:</b> L – 1418 H – N/A	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Lisa Heise, Sam Booth, Eric Huss, Hayley DiGiano		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input checked="" type="checkbox"/> White Boat – Duration: 4 Hours <input checked="" type="checkbox"/> Yellow Boat – Duration: 4.0 Hours		<b>Other Equipment Used:</b> Pressure washer
<b>Work Completed:</b> <ul style="list-style-type: none"> <li>- See field notes.</li> <li>- Deliver black boat for service</li> <li>- <b>Per Jim email on 4/28:</b></li> <li>- April 29, 2019           <ul style="list-style-type: none"> <li>o Sampling adjustments:               <ul style="list-style-type: none"> <li>▪ Drift – 3 sondes Surface (1 meter), Mid and Deep</li> <li>▪ Profile – 2 sondes Surface (1 meter) and Deep (may need to pull up in shallower areas such as upstream LBR)</li> <li>▪ S curve sampling but concentrate on Main Channels</li> <li>▪ No need to sample platform area at slack tide</li> <li>▪ Crew determines best way to sample the designated areas</li> </ul> </li> <li>o Little Back River:               <ul style="list-style-type: none"> <li>▪ Low Tide                   <ul style="list-style-type: none"> <li>• Half way between RR bridge and US 17 to just upstream northern buoys.</li> </ul> </li> <li>▪ Low Tide ADD days.                   <ul style="list-style-type: none"> <li>• US 17 bridge to upstream northern buoys.</li> </ul> </li> <li>▪ High Tide                   <ul style="list-style-type: none"> <li>• South of southern buoys to horseshoe bend upstream of Hog Island USGS gage</li> <li>• If DO % saturation greater than 100 at end of run keep going til less than 100</li> </ul> </li> </ul> </li> <li>o Front River:</li> <li>o Normal High and Low Tide sampling               <ul style="list-style-type: none"> <li>▪ Include 7 main channel depth profiles: 3 up steam of diffuser, 1 at diffuser, 3 downstream of diffuser</li> </ul> </li> <li>o Profiling to be conducted one time a week at Buoys.</li> </ul> </li> </ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b>
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____

- 1423 #3 download + profile BNW  
 1427 #3 download + profile BNE  
 1442 begin profile  
 A - deep = 2m  
 B - shallow = 1m ( $H_2$ )  
 1551 pull sondes to surface,  
 water depth 0.7-1.3m  
 1555 could not find safe depth  
 of water. end profile  
 1610 leave LBR for depot  
 1630 arrive at depot  
 1638 replace batteries in Sondas  
 1652 EH leave depot  
 1656 upload LBR/LFR data  
 1715 SB, LH, HD leave depot



05/01/19

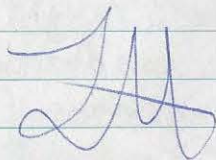
- 80°F mostly cloudy SE 7 mph  
 1051 ES, SB, HD, LH at depot  
 1130 EJ & HD depart to LFR (black)  
 1141 Arrive at LFR  
 1152 Begin LFR Drift LT  
     A - shallow  $\approx 1\text{m}$   
     B - mid  $\approx 2.5\text{m}$   
     C - deep  $\approx 4.0\text{m}$   
 1322 Tugs on both sides of river, sampling  
     restricted to mid-channel  
 1453 end drift  
 1513 profile in channel near USACE dock  
 1521 arrive at depot  
 1556 Upload LBR / LFR data  
 1552 ~~ES~~ <sup>HD</sup> ES leave for Atlanta  
 1607 prep black boat to be pulled  
     tomorrow, put gas in boats  
 1630 SB, LH, HD leave depot

05/02/19<sup>13</sup>

- 73°F Fair SE 3 mph  
 0823 SB, LH, HD at depot  
 0845 launch yellow boat at depot (HT)  
 0853 ~~launch~~ Remove black boat  
     at depot for service (HT)  
 0900 wash black boat  
 0945 SB, LH, HD leave depot to  
     drop Black Boat at HALEMARINE  
 1013 Arrive at HALEMARINE  
 1025 leave HALEMARINE  
 1102 EH at depot  
 1127 SB, LH, HD at depot  
 1213 EH, HD leave for LBR (yellow)  
 1235 Arrive at LBR  
 1243 begin LBR profile LT  
     A - shallow  $\approx 1\text{m}$  (H<sub>2</sub>)  
     B - deep  $\approx 2.5\text{m}$   
 1315 Raise Sonde B to accommodate  
     for shallow water  
 1353 end profile LT and head to  
     buoys to collect data & profile -  
     Sonde A was no longer reading  
     on H<sub>2</sub>  
 1400 replace battery in Sonde A  
 1410 download + profile BSE  
 1415 download + profile BSW



1525 1 profile North of diffusers  
 1537 1 profile north of diffuser  
 1555 1 profile north of diffuser  
 1600 stopped logging + left LFR  
 1620 arrived @ depot



EH + LH High tide 5/3/19

70°F NNE 5 mph

0630 left depot for CFR

0650 arrive @ CFR

0710 started logging + drifting north

D 1m

F 3m

G 5m

0730 transect delayed due to dredge  
 went north straight

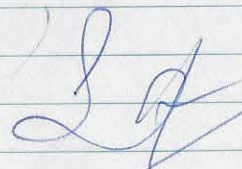
0734 continued transects

~~0738~~ extend straight along bank due to ship  
 in the channel.

0930 another ship, lots of ship traffic

1011 stopped logging + deployments + left LFR


1025 arrived @ depot







**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 05/03/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 70°F Mostly Cloudy, NW 2 mph	<b>Tides:</b> L – 1502 H – 0837	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Lisa Heise, Sam Booth, Eric Huss, Hayley DiGiano		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input checked="" type="checkbox"/> White Boat – Duration: 4 Hours <input checked="" type="checkbox"/> Yellow Boat – Duration: 4 Hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- <b>Per Jim email on 4/28:</b></li><li>- April 29, 2019<ul style="list-style-type: none"><li>o Sampling adjustments:<ul style="list-style-type: none"><li>▪ Drift – 3 sondes Surface (1 meter), Mid and Deep</li><li>▪ Profile – 2 sondes Surface (1 meter) and Deep (may need to pull up in shallower areas such as upstream LBR</li><li>▪ S curve sampling but concentrate on Main Channels</li><li>▪ No need to sample platform area at slack tide</li><li>▪ Crew determines best way to sample the designated areas</li></ul></li><li>o Little Back River:<ul style="list-style-type: none"><li>▪ Low Tide<ul style="list-style-type: none"><li>• Half way between RR bridge and US 17 to just upstream northern buoys.</li></ul></li><li>▪ Low Tide ADD days.<ul style="list-style-type: none"><li>• US 17 bridge to upstream northern buoys.</li></ul></li><li>▪ High Tide<ul style="list-style-type: none"><li>• South of southern buoys to horseshoe bend upstream of Hog Island USGS gage</li><li>• If DO % saturation greater than 100 at end of run keep going til less than 100</li></ul></li></ul></li><li>o Front River:</li><li>o Normal High and Low Tide sampling<ul style="list-style-type: none"><li>▪ Include 7 main channel depth profiles: 3 up steam of diffuser, 1 at diffuser, 3 downstream of diffuser</li></ul></li><li>o Profiling to be conducted one time a week at Buoys.</li></ul></li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____


- 1423 \*download + profile BNW  
 1427 \*download + profile BNE  
 1442 begin profile  
 A - deep  $\approx 2m$   
 B - shallow  $\approx 1m$  ( $H_2$ )  
 1551 pull sondes to surface,  
 water depth 0.7-1.3m  
 1555 could not find safe depth  
 of water. end profile  
 1610 leave LBR for depot  
 1630 arrive at depot  
 1638 replace batteries in Sonde B  
 1652 EH leave depot  
 1656 upload LBR/LFR data  
 1715 SB, LH, HD leave depot

- 70°F mostly cloudy NW 2mph  
 0600 LH, HD, SB at depot  
 0630 EH at depot  
 0643 SB, HD leave for LBR (yellow)  
 0703 arrive @ LBR  
 0713 begin LBR drift LT  
 A - deep  $\approx 3m$   
 B - mid  $\approx 2m$   
 C - shallow  $\approx 1m$  ( $H_2$ )  
 0814 changed course due to debris  
 1014 end drift  
 1022 leave LBR for depot  
 1039 arrive at depot  
 1051 replace batteries in Sonde C  
 1105 SB, LH leave for Jax  
 1110 EH, HD leave depot;  
 HD to exchange rental car





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 05/04/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 85°F Partly Cloudy, SW 7 mph	<b>Tides:</b> L – 1545 H – 0914	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Eric Huss and Hayley DiGiano		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 4 Hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Planned to conduct ADD at HT today in preparation for thunderstorms approaching in the early afternoon.</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input checked="" type="checkbox"/> <b># of Photos</b> 3

# Savannah Harbor Expansion Project - O2 Injection Monitoring

## Task 7 – Test Run

### Daily Log

#### Hazardous Weather Outlook

Hazardous Weather Outlook  
National Weather Service Charleston SC  
436 AM EDT Sat May 4 2019

GAZ087-088-099>101-114>116-118-137-138-140-SCZ040-042>045-047-052-050845-  
Jenkins-Screven-Candler-Bulloch-Effingham-Tattnall-Evans-  
Inland Bryan-Inland Chatham-Long-Inland Liberty-Inland McIntosh-  
Allendale-Hampton-Inland Colleton-Dorchester-Inland Berkeley-  
Inland Jasper-Tidal Berkeley-  
436 AM EDT Sat May 4 2019

This Hazardous Weather Outlook is for southeast Georgia and southeast South Carolina.

.DAY ONE...Today and tonight.

Dense Fog: Areas of fog will continue through sunrise this morning, and some of the fog will be dense. If the coverage of the dense fog is widespread enough a Dense Fog Advisory would be required.

.DAYS TWO THROUGH SEVEN...Sunday through Friday.

Severe Thunderstorms: A weak cold front will approach the area from the west on Sunday and scattered to numerous thunderstorms are expected to move across southeast South Carolina and southeast Georgia. A few of these thunderstorms could become severe, and the primary threat will be damaging wind gusts. The main time period for severe thunderstorms will be the afternoon hours.

.SPOTTER INFORMATION STATEMENT...

Spotter assistance is not anticipated at this time.

\$\$

Weather observations for the past three days														
Hunter U. S. Army Airfield														
Enter Your "City, ST" or zip code <input type="text"/> Go <span>metric</span>														
Date	Time (edt)	Wind (mph)	Vis. (mi.)	Weather	Sky Cond	Temperature (°F)			Relative Humidity	Wind Chill (°F)	Heat Index (°F)	Pressure		Precipitation (in.)
						Air	Dwpt	8 hour Max. Min.				altimeter (in)	sea level (mb)	
05	08:58	SW 8	10.00	Fair	CLR	71	68		91%	NA	NA	29.90	1009.4	
05	05:58	SW 8	10.00	A Few Clouds	FEW110	71	68		91%	NA	NA	29.79	1009.1	
05	04:58	S 7	10.00	Partly Cloudy	SCT140	71	67		89%	NA	NA	29.78	1008.7	0.04
05	03:58	S 10	10.00	Fair	CLR	71	68		90%	NA	NA	29.79	1009.1	
05	02:58	SW 8	10.00	Fair	CLR	72	68		88%	NA	NA	29.81	1009.7	0.04
05	01:58	S 9	10.00	Light Rain	FEW031 SCT080	75	71	75 75	87%	NA	NA	29.82	1010.1	0.01
05	00:58	S 8	10.00	Partly Cloudy	FEW085 SCT200	76	72		87%	NA	78	29.82	1010.1	
04	23:58	S 8	10.00	Partly Cloudy	SCT190	76	72		87%	NA	78	29.83	1010.4	
04	22:58	S 8	10.00	Fair	CLR	76	72		88%	NA	78	29.84	1010.7	
04	21:58	S 6	10.00	Fair	CLR	76	72		88%	NA	78	29.83	1010.4	
04	20:58	S 7	10.00	A Few Clouds	FEW130	75	68		78%	NA	NA	29.84	1010.8	
04	19:58	S 8	10.00	Partly Cloudy	FEW080 SCT080 SCT095	76	71	87 70	85%	NA	77	29.82	1010.1	0.94
04	18:58	SE 9	10.00	Fair	CLR	78	71		80%	NA	80	29.82	1010.1	
04	17:58	E 6	10.00	Thunderstorm in Vicinity	CLR	77	70		81%	NA	79	29.82	1010.1	0.01
04	16:58	E 8	1.50	Thunderstorm Light Rain	BKN021 OVC041	70	65		82%	NA	NA	29.83	1010.4	0.93 0.93
04	15:58	NW 13	10.00	Thunderstorm in Vicinity	BKN038	62	68		63%	NA	65	29.83	1010.4	
04	14:58	S 13 G 20	10.00	Fair	CLR	87	71		58%	NA	62	29.85	1011.1	
04	13:58	SW 12 G 20	10.00	Thunderstorm in Vicinity	FEW200	86	71	86 71	51%	NA	91	29.87	1011.8	
04	12:58	S 14 G 17	10.00	Partly Cloudy	SCT027	86	72		64%	NA	93	29.89	1012.4	
04	11:58	S 9	10.00	A Few Clouds	FEW027	85	72		65%	NA	91	29.90	1012.8	
04	10:58	SW	10.00	Fair	CLR	84	71		66%	NA	89	29.91	1013.1	




**Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log**

Q  
148  
WFUS52 KCHS 042051  
TORCHS  
GAC051-SCC013-053-042130-  
/O.NEW.KCHS.TO.W.0010.190504T2051Z-190504T2130Z/  
  
BULLETIN – EAS ACTIVATION REQUESTED  
Tornado Warning  
National Weather Service Charleston SC  
451 PM EDT Sat May 4 2019  
  
The National Weather Service in Charleston has issued a  
  
\* Tornado Warning for portions of...  
Chatham County in southeastern Georgia...  
Beaufort County in southeastern South Carolina...  
Jasper County in southeastern South Carolina...  
  
\* Until 530 PM EDT.  
  
\* At 451 PM EDT, a severe thunderstorm capable of producing a tornado  
was located over Wilmington Island, moving east at 20 mph.  
  
HAZARD...Tornado.  
  
SOURCE...Radar indicated rotation.  
  
IMPACT...Flying debris will be dangerous to those caught without  
shelter. Mobile homes will be damaged or destroyed.  
Damage to roofs, windows, and vehicles will occur. Tree  
damage is likely.  
  
\* Locations impacted include...  
Savannah, Bluffton, Wilmington Island, Fort Pulaski National  
Monument, Tybee Island, Thunderbolt, Sandfly and Isle Of Hope.  
  
PRECAUTIONARY/PREPAREDNESS ACTIONS...  
  
TAKE COVER NOW! Move to an interior room on the lowest floor of a  
sturdy building. Avoid windows. If you are outdoors, in a mobile  
home, or in a vehicle, move to the closest substantial shelter and  
protect yourself from flying debris.  
  
##  
  
LAT...LON 3206 8111 3212 8099 3212 8096 3215 8093  
3216 8089 3215 8089 3199 8082 3196 8107  
TIME...MOT...LOC 2051Z 2490EG 17KT 3202 8102  
  
TORNADO...RADAR INDICATED  
HAIL...<.75IN

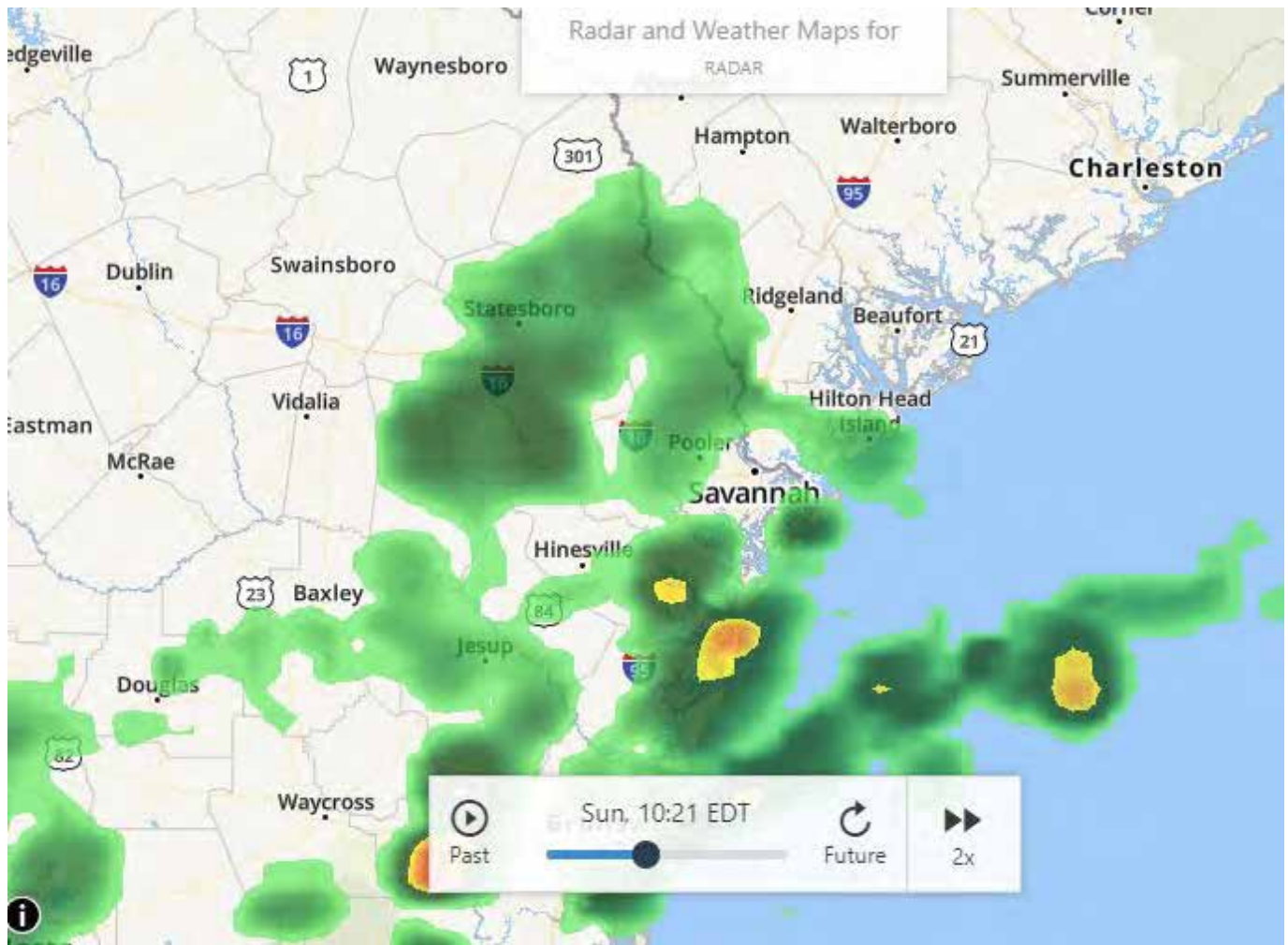


**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 05/05/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 76°F Partly Cloudy, SW 11 mph	<b>Tides:</b> L – 1627 H – 0949	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Eric Huss and Hayley DiGiano		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 4.5 Hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Original schedule planned for HT Profiling LBR. Forecast showed thunderstorms at 1000 (photo 1). Went to LFR to profile and retrieve buoy data to maximize our data collection time prior to the predicted storm. Once out there (approximately 0840), weather forecast had changed.</li><li>- Cleaned sonde 27 from BSE and put into retired area.</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log



- 1145 put gas in boats
- 1151 upload LFR data
- 1153 print daily logs week 6, partial week 7, week 8
- 1206 Clean Sonde 27
- 1230 EH leave depot, HD leave for Jacksonville



05/04/19

- 69°F light fog, calm  
 0700 HD at depot  
 0706 EH at depot  
 0726 HD, EH leave for LBR (yellow)  
 0745 arrive at LBR  
 0750 begin profile HT  
     A - shallow  $\approx 1m$  (H<sub>3</sub>)  
     B - deep  $\approx 2.5m$   
 0840 alter course for large debris  
 0958 pull sondes to surface to  
     remove debris  
 1045 end profile  
 1049 download BSE<sup>H<sub>3</sub></sup>  
 1054 download BSW  
 1059 download of BSW appeared  
     to be small file, battery at 2.4V  
     replaced battery + redisplayed  
 1108 download BNE  
 1112 leave LBR for depot  
 1133 arrive at depot  
 1140 put gas in yellow boat  
 1150 upload LBR/Bug data  
 1215 EH, HD leave depot

05/05/19 17

- 71°F partly cloudy SSW 7 mph  
 0706 HD at depot; predicted T-storm at 10  
 0735 EH at depot  
 0751 EH, HD leave for LBR (yellow)  
 0801 arrive at LBR  
 0803 download LFR-S<sup>H<sub>3</sub></sup>  
 0808 download LFR-N<sup>H<sub>3</sub></sup>  
 0813 download LFR-A<sup>H<sub>3</sub></sup>  
 0821 begin LFR profile HT<sup>H<sub>3</sub></sup>  
     A - shallow  
     B - deep  $\approx 4m$   
 0825 profile upstream<sup>(K)</sup>  
 0837 profile upstream<sup>(A)</sup>  
 0842 weather update: thunderstorm  
     no longer pred. for 1000  
 0849 profile upstream<sup>(A)</sup>  
 0915 adjust path for ship and tug  
 0918 profile diffuser  
 0958 profile downstream  
 1004 adjust route for boat traffic  
 1009 adjust route for tugs (2)  
 1010 profile downstream  
 1058 profile downstream  
 1101 rain starts  
 1104 adjust route for boat traffic  
 1107 end profile HT  
 1109 leave LBR for depot  
 1132 arrive at depot

22 5/6/19 EB EH

Sandwich Is High Tide  
720f NW 5 mph Partly cloudy

0852 leave depot

0912 arrive at LFE


0918 start drift A(1m) B(3m) C(5m)  
end drift used H1

1151 arrive at depot





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 05/06/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 82°F Sunny, WNW 5 mph	<b>Tides:</b> L – 1709* H – 1025	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Eric Huss, Sam Booth, Ethan Bright, Emily Johnson		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input checked="" type="checkbox"/> White Boat – Duration: 3.0 Hours <input checked="" type="checkbox"/> Yellow Boat – Duration: 6.0 Hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- *Both LFR and LBR drifts were performed at the morning's high tide, but <i>only LBR drift was performed at the afternoon's low tide</i>. Eric Huss had to leave town for personal reasons and we okay'd the schedule change with Rick McCann and Jim Greenfield. LFR profile will be performed at tomorrow's low tide instead.</li><li>- All three sonde weights were removed from the White Boat and realigned/tightened then coated with a layer of Flex Seal rubber coating. Weights will be left to dry overnight.</li><li>- During the morning drift at LBR, at ~0955 the handheld appeared to freeze, the clock and sample timer were both stopped. Had to turn off the handheld and restart the logging; due to this, there are two separate files for the LBR high tide drift.</li><li>- During the afternoon drift at LBR, at ~1600 the batteries were replaced on Buoy_NE sonde because it was not recording depth. Prior to replacing the batteries, the depth measurement fields were not appearing on the handheld display. After replacing the batteries, the depth measurement fields did appear on the handheld display.</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Sam Booth	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____

**Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log**



C-deep ~ 3m  
 \* deep sonde depths adjusted due  
 to shallower depths between bridges  
 1754 - reset deep sonde to ~ 3 m  
 since water is deeper  
 platform appears slightly out of  
 its normal position, but it is sitting  
 flat and not moving.

