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Eversource Energy
Seacoast Reliability Project
Little Bay Cable Installation

Comprehensive Water Quality Monitoring Report

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Table of Contents

Attachments

List of Figures

List of Tables

Executive Summary

Eversource Energy's (Eversource) Seacoast Reliability Project (SRP) is a 12.9-mile transmission project from the Madbury substation in Madbury to the Portsmouth substation in Portsmouth designed to improve the electrical reliability in the Seacoast region of New Hampshire. The SRP included the burial of three cables approximately 1 mile across Little Bay north of Adams Point within a corridor previously identified as "Cable Area" on navigation charts. The submarine cables were installed primarily using a jet plow, with burial by divers required close to both shores. Impacts anticipated for the jet plow installation were described in several project documents associated with Eversource's permit application review with the NH Site Evaluation Committee (NHSEC) (Normandeau 2016; RPS 2016, 2017). The primary effect from jet plowing was predicted to be a release of sediments into the water column as the jet plow proceeded along each cable route, creating an ephemeral turbidity plume that tracked with the tides and with the progress of installation. As a result, impacts from the plume on biota in Little Bay were expected to be negligible.

The New Hampshire Department of Environmental Services issued its final recommendations for approval on October 29, 2018, in which multiple conditions for water quality monitoring during the jet plow operations are imposed on the project. The project was approved by the NHSEC on January 29, 2019, and by the US Army Corps of Engineers (USACE) on July 3, 2019. A final water quality monitoring plan was approved by NHDES on September 6, 2019, and after the results of a jet plow trial, the final revised plan was approved on October 15, 2019.

The jet plow trial was conducted on September 9, 2019. The results of the jet plow trial indicated that the sediment plume model predictions were conservative and that installation of the cables using the jet plow could be accomplished in a manner that would not compromise the water quality of Little Bay (Normandeau 2019a). Cable 1 was installed between October 15 and 19, 2019; Cable 2 was installed on October 28 and 29, 2019; and Cable 3 was installed on November 6 and 7, 2019. Hand jetting in the nearshore areas was conducted over 28 days between November 11 and December 18, 2019.

This comprehensive water quality report provides the overall monitoring results for the jet plow trial, jet plow installations across Little Bay and hand jet burial of cables nearshore. It includes the water quality monitoring results from boat-based and fixed meter stations, and laboratory results from water quality samples systematically collected at a range of depths and times. Comparisons of the field results to model predictions are made where appropriate.

In total, almost 3,500 stations were sampled over 36 days of cable installation, resulting in over 17,500 meter measurements and 25,000 laboratory samples.

Sampling was conducted at 23 permanent stations, as well as supplemental transient stations for a total of 8 days during cable installation via jet plow and 28 days via hand jetting. The permanent stations included 10 nearfield and reference stations, 10 boundary stations and 3 reference stations. Water quality data were typically collected before construction activity started on a given day, during the activity, and after construction stopped for the day. The in-situ water quality measurements included turbidity, dissolved oxygen, temperature, salinity, and pH. At each station, water samples were collected for laboratory analyses for total suspended solids, nitrogen species, total and dissolved metals, and fecal coliform.

Turbidity was the primary measure of impacts from the cable installation. For the great majority of the installation, no exceedances of the Boundary Station Action Limit (BSAL) were observed at the edge of the state-permitted mixing zone. During Cables 1 and 2, a few exceedances were observed, but they all dropped back down below the BSAL on the next sample period, indicating a short-term, therefore ecologically insignificant, effect. The highest exceedance was on the tidal flats at Station 21 during Cable 2. That station remained approximately 5–10 NTU above the BSAL for an hour before dropping close to background. These values are within the natural variability observed in the bay and would not represent an ecological impact. For example, during a December 15 storm, background turbidity increased to over 16 NTU for three days, indicating that the bay is periodically subjected to turbidity levels within the range measured during the cable installation.

The vast majority of results for dissolved oxygen, temperature, salinity and pH showed seasonal and storm event responses, but no changes that could be attributed to the jet plow activity.

Of the 3,285 TSS samples collected overall, over 91% had values below 20 mg/L. Of the remaining 298 samples, only 6 exceeded 50 mg/L, and all of these were inside the mixing zone boundary. The correlation between turbidity and TSS was relatively weak (r^2=0.60) overall, and even weaker (r^2=0.46) for the 99% of the TSS samples that fell below 50 mg/L. Two factors likely affect this. One is that these numbers are at the low range of turbidity levels, which limits the ability to draw relationships. The other is that turbidity was measured in situ, followed by water sample collection for TSS, meaning different water "parcels" were sampled for the two parameters. Because the sediment plumes were observed to be highly dynamic in both space and time, the brief intervals between turbidity measurements with the hand-held YSI sonde and water collection via the pump could result in considerable differences between water parcels and the resulting data.

Total suspended sediment (TSS) data also showed that the sediment dispersion model predictions were generally conservative. The average project-related TSS for all cable installation events were well below the concentrations predicted by the model, and although the plume periodically reached the mixing zone boundary, as evidenced in the drone footage, concentrations at the boundary stations were consistently below the 20 mg/L above background level indicated by the model.

More than 21,700 laboratory analyses were run measuring nitrogen species, total and dissolved arsenic and copper, and fecal coliforms. The vast majority of results for each parameter tested showed that changes to water quality caused by cable installation were minor, ephemeral, and localized. Nitrogen species showed no differences in concentrations between samples collected before and during construction. Total and dissolved arsenic levels were well below any threshold of concern. Total copper values showed no temporal or spatial patterns. A small percentage of the dissolved copper samples appeared to exceed toxicity thresholds, but with one exception, these results are highly suspect because the dissolved phase was reported to be higher than the total copper. It is very likely that this resulted from contamination during collection. Regardless, per concurrence with NHDES, a single sample does not constitute an exceedance and appropriate averaging over depth and time showed that these apparent exceedances were too localized and ephemeral to reduce water quality. Fecal coliform values were clearly associated with weather events rather than project activity.

The drone was a useful tool for locating and measuring a turbidity plume, if present. There was a distinct difference between a visible plume and turbidity levels. Even though a plume was visible in the drone imagery, elevated turbidity levels were often not detectable and seldom reached or exceeded BSAL during the hourly sampling at the boundary stations. In combination, water quality measurements, water chemistry and images from the drone survey collected during the jet plow trial generally confirm the predictions of the plume modeling. The model basically characterized the plume as narrow, elongated and ephemeral. The drone data confirmed those characteristics for much of the tide cycle.

In conclusion, the SRP water quality monitoring program was completed in accordance with the NHDES-approved monitoring plan and demonstrated compliance with SEC permit conditions and the DES 401 water quality certificate. Based on turbidity and TSS sampling within the approved mixing zone, the sediment dispersion model predictions presented in the permit applications accurately represented sediment transport patterns and conservatively predicted the extent and amount of sediment suspension and deposition. The results of the extensive water quality sampling program demonstrated that state water quality standards were attained for all parameters and indicate that ecological impacts during construction were negligible.

1 Introduction

Eversource Energy (Eversource) constructed a 12.9-mile, 115 kV transmission project to improve the electrical reliability in the Seacoast region of New Hampshire. The Seacoast Reliability Project (SRP) involved burying three cables approximately 1 mile across Little Bay north of Adams Point within a corridor previously identified as "Cable Area" on navigation charts. The cables were installed using a jet plow (also called a jet sled) along most of the route across Little Bay. Hand jetting was used to install cables close to shore where water depths were too shallow for use of the jet plow. The project was approved by the NH Site Evaluation Committee on January 29, 2019, and by the US Army Corps of Engineers on July 3, 2019.

While jet plow technology has been used extensively worldwide, it had not been previously used in New Hampshire. Impacts anticipated for the jet plow installation were described in several project documents associated with Eversource's permit application review with the SEC (Normandeau 2016; RPS 2016, 2017). The primary effect from jet plowing is the release of sediments into the water column creating a turbidity plume that moves with the tides and with the progress of installation along the route. The maximum modeled extent of the sediment plume from the two rates of crossing is shown in Figure 1. Tidal circulation in Little Bay was incorporated into the sediment dispersion modeling and was a major factor determining the dimensions and movement of the plume. The model predicted that the sediment plume would move with the tides as the jet plow traversed the bay and would be ephemeral at any given time and location. As a result, impacts from the plume on biota in Little Bay were expected to be negligible.

NHDES issued its final recommendations for approval on October 29, 2018, in which twelve conditions for water quality monitoring during the cable installation operations were imposed on the project. The relevant conditions are summarized below and provided in full in Appendix A.

39. Time of Year
40. Independent Environmental Monitor
44. Mixing Zone Plan
45. Water Quality Monitoring and Adaptive Management Plan
53. Weather
54. Wind
56. Silt Curtains
57. Water-lift
58. Timing of Hand-Jetting and Jet Plowing
59. Minimum Time Between Cable Installations
60. Screen on Jet Plow Intake

60b. Jet Plow Trial

To meet Conditions 44 and 45, the project developed a water quality monitoring plan that was approved by NHDES on October 15, 2019 (Normandeau 2019a). After the jet plow trial, which

followed an earlier approved version of the water quality monitoring plan (Normandeau 2019b), and the three jet plow cable installations, the following interim reports were provided to NHDES:

- Jet Plow Summary Report, Revised (Normandeau 2019c)
- Cable 1 Preliminary Report (Normandeau 2019d)
- Cable 2 Preliminary Report (Normandeau 2019e)
- Cable 3 Preliminary Report (Normandeau 2019f)

This comprehensive water quality report provides the overall monitoring results for the jet plow trial, jet plow installations across Little Bay and hand jet burial of cables nearshore. It includes summaries of the water quality monitoring results from hand-held and fixed meter stations, and laboratory results from water quality samples systematically collected at a range of depths and times.

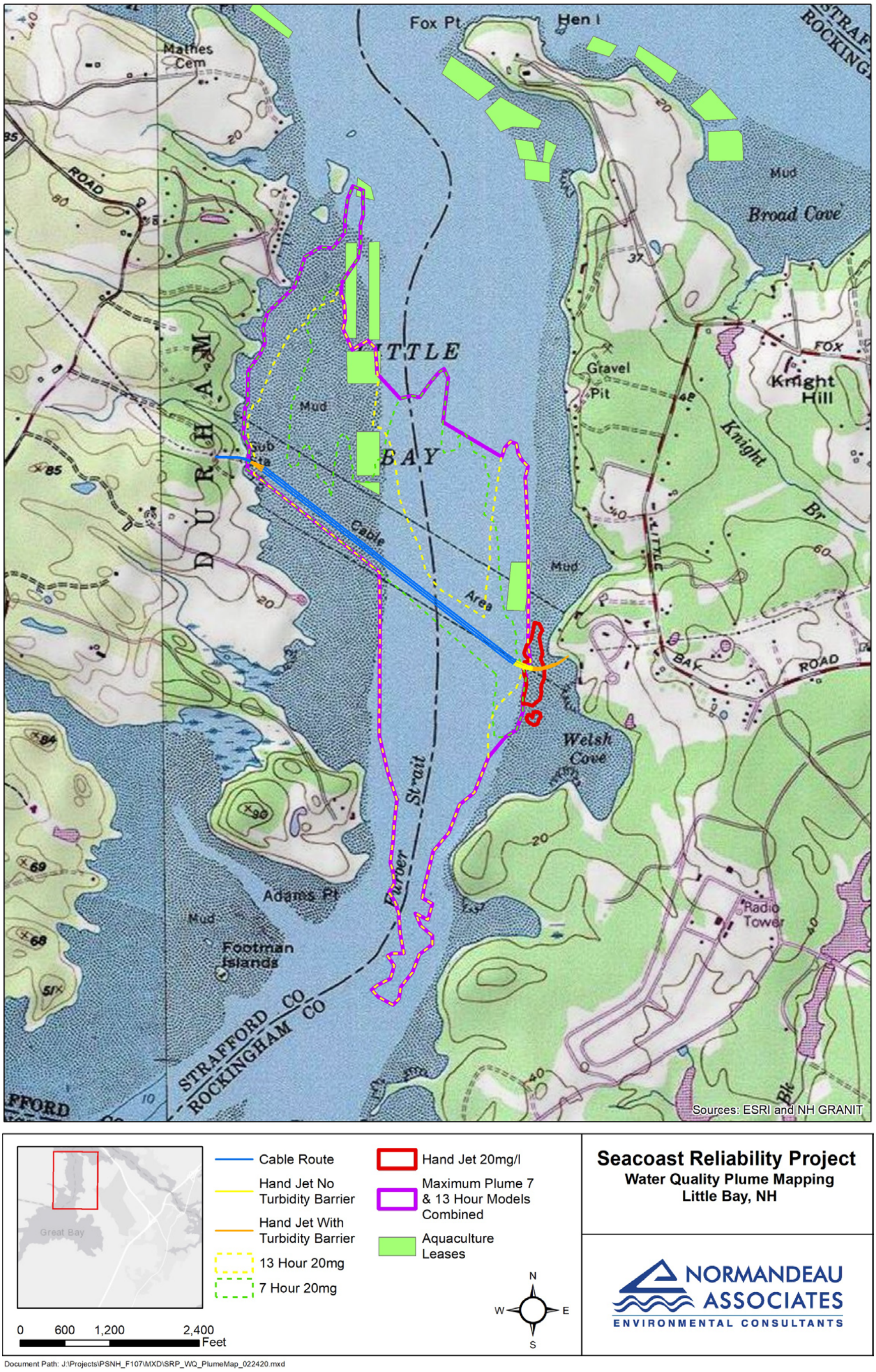

Figure 1. SRP modeled extents of sediment plumes for 7- and 13-hour jet plow crossings and the estimated mixing zones for jet plowing and hand jetting activities.

2 Methods

The submarine cable burial occurred between September 9 and December 18, 2019 (Table 1). Durocher Marine was the marine contractor, and Normandeau Associates conducted the water quality monitoring. An Independent Environmental Monitor (IEM) representing NHDES was on the jet plow barge or was shore-based and was in communication with Durocher and Normandeau's On Shore Field Coordinator throughout all of the cable installation procedures.

Table 1. Dates and Locations of the Activities Associated with the SRP Submarine Cable Burial*

Event	Activity	Location	Date
2	Jet Plow Trial	1000' on western tidal flat and channel	Sep 9, 2019
3	Cable 1	North cable across entire route	Oct 16-19, 2019
4	Cable 2	Middle cable across entire route	Oct 28-29, 2019
5	Cable 3	South cable across entire route	Nov 6-7, 2019
6	Hand Jet West Shore	Western shore, inside turbidity barrier	Nov 14-Dec 10, 2019
7	Hand Jet Channel	Channel work, no turbidity barrier	Nov 11-Dec 8, 2019
8	Hand Jet East Shore	Eastern shore, inside turbidity barrier	Dec 8-18, 2019

* Does not include concrete mattress installation.

Wind direction and velocity were obtained from the Windfinder[1] website for Pease Airforce Base, with the exception of the jet plow trial, which used Sailflow.[2] Tides provided by Durocher were estimated based on an average of US Harbors tide data for Dover Point[3] and the Squamscott River.[4] Normandeau estimated tides from WillyWeather for Great Bay–Adams Point[5] and found they aligned very closely with the Durocher method.

Location of the jet plow trial was selected to represent conditions anticipated for cable installation both on the western tidal flat and in the channel, as described in the Water Quality Monitoring Plan (Normandeau 2019a). Approximately half of the 1000-foot–long route was on the tidal flat and half was in the channel (Figure 2). The operational goals, agreed upon with NHDES and IEM, were to allow Durocher to become familiar with the site-specific operation of the jet plow and for Normandeau to conduct the same water quality monitoring that would take place during an actual cable installation. During operations, Normandeau would report elevated turbidity levels to the IEM, but no alteration to the jet plow operation would be required, provided that the monitoring data collected by handheld instruments demonstrated that turbidity exceedances were not occurring at the mixing zone boundary and that turbidity at the nearfield stations was not exceptionally high.

[1] https://www.windfinder.com/forecast/pease_air_force_base_portsmouth

[2] https://www.google.com/search?q=sailflow+portsmouth+nh&rlz=1C1CHBD_enUS868US868&oq=sail&aqs=chrome.0.69i59l2j69i57j0j69i61j69i60l3.2027j0j7&sourceid=chrome&ie=UTF-8

[3] https://www.usharbors.com/harbor/new-hampshire/dover-point-nh/tides?tide=2019-09

[4] https://www.usharbors.com/harbor/new-hampshire/squamscott-river-nh/tides?tide=2019-09

[5] https://tides.willyweather.com/nh/strafford-county/great-bay--adams-point.html

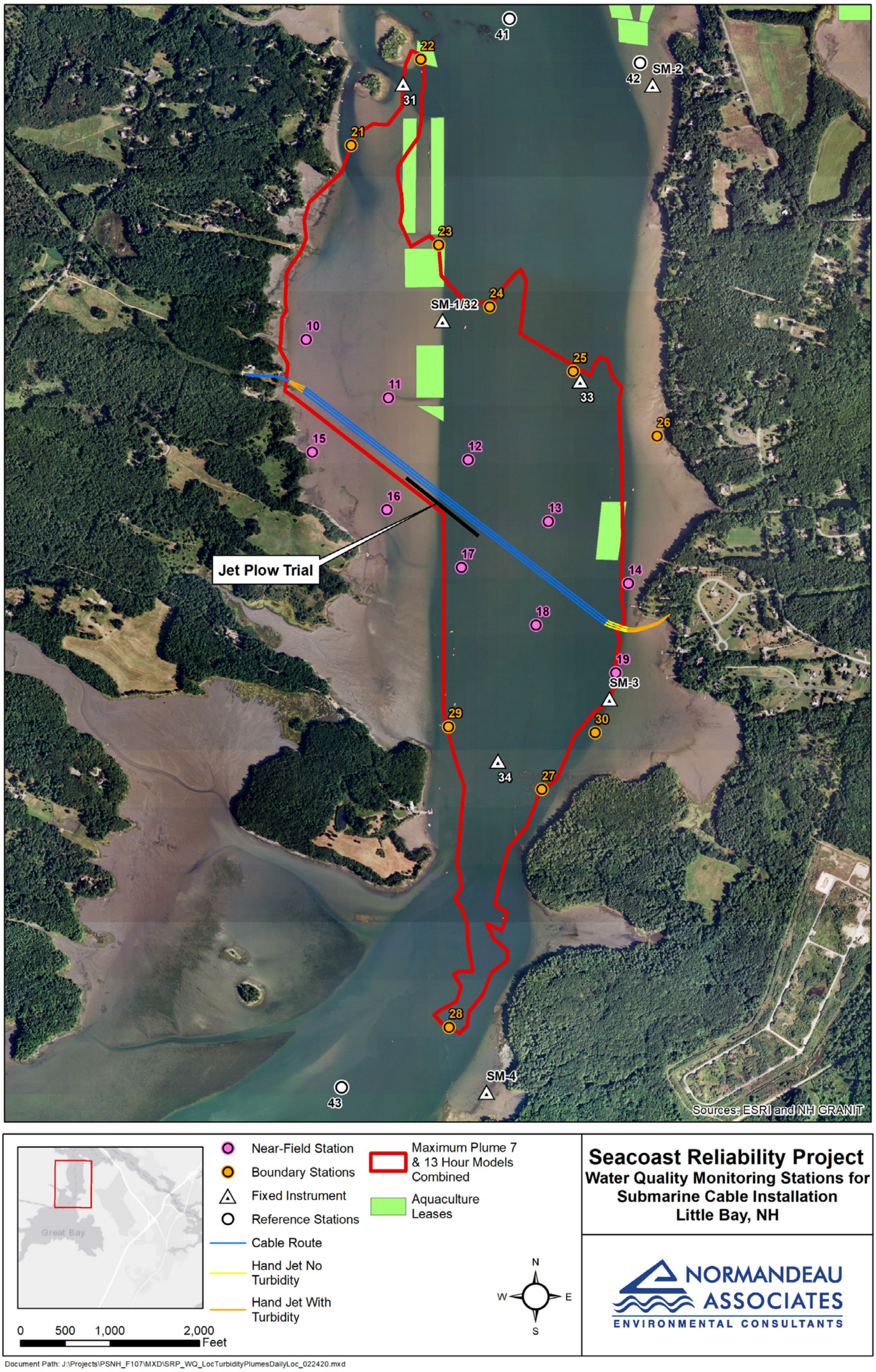

Figure 2. Location of the jet plow trial selected to represent conditions anticipated for cable installation both on the western tidal flat and in the channel.