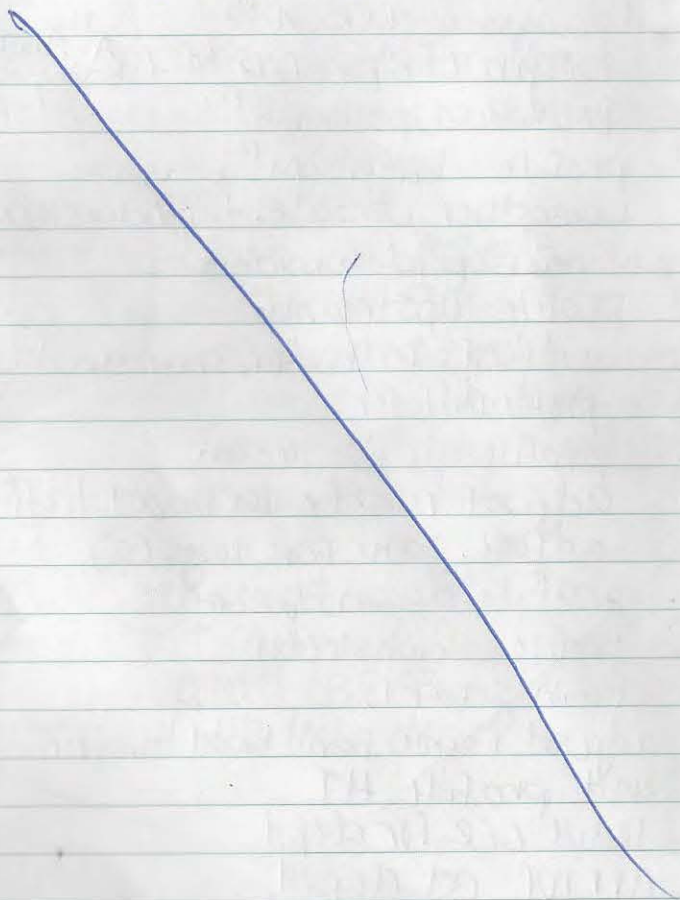
1817 - stop logging  
 1820 - depart LRR

1848 - arrive at depot

1855 - upload LBR data

1910 - EJ, SB, EB depart depot

- 1145 put gas in boats
- 1151 upload LFR data
- 1153 print daily logs week 6, partial week 7, week 8
- 1206 Clean Sonde 27
- 1230 EH leave depot, HD leave for Jacksonville



5/6/19 Savannah O<sub>2</sub> 2019-05-19

72°F; Sunny; wind WNW 5 mph

0830: SB, EB arrive @ Depot

0831: EJ arrive @ Depot

0835: EH arrive @ Depot

0900: EJ + SB depart Depot in White Boat

0918: Arrive at LBR, begin setup

D shallow 1.0 m, AH

F mid 2.5 m

G deep 4.0 m

0925 - start logging

0950 - adjusted Deep sonde depth due to shallower water

0955 - Handheld (H2) froze; logging timer and clock had stopped; did not notice until ~1000; restarted H2

1000 restarted logging

1125 stop logging

1134 depart LBR to depot

1152 profile at depot per Jim G.

1534 SB, EB, EJ depart Depot in Yellow Boat

1555 arrive @ LBR

1557 arrive at BNE buoy + clean out depth sensor holes

\* Changed batteries on Buoy - NE

1617 start drift / logging

A - shallow - 1 meter - attached to H1

B - mid dk - 2 meters

*Rite in the Rain*



5/6/19 EB EH

Samanah Oz High Tide

72°F NW 5 mph partly cloudy

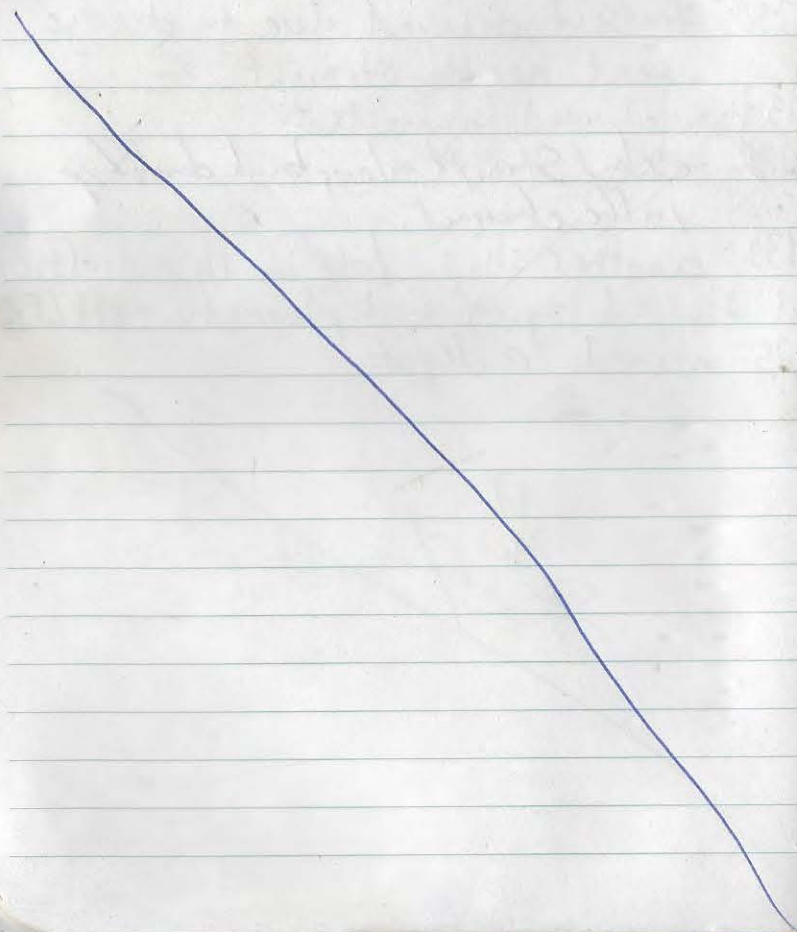
0852 leave depot

0912 arrive at LFR

0918 start drift A(1m), B(3m), C(5m)

1132 end drift used H1

1151 arrive at depot



EB + LH

5/7/19 23

77°F ESE 7 mph

0943 Left depot for LBR

1003 Arrive at LBR

1007 start drift A(1m) B(3m)

handheld H1 + H2

1108 stop drift

1110 drive to LBR\_NE

1115 profile and collect data at LBR\_NE  
(there are 2 files from LBR\_NEbecause we started and stopped deployment  
yesterday to try and fix depth reading)

1124 profile and collect data at LBR\_NW

1132 " " " " LBR\_SW

1136 " " " " LBR\_SE

1145 profile at platform E side

1147 " " " " W side

1150 tighten bolts and nuts holding pipes  
to platform (routine maintenance)


1159 start drift + 2

1304 stopped logging + deployment  
+ left LBR

1335 arrive @ depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 05/08/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 80°F Partly Cloudy, ESE 8 mph	<b>Tides:</b> L – H – 1152	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Lisa Heise, Sam Booth, Ethan Bright, Emily Johnson		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input checked="" type="checkbox"/> White Boat – Duration: 3.5 Hours <input checked="" type="checkbox"/> Yellow Boat – Duration: 6.5 Hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- *Both LFR and LBR drifts were performed at the morning's high tide, but <i>only LFR drift was performed at the afternoon's low tide</i>. Today was a travel day for Ethan Bright and we okay'd the schedule change with Rick McCann and Jim Greenfield on 5/6/2019. LBR profile was performed at yesterday's low tide (see 050619 Daily Log and Field Notes).</li><li>- All three sonde weights from the White Boat were coated with a second layer of Flex Seal rubber coating. Weights will be left to dry overnight.</li><li>- During the morning profile at LFR, an approaching dredge crew boat moving at high speed made a fast turn toward our boat causing us to make a fast turn to avoid their path. During this maneuver the deep profile sonde hit the propeller. No damage was incurred by the sonde, but the top of the cord is damaged at the point where the cord connects to the sonde. The cord was removed from the boat and stored in the lab. A replacement cord was put on the White Boat. See 050719 Field Notes for details on sonde deployment and data logging during this event.</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Sam Booth	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____



- 1130 ~~send~~<sup>ran</sup> back upriver to perform the 3 in-channel profiles we forgot to perform prior to slack tide
- 1134 1 deep profile performed
- 1140 1 deep profile performed
- 1145 1 deep profile performed
- 1149 reset deep sonde & started deploy
- 1152 started logging on shallow sonde
- 1153 perform 1 deep profile offshore of diff.
- 1209 perform 2 deep profile
- 1220 perform 1 deep profile
- 1229 course altered for Tag post
- 1231 perform 2 deep profile
- 1234 stop logging
- 1236 depart LFR
- 1253 arrive at Depot
- 1315 upload LFR data
- 1622 left depot for LFR
- 1638 arrive at LFR

- windy and cloudy; possible rain  
setting up sondes

Sonde A - shallow ~ 1 meter

Sonde B - deep ~ 5 meters

1645 start logging

\* higher winds are affecting course  
Wind E 15 mph w/ gusts to 20; large waves also affecting course

1733 turned around to go north due to ship

1748 pulled sondes into boat while driving

1751 resumed profile/drift

1815 stopped transects due to ship traffic

1845 stopped logging

1849 depart LFR

1905 arrive at depot

1914. upload data

1930 EJ, SB, & LH depart depot



C-deep ~ 3m

\* deep sonde depths adjusted due to shallower depths between bridges  
1754 - reset deep sonde to ~ 3 m

since water is deeper

\* platform appears slightly out of its normal position, but it is sitting flat and not moving.

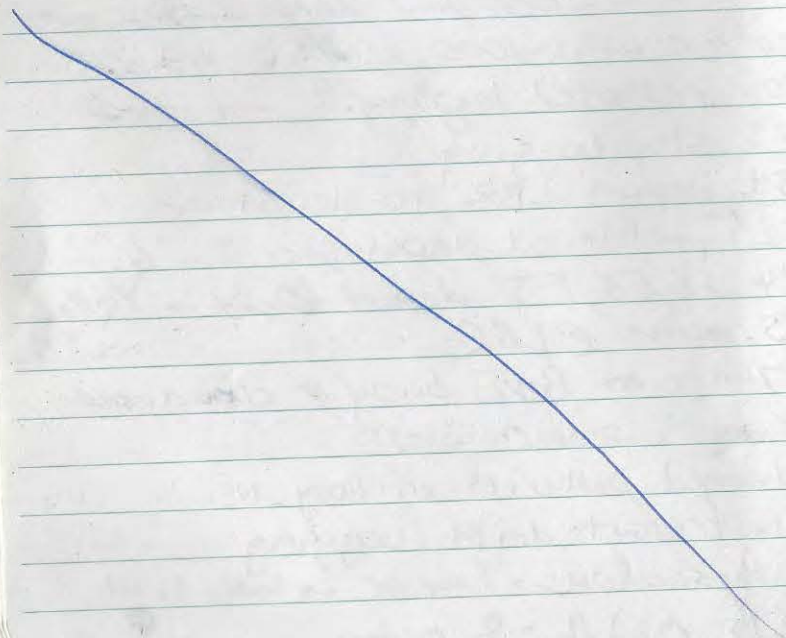
1817 - stop logging

1820 - depart LRR

1848 - arrive at depot

1855 - upload LBR data

1910 - EJ, SB, EB depart depot



5/7/19 Savannah 22 2016-095

80°F, partly cloudy, ESE 8 mph

0850 - LH arrive at Depot

0900 - SB, EB, EJ arrive at Depot

0945 - EJ + SB depart to LFR in white boat

0957 - arrive at LFR & prep sondes

Sonde F - shallow - 1 meter (143)

Sonde G - deep ~ 5 meters

1003 logging started

1015 course adjusted due to incoming ship

1040 adjusted speed due to other boat traffic; had to make faster turn due to fast incoming crew boat (dredgers) deep sonde hit propeller; no damage to sonde but the top of the cord is damaged

~~1043~~ 1043 deep sonde reset

1111 stopped logging

1112 arrive at LFR-A; profile + collect data

1115 stopped deployment of deep sonde to use that cord to download buoy data


1120 arrive at LFR-N; profile + collect data

1125 arrive at LFR-S; profile + collect data





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 05/08/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TE: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 79°F Partly Cloudy, ESE 6 mph	<b>Tides:</b> L – NA H – 1152	
<b>Client/Stakeholder Interaction (if any):</b> Bryan Robinson (USACE) was on location at the front river injection port while RM and SB were injecting the dye		
<b>Personnel/Visitors on site:</b> Lisa Heise, Sam Booth, Emily Johnson, Rick McCann		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 2.0 Hours		<b>Other Equipment Used:</b> Dye pump, flat bed trailer
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Dye Test Plan Wednesday LFR during High Tide. Dye release at 1030 near field study per Jim Greenfield<ul style="list-style-type: none"><li>o Shoot for 30 gallons at 2 gallons/minute</li><li>o One boat sampling LFR that day</li><li>o Follow dye for at least 45 minutes following release</li></ul></li><li>- Sonde F was deployed at 0940 near the USGS station at the Depot prior to Dye Test.</li><li>- Took White Boat out of water, washed it, and took it to Hale Marine Services for 100-hour engine service, to have the propeller replaced, and to get the speedometer fixed. Black Boat was picked up and returned to the Depot.</li><li>- RM took the dye pump back to Jacksonville for use at another project</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Sam Booth		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____

Partly Cloudy  
24 Savannah 02 - 80°F, ESE 4 MPH 5/8/19

0830 RM arrive @ depot

0900 EJ SB + LH arrive @ depot

0959 Deploy Sonde F at depot  
site LFR, used H3

1005 Depart to LFR

1014 arrive @ LFR

1026 Started logging

A 1 m

B 3 m

C 5 m

1030 dye release

1156 stopped logging + deployment  
+ left LFR

1218 arrived @ depot

1410 data uploaded

1415 washed white boat

1525 left to take white boat to  
Hale + pick up black boat

1640 arrive @ depot w/ black boat  
+ drop off


1645 Left depot for day

27





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 05/09/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 76°F Partly Cloudy, ESE 14 mph	<b>Tides:</b> L – NA H – 1248	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Lisa Heise, Sam Booth, Emily Johnson		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.0 Hours <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Launched the Black Boat at the USACE Depot boat ramp after picking it up from Hale Marine yesterday from its 100-hour engine service</li><li>- EJ and LH conducted LFR profiling today</li><li>- SB remained at Depot and organized the workshop in preparation for the upcoming demobilization<ul style="list-style-type: none"><li>o Removed and discarded all the waterlogged cardboard boxes from the back corner</li><li>o Put all the new, white "sacrificial" buoys in the cage</li><li>o Attached 2x6s to two pallets to create a storage rack for the platform pipes; stacked all pipes in the new rack</li><li>o Organized tools, boxes, and other items</li></ul></li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Sam Booth		<b>Signature:</b> 
		<b>Photos Attached?</b> <input checked="" type="checkbox"/> <b># of Photos</b> <u>1</u>

<sup>24</sup> Savannah 02 - 80°F, ESE 4 MPH 5/8/19 Partly Cloudy

0836 RM arrive @ depot

0900 EJ SB + LH arrive @ depot

0959 Deploy sonde F at depot

site LFR, used H3

1005 Depart to LFR

1014 arrive @ LFR

1026 Started logging

A 1 m

B 3 m

C 5 m

1030 dye release

1156 stopped logging & deployment  
at & left LFR

1218 arrived @ depot

1410 data uploaded

1415 washed white boat

1525 left to take white boat to  
Hale & pick up black boat

1640 arrive @ depot w/ black boat  
& drop off

1645 Left depot for day

Savannah 02 2016-094 5/9/19<sup>25</sup>

76°F - mostly cloudy; wind ESE 14 mph

0945 arrive @ Depot

1000 - SB + EJ fueled black boat and

loaded sampling equipment onto  
black boat

1050 EJ + LH depart depot in Black box

SB remained @ Depot to organize  
workshop

1100 arrive @ LFR

1110 started logging

Sonde D deep 5 m

G shallow 1 m

1137 1 profile north of diffuser

1159 1 profile north of diffuser,  
pipe across north turning basin

1206 pulled in sondes to get by ship

1213 put sondes back in water

1233 turned around due to barge

1236 1 profile north of diffuser

1246 LFR - A buoy profile & data collection

1251 LFR - N buoy profile & data collection

1255 LFR - S buoy profile & data collection

1257 Started logging

1301 1 profile out from diffuser

1415 1 profile south of diffuser

1426 1 profile south of diff, stopped logging, deployment

1445 arrive @ depot

1530 left depot for day

Rite in the Rain



LH + EH

5/10/19

82°F SSE 8 mph

1158 left depot for LFR

1208 arrived @ LFR

25 1 m

D 3 m

G 5 m

1216 started logging

1317 transect straight south due  
to ship, could not get by  
because of tug disturbance

Lots of ship traffic


1512 Stop Logging by Contanship close  
+ heading in our direction

1523 arrived @ Depot + uploaded data





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 05/10/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 82°F Mostly Sunny, SSE 8 mph	<b>Tides:</b> L – NA H – 1353	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Lisa Heise, Sam Booth, Emily Johnson, Eric Huss		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 3.5 Hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 4.0 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- SB made repair to broken/loose hinge on the north side of the platform</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Lisa Heise	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____



<sup>26</sup> Savannah 02

5-10-19

81°F, Partly Cloudy, SE 9MPH

1110 EJ arrive at depot

1121 LH, SB, EH arrive

1156 Depart depot: EJ + SB on Yellow Boat

1218 arrive @ LBR - delayed by ships

Sonde A - shallow, B - mid 2.5m, C Deep 4.5

1234 start logging; SB on platform  
to make repairs; repairs complete

1235 start drifting (close hinge)

1335 deep sonde adjusted & course  
adjusted due to shallower depth

1515 stop logging

1523 depart LBR

1542 arrive at depot

1556 upload LBR data

1604 LH departs

1613 EJ SB EH depart

27



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 05/11/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 84°F Partly Cloudy, SSE 8 mph	<b>Tides:</b> L – NA H – 1500	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Emily Johnson, Ethan Bright		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.5 Hours <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Downloaded the data from sonde F deployed at the depot.</li><li>- Changed the batteries of the sondes at BNW and BSW. BNW would not power on until powered with the handheld. It returned to normal operation after changing the battery.</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Ethan Bright		<b>Signature:</b>
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



5/11/19

1744 Transfer data from sonde F  
at depot + redeployed

1745 Upload all data

Sonde F data in Test Run folder

1810 Ed + EB depart depot

(6)



26 Savannah OZ

5-10-19

81°F, Partly Cloudy, SE 9MPH

1110 EJ arrive at depot

1121 LH, SB, EH arrive

1156 Depart depot: EJ + SB on Yellow Boat

1218 arrive @ LBR - delayed by ships  
sonde A - shallow, B - mid 2.5m, C - deep 4.5

1234 start logging; SB on platform  
to make repairs; repairs complete  
(close hinge)

1235 start drifting

1335 deep sonde adjusted & course  
adjusted due to shallower depth

1515 stop logging

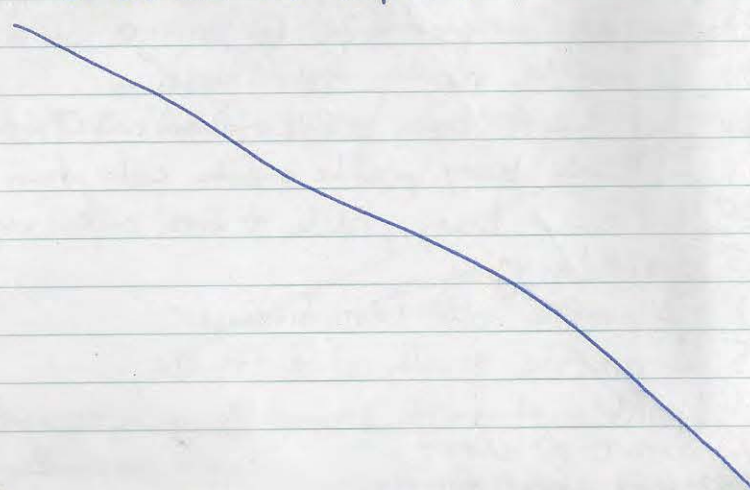
1523 depart LBR

1542 arrive at depot

1556 upload LBR data

1604 LH departs

1613 EJ SB EH depart



Savannah OZ

5-11-19

27

84°F, partly cloudy, SSE 9 MPH

1250 EJ + EB arrive at depot

1303 depart to LBR in Black Boat

1326 arrive at LBR & setup profile

D shallow 1m - HH, H2

G Deep 3m

1330 start logging

1400 profile taken <sup>EJ</sup>

1429 profile taken

1455 profile taken

1456 stop logging, drive to system to  
download buoy data, pulled deep  
sonde into boat & stop deployment

1504 profile and collect data at LBR - NE buoy

1509 " " " LBR - NW

1524 " " " LBR - SW

1534 " " " LBR - SE

\* Replaced batteries on <sup>LBR</sup> ~~sonde~~ - NW sonde  
due to low voltage (2.03V) <sup>sonde had to be powered</sup> with handheld

\* Replaced batteries on LBR - SW sonde  
due to low voltage (2.2V)

1539 redeploy, start logging, resume profile

1623 profile taken

1642 profile taken

1700 profile taken & stop logging

1707 depart to depot

1724 arrive at depot

Rite in the Rain





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 05/12/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 84°F Mostly Cloudy, WSW 11 mph	<b>Tides:</b> L – 1010 H – NA	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Emily Johnson, Ethan Bright		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.0 Hours <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes.		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Ethan Bright		<b>Signature:</b>
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____

5/11/19

- 1744 Transfer data from sonde F  
at depot + redeployed
- 1745 Upload all data  
Sonde F data in Test Run folder
- 1810 EJ + EB depart depot

*[A large diagonal line is drawn across the page, starting from the top left and ending near the bottom right.]*

*[Faint, illegible handwriting is visible in the background.]*

*[A small "E)" is written at the bottom right of the page.]*

Savannah 02

5/12/19

70°F, overcast, SSW 7 MPH

- 0745 EJ arrives
- 0800 EB arrives
- 0818 depart to LBR in black boat
- 0836 arrive at LBR
- 0841 start logging  
D-shallow 1M, H1  
G-deep 3M
- 0904 pulled up deep sonde due to shallow depth, brief then reset
- 0919 pulled up deep sonde to go under bridge
- 0922 reset deep sonde (G) at 2M
- 1001 reset deep sonde (G) at 1.5M
- 1102 stop logging
- 1108 leave LBR
- 1158 arrive at ~~EB~~ depot
- 1203 download data, put gas in boat  
prep for departure
- 1215 leave depot



LH + EH

5/10/19

82°F SSE 8 mph

1158 left depot for LFR

1208 arrived @ LFR

25 1 m

D 3 m

G 5 m

1216 started logging

1317 transect straight south due  
to ship, could not get by  
because of tug disturbance

Lots of ship traffic

1512 Stop Logging by Containment close  
+ heading in our direction

1523 arrived @ Depot + uploaded data

5/13/19 Savannah O<sub>2</sub>206-094<sup>25</sup>

°F; cloudy; wind:

0957 LH + SB depart depot on Yellow Boat

1017 arrive @ LBR; setup for drift

Sonde A: shallow 0.5 m; B mid 1.5 m; C deep 2.5 m

1025 started logging

1107 adjusted deep sonde due to  
shallower water

1144 deep sonde @ 2.5 m again

1217 stopped logging

1220 depart LBR

1240 arrive @ Depot

1530 left depot for LBR

1549 arrive @ LBR

1555 started logging

A 1 m

B 2 m


C 3 m

1755 stopped logging + deployments + left LBR

1825 arrive at depot



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 05/13/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)						
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes								
<b>Weather:</b> 74°F Mostly Cloudy, WSW 8 mph	<b>Tides:</b> L – 1112 H – 1706							
<b>Client/Stakeholder Interaction (if any):</b>								
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Sam Booth, Lisa Heise, Eric Huss								
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>								
<b>Boat(s) Used:</b> <table style="width: 100%; border-collapse: collapse;"><tr><td style="width: 15%;"><input checked="" type="checkbox"/> Black Boat – Duration:</td><td style="width: 35%; border-bottom: 1px solid black; text-align: center;">5.0 Hours</td></tr><tr><td><input type="checkbox"/> White Boat – Duration:</td><td style="border-bottom: 1px solid black;"></td></tr><tr><td><input checked="" type="checkbox"/> Yellow Boat – Duration:</td><td style="border-bottom: 1px solid black; text-align: center;">5.5 Hours</td></tr></table>		<input checked="" type="checkbox"/> Black Boat – Duration:	5.0 Hours	<input type="checkbox"/> White Boat – Duration:		<input checked="" type="checkbox"/> Yellow Boat – Duration:	5.5 Hours	<b>Other Equipment Used:</b>
<input checked="" type="checkbox"/> Black Boat – Duration:	5.0 Hours							
<input type="checkbox"/> White Boat – Duration:								
<input checked="" type="checkbox"/> Yellow Boat – Duration:	5.5 Hours							
<b>Work Completed:</b> - See field notes.								
<b>Notes:</b>								
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 						
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____						



5/13/19

74°F mostly cloudy WSW 8mph

0927 EH, SB, HD, LH at depot

0959 EH, HD leave for LFR (black)

1010 arrive at LFR

1018 begin LFR drift LT

25 - shallow  $\approx 1m$  (H.)D - mid  $\approx 2.5m$ G - deep  $\approx 4m$ 

\* Dredge machinery directly  
up river at LFR-A - with  
adjust sampling path

1038 adjust transects for ship/tugs/traffic/boat

1208 adjust for tugs

1219 end LFR drift LT

1227 leave LFR for depot

1238 arrive at depot

1530 leave Depot for LFR (HD, EH Black)

1541 arrive at LFR

1548 begin LFR drift HT

25 - shallow  $\approx 1m$  (H.)D - middle  $\approx 2.5m$ G - deep  $\approx 4m$ 

\* Will again need to alter path for  
dredge machinery upstream of  
system

1758 end LFR drift HT

1807 leave LFR for depot

1817 arrive at depot

1835 upload LFR/LBR data

1845 LH, SB, HD, EH leave for  
day

5/14/19

71°F NNE 7 mph

1015 LH+SB depart in Yellow Boat

1038 arrive @ LBR

1045 started logging

A 1m

B 2.5 m

1120 readjusted deep sonde due to shallowness ~ 1.75 m

1225 arrive @ BSE

1228 BSE profile + data collection

1233 BSW profile + data collection

1242 BNW Profile + data collection

1248 BNE "

1251 start logging

1315 altered course due to shallow depth

1401 stopped logging


1405 depart LBR

1425 arrive @ Depart





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 05/14/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 69°F Sunny, NNE 7 mph	<b>Tides:</b> L – 1211 H – N/A	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Sam Booth, Lisa Heise, Eric Huss		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.0 Hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 4.0 Hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes.		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____

5/14/19

68°F Sunny NNE 7mph

0925 HD, LH, SB at depot

0927 retrieve sonde F

0947 E, H at depot

1021 EH, HD leave for LFR (black)

1031 arrive at LFR

1036 begin LFR profile LT

F - shallow = 1.5m (H<sub>1</sub>)

D - deep = 3m

1040 profile at diffuser

~~to profile downstream~~ HD

1053 adjust course for ship &amp; tugs

1057 profile downstream of system

1117 profile downstream of system

1132 adjust course for boat traffic

1145 profile downstream of system

1200 end profile LT LFR

1211 download & profile LFR-S<sup>H<sub>1</sub></sup>1217 download & profile LFR-N<sup>H<sub>1</sub></sup>

\* did not hit stop logging at end

1223 download & profile LFR-A<sup>H<sub>1</sub></sup>

1229 begin LFR profile LT (2)

D - shallow = 1.5m (H<sub>1</sub>)

F - deep = 3m

\* path will be altered due to dredge equipment upriver LFR

1246 adjust path for ship

1251 profile upstream of system

1300 adjust course for boats

1311 profile upstream system

1319 adjust course for tugs

1328 adjust path for ship/tugs

1337 profile upstream system

1400 end profile LFR LT (2)

1403 due to input error - F collected <sup>deep</sup> every 2-min. instead of 2 sec. <sup>HD</sup>

1408 leave LFR for depot

1418 arrive at depot

1427 change batteries sonde D

1505 EH, SB, LH, HD leave depot



5/14/19

71°F NNE 7 mph

1015 LH+SB depart in Yellow Boat

1038 arrive @ LBR

1045 started logging

A 1m

B 2.5 m

1120 readjusted deep sonde due to shallowness ~ 1.75 m

1225 arrive @ BCR

1228 BSE profile + data collection

1233 BSW profile + data collection

1242 BNW Profile + data collection

1248 BNE "

1251 start logging

1315 altered course due to shallow depths

1401 stopped logging

1405 depart LBR

1425 arrive @ Depot

2016-09-27

5/15/19 Savannah Oz

76°F, Sunny, Wind: E 8 mph

1115 LH+SB depart Depot in Yellow Boat

1126 arrive at LFR; dredge

Barge and equipment located just to the north of LFR. A buoy

making it impossible to start in that area; drift will begin to show system

1135 start logging

Sonde A: shallow 1m, B: mid 3m, C: deep 5m

1219 held position due to large boat + other boat

1228 transect straight south due to barge

1240 transect straight south due to ship

1310 transect straight north due to turbine crease

1353 transect straight north due to tug/barge

1412 transect straight N due to "tug boat"

1421 transect straight N due to incoming tugs

1435 stopped logging


1440 depart LFR

1450 arrive @ depot





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 05/15/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 76°F Sunny, E 8 mph	<b>Tides:</b> L –1306 H – N/A	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Sam Booth, Lisa Heise, Ethan Bright		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <div style="display: flex; justify-content: space-between;"><div><input checked="" type="checkbox"/> Black Boat – Duration: _____</div><div>4.0 Hours</div></div> <div style="display: flex; justify-content: space-between;"><div><input type="checkbox"/> White Boat – Duration: _____</div><div>_____</div></div> <div style="display: flex; justify-content: space-between;"><div><input checked="" type="checkbox"/> Yellow Boat – Duration: _____</div><div>3.5 Hours</div></div>		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes.		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



2/15/19

74°F partly cloudy E 10 mph

1027 LH, SB, HD at depot

1046 EB at depot

1112 EB, HD leave for LBR (black)

1133 arrive at LBR

1136 profile BSE<sup>#3</sup>

1140 deploy F - 1m - Shallow

↑ D - ~~surface~~ Deep - 2m

Drift LBR LT

1145 profile BSW

1150 profile BNW

1155 profile BNE (buoy was underwater, was able to tie off when it briefly came to the surface)

1157 start drift G(surface)<sup>#3</sup> LBR LT

1430 apparent dirt cloud visible approximately in plume area - moves with tide (IT)

1436 end drift

1443 profile BNE

1448 profile BNW

1451 profile BSW

1454 profile BSE

1458 leave LBR for depot

1520 arrive at depot

1600 EB, LH, HD, SB leave depot

5/16/19

82°F; partly cloudy, wind SW-8 mph

1159 left depot for LBR  
delayed due to dredger  
in front of depot

1220 arrive at LBR

Sonde A - shallow @ meter; B - deep @ 2 m

1226 start logging

~~1226~~ <sup>1230</sup> straight transect due to shallow

1505 pulled up sondes to run

~~1505~~ back to platform area~~1513~~ <sup>1514</sup> arrive at ~~LB~~ <sup>BSE</sup> buoy; download data~~1528~~ <sup>1528</sup> arrive at BSW; download data~~1534~~ <sup>1534</sup> arrive at BRW; download data~~1535~~ BRW's batteries were dead, replaced them~~1543~~ <sup>1543</sup> arrive at BRE; download data~~1547~~ <sup>1547</sup> begin drift/profile~~1550~~ <sup>1550</sup> stopped logging~~1550~~ <sup>1550</sup> depart LBR


1625 arrive @ Depot

S. J. D.

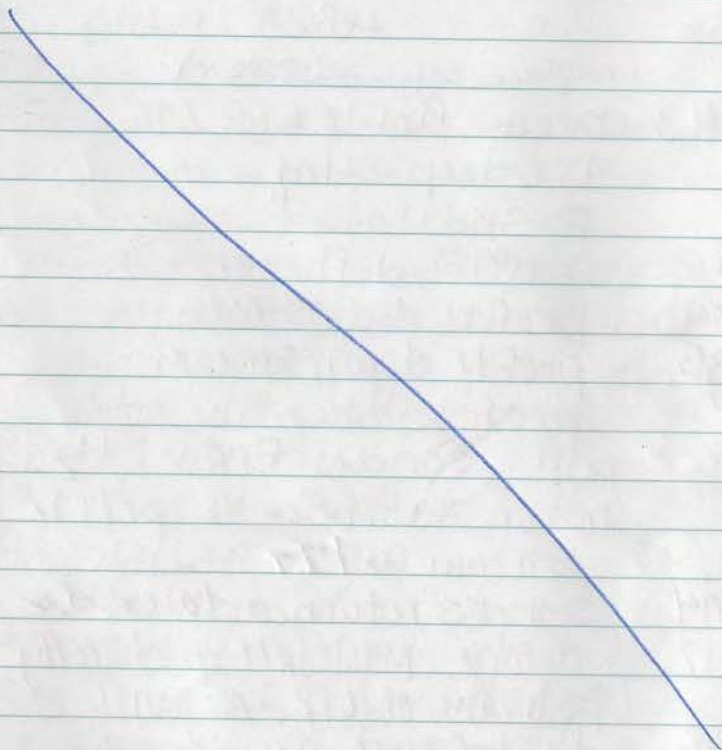




**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 05/16/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 80°F Partly Cloudy, SSW 8 mph	<b>Tides:</b> L – 1400 H – N/A	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Sam Booth, Lisa Heise, Ethan Bright		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.0 Hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 4.5 Hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Clean and prep sondes: 1-4, 7, 15, 16, 20, 24, and 27 for long-term storage</li></ul>		
<b>Notes:</b> Slack Tide observed approximately 30 minutes after tide provided (1430).		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____

- 1430 slack tide (about 30 min behind schedule)  
1447 profile upstream  
1523 profile upstream  
1533 end profile  
1540 leave LFR for depot  
1557 arrive at depot  
1655 LH, HD, SB, EB leave depot





5/15/19

- 74°F partly cloudy E 10 mph  
 1022 LH, SB, HD at depot  
 1046 EB at depot  
 1112 EB, HD leave for LBR (black)  
 1133 arrive at LBR  
 1136 profile BSE<sup>#3</sup>  
 1140 deploy F- 1m - Shallow  
       ↑ D- surface Deep- 2m  
 Drift LBR LT  
 1145 profile BSW  
 1150 profile BNW  
 1155 profile BNE (buoy was underwater,  
       was able to tie off when it briefly came  
       to the surface)  
 1157 start drift G(surface)<sup>#3</sup> LBR LT  
 1430 apparent dirt cloud visible  
       approximately in plume area -  
       moves with tide (IT)  
 1436 end drift  
 1443 profile BNE  
 1448 profile BNW  
 1451 profile BSW  
 1454 profile BSE  
 1458 leave LBR for depot  
 1520 arrive at depot  
 1600 EB, LH, HD, SB leave depot

5/16/19 35

- 80°F partly cloudy SSW 8 mph  
 0950 EB, SB, HD, LH at depot  
 1000 Clean & prep Sondes 1-4, 7, 15, 16  
       27, 20, 24 for storage  
~~1212~~<sup>HD</sup>~~205~~ EB, HD leave for LFR (black)  
 1224 arrive at LFR  
 1226 retrieve LFR-5 data  
       & replace batteries (2.06 V)  
 1232 retrieve LFR-N data  
 1236 " " LFR-A " "  
       + replace batteries (2.02 V)  
 1243 begin Profile LFR LT  
       D- deep = 4m  
       F- Shallow<sup>H</sup>  
 1248 profile diffuser  
 1309 profile downstream  
 1335 profile downstream  
 1358 profile downstream  
 1400 poll sondes from H<sub>2</sub>O  
       to run to diffuser to profile  
       upstream with IT  
 1404 sondes returned to water  
 1412 dredge machinery directly  
       upstream of LFR-A: will  
       adjust course accordingly  
 1421 profile upstream

Rite in the Rain



5/16/19

82°F; partly cloudy, wind SW-8 mph  
 1159 left depot for LBR  
 delayed due to dredger  
 in front of depot

1220 arrive at LBR

Probe A - shallow @ 1 meter; B - deep @ 2 m

1226 start logging

1420 straight transect due to shallow

1505 pulled up sondes to run

back to platform area

1813 arrive at ~~LB~~<sup>SB</sup> BSE buoy; download data

1828 arrive at BSW; download data

1834 arrive at BSW; download data

BSW's batteries were dead, replaced them

1843 arrive at BNE; download data

1847 begin drift/profile

1850 stopped logging

1550 1605 depart LBR

1625 arrive @ Depot

*[Signature]*

SB + LH

5/17/19

0655 left depot, delayed due to  
 dredging (yellow boat)

0715 arrived @ ~~LBR~~ LFR <sup>SB</sup>

0724 started logging

A 1m

B 3m

C 5m

\* Dredging taking place in front of ~~LBR~~<sup>LFR</sup>  
 buoys (see photo on daily log) <sup>SB</sup>

Small tugs crossing river to barge  
 intermittently. Transects based on  
 avoidance of these factors.

0740 ship <sup>coming</sup> passed, ~~not~~ turned, able to  
 start transects once clear

0749 too much dredge traffic to make  
 full transects

0800 resumed normal transects

1024 stopped logging


1042 arrive at Depot

*[Signature]*





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 05/17/19	<b>Task:</b> <u>7 – Test Run (TR)</u>	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 69°F Clear, SSW 8 mph	<b>Tides:</b> L – 813 ( <i>843</i> ) H – 1450 ( <i>1520</i> )	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Sam Booth, Lisa Heise, Ethan Bright		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: <u>4.0 Hours</u> <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: <u>4.0 Hours</u>		<b>Other Equipment Used:</b>
<b>Work Completed:</b> - See field notes.		
<b>Notes:</b> Slack Tide observed approximately 30 minutes after tide provided ( <i>843</i> ).		
<b>Daily Log Completed by:</b> Hayley DiGiano	<b>Signature:</b> 	
<b>Photos Attached?</b> <input type="checkbox"/>		<b># of Photos</b> _____

- 1430 slack tide (about 30 min behind schedule)  
 1447 profile upstream  
 1523 profile upstream  
 1533 end profile  
 1540 leave LFR for depot  
 1557 arrive at depot  
 1655 LH, HD, SB, EB leave depot

69°F Clear SSW 8 mph

0623 arrive at depot LH, SB, HD, EB

0651 EB, HD leave for LBR (Black)

0711 arrive at LBR

0717 begin Drift LBR+T

D - deep = 3m

F - mid = 2m

G - Shallow = 1m<sup>4</sup>

1015 end drift

1020 leave LBR

1041 arrive at depot

1058 upload LFR/LBR data

1115 EB HD leave depot for Jax


1130 SB + LH depart Depot

*Sanbat*

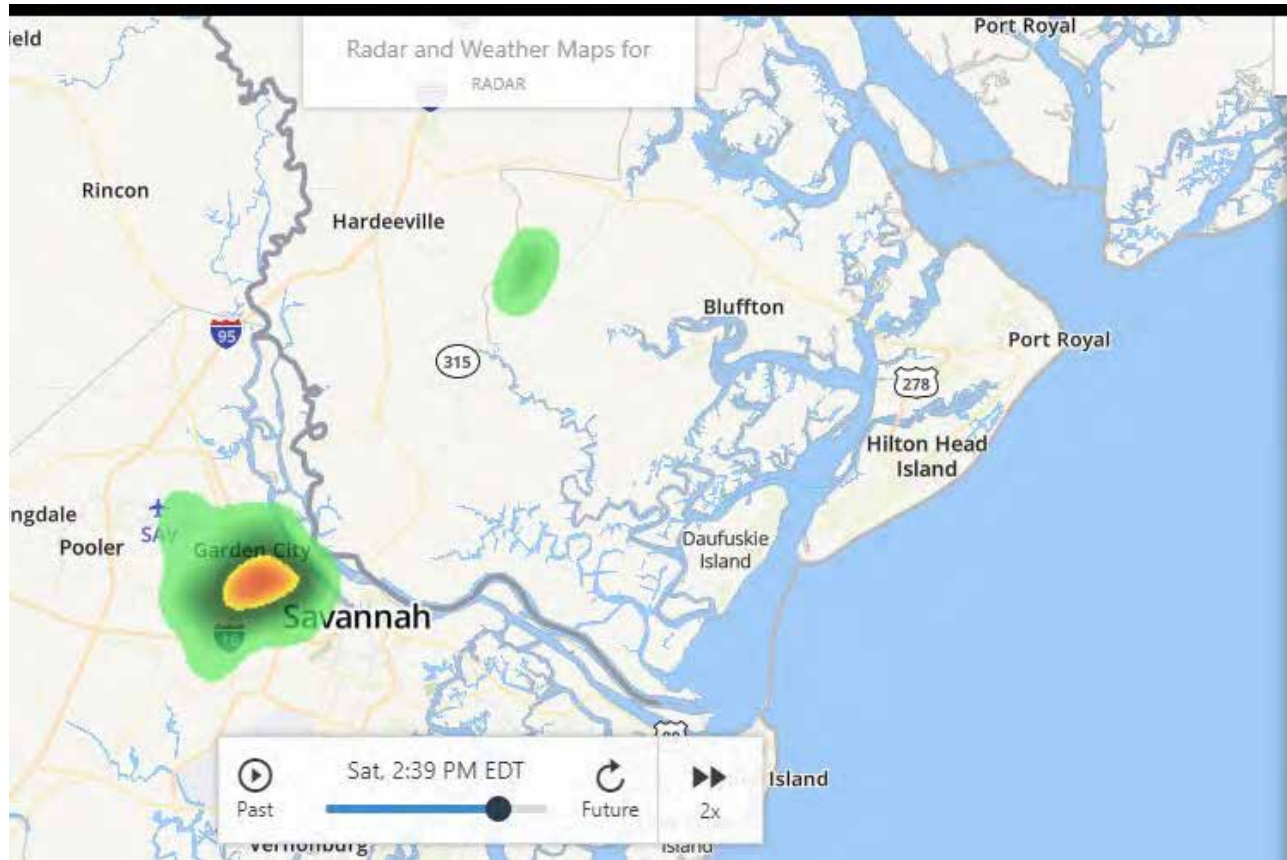




**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 05/18/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 88°F, Clear (AM) clouds and thunder (PM), NE 3 mph		<b>Tides:</b> L – 903 (933) H – 1539 (1609)
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Sam Booth, Lisa Heise		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 5.0 Hours <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Sonde 6 on the platform showed a few variations from the other sondes on EagleIO, we looked at Sonde 6 and observed that the central wiper's brush had detached, and marine growth was affecting the sensors.</li><li>- Prepped Sonde 25 to replace #6 on the platform.</li><li>- At 1420, we heard thunder and observed a dark cloud to the west (lightning reported within 2.5 miles), thunder continued and worsened through 1515.</li></ul>		
<b>Notes:</b> Slack Tide observed approximately 30 minutes after tides provided.		
<b>Daily Log Completed by:</b> Sam Booth		<b>Signature:</b> 
		<b>Photos Attached?</b> <input checked="" type="checkbox"/> <b># of Photos</b> 1

Savannah Harbor Expansion Project - O2 Injection Monitoring  
Task 7 – Test Run  
Daily Log



Radar screenshot



5/18/19

71°F NE 3 mph

0740 SB + LH arrive @ depot

0810 attempted to depart Depot  
 dredge equipment was blocking  
 the dock's exit; we had to wait  
 for them to attach a piece of pipe  
 and move the barge back into  
 position

0840 LH + SB depart Depot on Black Sea

0905 arrive at LBR; setup for data

Sonde A: shallow @ meter; B: Deep 3.5m

0909 start logging

0958 brief stop at platform to check  
 sonde 6; wiper appeared to be detached  
 we will bring out a replacement sonde  
 this afternoon

1050 stopped logging

1055 depart LBR

1115 arrive @ depot

1420 heard thunder close to the west

1443 thunder increasing in frequency  
 + noise level

1525 left depot for LBR

1545 arrive @ LBR

1552 started logging very low tide

A 1m

B 1.5m

1620 replaced Sonde 6 w/ sonde 25

~~the~~ Central wiper brush fell off  
 so sensors were not being cleared

1630 Continued transects north

1709 Stopped logging

1716 Left LBR


1741 arrive @ depot

1810 Leave depot for day

LA



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 05/19/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 75°F, Sunny, S 3 mph		<b>Tides:</b> L – 0948 (1018) H – N/A
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Sam Booth, Lisa Heise		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 4.0 Hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Per Jim email dated May 13, 2019, Team conducted 1 hour profiling in LBR and 1 hour profiling in LFR during high tide.</li></ul>		
<b>Notes:</b> Slack Tide observed approximately 30 minutes after tides provided.		
<b>Daily Log Completed by:</b> Sam Booth		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____



SB + LH

5/19/19

75°F S 3 mph

0825 arrive @ depot

0855 LH + SB depart depot; delayed  
a few minutes due to incoming ship

0922 arrive at LBR

Sonde A: shallow @ 1 meter; B: at 3 meters

0931 start logging

1035 stopped logging left LBR for LFR

1110 arrive @ LFR - dredgers +

ship/tug blocking river North of O2 system

1112 setup for final profile/drift

Sonde A: 1 meter; B: 5 meters

1115 start logging

1120 perform 1 profile offshore of system

1135 transect direction change due to passing barge

1140 continue &amp; adjust transect due to tugs

1150 perform 1 profile S of O2 system

1202 transect adjusted due to 3 incoming small craft

1205 perform 1 profile south of system

1210 large amount of small craft/rc.

boats passing through, affecting transect

1214 perform 1 profile S of system


1220 stop logging; depart LFR

1230 arrive @ depot + upload data

1310 LH + SB left depot for day



**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 05/20/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 83°F, Fair, SW 8 mph		<b>Tides:</b> L – N/A H – N/A
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Ethan Bright		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 1.0 Hour <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 2.0 Hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Retrieved and cleaned, in preparation for calibration and storage, sondes 5, 8, 9, 10, 11, 12, 14, 17, 18, 19, 21, 22, 23, 25, 28.</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____

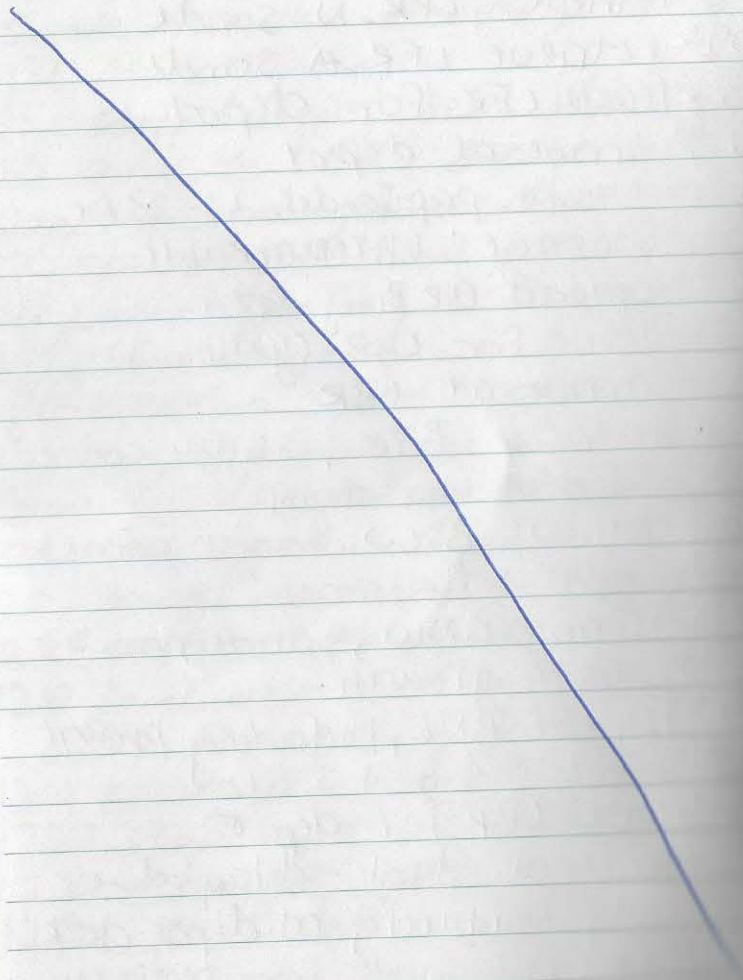


Sondes had a significant amount  
of biofouling and/or "mud"

1731 upload LBR buoy data

Transfer H<sub>2</sub> data to computer back-up

1800 leave depot





SB + LH

5/19/19

75°F S 3 mph

0825 arrive @ depot

0855 LH + SB depart Depot; delayed  
a few minutes due to incoming ship

0922 arrive at LBR

Sonde A: shallow @ 1 meter; B: at 3 meters

0931 start logging

1035 stopped logging left LBR for LFR

1110 arrive @ LFR - dredgers +  
ship/tug blocking river North of 025

1112 set up for final profile/drift

Sonde A: 1 meter; B: 5 meters

1152 start logging

1152 → perform 1 profile offshore of system

1155 transect direction change due to passing boat

1159 continue adjusted transect due to tug

1150 perform 1 profile S of 02 System

1202 transect adjusted due to 3 incoming motorboats

1205 perform 1 profile South of system

1210 large amount of small craft/boats

boats passing through, affecting transect

1214 perform 1 profile S of system

1220 stop logging; depart LFR

1230 arrive @ depot + upload data

1310 LH + SB left depot for day

05/20/19

83°F Fair SW 8 mph

1021 EB, HD at depot

1038 leave for LFR (black)

1049 arrive at LFR

1051 retrieve LFR-S sonde

1054 retrieve LFR-N sonde

1059 retrieve LFR-A sonde

1103 leave LFR for depot

1117 arrive at depot

1121 clean & prep sondes 21-23 for  
Storage: unremarkable

1210 upload LFR Buoy data

1257 leave for LBR (yellow)

1318 arrive at LBR

1322 retrieve BSE; sonde coated  
in "mud" + tiny shrimp (?)1328 retrieve BSW; sonde coated  
in "mud" + tiny shrimp (?)1334 retrieve BNW; sonde has  
barnacle growth

1339 retrieve BNE; biofouling present

1343 retrieve MS-8 + S9-12

1348 leave LBR for depot


1350 arrive at depot - delay due  
to dredge machinery at depot dock1355 clean & prep sondes from platform  
+ LFR buoys for storage