The three cables were installed via jet plow between October 15 and November 7, 2019 (Table 1) and as shown in Figure 2. The northernmost cable, called Cable 1, was installed first, over a period of 4 days. The installation of the middle cable (Cable 2) began 9 days later and occurred over a period of 2 days. The installation of the southernmost cable (Cable 3) began 8 days after completion of Cable 2 and occurred over a period of 2 days.

For the remaining cable sections either too close to shore or with ledge too shallow to achieve the prescribed 3.5-ft burial depth, the cables were buried by divers operating water-propelled hand jets. One to two teams of divers operated from separate barges either on each shore simultaneously or occasionally jointly on the same shore.

During the submarine cable installation, Normandeau reported the Boundary Station Action Level (BSAL) and periodic turbidity levels to the IEM and highlighted any elevated turbidity readings. The IEM relayed barge activities to Normandeau. Both Normandeau and the IEM relied on the drone, when able to fly, for additional information on installation activities and locations of visible turbidity plumes.

Over the course of the installation, adaptive management was implemented based on the results of the water quality sampling. The following changes to the monitoring protocols were instituted during the installation processes following approval from NH DES:

- Shifted Station 23 approximately 200 feet to the east to position more directly north of Fixed Station SM-1/32, beginning for Cable 1.
- Cessation of the collection of water samples for nitrogen species and metals at the boundary stations after the results of the jet plow trial were reviewed, beginning for Cable 1.
- Shift station locations for the hand jet monitoring as needed to ensure they were aligned with the hand jetting activity, November 11, 2019.
- Conduct hand jetting regardless of tide cycle, assuming no exceedance of the Boundary Station Action Level and submittal of a daily report to NHDES, November 13, 2019.
- Reduction of the frequency of monitoring from hourly to every other hour during hand jetting, and collection of water samples for nitrogen species at the hand jet boundary monitoring stations after data review showed the virtual absence of a turbidity signature associated with the activity, December 1, 2019
- Cessation in fecal coliform sampling during hand jetting starting on December 2, 2019.
- Reduction in the number of tide cycles required between the end of hand jetting and beginning removal of the turbidity barrier from 2 to 1.5, December 10, 2019.

2.1 Field Sampling Procedures

2.1.1 Project Operations

In general, the jet plow operations were similar for the jet plow trial and the three cable installations. Durocher would place the jet plow on the western tidal flat at the planned starting point at high tide. The jet plowing would begin on or slightly before high slack tide on the appointed day of installation. The cable lay barge (referred to as the Barge elsewhere in this

section), was moored on spuds in the channel and the jet plow was pulled via cable across the western tidal flats. Once the jet plow reached the edge of the channel, the plow was reconfigured for deeper water and the barge was pulled by anchor wires and/or tug to the eastern shore of the channel. If the operation had to stop for the night, the water pumps were turned off and the jet plow left in place. If the plow halted on the western tidal flats, work resumed on the next day's high tide. If the plow halted in the channel where water depths were sufficient, work resumed the following day independent of tide stage.

As described in the Water Quality Monitoring Plan (Normandeau 2019a), the jet plow blade is 5 feet long, 13 inches wide and has jet nozzles along its face. It receives pressurized water from hoses connected to the pump barge. The jet plow operators can control the water pressure at the blade in response to resistance within the sediment. Durocher plugged the uppermost 20 inches of jets so that the upper sediment layers are less fluidized than lower sediments.

Jet Plow Trial

Throughout the jet plow trial, Durocher operated the jet plow, cable lay barge and support vessels in the same manner planned for a cable installation. Durocher positioned the jet plow sled on the tidal flat approximately 580 feet west of the channel on the western edge of the jet plow trial path (Figure 2). The trial included the western tidal flat and extended approximately 450 feet into the channel. At that time, an anchor move was simulated, where the four anchors holding the barge in position were lifted, moved and re-set.

Jet Plow Cable Installations

For each of the three cable installations, Durocher placed the jet plow on the western tidal flat at the planned starting point for the installation. With the cable lay barge carrying the spooled cable moored in the channel, Durocher would begin the process of "floating" the cable to shore. This would entail unspooling and attaching floats to the necessary cable length (approximately 2500 feet) of transmission cable, and on Cable 1 and Cable 3, fiber optic cable. Durocher would pull the floated cable across the tidal flats, pull the necessary section up to the riser on shore, and load the cables into the jet plow. Operation of the jet plow would commence on the following day on or slightly before slack high tide.

Similar to the jet plow trial, Durocher plugged the uppermost 20 inches of jets so that the upper sediment layers were less fluidized than lower sediments, to reduce the amount of material going into suspension.

The cable burial with the jet plow progressed more rapidly with each successive installation. Cable 1 took four days, Cable 2 took 2 long days, and Cable 3 took two shorter days (Table 1). The slowest portion of the route was on the western tidal flat, where the floats needed to be removed by divers and the tidal currents could pull the cable off course. For Cable 1, the tidal flats required 2.5 days. For Cable 2, Durocher was able to speed up the float removal and crossed the flats in approximately 1.5 days. For Cable 3, the plow crossed the entire tidal flat and extending about 800 feet into the channel before stopping for the first day. Faster advancement was achieved through more efficient removal of floats from the cable, as with Cable 2, more successful navigation, and smaller (neap) tides. Cable installation in the channel generally proceeded smoothly and rapidly, with occasional slowdowns as the jet plow navigated the slopes of sand waves.

Anchor changes also improved with practice, as the crews learned to maneuver in the currents and shallow water depths of Little Bay. The simulated anchor change during the jet plow trial took almost 3 hours. By Cable 3, an anchor change took approximately 1 hour. Durocher also was able to reduce the number of anchor changes from 3.5 for Cable 1 to 2 for Cable 3.

Hand Jet Cable Installation

Hand jetting was required in nearshore waters on both sides of the bay where the jet plow could not navigate (Figure 2). The entire portion of the route where hand jetting was necessary on the western side of the bay was enclosed within a turbidity barrier expected to contain an estimated 90% of the suspended sediments. Similarly, the shallowest portion of the hand jet area on the eastern side of the bay was also enclosed within a turbidity barrier. An approximate 230-ft–long segment on the eastern end, however, was exposed to tidal currents too swift for successful use of turbidity barriers.

Hand jetting was initiated after completion of the Cable 3 jet plow installation. Beginning Nov 11, 2019, hand jetting was conducted daily, except for severe weather, and a break at Thanksgiving. Hand jetting commenced first in the east channel, followed 2 days later on the west shore (Table 1). In general, the hand jetting was conducted as described in the Water Quality Monitoring Plan (Normandeau 2019a). Each dive team consisted of one diver in the water, one diver on deck, a pump barge and work skiffs. The in-water diver worked one section of the cable at a time, burying it to depth, before moving to the next cable. Once the cables within a safe distance from the barge were buried, the barge would be relocated to the next section for cable burial.

The divers were able to achieve full cable depth (5 feet) in the east channel, and as predicted, the west and east shore cables were buried to the maximum depth before encountering an impenetrable ledge or rock that limited burial. Manageable buried impediments, primarily logs, were either removed via jetting or cut with an underwater chainsaw to allow burial to continue. The western flats required 14 days for one dive team to complete hand jetting; the east channel required 17 days for 1–2 dive teams; and the eastern flats required 6 days using up to 3 dive teams.

Turbidity Barriers

Bottom-sealing turbidity barriers were deployed on the eastern and western tidal flats during hand jetting. The barriers were designed and installed by Mackworth-Enviro, a company specializing in custom turbidity curtains and barriers. The barriers consisted of a surface float, a microfabric skirt that filtered out particulates, an impervious weighted bottom foot and a series of anchor and lines for securing the float, skirt and foot.

The western barrier enclosed the entire hand jet area and was deployed from the west shore cable landfall. The eastern barrier was also deployed from the west shore and towed across Little Bay to its position on the east shore. Once positioned, the barriers were anchored in multiple locations. The skirt and foot of the barrier were then released to drop into position and seal the bottom foot to the sea floor.

The barriers required daily maintenance to check position and to reset skirts that may have been pushed off position by currents and wind. If an adjustment was required, hand jetting was halted until the adjustment was complete.

The eastern barrier failed on December 14 due to strong winds, currents and debris. A Type 1 silt curtain was deployed to replace the western and southern legs of that barrier for the last 3 days of hand jetting.

On December 14 and 15, the western barrier was removed by incrementally reefing the skirt and foot to the surface float and pulling to a work barge where it was hoisted and cut into sections in a dumpster. The cut sections were disposed of on-shore at an approved landfill facility. The eastern barrier and Type 1 silt curtain were similarly disposed of after completion of the hand jet operation on December 19. More details of the turbidity barrier design and removal are available in the Turbidity Barrier Removal Plan (Normandeau 2019g).

2.1.2 Water Quality Monitoring

Water quality monitoring methods for the jet plow trial, jet plow cable installation and hand jet cable installation followed those described in the Water Quality Monitoring Plan (Normandeau 2019a). Sampling was conducted at up to three depths (near-surface, mid-depth, near-bottom) at 24 pre-established near-field, boundary and reference stations (Figure 2). At each station, Normandeau staff used hand-held YSI ProDSS meters to measure turbidity, temperature, salinity, dissolved oxygen and pH. Water samples were also collected by submerged centrifugal pumps for analysis of total suspended solids (TSS, the parameter used in the plume modeling), nitrogen species (nitrate, nitrite, ammonia, total Kjeldahl nitrogen), dissolved and total copper and arsenic. Fecal coliform samples were also collected in near-surface waters. Water for all analytical parameters were collected at reference and near field stations. Water was collected only for TSS and fecal coliform analyses at the boundary stations. Blank and duplicate samples were collected according to the Water Quality Monitoring Plan (Normandeau 2019a).

Jet Plowing

As water levels dropped with the tide, water depths at tidal flat stations became too shallow to continue sampling three depths, as anticipated in the Plan. Sampling was reduced to two depths (near-surface and near-bottom) when water depths dropped below 7 feet, and to one depth (near-bottom), to one depth when water depths were equal to or less than 3 feet, and sampling ceased when water depths were equal to or less than 2 feet. Over the course of the six sample events listed in Table 1, a total of 3,424 stations, and 25,077 water samples (including at least one duplicate and one field blank sample from each boat for each day) were collected. The sample effort by date, time and station for each cable installation event is included in Appendix B.

For most days, sampling crews arrived at their assigned monitoring stations ahead of the start of cable burial to collect a full set of background data before the water pumps to the jet plow or the hand jet tool were turned on. The jet plow was typically in idle mode for 10–20 min before pressure was increased and cable burial began. Hand jetting was more instantaneous. On some days when weather conditions were very similar to the previous day, or cable installation was to start at daylight, no pre-construction sampling was conducted.

Sampling during cable installation at both upstream and downstream stations began approximately 15 minutes after cable burial began to allow any plume generated initially time to reach the sample stations. Sampling continued until either burial work was halted, or if turbidity levels were elevated, until turbidity levels dropped to, or close to background. Post-construction sampling at most stations during jet plowing continued for 1.5 hours or more after the jet plow halted. For hand jetting, sampling typically halted after the divers stopped work, or one additional sample event if turbidity was elevated.

Using the hand-held YSI meters, each boat sampled a prescribed series of stations and recorded results on field data sheets. Then crews collected water for laboratory analysis using a Seaflo submersible electric pump with a plastic body and impeller with stainless steel shaft, and ½-inch diameter PVC tubing. The pumps were run for at least one minute at each sample depth in order to purge a minimum of 3 volumes through the sampling system. Water was then pumped into the appropriate sample containers, prepared and provided by Enthalpy Analytical Laboratory, and stored on ice in coolers; and chains of custody were filled out. Fecal coliform samples were collected from near-surface following the NHDES protocols. Specific sampling methods are described in Normandeau (2019a).

Normandeau had multiple boats conducting water quality sampling. During jet plowing, four boats were typically in use: two south of the cable route and two north of the cable route. The boat that was responsible for the upstream boundary stations was used as a courier boat to run water samples ashore for delivery to a field trailer. On shore, the sample jars were screened for complete labels and matched against the chain of custody form before releasing to Enthalpy. Because of the short hold time for fecal coliform samples, water samples were collected from the sample boats every 2–3 hours, and Enthalpy made multiple trips to the site to collect samples over the course of the cable installation. On the return trip to the work site, the courier boat delivered fresh sample jars and ice to the water quality samplers.

Hand Jetting

During hand jetting, the number of stations was reduced to a maximum of five for each side of the bay: approximately the two near-field stations north and south of the work area (shifted to attempt to capture the plume), and the two closest boundary stations. The near-field stations were continuously monitored (hourly and then after December 1, every two hours as approved by NHDES). Depending on tide, the upstream boundary station was sampled as a reference station. Occasionally an additional reference station was sampled to characterize general conditions in the bay. One or two boats were used depending on whether hand jetting was occurring simultaneously on both shores. Sample depths were reduced to the top and bottom unless water depths were less than 3 feet, at which point only one sample was collected. If water depths were less than 2 feet, sampling ceased to avoid creating turbidity with the boat. Samples were run ashore to Enthalpy once or twice in the middle of the day, usually during breaks in hand jetting for strong currents or equipment changes.

2.1.3 Boundary Station Action Levels

Per NHDES guidance, boundary station action levels (BSAL) were calculated for establishing the exceedance values for turbidity for each day. The methodology is described in the Water Quality Monitoring Plan (Normandeau 2019a).

The BSAL are based on all of the background data collected in each of the tidal flats and channel regardless of collection depth. Real-time turbidity readings were compared to the reference database to determine whether adaptive management protocols needed to be implemented. As the estuary is dynamic and historical data have shown that turbidity can be highly variable a robust reference database helped ensure that decisions to alter jet plow operations were truly required. In general, the Project did not rely solely on data collected on a specific day but built the reference database from several sources:

- Sampling at all monitoring stations conducted during the hours immediately prior to the start of in-water work for the jet plow cable installation.
- Sampling from upstream monitoring stations conducted during the first ebb tide during the cable installation. This was implemented during the jet plow trial but dropped during later events due to uncertainty as to whether those samples could be considered truly baseline given other work activities.
- This database was updated after each sampling event by adding the appropriate reference data from the previous sampling events (i.e., the turbidity data from the reference stations collected during the jet plow trial was incorporated into the reference database for use during the first cable installation). Similarly, data from both of those events were added for the next cable installation.
- For hand jetting, the BSAL was periodically recalculated, adding in the pre-construction and reference data collected daily

The database was maintained as an excel file sortable by date, depth, tidal stage, and station. These data were used to calculate separate BSAL for tidal flat stations and channel stations. The BSAL was based on the background data collected in each of these habitats regardless of collection depth. It was calculated two ways to assess if conditions have changed substantially due to a weather event: for each day and the complete data set. For example, for the tidal flats, the 90th percentile (i.e., the value that 10% of the reference data points exceeds) based on all reference tidal flat data and the 90th percentile based on just the reference tidal flat data collected on the day of cable installation was calculated. The tidal flat BSAL would then be equal to the greater of the following:

- 90th percentile based on all reference tidal flat data + 10 NTU, or
- 90th percentile based on reference tidal flat data collected on the day of cable installation + 10 NTU

Identification of the BSAL for channel stations followed the same steps. The results for the tidal flat and channel BSAL to be used for the day were provided to the IEM daily.

2.1.4 Fixed Stations

Seven data loggers were installed throughout the bay to collect continuous data for turbidity, temperature, salinity, pH, and water depth. The stations are shown on Figure 2. The meters were In Situ AquaTroll 600, programmed to capture data every 15 minutes. Loggers were secured to moorings made up of ½-inch nylon line secured to a 100- to 150-pound pyramid anchor. A sub-surface, 11-inch diameter hard plastic trawl float was secured just above the logger to keep tension on the mooring in order to maintain the sensors at approximately 1.5 to 2.5 feet off the bottom. A small surface buoy was used for retrieval of the loggers.

Stations SM-1 through SM-4 were deployed with the shellfish tissue sampling cages beginning on August 6, 2019. Fixed stations 31, 33 and 34 were installed on September 4, 2019. The seven dataloggers were downloaded and re-calibrated every 7–10 days until approximately December 12, and then had a final download and were retrieved from the site on December 26, 2019.

2.1.5 QA/QC

Quality control for the cable installation entailed a combination of:

- Work plan review,
- training,
- instrument calibration,
- collection of field duplicates and field blanks,
- a field audit of sample collection methods, and
- paperwork review during the field activities.

All Normandeau field staff attended the Eversource Health, Safety and Environmental Training or viewed a video of the training prior to field work. The field crew team leaders were provided with copies of the Water Quality Monitoring Plan and field datasheet instructions in advance of the meeting. The entire field team (consisting of the boat captain and two crew members for each of sampling boats, the onshore field coordinator, the onshore sample coordinators, and the project manager) assembled before background sampling was scheduled to begin to discuss the day's work. At this tailboard meeting, we reviewed health and safety and sampling protocols, discussed the stations to be sampled, and any modifications or improvements resulting from previous work. Each survey boat was provided with a hard copy of the monitoring plan.

The hand-held YSI ProDSS water quality data sondes were calibrated each day, either immediately before the sample event, or the night before. Each boat was required to check the meters mid-way through the sampling period, but not calibrate unless directed by the water quality specialist. All handheld meters were recalibrated at the end of the day's sampling, part of which included side-by-side QC readings of all meters. Calibration logs and notes were maintained for each calibration. For hand jetting, side-by-side comparisons were conducted daily, but the calibrations were extended to every three days unless a side-by-side comparison indicated instrument drift.

To ensure that samples were handled carefully and appropriately in the field, three types of quality control samples were collected by each boat crew: a field duplicate of each water column profile collected with the hand held meter; a field duplicate for each laboratory analyte from a single depth; and a field blank. The results for the field duplicates and the field blanks are included in the final laboratory data (Attachment 1). The analytical laboratory, Enthalpy, conducted their standard quality control procedures including matrix spike and matrix spike duplicates, laboratory control samples, and method blanks during the analysis of these water samples.

Field crews filled out chain of custody forms for the laboratory samples. These forms were reviewed by both the courier boat crew and the field sample coordinator prior to submitting to the laboratory courier (during jet plowing) or the Enthalpy courier (during hand jetting). Field

data sheets were reviewed by the boat crew members and then again during the data entry process.

During the monitoring events for cable installation, a member of the courier boat crew observed each boat as they collect instrument profiles and water samples to confirm their adherence to sampling protocols. The observer also examined representative field data sheets for accuracy and completeness and examine all chains of custody for completeness. Normandeau's water quality specialist reviewed all calibration logs for all handheld meters and data loggers (Appendix C).

As described in section 2.1.4, dataloggers at the seven fixed stations were downloaded and re-calibrated every 7–10 days until approximately December 12 and then were retrieved from the site on December 26, 2019 (Appendix C).

2.1.6 Drone Flights

A drone was utilized to search for and track the location and dimensions of any turbidity plume during the cable installation. The drone was a DJI Phantom 4 Pro, approximately 3.2 pounds, with a range of over 1.3 miles (with visibility) and a flight time of 25 minutes. It was GPS-enabled with a hover accuracy of 1.5 m, carried both video and still cameras, and had a still image resolution of about 20 M pixels. The images could be viewed in real time from shore to direct the drone's position and were stored with GPS coordinates and a time stamp. Due to a known software issue, the automatic time stamp may be inconsistent.

The drone operator was an FAA Certified Part 107 Remote Pilot in Command from Doucet Survey LLC. After the jet plow trial, the pilot was supported by an additional crew member to record data and assist in tracking and timing. Due to proximity to Pease Air Force base, Doucet received authorization from Air Traffic Control at the Portsmouth International Airport at Pease to fly up to 150 feet AGL (Above Ground Level). At a height of 150 feet AGL, the image width is approximately 225 feet. On each flight day, the supervisor at the Air Traffic Control tower was contacted to request permission to fly and to notify the mission was complete.

Drone flights occurred approximately hourly, beginning approximately 1 hour before the jet plow trial began. Once cable burial began, the drone flew to the work site and if a plume was visible, the drone flew the long axis of the plume to document its length, and returned in a zig zag pattern to document its width The drone footage was processed by Doucet and provided to Normandeau in the form of still images, videos, and breadcrumb trails showing the flight path of the drone as it tracked a plume. All images have coordinates for positioning over the jet plow operation. Normandeau used the breadcrumb trails to approximate the location and extent of the visible sediment plume. Because the drone often overshot the width of the plume, these should be considered conservative.

To maintain visual contact, the pilot operated from the west shore when the cable burial was occurring on the western tidal flats. The drone operation shifted to the east shore when the cable burial work was occurring in the channel and on the eastern flats. During hand jetting, the drone operator worked the shore closest to the operation, or if dive teams were on both sides of the bay, he split his time between the two shores. The drone was flown during all daylight hours when wind, precipitation and temperatures permitted (Table 2).

The drone also guided the water quality samplers to visible plumes to attempt to measure turbidity, particularly during hand jetting. If a plume was visible, the drone operator would call the sampling boat and direct them to the drone positioned over the plume.

On November 20, the electrical system in the drone failed, causing the operator to lose contact with the drone. It fell into the work area and was retrieved by the divers. Drone work for that day was suspended and Doucet replaced the drone with the same model the following day.

Table 2. SRP Drone Operational Constraints

Parameter	Allowable Window	Comments
Daylight	½ hour after sunrise and before sunset	Image quality was noticeably reduced at low light conditions
Wind	>20 mph within flight altitude	Winds aloft occasionally grounded the drone
Precipitation	Rain, snow, ice or dense fog	Moisture can result in loss of contact, or damage equipment
Temperatures	< 10° F, approx.	Battery life was significantly shortened by cold, risking drone loss
Permissions	As directed by Air Traffic Control, Pease AFB	Drone was blocked from flying on one day due to sensitive visitors/equipment at Pease Air Force Base

2.2 Laboratory Procedures

Sample coolers were collected from the sampling crews at regular intervals during each day. They were taken to an on-site trailer where chains of custody were reviewed and finalized. Enthalpy Laboratories picked up the samples at regular intervals and transported the samples to their Hampton NH laboratory in a refrigerated van. After December 1, when fecal coliforms (which have a 6-hour hold time; all other samples had a longer hold time) were no longer required, Normandeau delivered samples to the lab at the end of the day.

Samples were logged into the laboratory's tracking system and processing was initiated immediately. Laboratory protocols are shown on Table 3.

Table 3. Analytical Methods for Water Quality Samples

Analyte	RL	MDL	Units	Method
Total Nitrogen	NA	NA	mg/L as N	SM4500-NC
TKN	0.5	0.3	mg/L as N	Calculation
NO_3	0.05	0.005	mg/L as N	SM4500-NO3 F
NO_2	0.05	0.005	mg/L as N	SM4500-NO3 F
NH_3	0.1	0.06	mg/L as N	SM-4500NH3
TSS	1	0.6	mg/L	SM2540D
Copper, dissolved	0.5	0.03	µg/L	EPA 200.8
Copper, total	0.5	0.09	µg/L	EPA 200.8
Arsenic, dissolved	0.5	0.02	µg/L	EPA 200.8

Analyte	RL	MDL	Units	Method
Arsenic, total	0.5	0.13	µg/L	EPA 200.8
Fecal coliforms	1	1	MPN/100mL	Colilert-18

3 Results

Water quality monitoring was conducted daily at ten nearfield, ten boundary and three reference stations between September 9 and December 18, 2019, before, during, and after cable burial operations. Timing for occupation of each station was planned to ensure that sampling occurred prior to, during and after the times that the suspended sediment plume was expected to be present in the vicinity of each station based on model results and drone observations. See Appendix D for daily operation logs

3.1 BSAL

BSAL were calculated for the tidal flats and the channel based on a running record of background stations. Table 4 presents the daily and running results of the 90th percentile calculation and the BSAL that were used on each day. On most days, the running BSAL (long-term average) for tidal flats and the channel were used, but on days when storms created high levels of background turbidity, the daily BSAL was used. Throughout the installation, the BSAL ranged from 13 NTU on the tidal flats during the jet plow trial, to 28 NTU in the channel on December 14 and 16 following a storm that elevated turbidity throughout the bay. On most days, the tidal flat and channel BSALs were within 1 NTU of each other, but after storm events the difference was greater. Contrary to our expectations, the channel BSAL was often the higher value, presumably driven by inputs from Great Bay and the Piscatqua River. Please note that the BSAL numbers may differ slightly from what was reported on a daily basis due to raw data entry errors or the decision to select the daily 90th percentile over the running mean, but no change in the number of exceedances resulted from the changes.

Table 4. BSAL Values (NTU) Used for All Events during the SRP Submarine Cable Installation

Event	Date	Tidal Flat			Channel		
		Daily 90th Percentile	Running 90th Percentile	BSAL	Daily 90th Percentile	Running 90th Percentile	BSAL
Jet Plow Trial	Sep 9	3.86	3.86	14	3.90	3.90	14
Cable 1	Oct 16	3.20	3.20	13	3.15	3.80	14
	Oct 17	6.30	3.96	16	10.80	4.40	21
	Oct 18	5.40	5.37	15	6.36	5.76	16
	Oct 19	4.14	5.16	15	6.32	6.00	16
Cable 2	Oct 28	4.24	5.04	15	3.40	5.56	16
	Oct 29	3.02	5.04	15	3.10	5.20	15
Cable 3	Nov 6	2.31	4.74	15	2.16	5.10	15
	Nov 7	3.20	4.34	14	2.77	5.00	15
Hand Jet	Nov 11	n/a	4.34	14	5.82	5.00	16

Event	Date	Tidal Flat			Channel		
		Daily 90th Percentile	Running 90th Percentile	BSAL	Daily 90th Percentile	Running 90th Percentile	BSAL
	Nov 12	n/a	4.34	14	3.00	4.97	15
	Nov 14	6.20	4.96	16	8.72	5.19	17
	Nov 15	4.84	4.92	15	5.95	5.30	16
	Nov 16	7.98	5.26	18	8.37	5.40	18
	Nov 17	3.81	5.18	15	n/a	5.40	18
	Nov 18	3.20	5.10	15	4.52	5.40	15
	Nov 19	3.55	5.04	15	3.39	5.40	15
	Nov 20	9.20	5.40	19	3.30	5.30	15
	Nov 21	6.15	5.60	16	2.13	5.30	15
	Nov 22	n/a	5.60	16	n/a	5.30	15
	Nov 23	n/a	5.60	16	n/a	5.30	15
	Nov 24	n/a	5.60	16	n/a	5.30	15
	Nov 25	n/a	5.60	16	7.43	5.60	17
	Nov 26	n/a	5.60	16	6.39	5.80	17
	Dec 5	3.36	5.60	16	3.16	5.80	16
	Dec 6	n/a	5.60	16	3.58	5.80	16
	Dec 7	n/a	5.60	16	3.27	5.80	16
	Dec 8	2.72	5.60	16	2.54	5.77	16
	Dec 9	n/a	5.60	16	n/a	5.77	16
	Dec 10	3.70	5.60	16	3.30	5.75	16
	Dec 11	4.63	5.54	16	4.29	5.71	16
	Dec 12	5.63	5.60	16	5.67	5.70	16
	Dec 13	4.30	5.60	16	4.7	5.70	16
	Dec 14	18.18	5.60	28	3.45	5.70	16
	Dec 16	18.34	5.65	28	17.56	5.80	28
	Dec 17	11.55	5.82	22	11.41	5.90	22
	Dec 18	n/a	5.82	16	n/a	5.90	16

*n/a designation indicates either the habitat was not sampled that day (e.g, no work on the tidal flats) or no background (pre-construction) sampling occurred.

3.2 Boat Station Turbidity

Turbidity was measured systematically during the cable installation both within the mixing zone (near-field stations) and at the mixing zone boundary (boundary stations), where the BSAL was used to assess compliance with State water quality standards. The turbidity data collected at each station with the YSI sondes is provided in several formats. See Attachment 2 for the raw sonde data, and Appendix E for a summary of the minimum and maximum turbidity values at each station and depth by date, and/or event. For discussion purposes, the minimum and

maximum values for each event are summarized in Table 5, by event, combining all dates and depths.

During the jet plow trial, turbidity ranged from 0.4 to 5.3 NTU at the boundary stations, with no exceedances of State turbidity standards observed (Table 5). Turbidity values at the near-field stations ranged from 0.2 to 9.4 NTU with no apparent pattern associated with depth. Water quality sampling ended after the anchor changes were completed because no turbidity exceedances had been observed for two hours at any stations, consistent with the approved monitoring plan.

During Cable 1 installation, turbidity ranged from 1.3 to 17.2 NTU at the boundary stations, with two minor exceedances of State turbidity standards observed (Table 5). The exceedances were in the channel Stations 24 and 28 (17.2 and 14.7 NTU respectively with a BSAL of 13 NTU); however, these are more likely associated with run-off from the rain event the night before and on-going high winds than the jet plow operation. Reference Station 43 in Great Bay had late-day turbidity levels ranging from 5.6 to 17.4 NTU, average of 9.9 NTU (Appendix A) on an ebbing tide (water flowing north). Also late in the day, Boundary South Station 28 off Adams Point, which was well upstream of the jet plow operation, had turbidity levels ranging from 9 to 14.7 NTU, average of 11.4 NTU. Boundary North Station 24, which was downstream of the jet plow operation had turbidity levels ranging from 7.2 to 17.2 NTU, average 10.7 NTU. It is possible that some effects from the jet plow may be visible at Station 24, but the exceedance is clearly dominated by the high turbidity observed in Great Bay. Another key point is that the jet plow was active on the tidal flats, near Station 11 at the time, further reducing the likelihood that the elevated turbidity levels observed in the channel were a result of jet plow activities. Turbidity values at the near-field stations during the cable installation ranged from 1.6 to 22.7 NTU (Table 4). The elevated levels occurred downstream of the jet plow on the ebb tide and therefore are within the mixing zone.

During Cable 2 installation, turbidity ranged from 1.2 to 23.4 NTU at the boundary stations, with one exceedance of State turbidity standards observed (Table 5). Turbidity values over the two days ranged from 0.3 to 21.9 NTU before the start of jet plowing, and 0.1 to 196 NTU during the jet plowing Before the start of jet plowing, all stations were between 0.3 and 7.1 NTU, except for a one-time event at Station 15 (near-field south, Day 1) where turbidity rose between 13.9 and 21.9 NTU at all depths. Some boat activity associated with preparations for jet plowing was suspected of causing the one-time increase. The elevated data were excluded from the BSAL calculation for Day 1. Turbidity levels were back down to background (5.0–5.7 NTU) at the next hourly sampling event during active jet plowing.

During jet plowing on the tidal flats on Day 1, the only exceedance at the boundary stations was measured at Station 21 at 1740 with surface, mid, and bottom values of 8.3, 22.0 and 23.0 NTU, respectively. As required by the Water Quality Monitoring Plan, Station 21 was resampled 30 min later, when turbidity had dropped to 15.9, 11.7 and 10.2 NTU, and 30 min after that, turbidity was close to background levels (4.6, 4.2 and 3.4 NTU). The average turbidity at Station 21 was 17.8 NTU at 1740, 12.6 at 1810 and 4.1 NTU at 1840. Within the mixing zone, Stations 10 and 11 had elevated turbidity that was clearly associated with the use of the tug in shallow water described in Section 2.1.1. At 1545, turbidity was 55–62 NTU at Station 10 and the following hour, 147–196 NTU at Station 11 (Appendix A). An hour later, turbidity had dropped

to almost background at Station 10 (2.4–10.3 NTU) and had dropped but remained elevated at Station 11 (96.0 NTU). Water levels were too low to sample the following hour.

On Day 2 during jet plowing across the channel, no turbidity exceedances were observed at the boundary stations. Within the mixing zone, limited turbidity was observed at the near-field stations, with the highest turbidity of 21.4 NTU observed at Station 13. An hour later all sample depths at Station 13 were at background levels.

During Cable 3 installation, no exceedances of the State turbidity standards were observed over the two days of monitoring. Turbidity values ranged from 0.3 to 3.3 NTU before the start of jet plowing, and 1.1 to 38.3 during the jet plowing (Table 5). None of the boundary stations exhibited turbidity levels at or above the BSAL. On the tidal flats on Day 1, Stations 10 and 11 (within the mixing zone) had elevated turbidity during two sampling events. At Station 10, one event occurred during active jet plowing and the second occurred while the plow was idling. At Station 11 at 1100, turbidity at all depths exceeded 35 NTU and followed the next hour by turbidity averaged above 20 NTU over the two depths sampled. The tide dropped and prohibited additional sampling. Station 12 also exhibited one elevated turbidity value when the jet plow was idling. On Day 2 during jet plowing across the channel, no turbidity exceedances were observed at the boundary stations. Within the mixing zone, both nearfield Stations 13 and 18 exhibited one turbidity value that exceeded the BSAL. Subsequent sampling at both stations showed that turbidity had dropped back to background levels.

For hand jetting, no exceedances of the State turbidity standards were observed over the 28 days of monitoring. The near-field stations closest to the work area were considered the limits of the mixing zone boundary, and the field crews actively searched for elevated turbidity levels using the drone and “trolling” with the YSI meters. As shown in Table 5, the background levels were typically between 2 and 5 NTU, although several storms raised turbidity levels as high as 24 NTU in the channel. On Dec 14–16, a prolonged wind and rain event elevated baseline turbidity to over 16 NTU for 3 consecutive days (see Weather data in Appendix F). Turbidity levels during hand jetting would often measure several NTU above background and would occasionally be briefly higher. On November 14, the surface sample for a channel station (19A) had a reading higher than the BSAL for the day. The elevated reading was not observed in either the sample before or the sample after that time, and if averaged over the water column, did not constitute an exceedance of the State turbidity standards.