Rite in the Rain





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 05/21/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 90°F, Partly Cloudy, SSE 6 mph	<b>Tides:</b> L –N/A H – N/A	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Ethan Bright		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- Calibration of:<ul style="list-style-type: none"><li>o DO: A, B, C, D, F, G, 5, 6, 8, 9, 10, 11, 13, 12, 14, 17, 18, 19, 21, 22, 23, 25, 26, 28</li><li>o CT: A, B, C, D, E, F, G, 5, 6, 8, 9, 10, 11, 12, 13, 14, 17, 18, 19, 21, 22, 23, 24, 25, 26, 28</li><li>o Algae: A, B, C, D, F, G, 11, 18, 19, 21, 23</li><li>o Depth: A, B, C, D, E, F, G, 17, 18, 19, 21, 22, 23, 25, 26</li></ul></li><li>- Prep for removal/replacement of LFR and LBR buoys tomorrow</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____

Sondes had a significant amount  
of biofouling and/or "mud"

1731 upload LBR buoy data

Transfer  $H_2$  data to computer back-up

1800 leave depot

5/21/19<sup>43</sup>

90°F pty cloudy SE 11 mph

0821 EB, HD at depot

0840 calibrate sensors:

DO - ABC, DFG, 5, 6, 8, 9, 10, 11, 12, 13, 14

17, 18, 19, 20, 22, 23, 25, 26, 28

CT - ABC, DE, FG, 5, 6, 8, 9, 10, 11, 12, 13

14, 17, 18, 19, 21, 22, 23, 24, 25

26, 28

Algae - ABCDEFG, 11, 18, 19, 21, 23

Depth - ABCDEFG, 25, 26, 21-23, 17-19, 14

print weeks 9+10 daily logs

update deployments & TR work complete

transfer  $H_2$  +  $H_1$  data


prep <sup>(white)</sup>buoys to replace <sup>(yellow)</sup>buoys

1619 leave depot





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
**Daily Log**

<b>Date:</b> 05/22/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 90°F, Sunny, SE 11 mph	<b>Tides:</b> L – N/A H – N/A	
<b>Client/Stakeholder Interaction (if any):</b> Brian Robinson		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Ethan Bright, Lisa Heise, Sam Booth		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.5 hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 5.5 hours		<b>Other Equipment Used:</b>
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- EB &amp; HD went to retrieve LFR_A around 0800 to find that LFR_A &amp; LFR_N were not present. Brian Robinson informed the team that the dredge barge had inadvertently removed the buoys with a floating pipe. HD, EB, and BR went to the "Savannah" barge at approximately 0930 to retrieve LFR_A and what was left of LFR_N. It is assumed that the dor-mor and 55-gallon drum are still in the river. Dale from USACE Operations was on site (the depot) to inspect the buoys.<ul style="list-style-type: none"><li>o Team will leave "sacrificial" buoy at depot for possible deployment at 55-gallon drum if found.</li></ul></li><li>- Back River:<ul style="list-style-type: none"><li>o BSE and BNE were unable to be removed, replaced with red fender.</li><li>o BSE and BNW were removed along with their dor-mor.</li><li>o Six 20-foot pipes removed from platform, 4 short, 4 middle and 2 variable pipes were removed and stored attached to the platform.</li></ul></li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____

5/22/19

82°F Sunny S 9 mph

0801 EB HD at depot

0819 leave for LFR (yellow)

0830 arrive at LFR

0833 Buoys LFR-A + LFR-N are  
not present, cannot usually  
set the BuoysDredge machinery now downstream  
(very close of LFR-S)

0850 leave LFR for depot

0901 arrive at depot

0906 B. Robinson at depot

0916 BR call Tyler on dredge -  
reports floating tubing ripped out  
LFR A + N - they have the buoys  
and we can retrieve. Conduit  
drum & derrick are assumed  
to still be in the river0924 BR, EB, HD leave for LFR to retrieve  
Buoys (yellow)0936 arrive at dredge barge  
"Savannah"

0944 retrieve LFR A + N

0946 leave LFR

0955 arrive at depot

1011 Dale - operations ACOE

Stopped by depot to check  
in on Buoy Situation

1021 BR + Dale left depot

1031 SB LH at depot - picked up  
white boat1136 SB HD leave for LBR (yellow)  
EB LH " " (black)


1158 arrive at LBR

- removed 6 - 20' pipes from  
platform- pulled up 4 short, 4 mid, 2  
variable pipes to store on platform  
- attempt to remove BSE + BNE, would  
not move. replace buoy with  
temporary red buoy fender- remove buoy + derrick from  
BNW + BSW1351 yellow + black return to depot  
Clean + empty boats1709 call w/ RM in prep. for  
tomorrow1730 SB LH HD EB leave to get  
boat gas + materials





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 05/23/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 87°F, Sunny, ESE 9 mph	<b>Tides:</b> L –N/A H – N/A	
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Ethan Bright, Lisa Heise, Sam Booth, Rick McCann		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input checked="" type="checkbox"/> Black Boat – Duration: 4.0 hours <input type="checkbox"/> White Boat – Duration: _____ <input checked="" type="checkbox"/> Yellow Boat – Duration: 5.0 hours		<b>Other Equipment Used:</b> Pressure washer
<b>Work Completed:</b> <ul style="list-style-type: none"><li>- See field notes.</li><li>- BSE and BNE orange fenders were replaced with</li><li>- Yellow boat removed from water at Houlihan Boat Ramp</li></ul>		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano	 <b>Signature:</b>	
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____

5/23/19

77°F Sunny E 5mph

0753 LH HD SB EB at depot

- prep 3 buoys to hold platform
- Chains with 3 fenders

- prep 2 buoys for BSE + BNE

0853 RM at depot

0947 leave for LBR - HD/EB yellow  
SB/LH Black

1004 arrive at LBR

- prep platform to move
- replace fenders w/ white buoys
- at BSE + BNE

- Attach chains from NW, NE  
+ SW corners of platform
- to white buoys and two fenders

1147 begin journey from LBR to depot w/ platform

1400 arrive @ depot w/ platform and  
attempted to put on trailer.  
did not succeed.1519 Left for LFR to install white  
buoy

1532 arrive at LFR and swap LFR-S

1543 leave LFR for boat ramp

1558 arrive at boat ramp and pull out boat

1630 arrive at depot

1657 leave depot

5/24/19


0831 SBLH HD EB at depot

0921 RM at depot





**Savannah Harbor Expansion Project - O<sub>2</sub> Injection Monitoring**  
*Daily Log*

<b>Date:</b> 05/24/19	<b>Task:</b> 7 – Test Run (TR)	<b>All Daily Items Completed?</b> <input checked="" type="checkbox"/> (see below)
Daily Items for TR: 1) Check tomorrow's tides 2) Download data from sondes & upload to OneDrive 3) Check EagleIO 4) Upload field notes		
<b>Weather:</b> 87°F, Sunny, ESE 9 mph		<b>Tides:</b> L –N/A H – 1349
<b>Client/Stakeholder Interaction (if any):</b>		
<b>Personnel/Visitors on site:</b> Hayley DiGiano, Ethan Bright, Lisa Heise, Sam Booth, Rick McCann		
<b>Have all on-site personnel and all visitors reviewed and signed the Health and Safety Plan today?</b> <input checked="" type="checkbox"/>		
<b>Boat(s) Used:</b> <input type="checkbox"/> Black Boat – Duration: _____ <input type="checkbox"/> White Boat – Duration: _____ <input type="checkbox"/> Yellow Boat – Duration: _____		<b>Other Equipment Used:</b> ATV Trailer, Fork-lift, pressure washer
<b>Work Completed:</b> - See field notes.		
<b>Notes:</b>		
<b>Daily Log Completed by:</b> Hayley DiGiano		<b>Signature:</b> 
		<b>Photos Attached?</b> <input type="checkbox"/> <b># of Photos</b> _____

5/23/19

77°F Sunny E 5mph

0753 LH HD SB EB at depot

- prep 3 buoys to hold platform
- Chains with 3 fenders

- prep 2 buoys for BSE + BNE

0853 RM at depot

0947 leave for LBR - HD/EB yellow

SB/LH Black

1004 arrive at LBR

- prep platform to move

- replace fenders w/ white buoys
- at BSE + BNE

- Attach chains from NW, NE
- + SW corners of platform

to white buoys and two fenders

1147 begin journey from LBR to depot w/ platform

1400 arrive @ depot w/ platform and  
attempted to put on trailer.  
did not succeed.1519 Left for LFR to install white  
buoy

1532 arrive at LFR and swap LFR-5

1543 leave LFR for boat ramp

1558 arrive at boat ramp and pull out boat

1630 arrive at depot

1657 leave depot

5/24/19

92°F (= 97°F) Sunny NW 5mph

0831 SBLH HD EB at depot

0921 RM at depot

clean yellow boat, empty

- white, yellow & black boats

white & yellow boats stored  
in warehouseBack River buoys (4) in  
warehouse1300 remove platform from  
water

1337 platform stored at depot

1343 Pull black boat from  
water & wash

1421 RM leave depot

1445 LH, EB, SB, HD leave for  
Jax





## **FIELD SERVICE REPORT**

Savannah Harbor Enhancement Project (SHEP)

Client: LG2

POC: Rick McCann

ISS Field Engineer: Jon Fajans

April 29, 2019

Rick,

I met with the team at the Depot on Monday April 29<sup>th</sup>, and we spent time discussing field operations, data download issues, specific sonde issues and upcoming operations. The team is well versed in sonde maintenance and the record keeping. We spent time going over the archiving and transferring of calibration records from one system to another and introduced the various record search methods.

Two sondes were examined for possible hardware issues. One was found to be fully operational and the previously reported depth sensor issue was not able to re-created. We discussed some additional troubleshooting options that could be employed should the issue re-present itself. The second sonde was found to have an unresponsive port #1 and it is recommended that the sonde be sent in to YSI OH for evaluation and possible warranty repair sooner rather than later. The team can contact YSI EXO tech support for an RMA.

Finally, please let us know if you need any additional information regarding buoy platform options for the up-river phase of the monitoring effort. We may have some low cost or rental solutions that would provide suitable buoyancy for tethering multiple sondes.

Your team was extremely knowledgeable and a pleasure to work with as usual.

Jon Fajans  
Field Service Engineer

**Y S I Integrated Systems &  
Services**

ISS-FL  
9843 18<sup>th</sup> Street N #1200-A  
St. Petersburg, FL  
33716USA

727-565-2201  
866-778-8431

[www.y si.com](http://www.y si.com)

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:33:27 PM

**Calibration Start Time:** 3/12/2019 2:21:53 PM

**Calibration End Time:** 3/12/2019 2:36:26 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105662

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.00 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.027 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 2:33:27 PM

**Calibration Start Time:** 3/12/2019 2:21:53 PM

**Calibration End Time:** 3/12/2019 2:36:26 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105656

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.00 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.159 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:39:25 PM

**Calibration Start Time:** 3/12/2019 2:21:53 PM

**Calibration End Time:** 3/12/2019 2:36:26 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102813

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.12 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.173 °C

**Standard Value:** 0.00 RFU

**Type:**

**Manufacturer:**

**Lot Number:**

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 2:33:27 PM

**Calibration Start Time:** 3/12/2019 2:21:53 PM

**Calibration End Time:** 3/12/2019 2:36:26 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105654

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.04 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.186 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:33:27 PM

**Calibration Start Time:** 3/12/2019 2:21:53 PM

**Calibration End Time:** 3/12/2019 2:36:26 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105664

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.03 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.216 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 3:46:20 PM

**Calibration Start Time:** 3/12/2019 2:35:46 PM

**Calibration End Time:** 3/12/2019 2:47:27 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102336

**Serial Number:** 17G102336

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105663

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.01 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.228 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:39:25 PM

**Calibration Start Time:** 3/12/2019 2:35:46 PM

**Calibration End Time:** 3/12/2019 2:47:27 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102336

**Serial Number:** 17G102336

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105658

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.11 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.234 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 2:39:25 PM

**Calibration Start Time:** 3/12/2019 1:12:12 PM

**Calibration End Time:** 3/12/2019 1:21:35 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.00 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.371 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M05241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:39:25 PM

**Calibration Start Time:** 3/12/2019 1:12:12 PM

**Calibration End Time:** 3/12/2019 1:21:35 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105657

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.02 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.401 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M05241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 3:46:20 PM

**Calibration Start Time:** 3/12/2019 1:12:12 PM

**Calibration End Time:** 3/12/2019 1:21:35 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102814

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.01 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.444 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M05241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:46:20 PM

**Calibration Start Time:** 3/12/2019 1:12:12 PM

**Calibration End Time:** 3/12/2019 1:21:35 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105655

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.04 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.456 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M05241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 2:39:25 PM

**Calibration Start Time:** 3/12/2019 1:12:12 PM

**Calibration End Time:** 3/12/2019 1:21:35 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105653

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.02 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.474 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M05241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:48:42 PM

**Calibration Start Time:** 3/12/2019 2:37:39 PM

**Calibration End Time:** 3/12/2019 2:47:35 PM

**Parameter:** Chlorophyll ( $\mu\text{g/L}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105662

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.03  $\mu\text{g/L}$

**Post Calibration Value:** 0.00  $\mu\text{g/L}$

**Raw Calibration Value:** 0.00  $\mu\text{g/L}$

**Temperature:** 21.246  $^{\circ}\text{C}$

**Standard Value:** 0.00  $\mu\text{g/L}$

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 2:48:42 PM

**Calibration Start Time:** 3/12/2019 2:37:39 PM

**Calibration End Time:** 3/12/2019 2:47:35 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105656

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.14 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.279 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:15:44 PM

**Calibration Start Time:** 3/12/2019 2:37:39 PM

**Calibration End Time:** 3/12/2019 2:47:35 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102813

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.58 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.291 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:48:42 PM

**Calibration Start Time:** 3/12/2019 2:37:39 PM

**Calibration End Time:** 3/12/2019 2:47:35 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105654

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.21 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.313 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 2:48:42 PM

**Calibration Start Time:** 3/12/2019 2:37:39 PM

**Calibration End Time:** 3/12/2019 2:47:35 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105664

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.22 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.319 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:59:35 PM

**Calibration Start Time:** 3/12/2019 2:49:01 PM

**Calibration End Time:** 3/12/2019 2:52:19 PM

**Parameter:** Chlorophyll ( $\mu\text{g/L}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102336

**Serial Number:** 17G102336

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105663

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.16  $\mu\text{g/L}$

**Post Calibration Value:** 0.00  $\mu\text{g/L}$

**Raw Calibration Value:** 0.00  $\mu\text{g/L}$

**Temperature:** 20.238  $^{\circ}\text{C}$

**Standard Value:** 0.00  $\mu\text{g/L}$

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:15:44 PM

**Calibration Start Time:** 3/12/2019 2:49:01 PM

**Calibration End Time:** 3/12/2019 2:52:19 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102336

**Serial Number:** 17G102336

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105658

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.34 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.241 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 3:15:44 PM

**Calibration Start Time:** 3/12/2019 1:24:39 PM

**Calibration End Time:** 3/12/2019 1:31:59 PM

**Parameter:** Chlorophyll ( $\mu\text{g/L}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.07  $\mu\text{g/L}$

**Post Calibration Value:** 0.00  $\mu\text{g/L}$

**Raw Calibration Value:** 0.00  $\mu\text{g/L}$

**Temperature:** 20.526  $^{\circ}\text{C}$

**Standard Value:** 0.00  $\mu\text{g/L}$

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:15:44 PM

**Calibration Start Time:** 3/12/2019 1:24:39 PM

**Calibration End Time:** 3/12/2019 1:31:59 PM

**Parameter:** Chlorophyll ( $\mu\text{g/L}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105657

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.08  $\mu\text{g/L}$

**Post Calibration Value:** 0.00  $\mu\text{g/L}$

**Raw Calibration Value:** 0.00  $\mu\text{g/L}$

**Temperature:** 20.559  $^{\circ}\text{C}$

**Standard Value:** 0.00  $\mu\text{g/L}$

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:59:35 PM

**Calibration Start Time:** 3/12/2019 1:24:39 PM

**Calibration End Time:** 3/12/2019 1:31:59 PM

**Parameter:** Chlorophyll ( $\mu\text{g/L}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102814

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.00  $\mu\text{g/L}$

**Post Calibration Value:** 0.00  $\mu\text{g/L}$

**Raw Calibration Value:** 0.00  $\mu\text{g/L}$

**Temperature:** 20.569  $^{\circ}\text{C}$

**Standard Value:** 0.00  $\mu\text{g/L}$

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 3:59:35 PM

**Calibration Start Time:** 3/12/2019 1:24:39 PM

**Calibration End Time:** 3/12/2019 1:31:59 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105655

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.20 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.580 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:15:44 PM

**Calibration Start Time:** 3/12/2019 1:24:39 PM

**Calibration End Time:** 3/12/2019 1:31:59 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105653

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.14 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.588 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 12:37:48 PM

**Calibration Start Time:** 3/11/2019 3:44:07 PM

**Calibration End Time:** 3/11/2019 4:00:08 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100164

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9995.6  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.693  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 12:37:48 PM

**Calibration Start Time:** 3/11/2019 3:44:07 PM

**Calibration End Time:** 3/11/2019 4:00:08 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17F104024

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.46

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10000.9  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.681  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 12:37:48 PM

**Calibration Start Time:** 3/11/2019 3:44:07 PM

**Calibration End Time:** 3/11/2019 4:00:08 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100167

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9998.1  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.668  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 12:37:48 PM

**Calibration Start Time:** 3/11/2019 3:44:07 PM

**Calibration End Time:** 3/11/2019 4:00:08 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100183

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.46

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10003.1  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.656  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 12:37:48 PM

**Calibration Start Time:** 3/11/2019 3:44:07 PM

**Calibration End Time:** 3/11/2019 4:00:08 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100176

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10007.3  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.649  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 12:37:48 PM

**Calibration Start Time:** 3/11/2019 3:44:07 PM

**Calibration End Time:** 3/11/2019 4:00:08 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100165

**Firmware Version:** 3.0.5

**Status:** Completed With Warnings

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10003.2  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.619  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** False

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:03:02 PM

**Calibration Start Time:** 3/11/2019 3:44:07 PM

**Calibration End Time:** 3/11/2019 4:00:08 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F104074

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.13

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10001.7  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.621  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 1:03:02 PM

**Calibration Start Time:** 3/11/2019 3:17:42 PM

**Calibration End Time:** 3/11/2019 3:26:33 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100175

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9999.2  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.793  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:03:02 PM

**Calibration Start Time:** 3/11/2019 3:17:42 PM

**Calibration End Time:** 3/11/2019 3:26:33 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100171

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10028.2  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.795  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:03:02 PM

**Calibration Start Time:** 3/11/2019 3:17:42 PM

**Calibration End Time:** 3/11/2019 3:26:33 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100174

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9998.9  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.795  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 1:03:02 PM

**Calibration Start Time:** 3/11/2019 3:17:42 PM

**Calibration End Time:** 3/11/2019 3:26:33 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100166

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10008.8  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.794  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:03:02 PM

**Calibration Start Time:** 3/11/2019 3:17:42 PM

**Calibration End Time:** 3/11/2019 3:26:33 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100181

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10009.1  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.793  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:03:02 PM

**Calibration Start Time:** 3/11/2019 3:17:42 PM

**Calibration End Time:** 3/11/2019 3:26:33 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100182

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9999.2  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.790  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 12:59:00 PM

**Calibration Start Time:** 3/11/2019 3:17:42 PM

**Calibration End Time:** 3/11/2019 3:26:33 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F103298

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.18

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10135.3  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.786  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 12:59:00 PM

**Calibration Start Time:** 3/12/2019 9:40:32 AM

**Calibration End Time:** 3/12/2019 9:48:44 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100170

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10048.3  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.679  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 12:59:00 PM

**Calibration Start Time:** 3/12/2019 9:40:32 AM

**Calibration End Time:** 3/12/2019 9:48:44 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100178

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10027.4  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.716  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 12:59:00 PM

**Calibration Start Time:** 3/12/2019 9:40:32 AM

**Calibration End Time:** 3/12/2019 9:48:44 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100173

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10044.2  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.784  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 12:59:00 PM

**Calibration Start Time:** 3/12/2019 9:40:32 AM

**Calibration End Time:** 3/12/2019 9:48:44 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100172

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10070.1  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.790  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 12:59:00 PM

**Calibration Start Time:** 3/12/2019 9:40:32 AM

**Calibration End Time:** 3/12/2019 9:48:44 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100180

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10027.2  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 9999.9  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.798  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 12:59:00 PM

**Calibration Start Time:** 3/12/2019 9:40:32 AM

**Calibration End Time:** 3/12/2019 9:48:44 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100168

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10026.9  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.804  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 12:37:48 PM

**Calibration Start Time:** 3/12/2019 9:40:32 AM

**Calibration End Time:** 3/12/2019 9:48:44 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F104073

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.16

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10451.2  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.804  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:14:53 PM

**Calibration Start Time:** 3/12/2019 10:00:58 AM

**Calibration End Time:** 3/12/2019 10:07:42 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17G101761

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9998.5  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.753  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 1:14:53 PM

**Calibration Start Time:** 3/12/2019 10:00:58 AM

**Calibration End Time:** 3/12/2019 10:07:42 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100179

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10010.3  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.764  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:14:53 PM

**Calibration Start Time:** 3/12/2019 10:00:58 AM

**Calibration End Time:** 3/12/2019 10:07:42 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100177

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9999.1  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.738  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:14:53 PM

**Calibration Start Time:** 3/12/2019 10:00:58 AM

**Calibration End Time:** 3/12/2019 10:07:42 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17F104031

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10025.8  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.727  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 1:14:53 PM

**Calibration Start Time:** 3/12/2019 10:00:58 AM

**Calibration End Time:** 3/12/2019 10:07:42 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17F104022

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10003.7  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.720  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:14:53 PM

**Calibration Start Time:** 3/12/2019 10:00:58 AM

**Calibration End Time:** 3/12/2019 10:07:42 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100169

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9995.7  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.712  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:14:27 PM

**Calibration Start Time:** 3/12/2019 10:00:58 AM

**Calibration End Time:** 3/12/2019 10:07:42 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F103295

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.15

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10048.9  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.704  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** <Unknown>

**Calibration Start Time:** 3/12/2019 11:50:04 AM

**Calibration End Time:** 3/12/2019 11:58:03 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F104076

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.13

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9933.2  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.726  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** <Unknown>

**Calibration Start Time:** 3/12/2019 11:50:04 AM

**Calibration End Time:** 3/12/2019 11:58:03 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17F104021

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10024.5  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.721  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** <Unknown>

**Calibration Start Time:** 3/12/2019 11:50:04 AM

**Calibration End Time:** 3/12/2019 11:58:03 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17G101758

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.48

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9857.5  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.719  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** <Unknown>

**Calibration Start Time:** 3/12/2019 11:50:04 AM

**Calibration End Time:** 3/12/2019 11:58:03 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17F104023

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.48

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9807.2  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.715  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:14:27 PM

**Calibration Start Time:** 3/12/2019 11:50:04 AM

**Calibration End Time:** 3/12/2019 11:58:03 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F103296

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.15

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10075.1  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.706  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:14:27 PM

**Calibration Start Time:** 3/12/2019 11:50:04 AM

**Calibration End Time:** 3/12/2019 11:58:03 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F103297

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.19

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10042.3  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.696  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 1:14:53 PM

**Calibration Start Time:** 3/12/2019 11:50:04 AM

**Calibration End Time:** 3/12/2019 11:58:03 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F104075

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.17

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10000.6  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.670  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 8:33:44 AM

**Calibration Start Time:** 3/12/2019 9:02:32 AM

**Calibration End Time:** 3/12/2019 9:05:52 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G101989

**Serial Number:** 17G101989

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104624

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.027 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.847 °C

**Standard Value:** 0.000 m

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 8:39:58 AM

**Calibration Start Time:** 3/12/2019 9:10:34 AM

**Calibration End Time:** 3/12/2019 9:11:19 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G101992

**Serial Number:** 17G101992

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104628

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.026 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.797 °C

**Standard Value:** 0.000 m

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/6/2019 3:54:29 PM

**Calibration Start Time:** 3/12/2019 9:14:22 AM

**Calibration End Time:** 3/12/2019 9:14:54 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102013

**Serial Number:** 17G102013

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104614

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.046 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.856 °C

**Standard Value:** 0.000 m

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 4:02:07 PM

**Calibration Start Time:** 3/12/2019 9:18:46 AM

**Calibration End Time:** 3/12/2019 9:19:14 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102004

**Serial Number:** 17G102004

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104608

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.014 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.910 °C

**Standard Value:** 0.000 m

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 4:01:11 PM

**Calibration Start Time:** 3/12/2019 9:22:14 AM

**Calibration End Time:** 3/12/2019 9:22:54 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G101996

**Serial Number:** 17G101996

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104630

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.050 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.748 °C

**Standard Value:** 0.000 m

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/6/2019 4:05:37 PM

**Calibration Start Time:** 3/11/2019 5:00:56 PM

**Calibration End Time:** 3/11/2019 5:01:48 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102944

**Serial Number:** 17L102944

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104916

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.006 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.750 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 4:07:05 PM

**Calibration Start Time:** 3/11/2019 4:57:47 PM

**Calibration End Time:** 3/11/2019 4:58:21 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102009

**Serial Number:** 17G102009

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104611

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.035 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.556 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 4:10:09 PM