Table 5. Summary of Minimum and Maximum Turbidity Levels (mg/L) for Boat-based Sampling

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
JET PLOW TRIAL					
Boundary North	22			2.4	3.2
	23				
	24			2.7	3.9
	25			2.6	3.7
Boundary South	27			2.7	3.9

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
	28			3	4.4
	29			3.5	5.3
Nearfield North	11			2.1	9.4
	11A	0	0	0.3	3.9
	12			0.3	7
	13	1.6	2.1	0.2	1.8
Nearfield South	16	1.5	1.5	0.9	1.1
	17	0.4	0.6	0	1
	18			0.4	0.6
Reference Stations	41			2.9	3.7
	42			2.9	3.8
	43				
CABLE 1					
Boundary North	21	1.8	3.5	2	14.4
	22	1.4	5.1	1.5	7.6
	23	1.6	5.4	1.3	9.9
	24	1.4	4.3	2.2	17.2
	25	1.4	3.6	1.9	5.2
	26	5	5.4	1.4	4.1
Boundary South	27	1.6	6	1.7	7.2
	28	1.7	6.8	3.1	14.7
	29	2.1	6.1	2.4	6.9
	30	1.6	4.9	1.6	4.2
Nearfield North	10	2.9	6.6	4.3	22.7
	11	2.7	4.3	2.7	28
	12	2.9	5	2	21.2
	13	2.4	5.2	1.6	13.3
	14	2.5	2.7	2.3	4.7
Nearfield South	15	3.2	7	3.3	4.8
	16	3.1	4.7	2.5	9.6
	17	3.1	5.4	2.2	12.4
	18	2.2	5.3	2.4	11.1
	19	2.9	5.7	2.4	6.2
Reference Stations	41	1.3	2.2	1.2	5.4
	42	1.6	2.4	2	3.9
	43	2	6.9	3.6	17.4
CABLE 2					
Boundary North	21	2.8	3.3	2.3	23.4

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
	22	3.2	3.4	2.2	6.5
	23	2.2	4.8	2	9.7
	24	2.3	4.2	1.2	3.7
	25	2.3	2.9	1.8	6.3
	26	2.4	2.8	1.8	2.5
Boundary South	27	1.9	3.5	1.5	7
	28	2	2.8	1.7	5.2
	29	1.8	3.1	2	9.3
	30	2	2.7	2	10.5
Nearfield North	10	5.6	7.1	2.4	62
	11	2.6	2.8	2.1	196
	12	2.8	3.8	2.3	6
	13	2.5	3.1	2.4	21.4
	14	2.7	3.4	2.2	3.9
Nearfield South	15	13.9	21.9	0.8	5.7
	16	2.3	2.6	0.3	2.9
	17	0.3	3.6	0.1	10.4
	18	0.3	2.6	0.1	1.1
	19	2.8	3.3	0.3	0.6
Reference Stations	41	1.9	2.4	2.3	4.6
	42	1.8	2.3	1.8	2.9
	43	2.3	3.2	1.5	3.4
CABLE 3					
Boundary North	21	1.7	2.7	1.7	8
	22	1.6	2.3	1.5	6.4
	23	1.8	2.4	1.4	12.6
	24	1.7	2.5	1.5	4.4
	25	1.7	1.9	1.4	12.4
Boundary South	26	2.2	3.1	2	2.5
	27	1	2.3	1.6	4
	28	1	2.1	1.7	5.1
	29	1	3.1	1.1	4.1
	30	1.1	3.3	1.2	4.2
Nearfield North	10	1.7	2.2	1.7	14.1
	11	1.5	2.3	1.5	38.3
	12	1.9	2	1.6	15.5

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
	13	1.7	2	1.4	30.7
	14	1.9	2.1	2	3.8
	15	1.9	2.6	1.8	2.4
Nearfield South	16	1.8	2.3	1.7	2.6
	17	1.9	2.3	1.6	5.8
	18	1.7	2.1	1.6	25.3
	19	1.8	3.2	2.1	2.6
Reference Stations	41	1.5	1.8	1.3	3.9
	42	1.8	1.9	1.5	2.7
	43	1.2	3	1.8	7.6
HAND JETTING**					
Western Tidal Flats Boundary	10A	2.4	10	1.9	14.2
	11	4.1	4.1		
	15A	2.5	8.4	1.7	12.3
Western Tidal Flats Reference	21	1.8	9	1.5	10.5
Eastern Channel & Tidal Flats Boundary	13	3.8	4		
	14A	1.8	16.3	1.8	22.2
	18	3.6	3.9		
	19A	1.7	24	1.7	27.2
Eastern Channel & Tidal Flats Reference	25	1.7	16.2	1.7	19.6
	27	2	17.8	1.8	21.5

*****Green shading indicates stations on tidal flats; those with no shading are in the channel. For hand jetting, 14A and 19A served as approximate stations for both the channel and eastern tidal flats.

** The "A" after station numbers indicates that the locations are approximate, as the stations were sometimes shifted to better capture the progress of the hand jetting.

3.3 Turbidity Profiles

Beginning on Day 2 of Cable 1, the field crews were instructed to collect vertical turbidity profiles in visible plumes away from station locations, if time allowed. The purpose of the profiles was to characterize in more detail the structure of the suspended sediment plume and to complement the turbidity data collected at the stations. The plumes were observed by crew on the boats, or the drone. In total, 13 turbidity profiles were collected during jet plowing, and another 52 were collected during hand jetting (Appendix G). Throughout jet plowing and hand jetting, the plume was more often visible on the tidal flats due to the shallower water depths and finer particles. The jet plow turbidity profiles were typically taken in the nearfield area although some were taken close to the mixing zone boundary during the Cable 3 installation.

When a plume from jet plowing could be measured, there was no consistent pattern in the structure of the profile. Some profiles had higher turbidities at the surface (Profiles C, I, J, K and L), some at the bottom (Profiles D, F and G) and some were mixed through the column (Profiles

A, E and H) (Appendix G). It did appear that on the tidal flats the higher turbidity readings were near the surface, which may have been a combination of finer sediment particles and currents. In the channel, the higher turbidity readings tended to be closer to the bottom. It is easy to speculate that the larger substrate particle size and the stronger currents would contribute to that observation.

The hand jet profiles on the tidal flats were taken either near the stations or were paired measurements of turbidity within the turbidity barrier and outside of the barrier. In the deeper water of the channel, boat observers or the drone often could not detect visible plumes during hand jetting. On several occasions, the drone identified a plume and directed the water quality samplers to the locations, but no measurable rise in turbidity was detected with the YSI meter.

The vertical profiles for hand jetting at the sample stations were all at or close to background turbidity levels (Appendix G). Several interim stations were established closer to the work area (within the mixing zone), and of these stations, three had elevated turbidity levels (Station 56, Dec 8 at 13:00, Station 66, Dec 14 at 14:56, and Station 66, Dec 16 at 15:41). The corresponding mixing zone boundary stations (Stations 10 and 14, respectively) did not have high turbidity, indicating the plume was local and ephemeral.

For the paired profiles inside and outside the turbidity barrier, the results clearly show the effectiveness of the barrier (Appendix G). Outside the barrier the levels were at or slightly higher than background, typically between 2 and 5 NTU. Inside the barrier, the profiles showed much higher turbidity, ranging up to 30 NTU. On Nov 17, turbidity ranged from 45.9 to 72.9 NTU, and on Nov 19, the highest reading was 142.3 NTU.

3.4 Fixed Station Turbidity

Near-bottom turbidity was measured continuously at seven stations using In Situ AquaTroll 600 water quality meters (Figure 2). Graphs depicting results for all stations over the cable burial periods are provided in Appendix H. Note the NTU scale limit of 100 on the Y-axis. At various points in the survey, several stations recorded turbidity well above that number. Because we rarely recorded boat-based turbidity above 50, the high readings are likely interference from debris in the bay such as senescing eelgrass and macroalgae wrapping around the sondes, which was noted multiple times during meter calibrations. Debris could contribute to the erratic readings by entering the sensor measurement space and causing optical interferences and by weighing it down closer to the sediment surface during peak tidal flows. Debris was most frequently found during calibration on the shallow water sondes, SM1/32, SM-4 and SM-2, of which the latter two served as project controls. The meter interference became more pronounced as the season advanced, which aligns with incidental observations of more senescing plant material in the estuary. Further evidence that the periodic high readings are not solely related to the project is visible in the long-term graphs of the fixed station data which show periods of elevated turbidity readings at times when no cable burial activities were occurring (see end of Appendix H).

3.4.1 Jet Plow Trial

During the jet plow trial, the fixed station turbidity data ranged between 0 and 5 NTU at five of the six stations actively recording for the 7.5 hours during the jet plow trial. At the sixth station,

SM1/32, located at the Fat Dog oyster farm leases, most of the turbidity readings were between 0 and 5 NTU, five were between 5 and 19 NTU, and eight exceeded 19 NTU (23–317 NTU). The exceedances were sporadic, and most were separated by periods of turbidity readings at background levels. The exception were three readings above 19 NTU that recorded between 1:04 and 1:34 (range 22–234 NTU), before returning to background levels. Station 23, located northwest of fixed station SM1/32, exhibited low TSS and turbidity levels during this same time. While a visible plume was present based on drone footage and field observations, the plume did not reach this location until approximately 1:30 (at least 25 minutes after the spike at SM1/32 began), and at no point in time did the field data indicate an exceedance of the turbidity standard for more than one hour.

3.4.2 Cable 1

Two stations (33 and 34), located in the Little Bay channel, exhibited a strong signal on October 17 and 18 that was likely associated with the rainfall event in the early hours of October 17. The signal appeared earlier at the more southern station (34), suggesting it was related to discharge from Great Bay. On October 17, both stations showed elevated turbidities coincident with jet plowing; this was less evident on the following installation days. Because the general pattern showed a decreasing trend following the storm event, it is likely that the storm was a larger influence on turbidity in the channel than the jet plowing.

Stations 31 and SM1/32 also exhibited a turbidity increase coincident with and following the October 17 early morning storm although turbidity values were considerably lower than at the channel stations. Both of these stations showed an increase in turbidity during or shortly after jet plowing on the tidal flat on October 17 and 18 and Station SM1/32 also showed an increase on October 19 when jet plowing took place in the channel. As with the channel stations, the generally decreasing trend in the days following the storm and the short-lived nature of the peaks during jet plowing suggest that the storm had a greater influence on turbidity than cable installation did.

On the eastern side of Little Bay, SM2, a project control station, exhibited very high readings sporadically from October 9-22, which suggests that there was some interference with the meter, possibly senescing eelgrass and macroalgae, so it is difficult to identify a link to the rainfall event. In contrast, SM3 showed a definite increase in turbidity coincident with the rainfall. Station SM3 is located in Welsh Cove and has the potential to be influenced by cable installation. There was an increase in turbidity at SM3 during jet plowing on the western tidal flat on October 17 but not on the 18th when the jet plow was closer (but still across the channel) to SM3. Given the orientation of the tidal currents (ebbing north), it is unlikely that the turbidity peak on the 17th was related to cable installation. Station SM4, located near Thomas Point in Great Bay, also showed a turbidity increase at the same time observed at other nearshore stations.

3.4.3 Cable 2

During the Cable 2 installation, there were few turbidity readings that corresponded with the time, location and tide during the jet plow operation. As an example, Station 33, located north of the cable route in the channel, exhibited near-zero turbidity starting more than a day before the start of jet plowing on Oct. 28 and showed no turbidity signal until the following day before jet plowing in the channel commenced. Again on October 29, turbidity was near-zero throughout

most of the jet plow activity. During the final two hours of the installation, there were small (~5 NTU) spikes in turbidity.

At Station SM1/32, turbidity fluctuated widely during the two days prior to cable installation, settling to fairly low values (<10 NTUs) for 8–10 hours and then increasing again during flood tide. At the start of the monitoring period on October 28, turbidity was elevated (50–>100 NTU) and it fluctuated widely throughout the monitoring period. On the 29th, turbidity again fluctuated widely until low tide when it settled into narrow fluctuations through most of the jet plow activity. Values increased dramatically during the last hour of installation when the jet plow was on the eastern side of the channel, so less likely to influence Station SM1/32. The pattern of widely fluctuating turbidity at this site tends to coincide with flooding and ebbing tides so the increase observed on October 29 could be more related to the tides than the cable installation.

Turbidity at SM4, the project control station in Great Bay, was very low until the period after installation of Cable 2 across the western tidal flat and before installation resumed on October 29. Prior to resumption of installation turbidity at this station fluctuated widely and continued to do so through installation activities. After installation was complete, turbidity readings were more stable, but then started fluctuating widely again for the next 12 hours or so. Given the distance from the project area and the fact that the sediments in the channel are predominantly sandy, it is unlikely that this fluctuation is related to the construction activities.

3.4.4 Cable 3

During the Cable 3 installation, there were few turbidity readings that corresponded with the time, location and tide during the jet plow operation. As an example, Stations 31, SM1/32, 33 and 34 all showed substantial spikes in turbidity early in the morning (0130) of Nov 6, before the jet plow was burying cable on the tidal flats. Other smaller turbidity increases were observed (for instance turbidity was measured around 25–30 NTU at SM1/32 for approximately 30 minutes at 1330). This reading may have coincided with the near-field station readings for earlier that morning, but no exceedances at the boundary stations or Fixed Station 31 occurred.

3.4.5 Hand Jetting

The eastern and western hand jetting on the tidal flats were confined within the turbidity barrier and no exceedances were measured at the near-field stations, nor did the drone observe turbidity plumes on either side. It is reasonable to assume that no elevated turbidity readings at the fixed stations could be attributed to those operations.

It is possible that Fixed Stations 33 and SM-3 could have been impacted by the hand jetting that occurred in the eastern channel without a turbidity barrier (Nov 11-Dec 8), although no turbidity exceedances were observed at near-field Stations 14 and 19 (Figure 2). Both of these meters were maintained and calibrated in accordance with the sampling plan; however, a number of instrument and/or site conditions likely affected the results as can be seen in Appendix H. At Station 33, during the period 11/7/19–12/26/19, large rafts of eel grass were encountered at the station and most likely explains the elevated readings at that station in this timeframe. At station 34, elevated readings were documented in the period 10/31/19–11/05/19 and coincide with observations of eelgrass on the sonde at the time of retrieval. At station SM3, elevated turbidity readings were documented in the period 12/04/19–12/26/19 and coincide with observed eelgrass and other debris in the presence of the instrument at the time of retrieval. The anomalous data

highlighted here are clearly the result of site or instrument conditions as the turbidity values are shown as step changes above baseline conditions and are not corroborated by any other instrument data or TSS samples collected in the same timeframes. The occurrence of eelgrass debris wrapping around the deployed instruments is likely the cause of high reported turbidity levels as the presence of any material within a sonde guard would cause significant interferences with the turbidity optical sensors. Other anomalous data include prolonged periods of low (0.0 NTU) turbidity at Station 33 in the periods 9/12/19–9/18/19 and 10/22/19–10/31/19. Calibration and QC data were acceptable during those periods; however, low battery power or faulty sensors could have caused the observed 0 NTU readings.

3.5 Other Boat Station Parameters

Dissolved oxygen, temperature, salinity and pH were collected simultaneously with turbidity using the handheld YSI ProDSS sondes. The data are summarized below for the entirety of the cable burial effort. The minimum and maximum for each event are presented in Appendix I, and the raw data are provided in Attachment 2.

3.5.1 Dissolved Oxygen, Temperature, Salinity and pH

Dissolved oxygen (DO) levels consistently exceeded the instantaneous minimum concentration of 5.0 mg/L for Class B waters. Values ranged from the jet plow trial (6.97 to 10.18 mg/L) to the hand jetting (8.7 to 13.29 mg/L). In general, DO rose with decreasing water temperatures, as would be expected, but there was considerable overlap in ranges among the events. No consistent pattern was visible between the tidal flat and channel data, nor the baseline and active burial data.

Temperature declined with season, ranging from 17.0 to 19.7°C during the jet plow trial to -0.3 to 8.1°C during the hand jetting efforts.

Salinity generally declined with season, ranging from 30.32 to 36.43 parts per thousand (ppt) during the jet plow trial to 7.43 to 29.1 ppt during the hand jetting efforts. While most flood tides had salinities in the high 20’s or more, salinities were in the single digits for 3 days at the end of hand jetting (Dec 16–18) after very heavy rain and snow melt.

Values for pH remained fairly constant across the course of the cable installation, generally between 7 and 8. One station had a reading of 6.47 for pre-construction during hand jetting, which is probably a suspect data point. The maximum pH measured was 8.06 during the Cable 1 installation, also during pre-construction at Reference Station 43. The State water quality standards consider therefore assumed to be naturally occurring.

3.6 Drone Results

The drone flew on all suitable days but was periodically precluded from flying by either operational or weather interference. Over the 36 days of cable installation, the drone flew 18 full days and 5 partial days, or 64% of the workdays. The drone was on site a total of approximately 111 hours, generally flying hourly or every half hour. The specific list of flight days and times is provided in Appendix J, as are representative drone shots of the various conditions observed during the cable installation.

During the jet plowing, turbidity plumes were most visible during work on the tidal flats. While difficult to compare precisely, the general shape and extent of the observed plumes were very similar to the extent of plume predicted by the sediment dispersion models (RPS 2016, 2017), as depicted by the mixing zone boundary in Figure 2. Composite figures of each day of jet plowing are included in Appendix J. The majority of the plumes lay within the mixing zone boundary, but some extended outside of the mixing zone, particularly at the northern end of the western tidal flat. The plumes did not correspond to turbidity exceedances or elevated TSS at the northern boundary stations 21, 22 or 23. The one exception was during Cable 2 on October 16, when a brief and minor exceedance of the BSAL was measured at Station 21 (average turbidity of 17.2 NTU with a BSAL of 15 NTU). Subsequent measurements 30 minutes later as prescribed in the Water Quality Monitoring Plan (Normandeau 2019a) showed that turbidity levels were back below the BSAL and were approaching background levels 60 minutes later.

During jet plowing and hand jetting in the channel, the plumes visible in the photographs did not correspond to turbidity exceedances at the boundary stations, which included Stations 14 and 19 during hand jetting. No exceedances were measured at the channel boundary stations except during storms on October 17 and December 15, which resulted in bay-wide elevated turbidity levels.

A general observation was that cloud cover, sun angle, waves and water depth all affected the drone's ability to detect a plume. Plumes were most visible on sunny days, when the sun was not at midday peak, the water was calm, and the plume was close to the surface or in shallow water. We hypothesize that the finer sediment particles rose higher in the water column and hence were more visible (and abundant) on the tidal flats.

As described in Section 3.3, Normandeau was often able to profile turbidity levels in a plume when directed to a location by the drone. The results of the profiling are described in that section, but an observation from the drone was that the plumes were very dynamic. Cells of turbidity would be briefly visible then carried vertically or horizontally by currents, making them challenging to sample from the boat. By the time the water quality boat would reach the drone position, the plume may have disappeared or migrated to a different location. This was particularly prevalent during hand jetting in the channel, when the drone would spot a plume, but it was not or barely detectable by the water quality samplers profiling with the YSI meters. See examples of the irregular shapes of the plumes in Appendix J.

3.7 Total Suspended Solids

TSS data are provided in several formats. See Attachment 1 for the complete laboratory results, and Appendix K for a summary of the minimum and maximum TSS values at each station and depth by date, and/or event. For discussion purposes, the minimum and maximum values for each event are summarized in Table 6, by event, combining all dates and depths.

Over 3,583 TSS samples were collected over the entire cable installation period, including all dates, stations, depths and times. Of the total, 3,285 samples, over 91%, had values below 20 mg/L. Of the remaining 298 samples, most were below 30 mg/L, and only 6 exceeded 50 mg/L (Figure 3).

Total suspended solids (TSS) concentrations ranged from 4.3 to 44 mg/L throughout the jet plow trial. Prior to the start-up of the jet plow, concentrations of TSS ranged from 4.3 to 16 mg/L across all stations and depths, averaging 7.7 mg/L. After the jet plow was started, TSS ranged from 4.5 to 44 mg/L and averaged 11.9 mg/L with a median value of 9.6 mg/L across all stations and depths.

During Cable 1 installation, TSS values over the four days of sampling at the boundary stations ranged from 4.9 to 32 mg/L before the start of jet plowing, and from 5 to 55 mg/L during the jet plowing (Table 6). All of the higher readings occurred on October 17, and are likely associated with run-off from the rain event the night before and on-going high winds as well the jet plow operation. On the western tidal flats where the jet plow was working, 3 of the 5 boundary stations (16, 21 and 23) showed an increase in TSS compared to the pre-construction data for October 17. Boundary stations 15 and 22 did not have increased TSS concentrations compared to pre-construction data. The channel stations (24, 25 27-30) also showed increases over pre-construction levels on that day, which is unlikely to be a jet plow effect because the north-flowing plume would have by-passed these stations. Also, Reference Station 43 in Great Bay had a maximum TSS of 68 mg/L late in the day, compared to a pre-construction baseline of 15 mg/L. Because the jet plowing was conducted on a north-flowing ebb tide, this reference station would not have been in the plume path and elevated TSS concentrations can be concluded to be a result of the storm event only.

During Cable 2 installation, TSS values over the two days of sampling at the boundary stations ranged from 4.4 to 47 mg/L before the start of jet plowing, and from 4.3 to 55 mg/L during the jet plowing (Table 6). The 55 mg/L TSS sample occurred at Station 21 on the first day (October 28) installing on the western tidal flats, when a tug boat was required to hold the jet sled and cable on course due strong currents and wind. The tug's large propellers and power generated considerable prop wash with visible turbidity while holding tension on the cable. The high reading at Station 21 was recorded at 1740, and was preceded by very high TSS levels at near-field Stations 10 and 11 (160 and 2000 mg/L (this latter is a suspect data point[6] since it is more than 10 times the TSS observed at any other time during sampling)) at 1545 and 1650 respectively. One-half hour later (1810) TSS had dropped by half at Station 21. Reference Station 42 near Fox Point had a maximum TSS of 59 mg/L late in the day, compared to a pre-construction baseline of 8.2 mg/L. This data point was also flagged by the laboratory as suspect (failed %RPD) and does not align with the low turbidity reading (1.8 NTU) recorded at the same time.

[6] Flagged by Enthalpy as J8 (duplicate was run and failed the %RPD (relative percent difference))

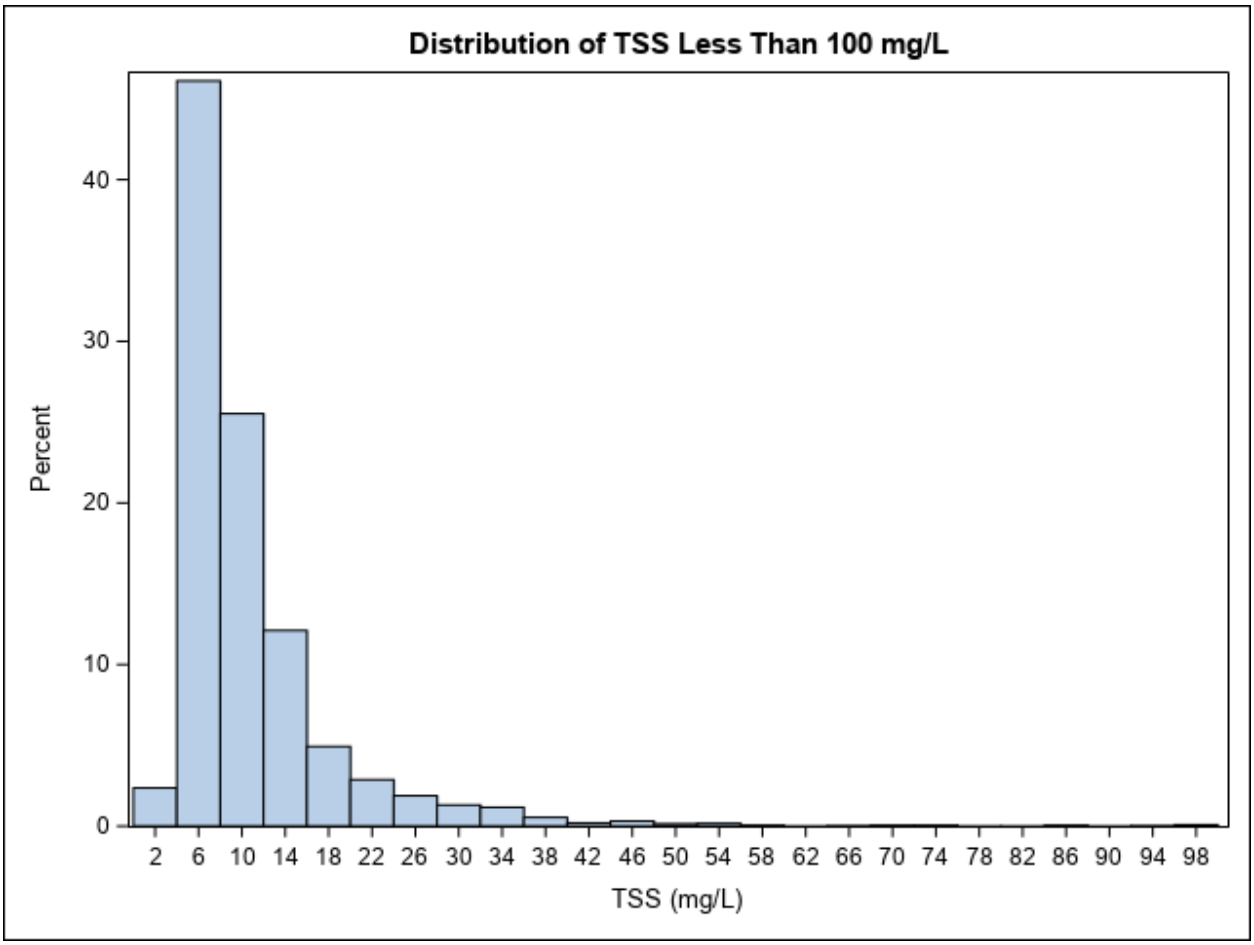

Figure 3. Distribution of TSS values for all stations, dates and depths over the entire cable installation period at the SRP.

During Cable 3 installation, TSS values over the two days of sampling at the boundary stations ranged from 3.5 to 25 mg/L before the start of jet plowing, and from 3.4 to 34 mg/L during the jet plowing (Table 6). The 34 mg/L point occurred at Station 28 at 1315 on the first day (November 6) of installation on the western tidal flats. The tide was ebbing (flowing north) at that time, and Station 28 is in Great Bay, therefore that high TSS value is unlikely related to the cable lay operation. The highest TSS result for Cable 3 was at Station 11 at 1100, in the mixing zone. The associated turbidity reading for this sample was also elevated (36.5 NTU) but the plume signal obviously dissipated before reaching boundary stations 21, 22 or 23 where all TSS data were 27 mg/L or lower.

During hand jetting, TSS values over the 28 days of sampling at the boundary stations ranged from 3 to 84 mg/L before the start of jet plowing, and from 1 to 50 mg/L during the jet plowing (Table 6). The 84 mg/L point occurred at Station 19A at 0930 on Day 25 (December 14) with installation on the eastern tidal flats. This sample was collected before hand jetting began (see Daily Operations Report, Appendix D), therefore the high TSS value could be either unrelated to the cable installation or generated by boat or barge activity. It is worth noting that this value is double of any of the other TSS sample results during hand jetting and should be considered an

outlier. The highest TSS result for hand jetting was at Station 25, a hand jet reference station, on December 17, which followed a strong wind and rainstorm on December 15. Elevated turbidity and TSS (and lowered salinities) were observed throughout the estuary on December 16–18, so this sample most likely represents that event.

Table 6. Summary of Total Suspended Solids (TSS, mg/L) in Water Samples Collected in Little Bay during the SRP Cable Installation

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Jet Plow Trial**					
Boundary North	22	6.7	12	5.2	13
	23	4.3	13	4.5	16
	24	4.4	8.1	5.5	40
	25	4.6	11	5.2	24
Boundary South	27			5.2	14
	28			6.8	25
	29			6.3	15
Nearfield North	11	4.8	6.4	7.9	23
	11A	8	9.5	6.3	15
	12	7.1	16	5.6	23
	13	5.9	8.2	6.7	24
Nearfield South	16	6.4	7.8	5.1	10
	17	5	7.5	5.2	44
	18			5.2	25
Reference Stations	41	6.6	10	7.1	10
	42	7.1	7.1	5	5
	43	4.6	8.4	6.9	13
Cable 1					
Boundary North	21	6	22	8	55
	22	6	32	6	34
	23	6	26	5	35
	24	5	11	5	54
	25	4.9	13	5.5	14
	26	11	15	5	8.4
Boundary South	27	7	22	6.6	48
	28	6	16	7.8	44
	29	6	23	6.8	29
	30	6	14	5.4	17

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Nearfield North	10	6	18	10	94
	11	5	25	6	68
	12	7	18	5.3	59.7
	13	5	13	6.7	51
	14	10	29	7.3	12
Nearfield South	15	11	28	8	15
	16	7	26	6	40
	17	6	15	5.9	98
	18	6	14	5.1	26
	19	6	13	5.3	15
Reference Stations	41	6	20	6.7	34
	42	5	8.4	7.2	21
	43	8	15	6.7	68
Cable 2					
Boundary North	21	6.3	22	6.5	55
	22	6.9	11	5.7	22
	23	4.4	18	4.3	24
	24	5.6	21	5.2	19
	25	7.7	41	5.1	17
	26	5.7	7.1	5.4	10
Boundary South	27	4.8	33	4.6	39
	28	6.4	16	5	9.1
	29	4.6	10	5.1	36
	30	5.9	25	5.1	9.8
Nearfield North	10	5.9	13	6	160
	11	6.3	7.4	4.3	2000
	12	6.6	14	3.8	22
	13	4.8	15	4.5	30
	14	4.6	19	5.2	21
Nearfield South	15	18	47	5.9	17
	16	6.1	7.6	4.4	14
	17	5	15	4.1	30
	18	5	19	4.5	20
	19	5.3	11	4.5	7.2

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Reference Stations	41	5.8	7.3	6.4	13
	42	7.2	8.2	5.6	59
	43	7.2	11	5	23
Cable 3					
Boundary North	21	5	6.9	5.3	24
	22	4.7	12	4.3	23
	23	4.3	7.6	3.6	27
	24	4.7	13	3.4	11
	25	5.3	25	3.5	22
	26	6.9	14	6.5	9.3
Boundary South	27	4.7	7	3.6	15
	28	5	11	4.5	34
	29	4.5	14	3.8	12
	30	4.4	7.9	4.1	7
Nearfield North	10	3.5	4.8	5.5	34
	11	4.3	7.7	4.5	190
	12	4.8	13	3.3	15
	13	4.1	6.9	4.6	38
	14	3.9	7.4	4.6	12
Nearfield South	15	5	12	3.9	5.3
	16	3.8	7.3	4.7	13
	17	3.9	9.4	3.8	15
	18	3.9	9.4	3.1	52
	19	4.7	12	4.2	9.3
Reference Stations	41	4.3	5.7	3.5	9.7
	42	4.4	7.5	4.8	6.1
	43	5.2	12	4.5	13
Hand Jetting					
Tidal Flats Boundary	10	3.5	44	3.1	45
	11	7	7		
	15	3.6	10	3.2	19
Tidal Flats Reference	21	3.5	22	3	19
Channel Boundary	13	5.8	7.1		
	14	4	29	3.6	37

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
	18	4.9	6.3		
	19	3.9	84	1	38
Channel Reference	25	3	29	3.4	50
	27	4.5	39	3.5	39

*****Green shading indicates stations on tidal flats; those with no shading are in the channel. For hand jetting, 14A and 19A served as approximate stations for both the channel and eastern tidal flats.

** The "A" after station numbers indicates that the locations are approximate, as the stations were sometimes shifted to better capture the progress of the hand jetting.

3.8 Comparison of TSS and Turbidity

As part of the Water Quality Monitoring Plan, Eversource proposed to compare turbidity and TSS measurements to evaluate the effectiveness of using turbidity as a surrogate for TSS. To conduct this evaluation, companion turbidity and TSS data collected at each of the monitoring stations were graphed and regressed against each other. Figure 4 shows a modest correlation between the two parameters (r^2=0.60). Figure 4 also shows that the vast majority of data points are less than 30 mg/L, with the full data range of TSS extending to 2000 mg/L, and turbidity to 196 NTU. The discussions in Sections 3.2 and 3.7 explain that the station 11 reading with the highest TSS and turbidity values is a result of tug operations during Day 1 of Cable 2, and that the TSS result is suspect. All other TSS data are well below that value; the next highest value is 460 mg/L and 99% of the TSS values are below 50mg/L.

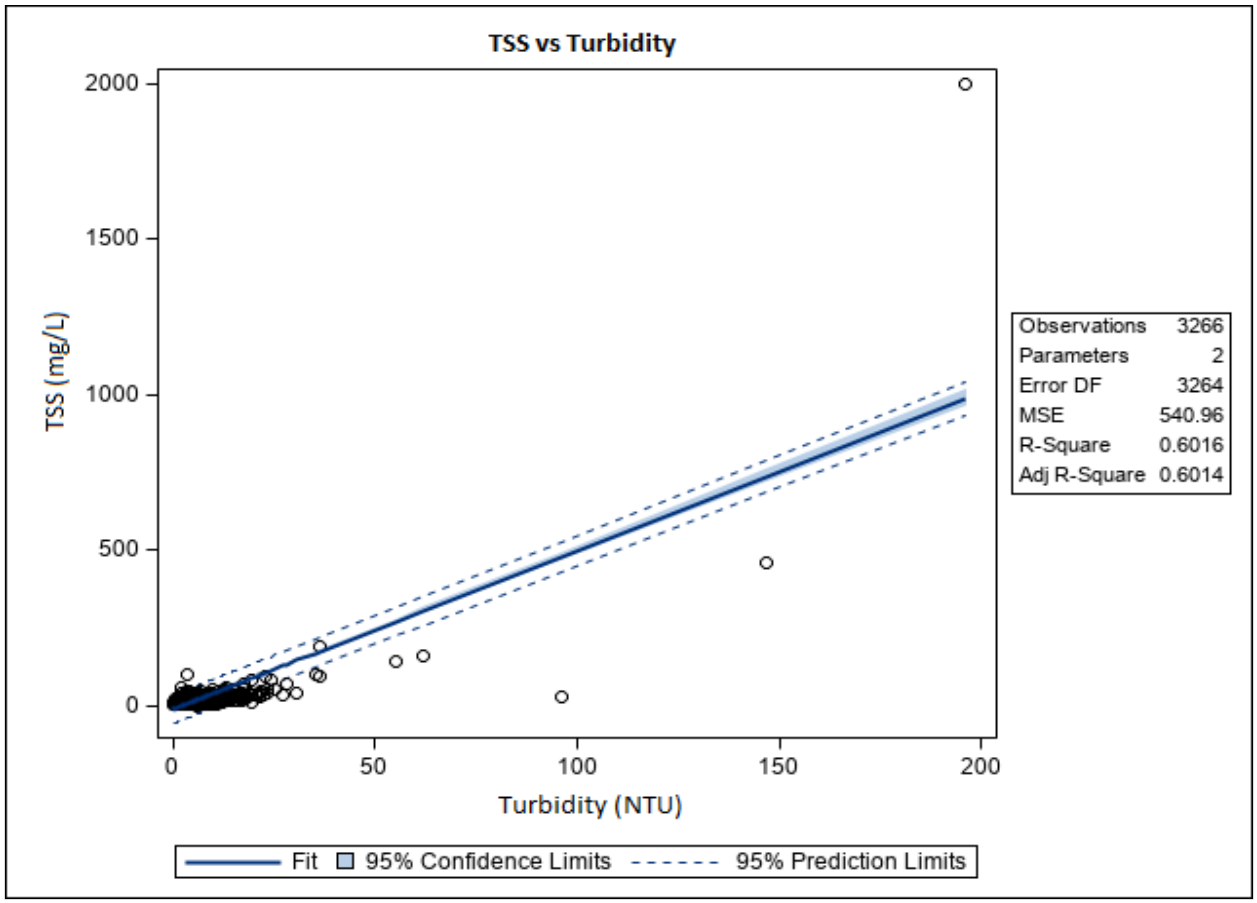

Figure 4. Comparison of TSS for all field samples during SRP cable installation.

Figure 5 presents a regression for all TSS data below 30 mg/L and their companion turbidity samples. The relationship between these two parameters is relatively weak (r^2= 0.46) and implies that caution is necessary when using turbidity as a surrogate for TSS. Two factors likely affect this. One is that these numbers are at the low range of turbidity levels, which limits the ability to draw relationships. The other is that turbidity was measured in situ, followed by water sample collection for TSS, meaning different water "parcels" were sampled for the two parameters. Because the sediment plumes were observed to be highly dynamic in both space and time, the brief intervals between turbidity measurements with the hand-held YSI sonde and water collection via the pump could result in considerable differences between water parcels and the resulting data.

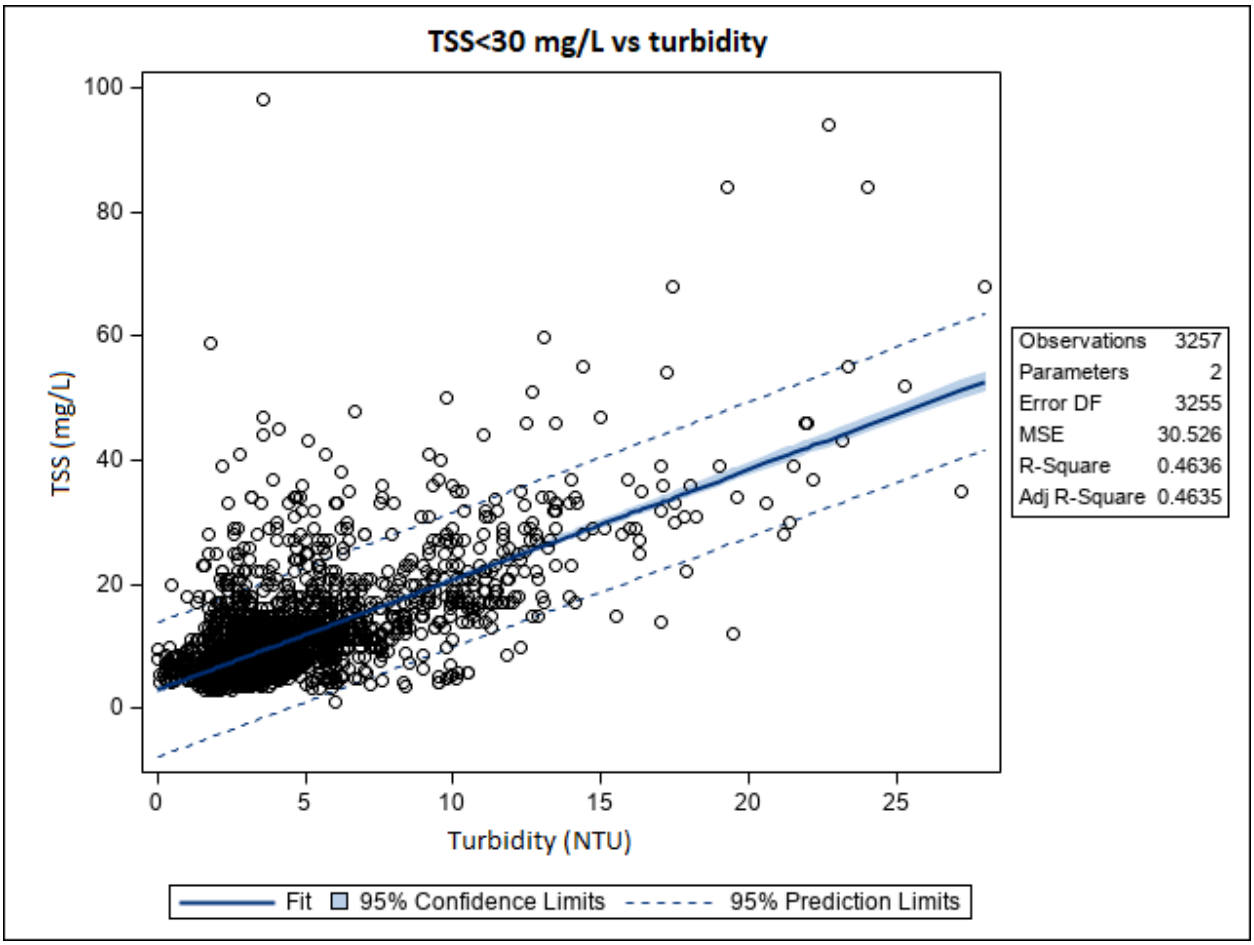

Figure 5. Comparison of TSS <30 mg/L for all field samples during SRP cable installation.