**Calibration Start Time:** 3/11/2019 4:55:03 PM

**Calibration End Time:** 3/11/2019 4:55:43 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G101997

**Serial Number:** 17G101997

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104631

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.053 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.494 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/6/2019 4:13:44 PM

**Calibration Start Time:** 3/11/2019 4:51:36 PM

**Calibration End Time:** 3/11/2019 4:52:12 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G101993

**Serial Number:** 17G101993

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104632

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.026 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.692 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 4:10:25 PM

**Calibration Start Time:** 3/12/2019 3:45:12 PM

**Calibration End Time:** 3/12/2019 3:45:45 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102940

**Serial Number:** 17L102940

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104915

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.027 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.753 °C

**Standard Value:** 0.000 m

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 4:13:25 PM

**Calibration Start Time:** 3/11/2019 4:47:07 PM

**Calibration End Time:** 3/11/2019 4:47:41 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102942

**Serial Number:** 17L102942

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104904

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.047 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.603 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/6/2019 4:26:16 PM

**Calibration Start Time:** 3/12/2019 11:09:54 AM

**Calibration End Time:** 3/12/2019 11:10:19 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102010

**Serial Number:** 17G102010

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104610

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.055 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.007 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 4:35:04 PM

**Calibration Start Time:** 3/12/2019 11:19:28 AM

**Calibration End Time:** 3/12/2019 11:19:51 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102008

**Serial Number:** 17G102008

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104613

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.054 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.242 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 4:31:11 PM

**Calibration Start Time:** 3/12/2019 11:26:23 AM

**Calibration End Time:** 3/12/2019 11:26:50 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102003

**Serial Number:** 17G102003

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104601

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.056 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.310 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/6/2019 4:41:33 PM

**Calibration Start Time:** 3/12/2019 11:23:50 AM

**Calibration End Time:** 3/12/2019 11:24:17 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102000

**Serial Number:** 17G102000

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104605

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.056 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.450 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 4:40:49 PM

**Calibration Start Time:** 3/12/2019 4:18:36 PM

**Calibration End Time:** 3/12/2019 4:19:25 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102939

**Serial Number:** 17L102939

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104905

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.041 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.443 °C

**Standard Value:** 0.000 m

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 4:57:45 PM

**Calibration Start Time:** 3/12/2019 3:43:02 PM

**Calibration End Time:** 3/12/2019 3:43:11 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102938

**Serial Number:** 17L102938

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104906

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.042 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.734 °C

**Standard Value:** 0.000 m

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/6/2019 4:45:39 PM

**Calibration Start Time:** 3/12/2019 11:34:36 AM

**Calibration End Time:** 3/12/2019 11:35:04 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G101988

**Serial Number:** 17G101988

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104623

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.060 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.049 °C

**Standard Value:** 0.000 m

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 5:32:16 PM

**Calibration Start Time:** 3/12/2019 11:37:39 AM

**Calibration End Time:** 3/12/2019 11:38:46 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102935

**Serial Number:** 17L102935

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104900

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.067 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.885 °C

**Standard Value:** 0.000 m

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 4:53:12 PM

**Calibration Start Time:** 3/12/2019 11:50:06 AM

**Calibration End Time:** 3/12/2019 11:50:21 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102946

**Serial Number:** 17L102946

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104917

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.052 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.246 °C

**Standard Value:** 0.000 m

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/6/2019 5:00:24 PM

**Calibration Start Time:** 3/12/2019 11:31:05 AM

**Calibration End Time:** 3/12/2019 11:32:53 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102932

**Serial Number:** 17L102932

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104903

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.101 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.498 °C

**Standard Value:** 0.000 m

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 5:09:15 PM

**Calibration Start Time:** 3/12/2019 11:41:22 AM

**Calibration End Time:** 3/12/2019 11:41:38 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102931

**Serial Number:** 17L102931

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104912

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.111 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.296 °C

**Standard Value:** 0.000 m

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/6/2019 5:08:46 PM

**Calibration Start Time:** 3/12/2019 11:28:36 AM

**Calibration End Time:** 3/12/2019 11:28:55 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102941

**Serial Number:** 17L102941

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104914

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.086 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.005 °C

**Standard Value:** 0.000 m

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/6/2019 5:26:09 PM

**Calibration Start Time:** 3/12/2019 4:20:33 PM

**Calibration End Time:** 3/12/2019 4:20:46 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102945

**Serial Number:** 17L102945

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104909

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.040 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 18.660 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 12/11/2017 6:28:47 PM

**Calibration Start Time:** 3/12/2019 12:56:00 PM

**Calibration End Time:** 3/12/2019 12:56:07 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102929

**Serial Number:** 17L102929

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104908

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.026 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.778 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** <Unknown>

**Calibration Start Time:** 3/12/2019 1:08:09 PM

**Calibration End Time:** 3/12/2019 1:08:30 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102937

**Serial Number:** 17L102937

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104902

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10.459 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.048 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 8/23/2017 1:04:55 PM

**Calibration Start Time:** 3/12/2019 1:17:20 PM

**Calibration End Time:** 3/12/2019 1:17:26 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102005

**Serial Number:** 17G102005

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104606

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.097 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.308 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:10:24 PM

**Calibration Start Time:** 3/12/2019 3:57:00 PM

**Calibration End Time:** 3/12/2019 3:57:53 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100273

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.055 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 17.775 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:38:16 PM

**Calibration Start Time:** 3/12/2019 4:04:17 PM

**Calibration End Time:** 3/12/2019 4:05:53 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101640

**Serial Number:** 17G101640

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100250

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.078 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 17.720 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/6/2019 5:15:25 PM

**Calibration Start Time:** 3/12/2019 2:53:08 PM

**Calibration End Time:** 3/12/2019 2:53:15 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102336

**Serial Number:** 17G102336

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100277

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.097 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.243 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 12:04:50 PM

**Calibration Start Time:** 3/12/2019 3:07:18 PM

**Calibration End Time:** 3/12/2019 3:07:27 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100292

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.049 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.668 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 12:50:20 PM

**Calibration Start Time:** 3/12/2019 9:50:13 AM

**Calibration End Time:** 3/12/2019 9:50:20 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100253

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.165 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.804 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 12:07:51 PM

**Calibration Start Time:** 3/11/2019 4:54:36 PM

**Calibration End Time:** 3/11/2019 4:55:06 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100276

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.036 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.553 °C

**Standard Value:** 0.000 m

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 8/22/2017 5:47:50 PM

**Calibration Start Time:** 3/12/2019 1:46:04 PM

**Calibration End Time:** 3/12/2019 1:46:14 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100252

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.096 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.547 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:44:40 PM

**Calibration Start Time:** 3/11/2019 4:39:30 PM

**Calibration End Time:** 3/11/2019 4:52:19 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100743

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100557

**DO Cap Replacement Date:** 7/20/2017

**DO Gain:** 1.07

**DO (mg/L):** 9.04 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 102.3 % Sat

**Post Calibration Value:** 100.7 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.040 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.6 mmHg



# Calibration Report

**Last Calibration Time:** 2/4/2019 1:44:40 PM

**Calibration Start Time:** 3/11/2019 4:39:30 PM

**Calibration End Time:** 3/11/2019 4:52:19 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101846

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100596

**DO Cap Replacement Date:** 7/24/2017

**DO Gain:** 1.05

**DO (mg/L):** 9.05 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 103.0 % Sat

**Post Calibration Value:** 100.5 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.136 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.6 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:57:51 PM

**Calibration Start Time:** 3/11/2019 4:39:30 PM

**Calibration End Time:** 3/11/2019 4:52:19 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100747

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104236

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 1.05

**DO (mg/L):** 9.08 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 103.8 % Sat

**Post Calibration Value:** 100.6 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.264 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.6 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:44:40 PM

**Calibration Start Time:** 3/11/2019 4:39:30 PM

**Calibration End Time:** 3/11/2019 4:52:19 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100749

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100560

**DO Cap Replacement Date:** 7/23/2017

**DO Gain:** 1.07

**DO (mg/L):** 9.06 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 102.9 % Sat

**Post Calibration Value:** 100.6 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.326 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.6 mmHg



# Calibration Report

**Last Calibration Time:** 2/4/2019 1:44:40 PM

**Calibration Start Time:** 3/11/2019 4:39:30 PM

**Calibration End Time:** 3/11/2019 4:52:19 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100736

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104237

**DO Cap Replacement Date:** 7/20/2017

**DO Gain:** 1.06

**DO (mg/L):** 9.08 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.9 % Sat

**Post Calibration Value:** 100.7 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.366 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.6 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:06:52 PM

**Calibration Start Time:** 3/11/2019 4:39:30 PM

**Calibration End Time:** 3/11/2019 4:52:19 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100746

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104235

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 0.99

**DO (mg/L):** 9.08 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.3 % Sat

**Post Calibration Value:** 100.6 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.443 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.6 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:52:20 PM

**Calibration Start Time:** 3/11/2019 4:04:37 PM

**Calibration End Time:** 3/11/2019 4:16:05 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100742

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100556

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 1.04

**DO (mg/L):** 8.88 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.8 % Sat

**Post Calibration Value:** 100.6 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.998 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg



# Calibration Report

**Last Calibration Time:** 2/4/2019 1:52:20 PM

**Calibration Start Time:** 3/11/2019 4:04:37 PM

**Calibration End Time:** 3/11/2019 4:16:05 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101858

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100627

**DO Cap Replacement Date:** 7/26/2017

**DO Gain:** 1.09

**DO (mg/L):** 8.96 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 99.4 % Sat

**Post Calibration Value:** 100.5 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.113 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:52:20 PM

**Calibration Start Time:** 3/11/2019 4:04:37 PM

**Calibration End Time:** 3/11/2019 4:16:05 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100744

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104233

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 1.10

**DO (mg/L):** 9.12 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 94.4 % Sat

**Post Calibration Value:** 100.6 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.221 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:52:20 PM

**Calibration Start Time:** 3/11/2019 4:04:37 PM

**Calibration End Time:** 3/11/2019 4:16:05 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100740

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100558

**DO Cap Replacement Date:** 7/20/2017

**DO Gain:** 1.09

**DO (mg/L):** 8.89 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.4 % Sat

**Post Calibration Value:** 100.6 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.297 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg



# Calibration Report

**Last Calibration Time:** 2/4/2019 1:52:20 PM

**Calibration Start Time:** 3/11/2019 4:04:37 PM

**Calibration End Time:** 3/11/2019 4:16:05 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101861

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100630

**DO Cap Replacement Date:** 7/26/2017

**DO Gain:** 1.07

**DO (mg/L):** 8.90 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.5 % Sat

**Post Calibration Value:** 100.6 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.369 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:06:52 PM

**Calibration Start Time:** 3/11/2019 4:04:37 PM

**Calibration End Time:** 3/11/2019 4:16:05 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101851

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100606

**DO Cap Replacement Date:** 7/24/2017

**DO Gain:** 1.07

**DO (mg/L):** 8.89 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.0 % Sat

**Post Calibration Value:** 100.5 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.456 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg

---

<BEGIN>

Calibrate ODO

Date: [MM/DD/YY] 04/06/19

Time: 13:46:29

Sensor Type: ODO

Sensor: 17G100744

Sw Version: 3.0.0

Method: DO Air Cal

Cal Value: 100.8 DO %

Sensor Value: 91.4

ODO Gain: 1.040981

Barometer: 765.8 mmHg

Temperature: 21.0 Ref °C

User ID: HD

QC Score: OK

Calibrate Status: Calibrated

<END>

---



## Device Status

Overall System QC Score - ☒

### Sonde



Serial Number : 17G101997  
Firmware Version : 1.0.73  
Configuration : EXO3 - 5 port Sonde  
Disk Space Used :

### DO Sensor



Bulkhead Port Number : 1  
Serial Number : 17G100744  
Firmware Version : 3.0.0

### Wiped Conductivity Sensor



Bulkhead Port Number : 2  
Serial Number : 17L100174  
Firmware Version : 3.0.5

### Wiper Sensor



Bulkhead Port Number : 5  
Serial Number : 17G101931



### Latest Calibration Data for the Following Sensor: DO

DO (% Local)



SmartQC

4/6/2019 1:46:30 PM

DO (mg/L)



SmartQC

4/6/2019 1:46:30 PM

DO (% Sat)



SmartQC

4/6/2019 1:46:30 PM

### Sensor Cap Settings

Date Last Updated : 7/21/2017

K1 : C0115165

K5 : 61119729

K2 : 41D0D60A

K6 : 3C774CD3

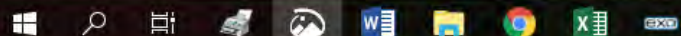
SERIAL NUMBER : 17G101997 AVERAGING MODE : Default

⚙ IDLE

🔋 93.4%

📶

QC : ☒



🔊 🔌 📶 📶 📶 ENG 1:55 PM 4/6/2019

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:10:09 PM

**Calibration Start Time:** 3/12/2019 10:25:22 AM

**Calibration End Time:** 3/12/2019 10:46:40 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101853

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100607

**DO Cap Replacement Date:** 7/24/2017

**DO Gain:** 1.09

**DO (mg/L):** 9.12 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.9 % Sat

**Post Calibration Value:** 101.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.707 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.3 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:10:09 PM

**Calibration Start Time:** 3/12/2019 10:25:22 AM

**Calibration End Time:** 3/12/2019 10:46:40 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100745

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104234

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 1.02

**DO (mg/L):** 9.10 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.5 % Sat

**Post Calibration Value:** 101.2 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.881 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.3 mmHg



# Calibration Report

**Last Calibration Time:** 2/4/2019 2:10:09 PM

**Calibration Start Time:** 3/12/2019 10:25:22 AM

**Calibration End Time:** 3/12/2019 10:46:40 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101848

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100600

**DO Cap Replacement Date:** 7/24/2017

**DO Gain:** 1.07

**DO (mg/L):** 9.12 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.2 % Sat

**Post Calibration Value:** 101.2 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.143 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.3 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:10:09 PM

**Calibration Start Time:** 3/12/2019 10:25:22 AM

**Calibration End Time:** 3/12/2019 10:46:40 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101857

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100626

**DO Cap Replacement Date:** 7/26/2017

**DO Gain:** 1.06

**DO (mg/L):** 9.13 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.5 % Sat

**Post Calibration Value:** 101.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.231 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.3 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:10:09 PM

**Calibration Start Time:** 3/12/2019 10:25:22 AM

**Calibration End Time:** 3/12/2019 10:46:40 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101862

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100631

**DO Cap Replacement Date:** 7/26/2017

**DO Gain:** 1.09

**DO (mg/L):** 9.03 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.7 % Sat

**Post Calibration Value:** 100.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.292 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.0 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:06:52 PM

**Calibration Start Time:** 3/12/2019 10:25:22 AM

**Calibration End Time:** 3/12/2019 10:46:40 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101463

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K101906

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.07

**DO (mg/L):** 9.15 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.9 % Sat

**Post Calibration Value:** 101.2 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.336 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.3 mmHg



# Calibration Report

**Last Calibration Time:** 2/4/2019 1:57:51 PM

**Calibration Start Time:** 3/12/2019 10:40:48 AM

**Calibration End Time:** 3/12/2019 10:51:04 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100748

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104238

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 1.04

**DO (mg/L):** 9.12 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 109.2 % Sat

**Post Calibration Value:** 101.2 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.471 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.3 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:57:51 PM

**Calibration Start Time:** 3/12/2019 10:40:48 AM

**Calibration End Time:** 3/12/2019 10:51:04 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100750

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100562

**DO Cap Replacement Date:** 7/23/2017

**DO Gain:** 1.09

**DO (mg/L):** 9.16 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 102.8 % Sat

**Post Calibration Value:** 101.2 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.568 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.3 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:57:51 PM

**Calibration Start Time:** 3/12/2019 10:40:48 AM

**Calibration End Time:** 3/12/2019 10:51:04 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101458

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102877

**DO Cap Replacement Date:** 11/16/2017

**DO Gain:** 1.07

**DO (mg/L):** 9.16 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 102.0 % Sat

**Post Calibration Value:** 101.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.679 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.3 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 1:57:51 PM

**Calibration Start Time:** 3/12/2019 10:40:48 AM

**Calibration End Time:** 3/12/2019 10:51:04 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100737

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100559

**DO Cap Replacement Date:** 7/20/2017

**DO Gain:** 1.11

**DO (mg/L):** 9.15 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 102.3 % Sat

**Post Calibration Value:** 101.2 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.804 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.3 mmHg



# Calibration Report

**Last Calibration Time:** 2/4/2019 1:44:40 PM

**Calibration Start Time:** 3/12/2019 10:40:48 AM

**Calibration End Time:** 3/12/2019 10:51:04 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100752

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100588

**DO Cap Replacement Date:** 7/23/2017

**DO Gain:** 1.08

**DO (mg/L):** 9.17 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.4 % Sat

**Post Calibration Value:** 101.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.882 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.3 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:06:52 PM

**Calibration Start Time:** 3/12/2019 10:40:48 AM

**Calibration End Time:** 3/12/2019 10:51:04 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101472

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102903

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.08

**DO (mg/L):** 9.18 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.7 % Sat

**Post Calibration Value:** 101.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.056 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.3 mmHg

# Calibration Report

**Last Calibration Time:** <Unknown>

**Calibration Start Time:** 3/12/2019 12:26:02 PM

**Calibration End Time:** 3/12/2019 12:36:48 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101462

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K101898

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.12

**DO (mg/L):** 9.25 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 89.9 % Sat

**Post Calibration Value:** 101.2 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.597 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.4 mmHg

# Calibration Report

**Last Calibration Time:** <Unknown>

**Calibration Start Time:** 3/12/2019 12:26:02 PM

**Calibration End Time:** 3/12/2019 12:36:48 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100738

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100553

**DO Cap Replacement Date:** 7/20/2017

**DO Gain:** 1.13

**DO (mg/L):** 9.23 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 89.3 % Sat

**Post Calibration Value:** 101.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.785 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.4 mmHg



# Calibration Report

**Last Calibration Time:** <Unknown>

**Calibration Start Time:** 3/12/2019 12:26:02 PM

**Calibration End Time:** 3/12/2019 12:36:48 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101457

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102888

**DO Cap Replacement Date:** 11/16/2017

**DO Gain:** 1.10

**DO (mg/L):** 9.19 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 91.8 % Sat

**Post Calibration Value:** 101.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.950 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.4 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:27:51 PM

**Calibration Start Time:** 3/12/2019 12:26:02 PM

**Calibration End Time:** 3/12/2019 12:36:48 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101849

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100601

**DO Cap Replacement Date:** 7/24/2017

**DO Gain:** 1.07

**DO (mg/L):** 9.15 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 102.7 % Sat

**Post Calibration Value:** 101.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.058 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.4 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:27:51 PM

**Calibration Start Time:** 3/12/2019 12:26:02 PM

**Calibration End Time:** 3/12/2019 12:36:48 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101860

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100629

**DO Cap Replacement Date:** 7/26/2017

**DO Gain:** 1.10

**DO (mg/L):** 9.15 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 102.8 % Sat

**Post Calibration Value:** 101.2 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.138 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.4 mmHg

# Calibration Report

**Last Calibration Time:** <Unknown>

**Calibration Start Time:** 3/12/2019 12:26:02 PM

**Calibration End Time:** 3/12/2019 12:36:48 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101456

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102884

**DO Cap Replacement Date:** 11/16/2017

**DO Gain:** 1.09

**DO (mg/L):** 8.83 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 92.6 % Sat

**Post Calibration Value:** 101.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.199 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.4 mmHg



# Calibration Report

**Last Calibration Time:** 2/4/2019 3:27:51 PM

**Calibration Start Time:** 3/12/2019 3:11:01 PM

**Calibration End Time:** 3/12/2019 3:23:54 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101471

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102902

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.08

**DO (mg/L):** 9.20 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.8 % Sat

**Post Calibration Value:** 101.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.725 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.6 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:27:51 PM

**Calibration Start Time:** 3/12/2019 3:11:01 PM

**Calibration End Time:** 3/12/2019 3:23:54 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100751

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100563

**DO Cap Replacement Date:** 7/23/2017

**DO Gain:** 1.13

**DO (mg/L):** 9.18 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 102.5 % Sat

**Post Calibration Value:** 100.9 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.756 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.6 mmHg

# Calibration Report

**Last Calibration Time:** 2/11/2019 11:25:55 AM

**Calibration Start Time:** 3/12/2019 3:11:01 PM

**Calibration End Time:** 3/12/2019 3:23:54 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101461

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102909

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.09

**DO (mg/L):** 9.19 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.6 % Sat

**Post Calibration Value:** 101.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.791 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.6 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:06:52 PM

**Calibration Start Time:** 3/12/2019 3:11:01 PM

**Calibration End Time:** 3/12/2019 3:23:54 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101469

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102897

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.09

**DO (mg/L):** 9.18 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.1 % Sat

**Post Calibration Value:** 100.9 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.819 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.6 mmHg



# Calibration Report

**Last Calibration Time:** 2/4/2019 3:27:51 PM

**Calibration Start Time:** 3/12/2019 3:11:01 PM

**Calibration End Time:** 3/12/2019 3:23:54 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101854

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100608

**DO Cap Replacement Date:** 7/24/2017

**DO Gain:** 1.08

**DO (mg/L):** 9.21 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.6 % Sat

**Post Calibration Value:** 101.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.849 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.6 mmHg

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:40:43 PM

**Calibration Start Time:** 3/12/2019 1:26:23 PM

**Calibration End Time:** 3/12/2019 1:33:39 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105662

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.32 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.425 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:40:43 PM

**Calibration Start Time:** 3/12/2019 1:26:23 PM

**Calibration End Time:** 3/12/2019 1:33:39 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105656

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.03 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.429 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:51:56 PM

**Calibration Start Time:** 3/12/2019 1:26:23 PM

**Calibration End Time:** 3/12/2019 1:33:39 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102813

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.01 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.437 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 2:40:43 PM

**Calibration Start Time:** 3/12/2019 1:26:23 PM

**Calibration End Time:** 3/12/2019 1:33:39 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105654

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 3.20 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.445 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:40:43 PM

**Calibration Start Time:** 3/12/2019 1:26:23 PM

**Calibration End Time:** 3/12/2019 1:33:39 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105664

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.08 RFU

**Post Calibration Value:** -0.01 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.453 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:51:06 PM

**Calibration Start Time:** 3/12/2019 2:27:07 PM

**Calibration End Time:** 3/12/2019 2:27:22 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102336

**Serial Number:** 17G102336

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105663

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.12 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.161 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:51:56 PM

**Calibration Start Time:** 3/12/2019 2:27:07 PM

**Calibration End Time:** 3/12/2019 2:27:22 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102336

**Serial Number:** 17G102336

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105658

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.09 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.161 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 2:51:56 PM

**Calibration Start Time:** 3/12/2019 12:43:50 PM

**Calibration End Time:** 3/12/2019 12:51:54 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.09 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.085 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:51:56 PM

**Calibration Start Time:** 3/12/2019 12:43:50 PM

**Calibration End Time:** 3/12/2019 12:51:54 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105657

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.01 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.102 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:51:06 PM

**Calibration Start Time:** 3/12/2019 12:43:50 PM

**Calibration End Time:** 3/12/2019 12:51:54 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102814

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.12 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.122 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:51:06 PM

**Calibration Start Time:** 3/12/2019 12:43:50 PM

**Calibration End Time:** 3/12/2019 12:51:54 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105655

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.17 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.137 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 2:51:56 PM

**Calibration Start Time:** 3/12/2019 12:43:50 PM

**Calibration End Time:** 3/12/2019 12:51:54 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105653

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.02 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.158 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:56:00 PM

**Calibration Start Time:** 3/12/2019 1:37:34 PM

**Calibration End Time:** 3/12/2019 1:44:29 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105662

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.65 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.500 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:56:00 PM

**Calibration Start Time:** 3/12/2019 1:37:34 PM

**Calibration End Time:** 3/12/2019 1:44:29 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105656

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.42 µg/L

**Post Calibration Value:** -0.03 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.517 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:38:31 PM

**Calibration Start Time:** 3/12/2019 1:37:34 PM

**Calibration End Time:** 3/12/2019 1:44:29 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102813

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -1.31 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.535 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 2:56:00 PM

**Calibration Start Time:** 3/12/2019 1:37:34 PM

**Calibration End Time:** 3/12/2019 1:44:29 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105654

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 8.70 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.550 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 2:56:00 PM

**Calibration Start Time:** 3/12/2019 1:37:34 PM

**Calibration End Time:** 3/12/2019 1:44:29 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105664

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.32 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.570 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 4:05:08 PM

**Calibration Start Time:** 3/12/2019 2:29:27 PM

**Calibration End Time:** 3/12/2019 2:31:23 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102336

**Serial Number:** 17G102336

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105663

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.46 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.171 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:38:31 PM