3.9 Comparison of Modeled and Observed TSS

The observed TSS results can be compared to those predicted by the hydrodynamic model by determining the modeled TSS at each station and comparing to the average observed TSS for each event (Table 7). The hydrodynamic modelers, RPS Inc, calculated the predicted TSS at each station for both the 7-hour and the 13-hour crossing (Figure 1); this comparison uses the higher number at each station, which is what the mixing zone was based on. Because the model was based on TSS related to the project, the background TSS must be subtracted from the measured TSS. To achieve that we calculated the average observed TSS by station over all depths and times during the cable burial work periods for each event. We also calculated the average background TSS for each event as a single number (baseline monitoring for all stations, depths and times) (Table 7). The average project related TSS was the difference between the TSS measured during cable installation minus the average background TSS. If the subtraction resulted in a negative number, the TSS was set to 0.

For most of the stations, the average observed TSS was considerably less than the modeled TSS, ranging from 1 to 209 mg/l (Table 7). The only exceedance was observed at Station 11 during the Cable 2 installation, a near-field station, where the project-related TSS exceeded the modeled TSS by 39 mg/l. This is the station that recorded extremely high TSS levels (2,000 mg/L) during

this event when a tugboat was required to hold the jet sled and cable on course during concurrent strong ebb tides and wind. As described above, that data point is suspect, therefore its effect the average project related TSS is probably excessive.

Based upon this non-statistical comparison of the results of the cable installation and the hydrodynamic model, the predictions generated by the model at individual stations ranged between very conservative or comparable to observed values.

Table 7. Modeled vs Project-Related TSS at the SRP Monitoring Stations.

Location	Station	Modeled	Jet Plow Trial	Cable 1	Cable 2	Cable 3	Hand Jet
Near-field North	10	1142		21	27	6	0
	11	96	6	7	135	49	
	12	186	4	3	0	0	
	13	66	3	8	0	2	
	14	2		0	0	0	1
	15	0		0	0	0	0
Near-field South	16	3	0	2	0	1	
	17	134	6	7	0	0	
	18	234	3	0	0	2	
	19	2		0	0	0	1
Boundary North	21	18		8	10	4	0
	22	20	0	1	0	3	
	23	18	1	2	0	3	
	24	25	5	10	0	0	
	25	17	2	0	0	1	1
	26	0		0	0	0	
Boundary South	27	15	1	1	0	0	1
	28	18	6	6	0	2	
	29	24	3	0	2	1	
	30	8		0	0	0	
Reference	41	NA	0	5	0	0	
	42	NA	-3	2	6	0	
	43	NA	2	10	0	1	
	Average Baseline		8	12	10	7	9

[a] green highlighted rows are intertidal stations

4 Laboratory Results

Laboratory results are presented separately for the four jet plow events (jet plow trial and the three cables) and the hand jetting.

4.1 Nitrogen Species

Samples were analyzed for the inorganic nitrogen species (nitrate [NO_3], nitrite [NO_2] and ammonia [NH_3]), total nitrogen, and from these analyses, total Kjeldahl nitrogen was calculated.

4.1.1 Jet Plowing

Concentrations of nitrates were generally below quantification limits (0.05 mg/L) during the jet plow trial and installation of the first cable. During installations of Cables 2 and 3, the majority of the samples had detectable levels of nitrates. Overall of the jet plowing, 54% of the samples collected had detectable levels of nitrates; 52% of the samples collected during active jet plowing had detectable levels of nitrates as did 48% of the samples collected prior to commencement of jet plowing on a given day. The proportion of samples in which nitrates were detectable increased in Cables 2 and 3 compared to the jet plow trial and Cable 1, but the proportion of samples with measurable nitrates was generally as high or higher in the samples collected before jet plowing was initiated on a given day. Of note is that nitrate concentrations at the reference stations followed this temporal pattern suggesting it was a system-wide trend. These results are summarized on Table 8.

On four of the nine days when jet plowing took place, the highest nitrate value was observed prior to construction activity, as evidenced in Table 8 by the highest value in the All Sample columns of the Cable 1, Days 1 and 2; Cable 2, Day 1; and Cable 3, Day 2.

Table 8. Summary of Nitrate (mg/L) Results from Days when Jet Plowing Took Place

Parameter	Jet Plow Trial	Cable 1				Cable 2		Cable 3		Total
		Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 1	Day 2	
		Tidal Flat			Channel	Tidal Flat	Channel	Tidal Flat	Channel	
All Samples										
# samples	191	56	112	67	135	125	174	144	137	1141
#>0.05 mg/L	5	14	8	23	46	102	148	140	128	614
%>0.05 mg/L	3	25	7	34	34	82	85	97	93	54
Highest	0.64	0.27	6.53	1.24	0.281	2.56	6.58	1.678	0.601	
Samples During Jet Plowing										
# samples	156	21	97	41	120	88	153	110	101	887
#>0.05 mg/L	4	4	7	13	42	68	128	107	92	465
%>0.05 mg/L	3	19	7	32	35	77	84	97	91	52
Highest	0.64	0.125	0.927	1.24	0.281	0.491	6.58	1.678	0.432	

Nitrite concentrations exceeded the reporting limit of 0.05 mg/L on only a few occasions and never exceeded 0.1 mg/L. Nitrites were not detectable in any samples collected during the jet plow trial or installation of Cable 2. During Cable 1 installation, two samples collected before jet plowing began recorded values of 0.08–0.09 mg/L and one sample from a reference station had a value of 0.05 mg/L during jet plowing. During Cable 3 installation, one sample collected at a reference station during jet plowing had a value of 0.08 mg/L.

Ammonia concentrations never exceeded the reporting limit of 0.1 mg/L during the jet plow trial or installation of Cable 1 (Appendix L). At the salinities, temperatures and pH levels observed during the sampling for these two events, the reporting limit was well below both the chronic and acute toxicity levels identified in New Hampshire's Surface Water Quality Standards (Env-Wq 1703.29 and Env-Wq 1703.32). Ammonia criteria become more stringent as temperature and pH increase and as salinity decreases. Assuming a pH of 8, salinity of 30 mg/L and temperature of 20°C, acute and chronic ammonia criteria are 7.3 and 1.1 mg NH_3/L. During the installation of Cable 2, none of the 125 samples collected on the first day when the jet plow was crossing the tidal flat exceeded the reporting limit. On the second day, during the channel crossing, there were 27 samples (out of 153 collected) for which ammonia was measurable. Concentrations in these samples ranged from 0.102 to 0.645 mg/L. During the installation of Cable 3, none of the samples collected on the first day when the jet plow was crossing the tidal flat exhibited detectable levels of ammonia. On the second day during the channel crossing, there were 23 samples (out of 145 collected) with measurable ammonia (concentrations ranging from 0.103 to 0.235 mg/L). At the lower salinities, temperatures and pH occurring during Cable 2 and 3 installations, acute and chronic toxicity thresholds would be approximately 35–37 and 5.3–5.6 mg NH_3/L. Therefore, there were no instances when ammonia toxicity thresholds were exceeded during jet plowing.

Total nitrogen (TN) represents both organic and inorganic nitrogen. Values ranged from <0.5 to 0.965 mg/L among samples collected before the jet plow was started with the majority of these samples falling below the reporting limit (Table 9, Appendix L). During the jet plow trial activity, total nitrogen ranged from <0.5 to 0.873 mg/L and again the majority of the samples fell below the reporting limits. During the four-day period when Cable 1 was installed, TN was below the reporting limit in more than 90% of the samples collected both prior to startup of the jet plow (concentrations ranged from <0.5 to 0.7 mg/L) and during active jet plowing (concentrations ranged from <0.5 to 7.3 mg/L). During Cable 2 installation, 88% of the samples collected prior to construction activity were below the reporting limit as were 89% of the samples collected during jet plowing. Total nitrogen in samples collected before the jet plow startup for Cable 3 was typically below the reporting limit (90%) but the proportion of samples collected during jet plowing containing measurable levels of total nitrogen was 24%, likely reflecting the higher nitrates observed.

Total nitrogen values observed during the jet plow trial fell within the range reported by Wood and Trowbridge (2014) for Great Bay estuary tributaries as did most of the samples collected during the cable installations with several exceptions. During jet plowing on the final day of Cable 1 installation, four samples exceeded the tributary range for total nitrogen. There were three values above the tributary range during Cable 2 installation sampling, with one occurring prior to the startup of the jet plow. Only one sample collected while the jet plow was operating during Cable 3 installation was higher than the tributary range.

Table 9. Summary of Total Nitrogen (TN, mg/L) in Water Samples Collected in Little Bay during the SRP Cable Installation

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Jet Plow Trial					
Boundary North	22	<0.5	<0.5	<0.5	<0.5
	23	<0.5	0.965	<0.5	0.556
	24	<0.5	<0.5	<0.5	0.742
	25	<0.5	<0.5	<0.5	0.705
Boundary South	27			<0.5	0.609
	28			<0.5	0.669
	29			<0.5	0.663
Nearfield North	11	<0.5	0.617	<0.5	0.773
	11A	<0.5	0.722	<0.5	0.615
	12	0.509	0.557	<0.5	0.873
	13	<0.5	0.585	<0.5	0.617
Nearfield South	16	<0.5	0.512	<0.5	<0.5
	17	<0.5	0.77	<0.5	0.843
	18			<0.5	0.591
Reference Stations	41	<0.5	<0.5	<0.5	0.741
	42	<0.5	<0.5	<0.5	<0.5
	43	<0.5	<0.5	<0.5	0.582
Cable 1					
Nearfield North	10			<0.5	<0.5
	11	<0.5	0.61	<0.5	0.767
	12	<0.5	<0.5	<0.5	<0.5
	13	<0.5	<0.5	<0.5	0.616
	14	<0.5	0.608	<0.5	4.99
Nearfield South	15	<0.5	0.716	<0.5	0.698
	16	<0.5	0.542	<0.5	0.576
	17	<0.5	0.674	<0.5	<0.5
	18	<0.5	0.689	<0.5	7.33
	19	<0.5	0.665	<0.5	1.89
Boundary North	25	<0.5	0.618	<0.5	2.13
Reference Stations	41	<0.5	<0.5	<0.5	1.21
	42	<0.5	0.521	<0.5	<0.5
	43	<0.5	<0.5	<0.5	3.42
Cable 2					
Boundary North	24			<0.5	0.5
Nearfield North	10	<0.5	<0.5	<0.5	1.12

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
	11	0.549	2.55	<0.5	0.998
	12	<0.5	0.511	<0.5	2.66
	13	<0.5	<0.5	<0.5	1.57
	14	<0.5	<0.5	<0.5	0.535
Nearfield South	15	<0.5	<0.5	<0.5	1.09
	16	<0.5	<0.5	<0.5	1.11
	17	<0.5	0.993	<0.5	7.59
	18	<0.5	0.524	<0.5	0.739
	19	<0.5	<0.5	<0.5	0.526
Reference Stations	41	<0.5	0.633	<0.5	<0.5
	42	<0.5	<0.5	<0.5	1.1
	43	<0.5	<0.5	<0.5	0.518
Cable 3					
Nearfield North	10	<0.5	0.588	<0.5	0.566
	11	<0.5	<0.5	<0.5	0.59
	12	<0.5	0.52	<0.5	0.52
	13	<0.5	<0.5	<0.5	0.929
	14	<0.5	0.894	<0.5	0.845
Nearfield South	15	<0.5	<0.5	<0.5	0.695
	16	<0.5	0.572	<0.5	0.695
	17	<0.5	1.14	<0.5	1.67
	18	<0.5	<0.5	<0.5	1.52
	19	<0.5	<0.5	<0.5	3.39
Reference Stations	41	<0.5	0.654	<0.5	1.77
	42	<0.5	<0.5	<0.5	<0.5
	43	<0.5	<0.5	<0.5	0.991

*****Green shading indicates stations on tidal flats; those with no shading are in the channel.

Total Kjeldahl nitrogen represents the sum of organic nitrogen and ammonia and is calculated as total nitrogen minus nitrates and nitrites (Table 10, Appendix L). Values for the factors contributing to TKN that were below detection limit were treated as zero in the laboratory formula. Before the jet plow trial started, the majority (more than 70%) of the TKN values were below the reporting limit of 0.5 mg/L although some values ranged as high as 0.617 mg/L. During the jet plow trial values ranged from below the reporting limit (about 67% of samples) to a high of 0.873 mg/L. On the four days when Cable 1 was being installed, most samples collected prior to (94%) and during (93%) jet plowing were below the reporting limit. The highest value (7.33 mg/L) occurred during jet plowing. During monitoring for Cable 2 installation, TKN was generally below the reporting limit (95% prior to the jet plow startup and 94% during jet plowing) and the maximum value was 1.04 mg/L. TKN values above the reporting limit were more frequent during jet plowing for Cable 3 than in the samples collected

prior to construction activity. For this installation, 96% of the samples collected prior to jet plow startup were below the reporting limit while during jet plowing, 86% were below the reporting limit. Maximum value during Cable 3 installation was 3.28 mg/L. Temporally, TKN values seemed to follow the same trends observed in nitrates and total nitrogen.

Table 10. Summary of Total Kjeldahl Nitrogen (TKN, mg/L) in Water Samples Collected in Little Bay during the SRP Cable Installation

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Jet Plow Trial**					
Boundary North	22	<0.5	<0.5	<0.5	<0.5
	23	<0.5	0.965	<0.5	0.556
	24	<0.5	<0.5	<0.5	0.742
	25	<0.5	<0.5	<0.5	0.705
Boundary South	27			<0.5	0.609
	28			<0.5	0.669
	29			<0.5	0.663
Nearfield North	11	<0.5	0.617	<0.5	0.773
	11A	<0.5	0.722	<0.5	0.615
	12	0.509	0.557	<0.5	0.873
	13	<0.5	0.585	<0.5	0.617
Nearfield South	16	<0.5	0.512	<0.5	<0.5
	17	<0.5	0.77	<0.5	0.843
	18			<0.5	0.591
Reference Stations	41	<0.5	<0.5	<0.5	0.741
	42	<0.5	<0.5	<0.5	<0.5
	43	<0.5	<0.5	<0.5	0.582
Cable 1					
Boundary North	25			<0.5	<0.5
Nearfield North	10	<0.5	0.61	<0.5	0.767
	11	<0.5	<0.5	<0.5	<0.5
	12	<0.5	<0.5	<0.5	0.616
	13	<0.5	0.608	<0.5	4.923
	14	<0.5	0.623	<0.5	0.64
Nearfield South	15	<0.5	0.542	<0.5	0.576
	16	<0.5	<0.5	<0.5	<0.5
	17	<0.5	<0.5	<0.5	7.33
	18	<0.5	0.665	<0.5	1.826
	19	<0.5	0.618	<0.5	2.073

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Reference Stations	41	<0.5	<0.5	<0.5	1.21
	42	<0.5	<0.5	<0.5	<0.5
	43	<0.5	<0.5	<0.5	3.42
Cable 2					
Boundary North	24			<0.5	<0.5
Nearfield North	10	<0.5	<0.5	<0.5	1.049
	11	<0.5	<0.5	<0.5	0.935
	12	<0.5	<0.5	<0.5	0.512
	13	<0.5	<0.5	<0.5	0.584
	14	<0.5	<0.5	<0.5	<0.5
Nearfield South	15	<0.5	<0.5	<0.5	1.031
	16	<0.5	<0.5	<0.5	1.055
	17	<0.5	0.993	<0.5	1.01
	18	<0.5	<0.5	<0.5	0.672
	19	<0.5	<0.5	<0.5	<0.5
Reference Stations	41	<0.5	0.516	<0.5	<0.5
	42	<0.5	<0.5	<0.5	1.043
	43	<0.5	<0.5	<0.5	<0.5
Cable 3					
Nearfield North	10	<0.5	<0.5	<0.5	<0.5
	11	<0.5	<0.5	<0.5	0.506
	12	<0.5	<0.5	<0.5	<0.5
	13	<0.5	<0.5	<0.5	0.838
	14	<0.5	<0.5	<0.5	0.776
Nearfield South	15	<0.5	<0.5	<0.5	0.639
	16	<0.5	0.507	<0.5	0.588
	17	<0.5	1.037	<0.5	1.589
	18	<0.5	<0.5	<0.5	1.382
	19	<0.5	<0.5	<0.5	3.28
Reference Stations	41	<0.5	0.567	<0.5	1.667
	42	<0.5	<0.5	<0.5	<0.5
	43	<0.5	<0.5	<0.5	0.908

*****Green shading indicates stations on tidal flats; those with no shading are in the channel. For hand jetting, 14A and 19A served as approximate stations for both the channel and eastern tidal flats.

** The “A” after station numbers indicates that the locations are approximate, as the stations were sometimes shifted to better capture the progress of the hand jetting.

4.1.2 Hand Jetting

Hand jetting on the east and west sides of Little Bay took place between November 11 and December 18. Nitrates were detected in all of the field samples collected, suggesting that the

trend observed during jet plowing was related to environmental conditions, likely temperature. Nitrate concentrations during hand jetting ranged from 0.51 to 1.59 mg/L with a median value of 0.137 mg/L. Highest values occurred at reference stations 25 (1.59 mg/L) and 27 (1.22 mg/L). Highest concentrations in samples that were collected adjacent to and inside a silt barrier were similar at 0.134 and 0.145 mg/L.

Nitrites were not detectable in 963 of the 965 samples collected during hand jetting.

Ammonia concentrations were below laboratory reporting limits for 670 (68%) of the 981 samples collected during hand jetting. Although concentrations ranged as high as 0.463 mg/L, the median concentration was <0.1 mg/L. At the temperatures (~5–8°C), salinities (10–29 ppt) and pH (average about 7.6) occurring during the hand jetting, chronic toxicity would be triggered at ammonia concentrations as low as about 5.0 mg/L and acute toxicity would be triggered at ammonia concentrations as low as 35 mg/L. These thresholds are at least an order of magnitude higher than ammonia levels observed during hand jetting.