**Calibration Start Time:** 3/12/2019 2:29:27 PM

**Calibration End Time:** 3/12/2019 2:31:23 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102336

**Serial Number:** 17G102336

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105658

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.09 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.175 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 3:38:31 PM

**Calibration Start Time:** 3/12/2019 12:55:47 PM

**Calibration End Time:** 3/12/2019 1:09:07 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.02 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.211 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 3:38:31 PM

**Calibration Start Time:** 3/12/2019 12:55:47 PM

**Calibration End Time:** 3/12/2019 1:09:07 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105657

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.00 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.300 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 4:05:08 PM

**Calibration Start Time:** 3/12/2019 12:55:47 PM

**Calibration End Time:** 3/12/2019 1:09:07 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102814

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.58 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.316 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 2/4/2019 4:05:08 PM

**Calibration Start Time:** 3/12/2019 12:55:47 PM

**Calibration End Time:** 3/12/2019 1:09:07 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105655

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.67 µg/L

**Post Calibration Value:** -0.02 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.329 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** MOR5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 2/4/2019 3:38:31 PM

**Calibration Start Time:** 3/12/2019 12:55:47 PM

**Calibration End Time:** 3/12/2019 1:09:07 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105653

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.29 µg/L

**Post Calibration Value:** -0.02 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.344 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:21:35 PM

**Calibration Start Time:** 4/7/2019 4:22:11 PM

**Calibration End Time:** 4/7/2019 4:25:28 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105653

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.02 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.268 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:47:27 PM

**Calibration Start Time:** 4/7/2019 4:22:11 PM

**Calibration End Time:** 4/7/2019 4:25:28 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105663

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.02 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.266 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:21:35 PM

**Calibration Start Time:** 4/7/2019 4:22:11 PM

**Calibration End Time:** 4/7/2019 4:25:28 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.00 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.271 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 1:21:35 PM

**Calibration Start Time:** 4/7/2019 4:22:14 PM

**Calibration End Time:** 4/7/2019 4:26:45 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102814

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.01 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 22.013 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:21:35 PM

**Calibration Start Time:** 4/7/2019 4:22:14 PM

**Calibration End Time:** 4/7/2019 4:26:45 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105655

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.02 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 22.028 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:21:35 PM

**Calibration Start Time:** 4/7/2019 4:22:14 PM

**Calibration End Time:** 4/7/2019 4:26:45 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105657

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.01 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 22.036 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:31:59 PM

**Calibration Start Time:** 4/7/2019 4:26:31 PM

**Calibration End Time:** 4/7/2019 4:30:22 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105653

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.07 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.274 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 2:52:19 PM

**Calibration Start Time:** 4/7/2019 4:26:31 PM

**Calibration End Time:** 4/7/2019 4:30:22 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105663

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.00 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.278 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:31:59 PM

**Calibration Start Time:** 4/7/2019 4:26:31 PM

**Calibration End Time:** 4/7/2019 4:30:22 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.04 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.282 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:31:59 PM

**Calibration Start Time:** 4/7/2019 4:27:23 PM

**Calibration End Time:** 4/7/2019 4:31:39 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102814

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.05 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 22.042 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:31:59 PM

**Calibration Start Time:** 4/7/2019 4:27:23 PM

**Calibration End Time:** 4/7/2019 4:31:39 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105655

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.16 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 22.053 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 1:31:59 PM

**Calibration Start Time:** 4/7/2019 4:27:23 PM

**Calibration End Time:** 4/7/2019 4:31:39 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105657

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.05 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 22.057 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 11:58:03 AM

**Calibration Start Time:** 4/7/2019 3:02:50 PM

**Calibration End Time:** 4/7/2019 3:09:10 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F104075

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.17

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10011.8  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.657  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 11:58:03 AM

**Calibration Start Time:** 4/7/2019 3:02:50 PM

**Calibration End Time:** 4/7/2019 3:09:10 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17F104021

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10038.9  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.657  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 10:07:42 AM

**Calibration Start Time:** 4/7/2019 3:02:50 PM

**Calibration End Time:** 4/7/2019 3:09:10 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100179

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10009.5  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.660  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/11/2019 3:26:33 PM

**Calibration Start Time:** 4/7/2019 3:02:50 PM

**Calibration End Time:** 4/7/2019 3:09:10 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100175

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10004.3  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.665  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:00:08 PM

**Calibration Start Time:** 4/7/2019 3:02:50 PM

**Calibration End Time:** 4/7/2019 3:09:10 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17F104024

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9992.1  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.672  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 11:58:03 AM

**Calibration Start Time:** 4/7/2019 3:02:50 PM

**Calibration End Time:** 4/7/2019 3:09:10 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F104076

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.13

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10007.7  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.684  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 11:58:03 AM

**Calibration Start Time:** 4/7/2019 2:51:17 PM

**Calibration End Time:** 4/7/2019 2:57:46 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F103297

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.17

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10027.8  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.364  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 16K100757

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 10:07:42 AM

**Calibration Start Time:** 4/7/2019 2:51:17 PM

**Calibration End Time:** 4/7/2019 2:57:46 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F103295

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.13

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10040.7  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 9999.9  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.381  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 16K100757

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 9:48:44 AM

**Calibration Start Time:** 4/7/2019 2:51:17 PM

**Calibration End Time:** 4/7/2019 2:57:46 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F104073

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.14

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10036.2  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.396  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 16K100757

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 3:26:33 PM

**Calibration Start Time:** 4/7/2019 2:51:17 PM

**Calibration End Time:** 4/7/2019 2:57:46 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F103298

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.17

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10017.3  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.402  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 16K100757

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:00:08 PM

**Calibration Start Time:** 4/7/2019 2:51:17 PM

**Calibration End Time:** 4/7/2019 2:57:46 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F104074

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.11

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10023.1  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.1  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.409  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 16K100757

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 11:58:03 AM

**Calibration Start Time:** 4/7/2019 2:51:17 PM

**Calibration End Time:** 4/7/2019 2:57:46 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F103296

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.10

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10083.0  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.412  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 16K100757

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 5:01:48 PM

**Calibration Start Time:** 4/7/2019 4:49:02 PM

**Calibration End Time:** 4/7/2019 4:49:23 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102944

**Serial Number:** 17L102944

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104916

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.007 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 21.136 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 11:38:46 AM

**Calibration Start Time:** 4/7/2019 4:40:28 PM

**Calibration End Time:** 4/7/2019 4:41:23 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102935

**Serial Number:** 17L102935

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104900

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.067 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 21.398 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 4:20:46 PM

**Calibration Start Time:** 4/7/2019 3:54:35 PM

**Calibration End Time:** 4/7/2019 3:54:47 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102945

**Serial Number:** 17L102945

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104909

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.021 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.271 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 12:56:07 PM

**Calibration Start Time:** 4/7/2019 3:59:42 PM

**Calibration End Time:** 4/7/2019 3:59:52 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102929

**Serial Number:** 17L102929

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104908

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.028 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.520 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 3:57:53 PM

**Calibration Start Time:** 4/7/2019 5:03:03 PM

**Calibration End Time:** 4/7/2019 5:03:36 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100273

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.046 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 21.792 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 4:05:53 PM

**Calibration Start Time:** 4/7/2019 5:01:09 PM

**Calibration End Time:** 4/7/2019 5:01:39 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101640

**Serial Number:** 17G101640

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100250

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.081 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 22.169 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:53:15 PM

**Calibration Start Time:** 4/7/2019 4:59:23 PM

**Calibration End Time:** 4/7/2019 4:59:33 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102336

**Serial Number:** 17G102336

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100277

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.092 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 22.498 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 3:07:27 PM

**Calibration Start Time:** 4/7/2019 4:57:12 PM

**Calibration End Time:** 4/7/2019 4:57:25 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100292

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.036 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 22.219 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 9:50:20 AM

**Calibration Start Time:** 4/7/2019 4:54:22 PM

**Calibration End Time:** 4/7/2019 4:54:31 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100253

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.143 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 21.727 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:55:06 PM

**Calibration Start Time:** 4/7/2019 4:50:49 PM

**Calibration End Time:** 4/7/2019 4:51:44 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100276

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.027 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.829 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:46:14 PM

**Calibration Start Time:** 4/7/2019 4:36:59 PM

**Calibration End Time:** 4/7/2019 4:37:22 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100252

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.044 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 21.362 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 3:23:54 PM

**Calibration Start Time:** 4/7/2019 3:22:55 PM

**Calibration End Time:** 4/7/2019 3:43:39 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101469

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102897

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.09

**DO (mg/L):** 8.86 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.4 % Sat

**Post Calibration Value:** 100.8 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.378 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 12:36:48 PM

**Calibration Start Time:** 4/7/2019 3:22:55 PM

**Calibration End Time:** 4/7/2019 3:43:39 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101456

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102884

**DO Cap Replacement Date:** 11/16/2017

**DO Gain:** 1.07

**DO (mg/L):** 8.87 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 103.1 % Sat

**Post Calibration Value:** 100.5 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.429 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 10:51:04 AM

**Calibration Start Time:** 4/7/2019 3:22:55 PM

**Calibration End Time:** 4/7/2019 3:43:39 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100750

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100562

**DO Cap Replacement Date:** 7/23/2017

**DO Gain:** 1.09

**DO (mg/L):** 8.87 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.0 % Sat

**Post Calibration Value:** 100.6 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.476 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 12:36:48 PM

**Calibration Start Time:** 4/7/2019 3:22:55 PM

**Calibration End Time:** 4/7/2019 3:43:39 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100738

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100553

**DO Cap Replacement Date:** 7/20/2017

**DO Gain:** 1.12

**DO (mg/L):** 8.87 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 102.1 % Sat

**Post Calibration Value:** 100.5 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.512 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg



# Calibration Report

**Last Calibration Time:** 3/11/2019 4:52:19 PM

**Calibration Start Time:** 4/7/2019 3:22:55 PM

**Calibration End Time:** 4/7/2019 3:43:39 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100747

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104236

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 1.06

**DO (mg/L):** 8.86 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.3 % Sat

**Post Calibration Value:** 100.6 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.573 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 12:36:48 PM

**Calibration Start Time:** 4/7/2019 3:46:09 PM

**Calibration End Time:** 4/7/2019 3:58:45 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101849

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100601

**DO Cap Replacement Date:** 7/24/2017

**DO Gain:** 1.06

**DO (mg/L):** 8.90 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.6 % Sat

**Post Calibration Value:** 100.6 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.207 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.5 mmHg

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:16:05 PM

**Calibration Start Time:** 4/7/2019 3:46:09 PM

**Calibration End Time:** 4/7/2019 3:58:45 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100742

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100556

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 1.05

**DO (mg/L):** 8.94 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 99.7 % Sat

**Post Calibration Value:** 100.5 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.144 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.5 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 12:36:48 PM

**Calibration Start Time:** 4/7/2019 3:18:58 PM

**Calibration End Time:** 4/7/2019 3:37:40 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101860

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100629

**DO Cap Replacement Date:** 7/26/2017

**DO Gain:** 1.09

**DO (mg/L):** 8.87 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.6 % Sat

**Post Calibration Value:** 100.7 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.568 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg



# Calibration Report

**Last Calibration Time:** 3/12/2019 3:23:54 PM

**Calibration Start Time:** 4/7/2019 3:18:58 PM

**Calibration End Time:** 4/7/2019 3:37:40 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101854

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100608

**DO Cap Replacement Date:** 7/24/2017

**DO Gain:** 1.08

**DO (mg/L):** 8.88 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.8 % Sat

**Post Calibration Value:** 100.6 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.572 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 3:23:54 PM

**Calibration Start Time:** 4/7/2019 3:18:58 PM

**Calibration End Time:** 4/7/2019 3:37:40 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101471

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102902

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.08

**DO (mg/L):** 8.88 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.5 % Sat

**Post Calibration Value:** 100.6 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.571 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 3:23:54 PM

**Calibration Start Time:** 4/7/2019 3:18:58 PM

**Calibration End Time:** 4/7/2019 3:37:40 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100751

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100563

**DO Cap Replacement Date:** 7/23/2017

**DO Gain:** 1.12

**DO (mg/L):** 8.88 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.8 % Sat

**Post Calibration Value:** 100.6 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.561 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 3:23:54 PM

**Calibration Start Time:** 4/7/2019 3:18:58 PM

**Calibration End Time:** 4/7/2019 3:37:40 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101461

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102909

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.07

**DO (mg/L):** 8.92 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.7 % Sat

**Post Calibration Value:** 100.7 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.556 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 764.8 mmHg



# Calibration Report

**Last Calibration Time:** 3/12/2019 12:51:54 PM

**Calibration Start Time:** 4/7/2019 4:13:04 PM

**Calibration End Time:** 4/7/2019 4:16:47 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105653

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.13 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.248 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** MOR5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:27:22 PM

**Calibration Start Time:** 4/7/2019 4:13:04 PM

**Calibration End Time:** 4/7/2019 4:16:47 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105663

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.21 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.252 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 12:51:54 PM

**Calibration Start Time:** 4/7/2019 4:13:04 PM

**Calibration End Time:** 4/7/2019 4:16:47 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.13 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.258 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 12:51:54 PM

**Calibration Start Time:** 4/7/2019 4:08:03 PM

**Calibration End Time:** 4/7/2019 4:14:02 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102814

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.14 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.934 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** MOR5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 12:51:54 PM

**Calibration Start Time:** 4/7/2019 4:08:03 PM

**Calibration End Time:** 4/7/2019 4:14:02 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105655

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.06 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.950 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 12:51:54 PM

**Calibration Start Time:** 4/7/2019 4:08:03 PM

**Calibration End Time:** 4/7/2019 4:14:02 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105657

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.14 RFU

**Post Calibration Value:** -0.01 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.981 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** MOR5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:09:07 PM

**Calibration Start Time:** 4/7/2019 4:17:32 PM

**Calibration End Time:** 4/7/2019 4:21:14 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105653

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.49 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.263 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:31:23 PM

**Calibration Start Time:** 4/7/2019 4:17:32 PM

**Calibration End Time:** 4/7/2019 4:21:14 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105663

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.35 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.266 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 1:09:07 PM

**Calibration Start Time:** 4/7/2019 4:17:32 PM

**Calibration End Time:** 4/7/2019 4:21:14 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.30 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.272 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:09:07 PM

**Calibration Start Time:** 4/7/2019 4:14:46 PM

**Calibration End Time:** 4/7/2019 4:21:32 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102814

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.52 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 22.000 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:09:07 PM

**Calibration Start Time:** 4/7/2019 4:14:46 PM

**Calibration End Time:** 4/7/2019 4:21:32 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105655

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.19 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 22.011 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:09:07 PM

**Calibration Start Time:** 4/7/2019 4:14:46 PM

**Calibration End Time:** 4/7/2019 4:21:32 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105657

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.53 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 22.022 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 10:51:04 AM

**Calibration Start Time:** 4/9/2019 4:01:55 PM

**Calibration End Time:** 4/9/2019 4:18:03 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102932

**Serial Number:** 17L102932

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100737

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100559

**DO Cap Replacement Date:** 7/20/2017

**DO Gain:** 1.11

**DO (mg/L):** 8.77 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 99.6 % Sat

**Post Calibration Value:** 99.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.121 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 753.6 mmHg



# Calibration Report

**Last Calibration Time:** 3/12/2019 10:51:04 AM

**Calibration Start Time:** 4/9/2019 4:01:55 PM

**Calibration End Time:** 4/9/2019 4:18:03 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102932

**Serial Number:** 17L102932

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101458

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102877

**DO Cap Replacement Date:** 11/16/2017

**DO Gain:** 1.07

**DO (mg/L):** 8.79 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 99.1 % Sat

**Post Calibration Value:** 99.2 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.219 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 753.6 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 10:51:04 AM

**Calibration Start Time:** 4/9/2019 4:01:55 PM

**Calibration End Time:** 4/9/2019 4:18:03 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102932

**Serial Number:** 17L102932

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100752

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100588

**DO Cap Replacement Date:** 7/23/2017

**DO Gain:** 1.08

**DO (mg/L):** 8.79 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 99.6 % Sat

**Post Calibration Value:** 99.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.277 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 753.6 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:36:26 PM

**Calibration Start Time:** 4/9/2019 3:49:32 PM

**Calibration End Time:** 4/9/2019 3:54:29 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102946

**Serial Number:** 17L102946

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105654

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.02 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.812 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:36:26 PM

**Calibration Start Time:** 4/9/2019 3:49:32 PM

**Calibration End Time:** 4/9/2019 3:54:29 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102946

**Serial Number:** 17L102946

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102813

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.04 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.812 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:47:35 PM

**Calibration Start Time:** 4/9/2019 3:56:40 PM

**Calibration End Time:** 4/9/2019 3:58:49 PM

**Parameter:** Chlorophyll ( $\mu\text{g/L}$ )

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102946

**Serial Number:** 17L102946

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105654

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.19  $\mu\text{g/L}$

**Post Calibration Value:** 0.00  $\mu\text{g/L}$

**Raw Calibration Value:** 0.00  $\mu\text{g/L}$

**Temperature:** 21.814  $^{\circ}\text{C}$

**Standard Value:** 0.00  $\mu\text{g/L}$

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 2:47:35 PM

**Calibration Start Time:** 4/9/2019 3:56:40 PM

**Calibration End Time:** 4/9/2019 3:58:49 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102946

**Serial Number:** 17L102946

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102813

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.15 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.814 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 10:07:42 AM

**Calibration Start Time:** 4/9/2019 3:10:09 PM

**Calibration End Time:** 4/9/2019 3:19:20 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102932

**Serial Number:** 17L102932

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17F104031

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.46

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10019.2  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.095  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 10:07:42 AM

**Calibration Start Time:** 4/9/2019 3:10:09 PM

**Calibration End Time:** 4/9/2019 3:19:20 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102932

**Serial Number:** 17L102932

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100177

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10018.4  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.110  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 10:07:42 AM

**Calibration Start Time:** 4/9/2019 3:10:09 PM

**Calibration End Time:** 4/9/2019 3:19:20 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102932

**Serial Number:** 17L102932

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17F104022

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.46

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10019.7  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 20.123  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 11:50:21 AM

**Calibration Start Time:** 4/9/2019 4:41:25 PM

**Calibration End Time:** 4/9/2019 4:41:44 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102946

**Serial Number:** 17L102946

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104917

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.200 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.671 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 11:32:53 AM

**Calibration Start Time:** 4/9/2019 4:39:33 PM

**Calibration End Time:** 4/9/2019 4:39:57 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102932

**Serial Number:** 17L102932

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104903

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.248 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.329 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 11:41:38 AM

**Calibration Start Time:** 4/9/2019 4:35:05 PM

**Calibration End Time:** 4/9/2019 4:37:12 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102931

**Serial Number:** 17L102931

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104912

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.256 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 21.016 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:33:39 PM

**Calibration Start Time:** 4/9/2019 3:37:40 PM

**Calibration End Time:** 4/9/2019 3:43:11 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102946

**Serial Number:** 17L102946

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105654

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -2.98 RFU

**Post Calibration Value:** -0.01 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.820 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:33:39 PM

**Calibration Start Time:** 4/9/2019 3:37:40 PM

**Calibration End Time:** 4/9/2019 3:43:11 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102946

**Serial Number:** 17L102946

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102813

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.33 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.823 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:44:29 PM

**Calibration Start Time:** 4/9/2019 3:45:04 PM

**Calibration End Time:** 4/9/2019 3:48:31 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102946

**Serial Number:** 17L102946

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105654

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -8.30 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.814 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 1:44:29 PM

**Calibration Start Time:** 4/9/2019 3:45:04 PM

**Calibration End Time:** 4/9/2019 3:48:31 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102946

**Serial Number:** 17L102946

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102813

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 1.04 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.813 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:36:26 PM

**Calibration Start Time:** 4/9/2019 5:26:05 PM

**Calibration End Time:** 4/9/2019 5:34:43 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105664

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.07 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.918 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 7976502000

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:25:28 PM

**Calibration Start Time:** 4/9/2019 5:26:05 PM

**Calibration End Time:** 4/9/2019 5:34:43 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed With Warnings

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.11 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.920 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 7976502000

**Is Stable:** False

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:36:26 PM

**Calibration Start Time:** 4/9/2019 5:26:05 PM

**Calibration End Time:** 4/9/2019 5:34:43 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105662

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.04 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.918 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:47:35 PM

**Calibration Start Time:** 4/9/2019 5:36:04 PM

**Calibration End Time:** 4/9/2019 5:45:29 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105664

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.29 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.904 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 7976502000

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/7/2019 4:30:22 PM

**Calibration Start Time:** 4/9/2019 5:36:04 PM

**Calibration End Time:** 4/9/2019 5:45:29 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed With Warnings

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.46 µg/L

**Post Calibration Value:** 0.01 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.889 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 7976502000

**Is Stable:** False

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:47:35 PM

**Calibration Start Time:** 4/9/2019 5:36:04 PM

**Calibration End Time:** 4/9/2019 5:45:29 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105662

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.08 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.887 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 7976502000

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 2:57:46 PM

**Calibration Start Time:** 4/9/2019 3:56:57 PM

**Calibration End Time:** 4/9/2019 4:09:30 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F103296

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.12

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9970.4  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.383  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 10:07:42 AM

**Calibration Start Time:** 4/9/2019 3:56:57 PM

**Calibration End Time:** 4/9/2019 4:09:30 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17G101761

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10012.3  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.383  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 9:48:44 AM

**Calibration Start Time:** 4/9/2019 3:56:57 PM

**Calibration End Time:** 4/9/2019 4:09:30 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100168

**Firmware Version:** 3.0.5

**Status:** Completed With Warnings

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9987.0  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.383  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** False



# Calibration Report

**Last Calibration Time:** 3/12/2019 9:48:44 AM

**Calibration Start Time:** 4/9/2019 3:56:57 PM

**Calibration End Time:** 4/9/2019 4:09:30 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100180

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9977.7  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.377  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:00:08 PM

**Calibration Start Time:** 4/9/2019 3:56:57 PM

**Calibration End Time:** 4/9/2019 4:09:30 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100167

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9994.8  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.378  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 4:19:25 PM

**Calibration Start Time:** 4/9/2019 6:02:39 PM

**Calibration End Time:** 4/9/2019 6:03:07 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102939

**Serial Number:** 17L102939

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104905

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.164 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.939 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 3:43:11 PM

**Calibration Start Time:** 4/9/2019 5:58:58 PM

**Calibration End Time:** 4/9/2019 5:59:22 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102938

**Serial Number:** 17L102938

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104906

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.099 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.765 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 11:35:04 AM

**Calibration Start Time:** 4/9/2019 6:00:55 PM

**Calibration End Time:** 4/9/2019 6:01:18 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G101988

**Serial Number:** 17G101988

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104623

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.170 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.619 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 1:08:30 PM

**Calibration Start Time:** 4/9/2019 5:57:08 PM

**Calibration End Time:** 4/9/2019 5:57:33 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102937

**Serial Number:** 17L102937

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104902

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.169 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.394 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 10:51:04 AM

**Calibration Start Time:** 4/9/2019 4:32:30 PM

**Calibration End Time:** 4/9/2019 4:47:33 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100748

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104238

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 1.04

**DO (mg/L):** 9.02 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 99.0 % Sat

**Post Calibration Value:** 99.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.568 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 753.5 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 10:46:40 AM

**Calibration Start Time:** 4/9/2019 4:32:30 PM

**Calibration End Time:** 4/9/2019 4:47:33 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101463

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K101906

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.06

**DO (mg/L):** 9.01 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 99.8 % Sat

**Post Calibration Value:** 99.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.674 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 753.5 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 10:46:40 AM

**Calibration Start Time:** 4/9/2019 4:32:30 PM

**Calibration End Time:** 4/9/2019 4:47:33 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101862

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100631

**DO Cap Replacement Date:** 7/26/2017

**DO Gain:** 1.09

**DO (mg/L):** 9.03 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 98.6 % Sat

**Post Calibration Value:** 99.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.749 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 753.4 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 12:36:48 PM

**Calibration Start Time:** 4/9/2019 4:32:30 PM

**Calibration End Time:** 4/9/2019 4:47:33 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101457

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102888

**DO Cap Replacement Date:** 11/16/2017

**DO Gain:** 1.09

**DO (mg/L):** 9.04 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 99.8 % Sat

**Post Calibration Value:** 99.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.866 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 753.4 mmHg



# Calibration Report

**Last Calibration Time:** 3/12/2019 1:33:39 PM

**Calibration Start Time:** 4/9/2019 5:08:58 PM

**Calibration End Time:** 4/9/2019 5:20:57 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105664

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.06 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.018 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 7976502000

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:16:47 PM

**Calibration Start Time:** 4/9/2019 5:08:58 PM

**Calibration End Time:** 4/9/2019 5:20:57 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.77 RFU

**Post Calibration Value:** 0.01 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.001 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 7976502000

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:33:39 PM

**Calibration Start Time:** 4/9/2019 5:08:58 PM

**Calibration End Time:** 4/9/2019 5:20:57 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105662

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.45 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 20.994 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Kroger