Total nitrogen was below the detection limit of 0.5 mg/L in 70% of the samples collected during hand jet monitoring. Although concentrations ranged up to 4.77 mg/L, the median value was less than 0.5 mg/L. TKN concentrations ranged up to 4.64 mg/L but more than 88% of the results were below detection limits for this parameter (Table 11).

Table 11. Summary of Nitrogen Species [Nitrate, Nitrite, Ammonia, Total Nitrogen and Total Kjeldahl Nitrogen (mg/L)] in Water Samples Collected during Hand Jetting

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Nitrate**					
West Side Boundary	10A	0.107	0.27	0.105	0.366
	11	0.117	0.117		
	15	0.117	0.158	0.102	0.376
West Side Reference	21	0.106	0.157	<0.05	0.692
East Side Boundary	13	0.119	1.26		
	14A	0.096	0.19	<0.05	0.904
	18	0.114	0.135		
	19A	0.106	1.333	<0.05	1.533
East Side Reference	25	0.106	0.271	0.086	1.59
	27	0.11	1.22	<0.05	1.09
Nitrite**					
West Side Boundary	10A	<0.05	<0.05	<0.05	<0.05
	11	<0.05	<0.05		
	15	<0.05	<0.05	<0.05	<0.05
West Side Reference	21	<0.05	<0.05	<0.05	0.073

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
East Side Boundary	13	<0.05	<0.05		
	14A	<0.05	<0.05	<0.05	0.057
	18	<0.05	<0.05		
	19A	<0.05	<0.05	<0.05	<0.05
East Side Reference	25	<0.05	<0.05	<0.05	<0.05
	27	<0.05	<0.05	<0.05	<0.05
Ammonia**					
West Side Boundary	10A	<0.1	0.188	<0.1	0.194
	11	<0.1	<0.1		
	15	<0.1	0.129	<0.1	0.405
West Side Reference	21	<0.1	0.145	<0.1	0.256
East Side Boundary	13	<0.1	<0.1		
	14A	<0.1	0.172	<0.1	0.265
	18	<0.1	<0.1		
	19A	<0.1	0.145	<0.1	0.251
East Side Reference	25	<0.1	0.202	<0.1	0.169
	27	<0.1	0.127	<0.1	0.463
Total Nitrogen**					
West Side Boundary	10A	<0.5	0.68	<0.5	1.27
	11	0.571	0.571		
	15	<0.5	2.1	<0.5	0.799
West Side Reference	21	<0.5	0.685	<0.5	1.09
East Side Boundary	13	<0.5	0.691		
	14A	<0.5	0.784	<0.5	2.28
	18	0.547	0.769		
	19A	<0.5	0.667	<0.5	4.77
East Side Reference	25	<0.5	1.69	<0.5	1.28
	27	<0.5	1.17	<0.5	0.95
Total Kjeldahl Nitrogen**					
West Side Boundary	10A	<0.5	0.573	<0.5	1.127
	11	<0.5	<0.5		
	15	<0.5	1.959	<0.5	0.687
West Side Reference	21	<0.5	0.574	<0.5	0.969
East Side Boundary	13	<0.5	<0.5		
	14A	<0.5	0.638	<0.5	2.166

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
	18	<0.5	0.655		
	19A	<0.5	0.561	<0.5	4.637
East Side Reference	25	<0.5	1.551	<0.5	1.157
	27	<0.5	0.596	<0.5	0.781

*Green shading indicates stations on tidal flats; those with no shading are in the channel. For hand jetting, 14A and 19A served as approximate stations for both the channel and eastern tidal flats.

** The "A" after station numbers indicates that the locations are approximate, as the stations were sometimes shifted to better capture the progress of the hand jetting.

4.2 Total Metals (Arsenic and Copper)

Toxicity criteria for copper and arsenic are expressed in terms of the dissolved fraction because it is the fraction that is more bioavailable. Total metal concentrations are useful in helping to understand significance of dissolved concentrations and as a check of the dissolved metal results (i.e., dissolved metal concentrations should always be lower than the total metal concentration).

4.2.1 Total Arsenic

During all of the monitoring events associated with jet plowing, total arsenic concentrations were similar in samples collected before construction was initiated to those collected during active jet plowing. In the jet plow trial, total arsenic values ranged from 1.2 to 1.4 µg/L before the trial started and from 0.5 to 3.2 µg/L during the trial (Table 12; Appendix M). The highest value occurred near bottom at Station 11A at 14:53 soon after the jet plow completed crossing the tidal flat. With this one exception, there was little difference in total arsenic before and during the trial.[7]

During the first cable installation, total arsenic concentrations ranged up to 2 µg/L in samples collected before the jet plow started and up to 2.3 µg/L while construction activity was underway. During Cable 2 monitoring, the pattern of total arsenic concentrations was similar to the jet plow trial and Cable 1 results although there was one near-bottom sample at nearfield Station 11 that reached 0.5 µg/L; the surface sample was also somewhat elevated (4.2 µg/L). No subsequent collections were made on that day so it is unknown whether concentrations remained elevated although the following morning concentrations in both bottom and surface collections were at background levels. Total arsenic samples collected during installation of Cable 3 were all within background levels observed in previous collections and only ranged as high as 2.8 µg/L during active jet plowing.

Arsenic was detected in the majority of total metals samples collected during hand jetting. The highest level observed before the start of hand jetting on any given day was 2.3 µg/L and the

[7] Many of the total arsenic values were lower than the dissolved values. When queried, Enthalpy stated they processed all the dissolved samples on one instrument and all of the total samples on a different instrument. They found that for arsenic, the instrument used for the dissolved samples was biased high whereas the instrument for the total samples was biased low.

highest level observed during hand jetting was 2.7 µg/L. There was no indication that hand jetting activities increased the concentrations of total arsenic in the water column.

Table 12. Summary of Total Arsenic (µg/L) in Water Samples Collected in Little Bay during the SRP Cable Installation

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Jet Plow Trial**					
Boundary North	22	1.2	1.4	1	1.2
	23	1.2	1.3	1.1	1.3
	24	1.1	1.3	0.8	1.2
	25	1.2	1.3	0.8	1.3
Boundary South	27			0.8	1
	28			0.9	1.1
	29			0.8	1.1
Nearfield North	11	1.3	1.4	0.9	1.2
	11A	1.3	1.3	1	3.2
	12	1.2	1.3	0.8	1.3
	13	1.3	1.4	0.9	1.1
Nearfield South	16	1.3	1.4	1.1	1.2
	17	1.3	1.3	0.8	1
	18			0.8	0.9
Reference Stations	41	1.1	1.3	0.8	1
	42	1.2	1.3	0.9	0.9
	43	1.3	1.5	1.1	1.2
Cable 1					
Boundary North	25			1.2	1.3
Nearfield North	10	1.2	2	1.1	1.5
	11	1.2	1.6	1.1	1.6
	12	1	1.6	0.9	2.3
	13	0.8	1.6	1	1.9
	14	1.1	1.5	1	1.3
Nearfield South	15	1	1.5	1.1	1.6
	16	1.2	1.5	1.1	1.5
	17	1	1.8	0.8	1.7
	18	1	1.6	0.9	1.6
	19	1.2	1.5	0.9	1.1
Reference Stations	41	1.3	1.6	0.8	1.5
	42	1.4	1.5	1	1.5
	43	0.8	1.5	1.1	1.8

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Cable 2					
Boundary North	24			0.9	1.3
Nearfield North	10	1.2	1.6	1	3.4
	11	1.1	1.2	1.1	9.5
	12	1.1	1.4	<0.5	1.5
	13	1.2	1.4	0.7	2.3
	14	1.1	1.3	<0.5	1.4
Nearfield South	15	1.3	2	0.7	1.4
	16	1.2	1.3	1	1.4
	17	1.2	1.5	1	1.7
	18	0.7	1.3	0.8	1.5
	19	1.1	1.3	0.8	1.5
Reference Stations	41	1.2	1.3	0.9	1.4
	42	1.2	1.3	<0.5	1.5
	43	1.2	1.3	1	1.5
Cable 3					
Nearfield North	10	0.7	0.8	<0.5	1.4
	11	0.6	8.8	<0.5	1.6
	12	0.5	83	<0.5	283
	13	0.6	2.3	<0.5	261
	14	0.5	1.2	0.6	35.7
Nearfield South	15	0.5	1	0.6	6.8
	16	0.6	1.9	0.5	1.1
	17	0.6	3.3	<0.5	94
	18	0.6	58.5	<0.5	5.5
	19	0.7	44.5	0.5	48
Reference Stations	41	<0.5	0.9	<0.5	3.7
	42	0.6	1	<0.5	0.6
	43	0.6	5.2	<0.5	2.5
Hand Jetting **					
Tidal Flats Boundary	10A	0.7	1.4	<0.5	2.5
	11	<0.5	<0.5		
	15	<0.5	1.4	<0.5	2.6
Tidal Flats Reference	21	<0.5	1.5	<0.5	2.6
Channel Boundary	13	<0.5	0.9		
	14A	<0.5	1.4	<0.5	2.5
	18	1.1	1.2		

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
	19A	<0.5	2.3	<0.5	1.8
Channel Reference	25	<0.5	1.5	<0.5	2.6
	27	<0.5	1.6	<0.5	2.7

*Green shading indicates stations on tidal flats; those with no shading are in the channel. For hand jetting, 14A and 19A served as approximate stations for both the channel and eastern tidal flats.

** The "A" after station numbers indicates that the locations are approximate, as the stations were sometimes shifted to better capture the progress of the hand jetting.

4.2.2 Total Copper

During the jet plow trial, total copper levels ranged from 0.6 to 4.9 µg/L across all samples collected before the jet plow started operating (Table 13; Appendix M), with a mean value of 0.99 µg/L and a median of 0.8 µg/L. During the various activities undertaken for the trial, total copper ranged from <0.5 to 28.6 µg/L with a mean of 1.2 µg/L and a median value of 0.8 µg/L. Highest values were observed at northern boundary station 24 (mid-depth sample) at 19:00, at the end of the anchor moves and at northern boundary station 22 (bottom sample) at 13:45 while the jet plow was crossing the tidal flat. The next highest values were less than 20% of the peak values and most results were at least an order of magnitude lower than the peaks.

Table 13. Summary of Total Copper (µg/L) in Water Samples Collected in Little Bay during the SRP Cable Installation

Location	Station	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Jet Plow Trial**					
Boundary North	22	0.6	0.9	0.6	25.7
	23	0.7	0.9	0.6	0.8
	24	0.6	2.9	0.6	28.6
	25	0.7	0.9	0.5	1.5
Boundary South	27			0.6	0.9
	28			0.6	2.2
	29			0.7	2.6
Nearfield North	11	0.7	0.7	0.6	1
	11A	0.6	0.7	0.6	1
	12	0.7	0.9	0.6	4.3
	13	0.8	0.9	0.6	1.5
Nearfield South	16	0.9	1.5	0.7	0.9
	17	1	4.9	<0.5	2.8
	18			0.6	1.5
Reference Stations	41	0.6	0.8	0.7	0.8
	42	0.8	1.4	0.8	0.8
	43	0.6	0.9	0.6	0.9

Location	Station	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Cable 1					
Boundary North	25			1.2	5.1
Nearfield North	10	0.7	5.2	<0.5	1.9
	11	0.6	1.3	0.5	6.3
	12	<0.5	80	<0.5	22
	13	<0.5	2.8	<0.5	7.1
	14	1.4	4.2	<0.5	1.3
Nearfield South	15	0.8	2	<0.5	2.3
	16	0.6	1.4	<0.5	4
	17	<0.5	1.4	<0.5	29
	18	<0.5	2	<0.5	2.7
	19	<0.5	1.2	<0.5	3.3
Reference Stations	41	0.5	1.3	<0.5	42
	42	<0.5	0.8	<0.5	6
	43	<0.5	1.4	<0.5	34
Cable 2					
Boundary North	24			0.6	1
Nearfield North	10	0.9	1.4	0.5	3.2
	11	0.7	2.4	<0.5	10.8
	12	0.5	0.9	<0.5	4.3
	13	0.5	1.1	<0.5	2.3
	14	0.6	1.7	<0.5	3.5
Nearfield South	15	1	1.7	<0.5	2.5
	16	0.7	2.4	<0.5	2.5
	17	0.6	2.1	<0.5	1130
	18	0.5	1.2	<0.5	16.2
	19	0.7	2.9	<0.5	1.8
Reference Stations	41	0.5	1.7	<0.5	2.3
	42	0.8	1.7	<0.5	1.1
	43	0.6	2.2	<0.5	3.6
Cable 3					
Nearfield North	10	0.7	0.8	<0.5	1.4
	11	0.6	8.8	<0.5	1.6
	12	0.5	83	<0.5	283
	13	0.6	2.3	<0.5	261
	14	0.5	1.2	0.6	35.7
Nearfield South	15	0.5	1	0.6	6.8
	16	0.6	1.9	0.5	1.1

Location	Station	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
	17	0.6	3.3	<0.5	94
	18	0.6	58.5	<0.5	5.5
	19	0.7	44.5	0.5	48
Reference Stations	41	<0.5	0.9	<0.5	3.7
	42	0.6	1	<0.5	0.6
	43	0.6	5.2	<0.5	2.5
Hand Jetting**					
Tidal Flats Boundary	10A	0.5	1.2	<0.5	8
	11	0.8	0.8		
	15	<0.5	17	<0.5	5.2
Tidal Flats Reference	21	<0.5	1.4	<0.5	44.9
Channel Boundary	13	<0.5	1.7		
	14A	<0.5	4.2	<0.5	22.2
	18	1.2	1.3		
	19A	<0.5	6.9	<0.5	108
Channel Reference	25	<0.5	11.6	<0.5	494
	27	<0.5	13	<0.5	67.9

**Green shading indicates stations on tidal flats; those with no shading are in the channel. For hand jetting, 14A and 19A served as approximate stations for both the channel and eastern tidal flats.

** The "A" after station numbers indicates that the locations are approximate, as the stations were sometimes shifted to better capture the progress of the hand jetting.

During hand jetting, total copper concentrations ranged from <0.5 to 11.6 µg/L in samples collected prior to the start of hand jetting on any given day. During active hand jetting, total copper concentrations ranged from <0.5 to 494 µg/L. This highest value was tagged by the analytical lab as potentially biased high because the Laboratory Control Sample % Recovery was above the method specified limit. Of the 1,670 samples analyzed for total copper, 55 (3.2%) had concentrations equivalent to or higher than 3.1 µg/L, the chronic toxicity threshold for dissolved copper. Hand jetting in the eastern channel approaching the tidal flat where it was infeasible to use a silt barrier took place intermittently over a period of about four weeks. Of the 751 samples collected in this area 31 had relatively high values (from 3.1 to 494 µg/L). The highest value was observed at Station 25, a reference station for this activity. Hand jetting in the eastern area encompassed by a turbidity barrier took place over a 1.5-week period over which 469 samples were collected. Of these samples, 17 exhibited total copper concentrations equal to or greater than 3.1 µg/L with the highest value of 17 µg/l occurring at Station 19 at the mouth of Welch Cove. On the western side, hand jetting occurred intermittently within a silt barrier over a period of 4.5 weeks. Of the 357 samples collected, 7 had relatively high values of total copper. The highest value (44.9 µg/L) occurred at the reference Station 21 north of the activity.

Although there were some high concentrations of total copper observed during hand jetting, overall, these samples represented only 3.5% of all the samples collected and were at a range of stations and times. This indicates that hand jetting had little influence on total copper concentrations in the bay.

4.3 Dissolved Metals

Water samples were analyzed for dissolved and total copper and arsenic. There are chronic and acute toxicity levels for the dissolved phase of both metals.

4.3.1 Dissolved Arsenic

There were no exceedances of either acute or chronic water quality criteria for dissolved arsenic at any time during the jet plow trial survey or any of the cable installations. Dissolved arsenic values ranged from 1.4 to 1.7 µg/L among all stations sampled before the jet plow trial began and from 1.2 to 2.9 µg/L during the trial (Table 14; Appendix N). For Cable 1 installation, pre-construction concentrations ranged from <0.5 to 1.6 µg/L and concentrations during construction ranged from 1.1 to 2.6 µg/L. During monitoring for Cable 2, pre-construction concentrations ranged from <0.5 to an anomalously high 6.1 µg/L at Reference Station 41. During jet plowing, concentrations ranged from <0.5 to 2.7 µg/L. Dissolved arsenic exhibited the same pattern during monitoring for Cable 3 when the pre-construction samples ranged from 1.2 to 2.1 and the samples collected during jet plowing ranged from 0.7 to 2 µg/L.

None of these values approached or exceeded the chronic toxicity threshold of 36 µg/L or the acute toxicity value of 69 µg/L.

During hand jetting, 1,625 samples were collected for dissolved arsenic analysis. Of these samples, dissolved arsenic concentrations were below reporting limits in 364 samples (22%). The highest value observed was 3.3 µg/L immediately adjacent to one of the silt barriers. No samples reached even 10% of the chronic toxicity threshold of 36 µg/L. Hand jetting, therefore, did not result in ecologically significant release of dissolved arsenic into the water column.

Table 14. Summary of Dissolved Arsenic Concentrations (µg/L) in Water Samples Collected in Little Bay during the SRP Cable Installation

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Jet Plow Trial**					
Boundary North	22	1.6	1.6	1.5	1.6
	23	1.5	1.6	1.5	1.6
	24	1.5	1.6	1.2	1.9
	25	1.5	1.6	1.4	1.8
Boundary South	27			1.3	1.8
	28			1.4	1.7
	29			1.4	1.8
Nearfield North	11	1.5	1.6	1.2	1.5
	11A	1.4	1.6	1.4	1.6

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
	12	1.5	1.6	1.2	1.8
	13	1.6	1.6	1.2	1.8
Nearfield South	16	1.6	1.6	1.3	1.4
	17	1.5	1.7	1.2	1.5
	18			1.2	2.9
Reference Stations	41	1.5	1.7	1.2	1.4
	42	1.6	1.6	1.2	1.2
	43	1.6	1.6	1.4	1.7
Cable 1					
Boundary North	25			1.3	1.3
Nearfield North	10	1.3	1.5	1.3	1.5
	11	1.1	1.4	1.1	1.5
	12	1.3	1.6	1.2	2.6
	13	1.1	1.7	1.1	1.7
	14	1.3	1.5	1.2	1.6
Nearfield South	15	1.3	1.4	1.3	1.6
	16	1.1	1.5	1.3	1.6
	17	<0.5	1.6	1.1	1.8
	18	1.1	1.5	1.2	1.7
	19	1.2	1.6	1.1	1.4
Reference Stations	41	1.2	1.5	1.3	1.4
	42	1.3	1.5	1.3	1.3
	43	1.2	1.6	1.2	1.4
Cable 2					
Boundary North	24			1	1.1
Nearfield North	10	1.3	1.8	1.2	1.9
	11	1.3	1.6	1.1	2.7
	12	1.2	1.7	<0.5	1.8
	13	1.3	1.7	1	1.7
	14	1.2	1.7	1.2	1.6
Nearfield South	15	1.1	1.9	1	1.6
	16	1	1.7	1	1.7
	17	1.1	1.7	1	1.6
	18	<0.5	1.8	1	1.7
	19	1.1	1.5	0.9	1.6
Reference Stations	41	1.4	6.1	1.1	1.6
	42	1.7	1.8	1.1	1.4
	43	1.1	1.4	1	1.5

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Cable 3					
Nearfield North	10	1.4	1.5	1.3	2
	11	1.3	1.5	1.3	1.6
	12	1.2	2.1	1.3	1.7
	13	1.3	1.6	1	1.6
	14	1.3	1.5	1.1	1.6
Nearfield South	15	1.3	1.6	1.4	1.7
	16	1.2	1.5	1.3	1.8
	17	1.3	1.5	1.1	1.8
	18	1.3	1.6	0.7	1.6
	19	1.2	1.5	0.9	1.6
Reference Stations	41	1.3	1.6	1.1	1.6
	42	1.2	1.4	1.1	1.5
	43	1.2	1.6	0.9	1.5
Hand Jetting**					
Tidal Flats Boundary	10A	<0.5	1.7	<0.5	1.6
	11	1.5	1.5		
	15	<0.5	1.5	<0.5	1.6
Tidal Flats Reference	21	<0.5	1.5	<0.5	1.9
Channel Boundary	13	1.2	1.3		
	14A	<0.5	1.6	<0.5	1.6
	18	1.3	1.5		
	19A	<0.5	1.5	<0.5	2.2
Channel Reference	25	<0.5	1.6	<0.5	1.7
	27	<0.5	1.5	<0.5	1.6

[a] acute toxicity level = 69 µg/L (one-hour exposure); chronic toxicity level = 36 µg/L (four-day exposure)

*****Green shading indicates stations on tidal flats; those with no shading are in the channel. For hand jetting, 14A and 19A served as approximate stations for both the channel and eastern tidal flats.