**Lot Number:** M0R5241218

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:44:29 PM

**Calibration Start Time:** 4/9/2019 5:22:16 PM

**Calibration End Time:** 4/9/2019 5:25:25 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105664

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.10 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.985 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 7976502000

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:21:14 PM

**Calibration Start Time:** 4/9/2019 5:22:16 PM

**Calibration End Time:** 4/9/2019 5:25:25 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 1.88 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.982 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 7976502000

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 1:44:29 PM

**Calibration Start Time:** 4/9/2019 5:22:16 PM

**Calibration End Time:** 4/9/2019 5:25:25 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105662

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Emily Johnson

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -1.07 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 20.978 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 7976502000

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:36:26 PM

**Calibration Start Time:** 4/16/2019 1:35:55 PM

**Calibration End Time:** 4/16/2019 1:38:16 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105656

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.01 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 19.249 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:47:27 PM

**Calibration Start Time:** 4/16/2019 1:35:55 PM

**Calibration End Time:** 4/16/2019 1:38:16 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105658

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.04 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 19.259 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:47:35 PM

**Calibration Start Time:** 4/16/2019 1:38:45 PM

**Calibration End Time:** 4/16/2019 1:40:22 PM

**Parameter:** Chlorophyll ( $\mu\text{g/L}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105656

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.17  $\mu\text{g/L}$

**Post Calibration Value:** 0.00  $\mu\text{g/L}$

**Raw Calibration Value:** 0.00  $\mu\text{g/L}$

**Temperature:** 19.268  $^{\circ}\text{C}$

**Standard Value:** 0.00  $\mu\text{g/L}$

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:52:19 PM

**Calibration Start Time:** 4/16/2019 1:38:45 PM

**Calibration End Time:** 4/16/2019 1:40:22 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105658

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.05 µg/L

**Post Calibration Value:** 0.02 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 19.276 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/11/2019 4:00:08 PM

**Calibration Start Time:** 4/16/2019 11:52:04 AM

**Calibration End Time:** 4/16/2019 12:15:38 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100164

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9998.2  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.373  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 11:58:03 AM

**Calibration Start Time:** 4/16/2019 11:52:04 AM

**Calibration End Time:** 4/16/2019 12:15:38 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17F104023

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10265.7  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.382  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:00:08 PM

**Calibration Start Time:** 4/16/2019 11:52:04 AM

**Calibration End Time:** 4/16/2019 12:15:38 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100183

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.46

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9997.9  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.400  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:00:08 PM

**Calibration Start Time:** 4/16/2019 11:52:04 AM

**Calibration End Time:** 4/16/2019 12:15:38 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100176

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10005.9  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.410  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:00:08 PM

**Calibration Start Time:** 4/16/2019 11:52:04 AM

**Calibration End Time:** 4/16/2019 12:15:38 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100165

**Firmware Version:** 3.0.5

**Status:** Completed With Warnings

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10003.8  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.491  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** False



# Calibration Report

**Last Calibration Time:** 3/11/2019 3:26:33 PM

**Calibration Start Time:** 4/16/2019 12:31:25 PM

**Calibration End Time:** 4/16/2019 12:36:36 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100171

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10015.3  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.415  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 3:26:33 PM

**Calibration Start Time:** 4/16/2019 12:31:25 PM

**Calibration End Time:** 4/16/2019 12:36:36 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100174

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10006.7  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.418  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 3:26:33 PM

**Calibration Start Time:** 4/16/2019 12:31:25 PM

**Calibration End Time:** 4/16/2019 12:36:36 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100166

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9998.6  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.421  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 3:26:33 PM

**Calibration Start Time:** 4/16/2019 12:31:25 PM

**Calibration End Time:** 4/16/2019 12:36:36 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100181

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.424  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 3:26:33 PM

**Calibration Start Time:** 4/16/2019 12:31:25 PM

**Calibration End Time:** 4/16/2019 12:36:36 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100182

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9992.9  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.430  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 9:48:44 AM

**Calibration Start Time:** 4/16/2019 12:45:30 PM

**Calibration End Time:** 4/16/2019 12:52:59 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100178

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9997.0  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.426  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 9:48:44 AM

**Calibration Start Time:** 4/16/2019 12:45:30 PM

**Calibration End Time:** 4/16/2019 12:52:59 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100173

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9970.2  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.430  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 9:48:44 AM

**Calibration Start Time:** 4/16/2019 12:45:30 PM

**Calibration End Time:** 4/16/2019 12:52:59 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100172

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9978.7  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.438  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 10:07:42 AM

**Calibration Start Time:** 4/16/2019 12:45:30 PM

**Calibration End Time:** 4/16/2019 12:52:59 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100169

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10003.1  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 9999.9  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.446  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 11:58:03 AM

**Calibration Start Time:** 4/16/2019 12:45:30 PM

**Calibration End Time:** 4/16/2019 12:52:59 PM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17G101758

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.46

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10250.0  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 19.459  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 9:05:52 AM

**Calibration Start Time:** 4/16/2019 2:00:51 PM

**Calibration End Time:** 4/16/2019 2:01:07 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G101989

**Serial Number:** 17G101989

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104624

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.030 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 17.923 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 9:11:19 AM

**Calibration Start Time:** 4/16/2019 2:05:38 PM

**Calibration End Time:** 4/16/2019 2:06:25 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G101992

**Serial Number:** 17G101992

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104628

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.000 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.813 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 9:14:54 AM

**Calibration Start Time:** 4/16/2019 2:11:58 PM

**Calibration End Time:** 4/16/2019 2:13:08 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102013

**Serial Number:** 17G102013

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104614

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.010 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 18.786 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 9:19:14 AM

**Calibration Start Time:** 4/16/2019 2:16:55 PM

**Calibration End Time:** 4/16/2019 2:21:08 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102004

**Serial Number:** 17G102004

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104608

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.054 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 18.844 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 9:22:54 AM

**Calibration Start Time:** 4/16/2019 2:42:04 PM

**Calibration End Time:** 4/16/2019 2:42:12 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G101996

**Serial Number:** 17G101996

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104630

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.009 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.643 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/11/2019 4:58:21 PM

**Calibration Start Time:** 4/16/2019 2:52:29 PM

**Calibration End Time:** 4/16/2019 2:57:13 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102009

**Serial Number:** 17G102009

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104611

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.042 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.642 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:55:43 PM

**Calibration Start Time:** 4/16/2019 3:00:12 PM

**Calibration End Time:** 4/16/2019 3:00:18 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G101997

**Serial Number:** 17G101997

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104631

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.008 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.057 °C

**Standard Value:** 0.000 m

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:52:12 PM

**Calibration Start Time:** 4/16/2019 2:49:05 PM

**Calibration End Time:** 4/16/2019 2:49:09 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G101993

**Serial Number:** 17G101993

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104632

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.014 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 18.607 °C

**Standard Value:** 0.000 m

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 3:45:45 PM

**Calibration Start Time:** 4/16/2019 2:22:03 PM

**Calibration End Time:** 4/16/2019 2:22:20 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102940

**Serial Number:** 17L102940

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104915

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.016 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.649 °C

**Standard Value:** 0.000 m

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:47:41 PM

**Calibration Start Time:** 4/16/2019 2:17:25 PM

**Calibration End Time:** 4/16/2019 2:18:19 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102942

**Serial Number:** 17L102942

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104904

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.003 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.389 °C

**Standard Value:** 0.000 m

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/12/2019 11:19:51 AM

**Calibration Start Time:** 4/16/2019 1:50:23 PM

**Calibration End Time:** 4/16/2019 1:50:32 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102008

**Serial Number:** 17G102008

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104613

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.005 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 16.954 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 11:26:50 AM

**Calibration Start Time:** 4/16/2019 1:58:17 PM

**Calibration End Time:** 4/16/2019 1:58:22 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102003

**Serial Number:** 17G102003

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104601

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.007 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.108 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 11:24:17 AM

**Calibration Start Time:** 4/16/2019 2:01:50 PM

**Calibration End Time:** 4/16/2019 2:02:16 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102000

**Serial Number:** 17G102000

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104605

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.007 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 18.277 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 11:28:55 AM

**Calibration Start Time:** 4/16/2019 2:06:23 PM

**Calibration End Time:** 4/16/2019 2:06:50 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102941

**Serial Number:** 17L102941

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104914

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.039 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.561 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:17:26 PM

**Calibration Start Time:** 4/16/2019 2:13:21 PM

**Calibration End Time:** 4/16/2019 2:13:45 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102005

**Serial Number:** 17G102005

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104606

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.003 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.243 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 3/11/2019 4:52:19 PM

**Calibration Start Time:** 4/16/2019 12:53:48 PM

**Calibration End Time:** 4/16/2019 1:12:02 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100743

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100557

**DO Cap Replacement Date:** 7/20/2017

**DO Gain:** 1.08

**DO (mg/L):** 9.29 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.6 % Sat

**Post Calibration Value:** 101.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.151 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 768.0 mmHg

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:52:19 PM

**Calibration Start Time:** 4/16/2019 12:53:48 PM

**Calibration End Time:** 4/16/2019 1:12:02 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101846

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100596

**DO Cap Replacement Date:** 7/24/2017

**DO Gain:** 1.06

**DO (mg/L):** 9.29 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.2 % Sat

**Post Calibration Value:** 101.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.218 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.8 mmHg

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:52:19 PM

**Calibration Start Time:** 4/16/2019 12:53:48 PM

**Calibration End Time:** 4/16/2019 1:12:02 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100749

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100560

**DO Cap Replacement Date:** 7/23/2017

**DO Gain:** 1.08

**DO (mg/L):** 9.28 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.5 % Sat

**Post Calibration Value:** 101.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.284 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.9 mmHg

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:52:19 PM

**Calibration Start Time:** 4/16/2019 12:53:48 PM

**Calibration End Time:** 4/16/2019 1:12:02 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100736

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104237

**DO Cap Replacement Date:** 7/20/2017

**DO Gain:** 1.06

**DO (mg/L):** 9.29 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.7 % Sat

**Post Calibration Value:** 101.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.359 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.8 mmHg

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:52:19 PM

**Calibration Start Time:** 4/16/2019 12:53:48 PM

**Calibration End Time:** 4/16/2019 1:12:02 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100746

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104235

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 1.00

**DO (mg/L):** 9.29 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 99.6 % Sat

**Post Calibration Value:** 101.2 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.446 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.9 mmHg



# Calibration Report

**Last Calibration Time:** 3/11/2019 4:16:05 PM

**Calibration Start Time:** 4/16/2019 1:24:59 PM

**Calibration End Time:** 4/16/2019 1:50:01 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101858

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100627

**DO Cap Replacement Date:** 7/26/2017

**DO Gain:** 1.08

**DO (mg/L):** 9.26 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.6 % Sat

**Post Calibration Value:** 100.9 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.385 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.8 mmHg

# Calibration Report

**Last Calibration Time:** 4/6/2019 1:46:30 PM

**Calibration Start Time:** 4/16/2019 1:24:59 PM

**Calibration End Time:** 4/16/2019 1:50:01 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100744

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104233

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 1.04

**DO (mg/L):** 9.28 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.6 % Sat

**Post Calibration Value:** 101.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.422 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.7 mmHg

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:16:05 PM

**Calibration Start Time:** 4/16/2019 1:24:59 PM

**Calibration End Time:** 4/16/2019 1:50:01 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100740

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100558

**DO Cap Replacement Date:** 7/20/2017

**DO Gain:** 1.09

**DO (mg/L):** 9.29 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.0 % Sat

**Post Calibration Value:** 100.9 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.459 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.7 mmHg

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:16:05 PM

**Calibration Start Time:** 4/16/2019 1:24:59 PM

**Calibration End Time:** 4/16/2019 1:50:01 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101861

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100630

**DO Cap Replacement Date:** 7/26/2017

**DO Gain:** 1.08

**DO (mg/L):** 9.28 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.7 % Sat

**Post Calibration Value:** 100.9 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.482 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.7 mmHg

# Calibration Report

**Last Calibration Time:** 3/11/2019 4:16:05 PM

**Calibration Start Time:** 4/16/2019 1:24:59 PM

**Calibration End Time:** 4/16/2019 1:50:01 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101851

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Lisa Heise

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100606

**DO Cap Replacement Date:** 7/24/2017

**DO Gain:** 1.07

**DO (mg/L):** 9.27 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.9 % Sat

**Post Calibration Value:** 101.3 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.520 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.7 mmHg



# Calibration Report

**Last Calibration Time:** 3/12/2019 10:46:40 AM

**Calibration Start Time:** 4/16/2019 1:02:42 PM

**Calibration End Time:** 4/16/2019 1:21:14 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100745

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104234

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 1.02

**DO (mg/L):** 9.26 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.3 % Sat

**Post Calibration Value:** 101.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.168 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.8 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 10:46:40 AM

**Calibration Start Time:** 4/16/2019 1:02:42 PM

**Calibration End Time:** 4/16/2019 1:21:14 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101848

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100600

**DO Cap Replacement Date:** 7/24/2017

**DO Gain:** 1.10

**DO (mg/L):** 9.24 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 98.6 % Sat

**Post Calibration Value:** 101.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.276 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.8 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 10:46:40 AM

**Calibration Start Time:** 4/16/2019 1:02:42 PM

**Calibration End Time:** 4/16/2019 1:21:14 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101857

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100626

**DO Cap Replacement Date:** 7/26/2017

**DO Gain:** 1.06

**DO (mg/L):** 9.29 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.0 % Sat

**Post Calibration Value:** 101.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.331 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.8 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 10:51:04 AM

**Calibration Start Time:** 4/16/2019 1:02:42 PM

**Calibration End Time:** 4/16/2019 1:21:14 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101472

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102903

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.09

**DO (mg/L):** 9.28 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.5 % Sat

**Post Calibration Value:** 101.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.444 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.8 mmHg

# Calibration Report

**Last Calibration Time:** 3/12/2019 12:36:48 PM

**Calibration Start Time:** 4/16/2019 1:02:42 PM

**Calibration End Time:** 4/16/2019 1:21:14 PM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101462

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K101898

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.08

**DO (mg/L):** 9.28 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 104.8 % Sat

**Post Calibration Value:** 101.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 19.506 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 767.8 mmHg



# Calibration Report

**Last Calibration Time:** 3/12/2019 1:33:39 PM

**Calibration Start Time:** 4/16/2019 1:28:52 PM

**Calibration End Time:** 4/16/2019 1:32:24 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105656

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.18 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 19.170 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:27:22 PM

**Calibration Start Time:** 4/16/2019 1:28:52 PM

**Calibration End Time:** 4/16/2019 1:32:24 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105658

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.20 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 19.190 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 1:44:29 PM

**Calibration Start Time:** 4/16/2019 1:33:02 PM

**Calibration End Time:** 4/16/2019 1:34:30 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105656

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.08 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 19.202 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 2:31:23 PM

**Calibration Start Time:** 4/16/2019 1:33:02 PM

**Calibration End Time:** 4/16/2019 1:34:30 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105658

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.88 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 19.217 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/16/2019 1:38:16 PM

**Calibration Start Time:** 5/21/2019 1:52:22 PM

**Calibration End Time:** 5/21/2019 2:52:42 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105656

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.02 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.664 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/9/2019 5:34:43 PM

**Calibration Start Time:** 5/21/2019 1:52:22 PM

**Calibration End Time:** 5/21/2019 2:52:42 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105662

**Firmware Version:** 3.0.5

**Status:** Completed With Warnings

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.10 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 22.031 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** False

# Calibration Report

**Last Calibration Time:** 4/9/2019 3:54:29 PM

**Calibration Start Time:** 5/21/2019 1:52:22 PM

**Calibration End Time:** 5/21/2019 2:52:42 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102813

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.06 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.877 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:26:45 PM

**Calibration Start Time:** 5/21/2019 1:52:22 PM

**Calibration End Time:** 5/21/2019 2:52:42 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105657

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.02 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.890 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 3:54:29 PM

**Calibration Start Time:** 5/21/2019 1:52:22 PM

**Calibration End Time:** 5/21/2019 2:52:42 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105654

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.01 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.900 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 5:34:43 PM

**Calibration Start Time:** 5/21/2019 1:52:22 PM

**Calibration End Time:** 5/21/2019 2:52:42 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105664

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.01 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.910 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/7/2019 4:25:28 PM

**Calibration Start Time:** 5/21/2019 11:54:21 AM

**Calibration End Time:** 5/21/2019 12:25:00 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105653

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.01 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.856 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:26:45 PM

**Calibration Start Time:** 5/21/2019 11:54:21 AM

**Calibration End Time:** 5/21/2019 12:25:00 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102814

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.05 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.909 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:25:28 PM

**Calibration Start Time:** 5/21/2019 11:54:21 AM

**Calibration End Time:** 5/21/2019 12:25:00 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105663

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.04 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.908 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 5:34:43 PM

**Calibration Start Time:** 5/21/2019 11:54:21 AM

**Calibration End Time:** 5/21/2019 12:25:00 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.14 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.893 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:26:45 PM

**Calibration Start Time:** 5/21/2019 11:54:21 AM

**Calibration End Time:** 5/21/2019 12:25:00 PM

**Parameter:** Chlorophyll (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105655

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.06 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.892 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/16/2019 1:40:22 PM

**Calibration Start Time:** 5/21/2019 2:53:28 PM

**Calibration End Time:** 5/21/2019 3:08:16 PM

**Parameter:** Chlorophyll ( $\mu\text{g/L}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105656

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.08  $\mu\text{g/L}$

**Post Calibration Value:** 0.00  $\mu\text{g/L}$

**Raw Calibration Value:** 0.00  $\mu\text{g/L}$

**Temperature:** 22.043  $^{\circ}\text{C}$

**Standard Value:** 0.00  $\mu\text{g/L}$

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 5:45:29 PM

**Calibration Start Time:** 5/21/2019 2:53:28 PM

**Calibration End Time:** 5/21/2019 3:08:16 PM

**Parameter:** Chlorophyll ( $\mu\text{g/L}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105662

**Firmware Version:** 3.0.5

**Status:** Completed With Warnings

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.53  $\mu\text{g/L}$

**Post Calibration Value:** 0.04  $\mu\text{g/L}$

**Raw Calibration Value:** 0.00  $\mu\text{g/L}$

**Temperature:** 22.197  $^{\circ}\text{C}$

**Standard Value:** 0.00  $\mu\text{g/L}$

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** False

# Calibration Report

**Last Calibration Time:** 4/9/2019 3:58:49 PM

**Calibration Start Time:** 5/21/2019 2:53:28 PM

**Calibration End Time:** 5/21/2019 3:08:16 PM

**Parameter:** Chlorophyll ( $\mu\text{g/L}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102813

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.20  $\mu\text{g/L}$

**Post Calibration Value:** 0.00  $\mu\text{g/L}$

**Raw Calibration Value:** 0.00  $\mu\text{g/L}$

**Temperature:** 22.121  $^{\circ}\text{C}$

**Standard Value:** 0.00  $\mu\text{g/L}$

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:31:39 PM

**Calibration Start Time:** 5/21/2019 2:53:28 PM

**Calibration End Time:** 5/21/2019 3:08:16 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105657

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.09 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 22.131 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 3:58:49 PM

**Calibration Start Time:** 5/21/2019 2:53:28 PM

**Calibration End Time:** 5/21/2019 3:08:16 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105654

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.07 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 22.159 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 5:45:29 PM

**Calibration Start Time:** 5/21/2019 2:53:28 PM

**Calibration End Time:** 5/21/2019 3:08:16 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105664

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.01 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 22.170 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/7/2019 4:30:22 PM

**Calibration Start Time:** 5/21/2019 12:26:08 PM

**Calibration End Time:** 5/21/2019 1:09:45 PM

**Parameter:** Chlorophyll ( $\mu\text{g/L}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105653

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.01  $\mu\text{g/L}$

**Post Calibration Value:** -0.01  $\mu\text{g/L}$

**Raw Calibration Value:** 0.00  $\mu\text{g/L}$

**Temperature:** 21.920  $^{\circ}\text{C}$

**Standard Value:** 0.00  $\mu\text{g/L}$

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:31:39 PM

**Calibration Start Time:** 5/21/2019 12:26:08 PM

**Calibration End Time:** 5/21/2019 1:09:45 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102814

**Firmware Version:** 3.0.5

**Status:** Completed With Warnings

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.37 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.924 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** False

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:30:22 PM

**Calibration Start Time:** 5/21/2019 12:26:08 PM

**Calibration End Time:** 5/21/2019 1:09:45 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105663

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.06 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.864 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 5:45:29 PM

**Calibration Start Time:** 5/21/2019 12:26:08 PM

**Calibration End Time:** 5/21/2019 1:09:45 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.17 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.906 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:31:39 PM

**Calibration Start Time:** 5/21/2019 12:26:08 PM

**Calibration End Time:** 5/21/2019 1:09:45 PM

**Parameter:** Chlorophyll (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105655

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.22 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.917 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/16/2019 12:15:38 PM

**Calibration Start Time:** 5/21/2019 9:06:46 AM

**Calibration End Time:** 5/21/2019 9:13:58 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100176

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9988.6  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.411  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/16/2019 12:52:59 PM

**Calibration Start Time:** 5/21/2019 9:06:46 AM

**Calibration End Time:** 5/21/2019 9:13:58 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17G101758

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.46

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9991.5  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.410  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/16/2019 12:36:36 PM

**Calibration Start Time:** 5/21/2019 9:06:46 AM

**Calibration End Time:** 5/21/2019 9:13:58 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100174

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9987.5  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.408  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/16/2019 12:36:36 PM

**Calibration Start Time:** 5/21/2019 9:06:46 AM

**Calibration End Time:** 5/21/2019 9:13:58 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100166

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9995.7  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.407  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/16/2019 12:36:36 PM

**Calibration Start Time:** 5/21/2019 9:06:46 AM

**Calibration End Time:** 5/21/2019 9:13:58 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100181

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10003.0  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.405  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 2:57:46 PM

**Calibration Start Time:** 5/21/2019 9:46:28 AM

**Calibration End Time:** 5/21/2019 9:49:55 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F104074

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.12

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9982.3  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.451  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18J100366

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 3:09:10 PM

**Calibration Start Time:** 5/21/2019 9:46:28 AM

**Calibration End Time:** 5/21/2019 9:49:55 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17F104021

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10021.4  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 9999.9  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.461  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18J100366

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/7/2019 2:57:46 PM

**Calibration Start Time:** 5/21/2019 9:46:28 AM

**Calibration End Time:** 5/21/2019 9:49:55 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F103298

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.18

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9978.5  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.473  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18J100366

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/16/2019 12:15:38 PM

**Calibration Start Time:** 5/21/2019 9:46:28 AM

**Calibration End Time:** 5/21/2019 9:49:55 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100165

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9998.5  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.497  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18J100366

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 3/12/2019 9:48:44 AM

**Calibration Start Time:** 5/21/2019 9:46:28 AM

**Calibration End Time:** 5/21/2019 9:49:55 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100170

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9966.5  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.517  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18J100366

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 4:09:30 PM

**Calibration Start Time:** 5/21/2019 9:28:28 AM

**Calibration End Time:** 5/21/2019 9:37:27 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100180

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9999.5  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.843  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18J100366

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 4:09:30 PM

**Calibration Start Time:** 5/21/2019 9:28:28 AM

**Calibration End Time:** 5/21/2019 9:37:27 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100168

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9984.9  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.856  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18J100366

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 4:09:30 PM

**Calibration Start Time:** 5/21/2019 9:28:28 AM

**Calibration End Time:** 5/21/2019 9:37:27 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17G101761

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9995.7  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.856  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/16/2019 12:36:36 PM

**Calibration Start Time:** 5/21/2019 9:28:28 AM

**Calibration End Time:** 5/21/2019 9:37:27 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100182

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10001.9  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.854  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/16/2019 12:52:59 PM

**Calibration Start Time:** 5/21/2019 9:28:28 AM

**Calibration End Time:** 5/21/2019 9:37:27 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100178

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9958.0  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.848  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 3:19:20 PM

**Calibration Start Time:** 5/21/2019 9:18:24 AM

**Calibration End Time:** 5/21/2019 9:24:50 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100177

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10027.8  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.634  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18J100366

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 3:19:20 PM

**Calibration Start Time:** 5/21/2019 9:18:24 AM

**Calibration End Time:** 5/21/2019 9:24:50 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17F104031

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.46

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10015.2  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.652  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18J100366

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 3:19:20 PM

**Calibration Start Time:** 5/21/2019 9:18:24 AM

**Calibration End Time:** 5/21/2019 9:24:50 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17F104022

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.46

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10006.2  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.659  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18J100366

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 3:09:10 PM

**Calibration Start Time:** 5/21/2019 9:18:24 AM

**Calibration End Time:** 5/21/2019 9:24:50 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F104075

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.17

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9987.0  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.645  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18J100366

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/16/2019 12:36:36 PM

**Calibration Start Time:** 5/21/2019 9:18:24 AM

**Calibration End Time:** 5/21/2019 9:24:50 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Wiped Conductivity And Temperature

**Serial Number:** 17L100171

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 0.47

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9990.4  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.635  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18J100366

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 3:09:10 PM

**Calibration Start Time:** 5/21/2019 8:46:52 AM

**Calibration End Time:** 5/21/2019 8:54:50 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F104076

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.12

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10018.7  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.336  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 4:09:30 PM

**Calibration Start Time:** 5/21/2019 8:46:52 AM

**Calibration End Time:** 5/21/2019 8:54:50 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F103296

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.10

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 10040.8  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.340  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 2:57:46 PM

**Calibration Start Time:** 5/21/2019 8:46:52 AM

**Calibration End Time:** 5/21/2019 8:54:50 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F103297

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.19

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9969.3  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.340  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 2:57:46 PM

**Calibration Start Time:** 5/21/2019 8:46:52 AM

**Calibration End Time:** 5/21/2019 8:54:50 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F103295

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.14

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9962.0  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.336  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 2:57:46 PM

**Calibration Start Time:** 5/21/2019 8:46:52 AM

**Calibration End Time:** 5/21/2019 8:54:50 AM

**Parameter:** Sp Cond ( $\mu\text{S}/\text{cm}$ )

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Conductivity

**Serial Number:** 17F104073

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**Cell Constant:** 5.15

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 9980.6  $\mu\text{S}/\text{cm}$

**Post Calibration Value:** 10000.1  $\mu\text{S}/\text{cm}$

**Raw Calibration Value:** 0.0  $\mu\text{S}/\text{cm}$

**Temperature:** 21.334  $^{\circ}\text{C}$

**Standard Value:** 10000.0  $\mu\text{S}/\text{cm}$

**Type:** YSI 3168 Conductivity Calibrator

**Manufacturer:** YSI

**Lot Number:** 18G100371

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/16/2019 1:50:32 PM

**Calibration Start Time:** 5/21/2019 1:06:21 PM

**Calibration End Time:** 5/21/2019 1:06:54 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102008

**Serial Number:** 17G102008

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104613

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.078 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.419 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 6:03:07 PM

**Calibration Start Time:** 5/21/2019 12:47:26 PM

**Calibration End Time:** 5/21/2019 12:48:09 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102939

**Serial Number:** 17L102939

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104905

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.246 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.775 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 5:59:22 PM

**Calibration Start Time:** 5/21/2019 12:51:14 PM

**Calibration End Time:** 5/21/2019 12:52:11 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102938

**Serial Number:** 17L102938

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104906

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.198 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 21.229 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 6:01:18 PM

**Calibration Start Time:** 5/21/2019 12:54:34 PM

**Calibration End Time:** 5/21/2019 12:54:48 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G101988

**Serial Number:** 17G101988

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104623

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.053 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 21.393 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 4:41:44 PM

**Calibration Start Time:** 5/21/2019 12:57:40 PM

**Calibration End Time:** 5/21/2019 12:58:36 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102946

**Serial Number:** 17L102946

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104917

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.088 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.697 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 4:39:57 PM

**Calibration Start Time:** 5/21/2019 1:01:13 PM

**Calibration End Time:** 5/21/2019 1:01:35 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102932

**Serial Number:** 17L102932

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104903

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.086 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.073 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/9/2019 4:37:12 PM

**Calibration Start Time:** 5/21/2019 1:03:46 PM

**Calibration End Time:** 5/21/2019 1:04:05 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102931

**Serial Number:** 17L102931

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104912

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.087 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.020 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 3:54:47 PM

**Calibration Start Time:** 5/21/2019 12:30:10 PM

**Calibration End Time:** 5/21/2019 12:31:00 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102945

**Serial Number:** 17L102945

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104909

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.075 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.768 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 3:59:52 PM

**Calibration Start Time:** 5/21/2019 12:38:54 PM

**Calibration End Time:** 5/21/2019 12:39:19 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17L102929

**Serial Number:** 17L102929

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17K104908

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.079 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.551 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/16/2019 2:13:45 PM

**Calibration Start Time:** 5/21/2019 1:09:10 PM

**Calibration End Time:** 5/21/2019 1:09:41 PM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO3

**Name:** Sonde 17G102005

**Serial Number:** 17G102005

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17E104606

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.203 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.906 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 5:03:36 PM

**Calibration Start Time:** 5/21/2019 11:27:19 AM

**Calibration End Time:** 5/21/2019 11:28:01 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100273

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.051 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.247 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 5:01:39 PM

**Calibration Start Time:** 5/21/2019 11:31:30 AM

**Calibration End Time:** 5/21/2019 11:32:31 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101640

**Serial Number:** 17G101640

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100250

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.051 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 18.495 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/7/2019 4:59:33 PM

**Calibration Start Time:** 5/21/2019 11:36:12 AM

**Calibration End Time:** 5/21/2019 11:40:18 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102336

**Serial Number:** 17G102336

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100277

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.050 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.104 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:57:25 PM

**Calibration Start Time:** 5/21/2019 11:43:44 AM

**Calibration End Time:** 5/21/2019 11:44:59 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17H100435

**Serial Number:** 17H100435

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100292

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.051 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 20.102 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/29/2019 8:30:13 AM

**Calibration Start Time:** 5/21/2019 11:48:46 AM

**Calibration End Time:** 5/21/2019 11:49:40 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101639

**Serial Number:** 17G101639

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100253

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.072 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.278 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:51:44 PM

**Calibration Start Time:** 5/21/2019 11:57:48 AM

**Calibration End Time:** 5/21/2019 11:58:16 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102335

**Serial Number:** 17G102335

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100276

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.055 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 19.729 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:37:22 PM

**Calibration Start Time:** 5/21/2019 9:50:41 AM

**Calibration End Time:** 5/21/2019 9:51:11 AM

**Parameter:** Depth (m)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** Depth

**Serial Number:** 17G100252

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.024 m

**Post Calibration Value:** 0.000 m

**Raw Calibration Value:** 0.000 m

**Temperature:** 21.524 °C

**Standard Value:** 0.000 m

**Type:** None

**Manufacturer:** None

**Lot Number:** None

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/16/2019 1:50:01 PM

**Calibration Start Time:** 5/21/2019 9:51:11 AM

**Calibration End Time:** 5/21/2019 10:10:15 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100740

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100558

**DO Cap Replacement Date:** 7/20/2017

**DO Gain:** 1.07

**DO (mg/L):** 8.91 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.1 % Sat

**Post Calibration Value:** 100.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.655 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.7 mmHg



# Calibration Report

**Last Calibration Time:** 4/16/2019 1:50:01 PM

**Calibration Start Time:** 5/21/2019 9:51:11 AM

**Calibration End Time:** 5/21/2019 10:10:15 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101861

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100630

**DO Cap Replacement Date:** 7/26/2017

**DO Gain:** 1.06

**DO (mg/L):** 8.91 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.4 % Sat

**Post Calibration Value:** 99.9 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.767 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.0 mmHg

# Calibration Report

**Last Calibration Time:** 4/16/2019 1:50:01 PM

**Calibration Start Time:** 5/21/2019 9:51:11 AM

**Calibration End Time:** 5/21/2019 10:10:15 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100744

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104233

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 1.03

**DO (mg/L):** 8.91 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.7 % Sat

**Post Calibration Value:** 99.9 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.825 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.0 mmHg

# Calibration Report

**Last Calibration Time:** 4/16/2019 1:12:02 PM

**Calibration Start Time:** 5/21/2019 9:51:11 AM

**Calibration End Time:** 5/21/2019 10:10:15 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100736

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104237

**DO Cap Replacement Date:** 7/20/2017

**DO Gain:** 1.07

**DO (mg/L):** 9.01 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 99.2 % Sat

**Post Calibration Value:** 99.8 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.880 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.0 mmHg

# Calibration Report

**Last Calibration Time:** 4/16/2019 1:21:14 PM

**Calibration Start Time:** 5/21/2019 9:51:11 AM

**Calibration End Time:** 5/21/2019 10:10:15 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101462

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K101898

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.10

**DO (mg/L):** 8.95 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 98.4 % Sat

**Post Calibration Value:** 100.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.991 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.0 mmHg

# Calibration Report

**Last Calibration Time:** 4/7/2019 3:37:40 PM

**Calibration Start Time:** 5/21/2019 11:06:58 AM

**Calibration End Time:** 5/21/2019 11:20:28 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101461

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102909

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.09

**DO (mg/L):** 9.12 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 98.7 % Sat

**Post Calibration Value:** 100.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.511 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.7 mmHg

# Calibration Report

**Last Calibration Time:** 4/16/2019 1:12:02 PM

**Calibration Start Time:** 5/21/2019 11:06:58 AM

**Calibration End Time:** 5/21/2019 11:20:28 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100746

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104235

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 1.02

**DO (mg/L):** 9.09 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 98.3 % Sat

**Post Calibration Value:** 99.9 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.538 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.0 mmHg



# Calibration Report

**Last Calibration Time:** 3/12/2019 10:46:40 AM

**Calibration Start Time:** 5/21/2019 11:06:58 AM

**Calibration End Time:** 5/21/2019 11:20:28 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101853

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100607

**DO Cap Replacement Date:** 7/24/2017

**DO Gain:** 1.12

**DO (mg/L):** 9.07 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 96.9 % Sat

**Post Calibration Value:** 100.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.560 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.0 mmHg

# Calibration Report

**Last Calibration Time:** 4/7/2019 3:43:39 PM

**Calibration Start Time:** 5/21/2019 11:06:58 AM

**Calibration End Time:** 5/21/2019 11:20:28 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101456

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102884

**DO Cap Replacement Date:** 11/16/2017

**DO Gain:** 1.09

**DO (mg/L):** 8.99 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 97.3 % Sat

**Post Calibration Value:** 100.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.600 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.0 mmHg

# Calibration Report

**Last Calibration Time:** 4/9/2019 4:47:33 PM

**Calibration Start Time:** 5/21/2019 10:21:47 AM

**Calibration End Time:** 5/21/2019 10:43:56 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101463

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K101906

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.05

**DO (mg/L):** 8.85 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.0 % Sat

**Post Calibration Value:** 100.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.627 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.0 mmHg

# Calibration Report

**Last Calibration Time:** 4/9/2019 4:47:33 PM

**Calibration Start Time:** 5/21/2019 10:21:47 AM

**Calibration End Time:** 5/21/2019 10:43:56 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100748

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104238

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 1.03

**DO (mg/L):** 8.86 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.2 % Sat

**Post Calibration Value:** 99.9 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.791 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.0 mmHg

# Calibration Report

**Last Calibration Time:** 4/16/2019 1:21:14 PM

**Calibration Start Time:** 5/21/2019 10:21:47 AM

**Calibration End Time:** 5/21/2019 10:43:56 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100745

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17F104234

**DO Cap Replacement Date:** 7/21/2017

**DO Gain:** 1.00

**DO (mg/L):** 8.87 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.1 % Sat

**Post Calibration Value:** 100.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.862 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.0 mmHg

# Calibration Report

**Last Calibration Time:** 4/16/2019 1:50:01 PM

**Calibration Start Time:** 5/21/2019 10:21:47 AM

**Calibration End Time:** 5/21/2019 10:43:56 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101851

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100606

**DO Cap Replacement Date:** 7/24/2017

**DO Gain:** 1.05

**DO (mg/L):** 8.89 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.7 % Sat

**Post Calibration Value:** 100.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.932 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.0 mmHg



# Calibration Report

**Last Calibration Time:** 4/9/2019 4:47:33 PM

**Calibration Start Time:** 5/21/2019 10:21:47 AM

**Calibration End Time:** 5/21/2019 10:43:56 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101862

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Ethan Bright

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100631

**DO Cap Replacement Date:** 7/26/2017

**DO Gain:** 1.08

**DO (mg/L):** 8.97 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.4 % Sat

**Post Calibration Value:** 99.9 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.130 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.0 mmHg

# Calibration Report

**Last Calibration Time:** 4/16/2019 1:50:01 PM

**Calibration Start Time:** 5/21/2019 10:38:37 AM

**Calibration End Time:** 5/21/2019 11:03:43 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101858

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100627

**DO Cap Replacement Date:** 7/26/2017

**DO Gain:** 1.08

**DO (mg/L):** 8.86 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.4 % Sat

**Post Calibration Value:** 100.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 20.983 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.7 mmHg

# Calibration Report

**Last Calibration Time:** 4/9/2019 4:18:03 PM

**Calibration Start Time:** 5/21/2019 10:38:37 AM

**Calibration End Time:** 5/21/2019 11:03:43 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101458

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102877

**DO Cap Replacement Date:** 11/16/2017

**DO Gain:** 1.07

**DO (mg/L):** 8.85 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.6 % Sat

**Post Calibration Value:** 100.2 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.035 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.7 mmHg

# Calibration Report

**Last Calibration Time:** 4/9/2019 4:18:03 PM

**Calibration Start Time:** 5/21/2019 10:38:37 AM

**Calibration End Time:** 5/21/2019 11:03:43 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100752

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100588

**DO Cap Replacement Date:** 7/23/2017

**DO Gain:** 1.08

**DO (mg/L):** 8.86 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.2 % Sat

**Post Calibration Value:** 100.2 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.137 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.7 mmHg

# Calibration Report

**Last Calibration Time:** 4/7/2019 3:43:39 PM

**Calibration Start Time:** 5/21/2019 10:38:37 AM

**Calibration End Time:** 5/21/2019 11:03:43 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101469

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102897

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.08

**DO (mg/L):** 8.86 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.7 % Sat

**Post Calibration Value:** 100.2 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.314 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.7 mmHg

# Calibration Report

**Last Calibration Time:** 4/9/2019 4:18:03 PM

**Calibration Start Time:** 5/21/2019 10:38:37 AM

**Calibration End Time:** 5/21/2019 11:03:43 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100737

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100559

**DO Cap Replacement Date:** 7/20/2017

**DO Gain:** 1.10

**DO (mg/L):** 8.88 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 101.2 % Sat

**Post Calibration Value:** 100.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.351 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.7 mmHg



# Calibration Report

**Last Calibration Time:** 4/7/2019 3:37:40 PM

**Calibration Start Time:** 5/21/2019 10:07:45 AM

**Calibration End Time:** 5/21/2019 10:27:38 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G100751

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100563

**DO Cap Replacement Date:** 7/23/2017

**DO Gain:** 1.10

**DO (mg/L):** 8.77 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 102.3 % Sat

**Post Calibration Value:** 100.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.861 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.6 mmHg

# Calibration Report

**Last Calibration Time:** 4/7/2019 3:37:40 PM

**Calibration Start Time:** 5/21/2019 10:07:45 AM

**Calibration End Time:** 5/21/2019 10:27:38 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101860

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100629

**DO Cap Replacement Date:** 7/26/2017

**DO Gain:** 1.08

**DO (mg/L):** 8.82 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 100.5 % Sat

**Post Calibration Value:** 100.3 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.834 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.7 mmHg

# Calibration Report

**Last Calibration Time:** 4/7/2019 3:58:45 PM

**Calibration Start Time:** 5/21/2019 10:07:45 AM

**Calibration End Time:** 5/21/2019 10:27:38 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101849

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100601

**DO Cap Replacement Date:** 7/24/2017

**DO Gain:** 1.07

**DO (mg/L):** 8.79 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 99.4 % Sat

**Post Calibration Value:** 100.1 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.757 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.7 mmHg

# Calibration Report

**Last Calibration Time:** 4/7/2019 3:37:40 PM

**Calibration Start Time:** 5/21/2019 10:07:45 AM

**Calibration End Time:** 5/21/2019 10:27:38 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17G101854

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17G100608

**DO Cap Replacement Date:** 7/24/2017

**DO Gain:** 1.08

**DO (mg/L):** 8.80 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 99.6 % Sat

**Post Calibration Value:** 100.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.738 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.7 mmHg

# Calibration Report

**Last Calibration Time:** 4/7/2019 3:37:40 PM

**Calibration Start Time:** 5/21/2019 10:07:45 AM

**Calibration End Time:** 5/21/2019 10:27:38 AM

**Parameter:** DO (% Sat)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** DO

**Serial Number:** 17L101471

**Firmware Version:** 3.0.0

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Sensor Specific**

**DO Cap Serial Number:** 17K102902

**DO Cap Replacement Date:** 11/21/2017

**DO Gain:** 1.08

**DO (mg/L):** 8.80 mg/L

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 99.8 % Sat

**Post Calibration Value:** 100.0 % Sat

**Raw Calibration Value:** 0.0 % Sat

**Temperature:** 21.730 °C

**Standard Value:** 100.0 % Sat

**Type:** Tap Water

**Manufacturer:** N/A

**Lot Number:** N/A

**Is Stable:** True

**Barometer:** 760.7 mmHg

# Calibration Report

**Last Calibration Time:** 4/16/2019 1:32:24 PM

**Calibration Start Time:** 5/21/2019 1:20:00 PM

**Calibration End Time:** 5/21/2019 1:40:49 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105656

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.17 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.652 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/9/2019 5:20:57 PM

**Calibration Start Time:** 5/21/2019 1:20:00 PM

**Calibration End Time:** 5/21/2019 1:40:49 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105662

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.01 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.572 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 3:43:11 PM

**Calibration Start Time:** 5/21/2019 1:20:00 PM

**Calibration End Time:** 5/21/2019 1:40:49 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102813

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.48 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.568 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:14:02 PM

**Calibration Start Time:** 5/21/2019 1:20:00 PM

**Calibration End Time:** 5/21/2019 1:40:49 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105657

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.05 RFU

**Post Calibration Value:** 0.01 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.567 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 3:43:11 PM

**Calibration Start Time:** 5/21/2019 1:20:00 PM

**Calibration End Time:** 5/21/2019 1:40:49 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105654

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.08 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.584 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 5:20:57 PM

**Calibration Start Time:** 5/21/2019 1:20:00 PM

**Calibration End Time:** 5/21/2019 1:40:49 PM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105664

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.07 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.595 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:16:47 PM

**Calibration Start Time:** 5/21/2019 11:15:03 AM

**Calibration End Time:** 5/21/2019 11:38:57 AM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105653

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.02 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.861 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/7/2019 4:14:02 PM

**Calibration Start Time:** 5/21/2019 11:15:03 AM

**Calibration End Time:** 5/21/2019 11:38:57 AM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102814

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.01 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.846 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:16:47 PM

**Calibration Start Time:** 5/21/2019 11:15:03 AM

**Calibration End Time:** 5/21/2019 11:38:57 AM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105663

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.41 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.848 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 5:20:57 PM

**Calibration Start Time:** 5/21/2019 11:15:03 AM

**Calibration End Time:** 5/21/2019 11:38:57 AM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 1.20 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.812 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:14:02 PM

**Calibration Start Time:** 5/21/2019 11:15:03 AM

**Calibration End Time:** 5/21/2019 11:38:57 AM

**Parameter:** Phycoerythrin (RFU)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105655

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.36 RFU

**Post Calibration Value:** 0.00 RFU

**Raw Calibration Value:** 0.00 RFU

**Temperature:** 21.805 °C

**Standard Value:** 0.00 RFU

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/16/2019 1:34:30 PM

**Calibration Start Time:** 5/21/2019 1:41:52 PM

**Calibration End Time:** 5/21/2019 1:51:47 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105656

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.51 µg/L

**Post Calibration Value:** -0.01 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.611 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 5:25:25 PM

**Calibration Start Time:** 5/21/2019 1:41:52 PM

**Calibration End Time:** 5/21/2019 1:51:47 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105662

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.02 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.620 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/9/2019 3:48:31 PM

**Calibration Start Time:** 5/21/2019 1:41:52 PM

**Calibration End Time:** 5/21/2019 1:51:47 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102813

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -1.07 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.627 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:21:32 PM

**Calibration Start Time:** 5/21/2019 1:41:52 PM

**Calibration End Time:** 5/21/2019 1:51:47 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105657

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.23 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.636 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 3:48:31 PM

**Calibration Start Time:** 5/21/2019 1:41:52 PM

**Calibration End Time:** 5/21/2019 1:51:47 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105654

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.27 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.643 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 5:25:25 PM

**Calibration Start Time:** 5/21/2019 1:41:52 PM

**Calibration End Time:** 5/21/2019 1:51:47 PM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G102021

**Serial Number:** 17G102021

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105664

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -0.50 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.651 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:21:14 PM

**Calibration Start Time:** 5/21/2019 11:40:09 AM

**Calibration End Time:** 5/21/2019 11:49:53 AM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105653

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.19 µg/L

**Post Calibration Value:** -0.03 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.805 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:21:32 PM

**Calibration Start Time:** 5/21/2019 11:40:09 AM

**Calibration End Time:** 5/21/2019 11:49:53 AM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102814

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 0.30 µg/L

**Post Calibration Value:** 0.05 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.811 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True



# Calibration Report

**Last Calibration Time:** 4/7/2019 4:21:14 PM

**Calibration Start Time:** 5/21/2019 11:40:09 AM

**Calibration End Time:** 5/21/2019 11:49:53 AM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105663

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -1.36 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.818 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/9/2019 5:25:25 PM

**Calibration Start Time:** 5/21/2019 11:40:09 AM

**Calibration End Time:** 5/21/2019 11:49:53 AM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F102815

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Warning

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** 1.91 µg/L

**Post Calibration Value:** -0.02 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.838 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True

# Calibration Report

**Last Calibration Time:** 4/7/2019 4:21:32 PM

**Calibration Start Time:** 5/21/2019 11:40:09 AM

**Calibration End Time:** 5/21/2019 11:49:53 AM

**Parameter:** Phycoerythrin (µg/L)

**Instrument:**

**Type:** EXO2

**Name:** Sonde 17G101641

**Serial Number:** 17G101641

**Firmware Version:** 1.0.73

**Sensor:**

**Type:** TAL-PE

**Serial Number:** 17F105655

**Firmware Version:** 3.0.5

**Status:** Completed

**Technician:** Hayley DiGiano

**QC Score:** Good

**Notes:**

**Calibration Points:**

**Calibration Point #1:**

**Pre Calibration Value:** -1.10 µg/L

**Post Calibration Value:** 0.00 µg/L

**Raw Calibration Value:** 0.00 µg/L

**Temperature:** 21.848 °C

**Standard Value:** 0.00 µg/L

**Type:** Distilled Water

**Manufacturer:** Crystal Springs

**Lot Number:** 0521911231013

**Is Stable:** True



## **FIELD SERVICE REPORT**

Savannah Harbor Enhancement Project (SHEP)

Client: LG2

POC: Rick McCann

ISS Field Engineer: Jon Fajans

December 10-11, 2018

I met Rick McCann and other project participants at the Army Corps of Engineers Depot on Hutchinson Island in Savannah, GA at 13:30 on the 10<sup>th</sup>. Late arrival was due to weather delays that caused flight cancellations. We discussed his goals for this visit which included meeting with modelers and database managers as well as field staff. Meetings and discussions continued until early evening and continued the following day. I departed on the evening of the 11<sup>th</sup>.

Items discussed during the meetings:

- Data collection vs. data visualization – Eagle IO is the preferred platform for stakeholders to visualize real time data with little to no access to change or manipulate it. Loggernet is the preferred platform to download data from the in-situ station for all data sets.
- Database managers and LG2 Project manager need to have Loggernet licenses loaded on PCs to connect to and collect data from the platform.
- The original Loggernet License is missing
- Recommendations for collecting handheld profiles of the water column during O2 and rhodamine chasing events
- Options for rental of additional hand-held units/EXO2 sondes for the purpose of short term chasing studies
- Issues with correctly deploying sondes for internal logging and how to retrieve the data post deployment
- Changes to the new report format found in the updated firmware of the KOR software vs. the previous format that is still available if using the USB transfer drive to retrieve data from the handheld unit.
- Calibration procedures refresher

Upon my return, I arranged for another Loggernet CD/license to be sent to LG2 for use on the project.

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## **FIELD SERVICE REPORT**

Savannah Harbor Enhancement Project (SHEP)

Client: LG2

POC: Rick McCann

ISS Field Engineer: Jon Fajans

April 29, 2019

Rick,

I met with the team at the Depot on Monday April 29<sup>th</sup>, and we spent time discussing field operations, data download issues, specific sonde issues and upcoming operations. The team is well versed in sonde maintenance and the record keeping. We spent time going over the archiving and transferring of calibration records from one system to another and introduced the various record search methods.

Two sondes were examined for possible hardware issues. One was found to be fully operational and the previously reported depth sensor issue was not able to re-created. We discussed some additional troubleshooting options that could be employed should the issue re-present itself. The second sonde was found to have an unresponsive port #1 and it is recommended that the sonde be sent in to YSI OH for evaluation and possible warranty repair sooner rather than later. The team can contact YSI EXO tech support for an RMA.

Finally, please let us know if you need any additional information regarding buoy platform options for the up-river phase of the monitoring effort. We may have some low cost or rental solutions that would provide suitable buoyancy for tethering multiple sondes.

Your team was extremely knowledgeable and a pleasure to work with as usual.

Jon Fajans  
Field Service Engineer

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