** The "A" after station numbers indicates that the locations are approximate, as the stations were sometimes shifted to better capture the progress of the hand jetting.

4.3.2 Dissolved Copper

Over the course of all jet plowing activities, 1,042 samples were collected and analyzed for dissolved copper (Attachment 1). Of these, there were 32 (3.1%) dissolved copper samples with values greater than the chronic toxicity level 3.1 µg/L, and 20 of those samples were also above the acute toxicity level (4.8 µg/L) (Appendix N). When comparing these data to the total copper concentrations, however, the dissolved concentrations were higher than the total concentrations (except for one sample) (Table 15), a situation that is simply not realistic. Samples for total and dissolved metals were collected separately and both were made up of water pumped from the

appropriate sample depth. It is possible that the more complex collection process for the dissolved metals introduced contamination into these samples.[8] Total metals results are considered to be a more reliable indicator of the copper concentrations.

Nonetheless, it is appropriate to examine the apparent dissolved copper threshold exceedances. During the jet plow trial, one dissolved copper sample value exceeded the acute toxicity level (bottom sample from Station 17 collected at 13:55 on September 9). As noted in Table 15, dissolved copper from this sample exceeded the total copper suggesting this is an artifact. When the dissolved copper concentration is averaged over the three depths sampled, the mean value falls below the chronic toxicity level. Therefore, this was not a violation of water quality criteria.

Additional samples were collected on September 12, 2019 at Stations 11 and 12 to support the assessment of whether the chronic toxicity criterion for dissolved copper was met. Of the five samples (surface and bottom at Station 11; surface, mid-depth and bottom at Station 12), only one sample exceeded the reporting limit. The surface sample from Station 12 had a dissolved copper concentration of 0.9 µg/L. These results further confirm that the single elevated dissolved copper level observed during the jet plow trial did not result in a chronic toxicity water quality exceedance.

[8]Water for total metals was pumped directly into the sample container. Water for dissolved metals was pumped into a syringe equipped with a filter on the tip and then injected into another sample container. It took considerable manual force to discharge the water through the filter which translates into more handling than for the total metals samples.

Table 15. Evaluation of Dissolved Copper Samples with Raw Values Exceeding Toxicity Thresholds (shown in red)

Event	Sta.	Depth	Date	Time	Period	Copper (µg/L)			Assessment of compliance with toxicity thresholds[a]			
						Total	Dissolved	Difference	Ave. over depth	Ave. over next hour	Ave. over day	Ave. over multiple days[c]
Jet Plow Trial	17	Bot	09/09/19	13:55	During	0.9	7	-6.1	2.7	1.8	1.0	n/a
Cable 1	Blank		10/16/19	.	Blank	1.2	9.6	-8.4	n/a[b]	n/a[b]	n/a[b]	n/a[b]
	18	Surf	10/16/19	13:19	Before	0.9	4	-3.1	1.7	1.8 (14:50)	1.4	2.2 (4 days)
	43	Bot	10/16/19	13:37		0.5	5.7	-5.2	4.5	n/a	n/a	2.2
	43	Mid	10/16/19	13:37		0.8	5.5	-4.7				
	12	Surf	10/16/19	13:47		80	62.1	17.9	31.6	n/a (last sample of day)	n/a	2.3
	14	Bot	10/16/19	14:31		4.2	4.7	-0.5	2.7	1.6 (16:22)	1.7	n/a
	42	Bot	10/16/19	15:15		0.7	4.1	-3.4	3.3	n/a	n/a	1.2
	16	Bot	10/16/19	16:24	During	4	6.8	-2.8	2.8	2.3	2.3	2.0 (3 days)
	15	Surf	10/17/19	14:06	Before	0.8	5.6	-4.8	3.9	4.9 (15:50)	3.0	n/a
	16	Bot	10/17/19	14:23		0.7	5.6	-4.9	3.3	4.0 (16:00)	2.4	1.9 (2 days)
	15	Bot	10/17/19	15:50	During	0.8	11	-10.2	5.8	4.8	2.7	n/a
	16	Bot	10/17/19	16:00		0.8	6.4	-5.6	4.7	2.8	2.2	1.8 (2 days)
	15	Bot	10/17/19	17:05		0.9	5.8	-4.9	3.4	2.1	1.7	n/a
	43	Mid	10/17/19	17:55		1.3	5.3	-4	5.4	3.4 (20:30)	3.4	1.9 (3 days)
	43	Surf	10/17/19	17:55		1.3	9	-7.7	5.4	3.4 (20:30)	3.4	1.9 (3 days)
	16	Surf	10/17/19	18:10		1.3	5.1	-3.8	3	2.1	1.7	1.5 (2 days)
	Blank		10/17/19	18:45	Blank	0.7	6.3	-5.6	n/a[b]	n/a[b]	n/a[b]	n/a[b]
	16	Surf	10/18/19	14:40	Before	0.6	4	-3.4	3.5	2.7 (16:50)	1.5	n/a
	12	Bot	10/18/19	14:50		1.1	5.5	-4.4	3	1.8 (17:01)	1.2	1.5 (2 days)
	12	Surf	10/19/19	10:00		1.1	15	-13.9	5.6	3.4	1.7	n/a
	18	Surf	10/19/19	13:18	During	0.5	47	-46.5	16.1	8.5 (15:25)	3.4	n/a

Event	Sta.	Depth	Date	Time	Period	Copper (µg/L)			Assessment of compliance with toxicity thresholds[a]			
						Total	Dissolved	Difference	Ave. over depth	Ave. over next hour	Ave. over day	Ave. over multiple days[c]
	43	Surf	10/19/19	17:17		0.8	4.4	-3.6	1.8	n/a (last sample of day)	n/a	n/a
	14	Surf	10/19/19	20:10		0.8	4.2	-3.4	2.7	n/a (last sample of day)	n/a	n/a
Cable 2	43	Surf	10/29/19	9:00	Before	0.8	3.8	-3	1.6	1.0 (11:06)	0.9	n/a
	41	Mid	10/29/19	9:35		1.3	30.1	-28.8	10.4	n/a	2.8	n/a
	13	Mid	10/29/19	14:00	During	0.6	3.4	-2.8	1.5	1 (15:25)	0.8	n/a
	12	Mid	10/29/19	14:15		0.5	4.3	-3.8	1.8	1.2	0.8	n/a
	11	Bot	10/29/19	14:35		0.8	4.1	-3.3	1.7	n/a	n/a	n/a
Cable 3	42	Surf	11/06/19	7:15	Before	1	3.3	-2.3	1.9	n/a	1.4	2.5
	42	Bot	11/07/19	14:00	During	0.6	15.1	-14.5	n/a	n/a	n/a	n/a
	Blank		11/07/19	16:15	Blank	1.1	4.6	-3.5	n/a[b]	n/a[b]	n/a[b]	n/a[b]
Hand Jet	27	Bot	11/11/19	9:14	Before	1.1	6.1	-5	3.3	2.5 (11:16)	1.8	1.0 (3 days)
	14A	Surf	11/11/19	14:00	During	1.1	8.2	-7.1	4.4	2.1	2.1	1.1 (3 days)
	25	Bot	11/15/19	7:15	Before	0.7	7.6	-6.9	4.4	2.4 (8:40)	1.2	0.9 (3 days)
	10A	Surf	11/17/19	15:20	During	0.7	4.2	-3.5	2.4	1.5	1.2	0.8 (4 days)
	27	Surf	11/18/19	9:25		0.8	5.4	-4.6	3.0	1.7 (11:25)	1.2	1.0 (4 days)
	10A	Surf	11/20/19	7:10	Before	0.6	4	-3.4	2.3	1.4	1.1	0.9 (4 days)
	21	Surf	11/20/19	16:53	During	1	6.3	-5.3	3.8	n/a	3.8	1.2 (4 days)
	19A	Surf	11/21/19	8:05		0.7	7.1	-6.4	4.6	2.6	1.2	1.0 (3 days)
	10A	Bot	11/21/19	8:17		0.8	3.6	-2.8	1.6	1.3	1.0	0.8 (3 days)
	14A	Bot	11/21/19	9:30		0.5	4.4	-3.9	2.6	1.8 (11:28)	1.2	1.0 (3 days)
	15	Bot	11/21/19	12:00		0.5	9.3	-8.8	n/a	n/a	9.3	2.5 (3 days)
	21	Bot	11/21/19	12:15		0.5	11.1	-10.6	5.8	n/a	5.8	1.0 (3 days)
	27	Surf	11/21/19	14:35		0.7	5.7	-5	3.1	n/a	3.1	1.2 (3 days)
	15	Surf	11/22/19	10:05		0.5	23	-22.5	11.9	8.1	5.1	2.8 (2 days)

Event	Sta.	Depth	Date	Time	Period	Copper (µg/L)			Assessment of compliance with toxicity thresholds[a]			
						Total	Dissolved	Difference	Ave. over depth	Ave. over next hour	Ave. over day	Ave. over multiple days[c]
	14A	Surf	11/25/19	10:40		0.5	4.5	-4	2.5	1.6	1.0	0.8 (2 days)
	27	Bot	11/26/19	9:25		0.6	3.5	-2.9	2	1.3	0.9	n/a
	19A	Surf	12/09/19	12:30		0.7	15.1	-14.4	7.8	3.9 (14:40)	2.9	1.8 (4 days)
	14A	Surf	12/10/19	14:30		0.7	4.05	-3.35	2.3	1.4 (16:12)	1.4	0.7 (4 days)
	Blank		12/12/19	10:00	Blank	0.5	8.4	-7.9	n/a[b]	n/a[b]	n/a[b]	n/a[b]
	19A	Bot	12/12/19	10:45		0.7	3.6	-2.9	2.1	1.3 (13:05)	4.5	1.7 (3 days)
	19A	Bot	12/12/19	14:45		0.8	33.5	-32.7	11.5	7.2 (16:10)	7.2	1.8 (3 days)
	14A	Bot	12/12/19	16:15	During	0.8	3.6	-2.8	2.1	n/a	2.1	1.1 (3 days)
	14A	Surf	12/14/19	13:15		0.6	4.9	-4.3	2.9	1.7	1.6	1.0 (3 days)
	14A	Surf	12/18/19	15:05		1.3	4.3	-3	2.4	n/a	n/a	n/a

[a] acute toxicity level = 4.8 µg/L (one-hour exposure) chronic toxicity level = 3.1 µg/L (four-day exposure). Determination if exceedance of acute threshold based on average over depth at time of high reading and average over mean depth concentrations at that station within one hour following high reading if average over depth is still above acute threshold; determination of exceedance of chronic threshold based on average over sampling day for samples taken later than the high reading and then average over samples collected during the period up to 98 hours after the high reading once an acceptable averaging had brought the mean value down below chronic threshold, no additional averaging was done.

[b] field blank. No averaging possible.

[c] average over next days = up to 4 in consecutive order, may skip a day in between

During the installation of Cable 1 there were 23 samples in which dissolved copper values appeared to exceed toxicity levels (6 exceeded the chronic threshold and 17 exceeded the acute threshold). In all but one case, however, the dissolved copper concentration was higher than the total copper concentration for that collection time, which calls the dissolved copper results into question. The remaining sample, collected on October 16 from the surface at nearfield station 12 at 13:47 (before jet plowing had started for the day), had a dissolved copper level of 62.1 µg/L, an order of magnitude higher than the acute toxicity threshold. Samples from this station taken less than an hour later after jet plowing had started had dissolved copper concentrations at or below the laboratory reporting limit.

During monitoring for jet plow installation of Cable 2, two samples collected at reference stations prior to the start-up of the jet plow appeared to exceed chronic (surface sample at Station 43) or acute (mid-depth sample at Station 41) toxicity thresholds. When averaged over depth, however, dissolved copper at Station 43 was below the chronic level. Station 41 remained above the acute level. As there was no sample collected within an hour at Station 41, we examined the average over the day and that fell below the chronic level. Because dissolved copper concentrations for both samples were higher than the total copper levels and these measurements occurred at reference stations before construction activity took place, these do not appear to be project related.

There were three samples collected at nearfield stations during the active jet plowing for which the dissolved copper concentration exceeded the chronic toxicity level. Averaged over depth, however, all fell below this threshold.

During monitoring for installation of Cable 3, reported dissolved copper concentrations from three samples (two at reference station 42 and one field blank) were higher than toxicity thresholds. Because reference stations were sampled only every three hours and Station 42 is located in shallow water precluding sampling of all depths consistently, only the sample collected before in-water construction started could be averaged. In this case, averaging over depth resulted in a concentration below the chronic toxicity level.

In conclusion, there was only one sample (surface sample from Station 12 collected on October 16, 2019 at 13:47, before construction activity was initiated) analyzed for dissolved copper with an apparent exceedance of a toxicity threshold that could be a true exceedance. Because of the timing of this collection (before cable burial commenced for the day) and the very high value (an order of magnitude above most others), this data point is not likely related to cable burial activities.

There were 1,723 samples collected during hand jetting and analyzed for dissolved copper over a course of 28 days of activity. Of these 24 (1.4%) samples exceeded the chronic toxicity threshold, with 14 also exceeding the acute toxicity threshold (Table 15). In all cases, however, the concentration measured in the dissolved fraction was higher than that measured in the total fraction so it is likely that these are not accurate readings. In addition, three of the samples were collected before construction activity was started for the day and one was a field blank. Three of the samples appeared to exceed the acute toxicity threshold; averaging over depth did not resolve that in any of these samples and averaging with samples collected the next hour only brought one

mean value below the acute level. However, averaging over subsequent days resulted in all station means falling below the chronic toxicity threshold.

4.4 Fecal Coliforms

New Hampshire's fecal coliform standards for tidal waters used for growing or taking of shellfish for human consumption are based on the National Shellfish Program guidance (USFDA 2017). The SRP activities do not fall neatly into any of the sampling schemes addressed in the guidance document. This states that the fecal coliform median or geometric mean most probably number (MPN) shall not exceed fourteen (14) per 100 mL and not more than 10 percent of the samples shall exceed an MPN of 43 MPN per 100 for a five-tube decimal dilution test; 49 MPN per 100 mL for a three-tube decimal dilution test; or 28 MPN per 100 mL for a twelve-tube decimal dilution test.

During the jet plow trial, fecal coliforms generally fell below the reporting limit of 10 MPN/100 mL prior to the start-up of the jet plow (Table 16; Appendix O). The two exceptions were one sample at nearfield station 11a and reference station 43; results for both samples were 20/100 mL. The median value for the pre-trial samples was below the reporting limit of 10 MPN per 100 mL.

After the trial started, only six out of the 57 samples collected had fecal coliform levels above the quantification limit. One was at boundary station 24 at 10/100 mL. The rest were at nearfield stations and all were 10/100 mL except the sample from station 13 which was 20/100 mL. The median value for samples collected during jet plow activity was below the reporting limit of 10 MPN per 100 mL and no samples exceeded the most stringent threshold of 28 MPN per 100 mL. There is no indication, therefore, that use of the jet plow introduced fecal coliforms into the water column from the sediment.

During the installation of Cable 1, there was a rainfall event of 1.8 inches overnight in the early morning hours of October 17 (second day of installation). Of the 39 fecal coliform samples collected on October 16, the highest value observed was 20 per 100 mL (3 samples). For the next three days, after the rainfall, the majority of the samples had fecal coliform levels ranging from 20 to 121 MPN/100 mL. Elevated numbers occurred at all stations both before and during active construction.

A one-inch rainfall occurred on the first day of installation of Cable 2 and again, fecal coliform levels were elevated (up to 52 MPN/100 mL) although not to the extent observed during Cable 1 installation. Of the 195 samples collected immediately before and during this installation, 43 were below the reporting limit and an additional 104 were $\leq$20 MPN/100 mL. The median value for fecal coliforms during the Cable 2 installation period was 10 MPN/100 mL.

Cable 3 was installed during a dry period with rainfall of <0.1 inch. Although there three samples at 30-31 MPN/100ml, nearly half of the samples contained undetectable levels of fecal coliforms. The median value during this two-day installation was 10 MPN/100 mL.

Based on results of fecal coliform sampling during jet plowing, NHDES approved curtailment of sampling for this parameter after November 26 about mid-way through hand jetting. Of the 516 samples analyzed for fecal coliforms from November 11 to November 26, 122 were below the

reporting limit and an additional 268 samples were ≤20 MPN/100 mL resulting in a median value of 20 MPN/100 mL. The remaining 127 samples ranged from 30-120 MPN/100 mL (68 samples were at 30–31 MPN/100 mL). Values greater than 52 MPN/100 mL occurred on November 14–15 and November 18–25. There were no significant rainfall events during the hand jetting period when fecal coliforms were sampled.

There were no strong spatial patterns. Fecal coliform concentrations greater than 20 MPN/100 mL occurred at both nearfield and reference stations with the highest values at Station 25.

Table 16. Summary of Fecal Coliform Concentrations (MPN/100 mL) in Water Samples Collected in Little Bay during the SRP Cable Installation

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Jet Plow Trial**					
Boundary North	22	<10	<10	<10	<10
	23	<10	<10	<10	<10
	24	<10	<10	<10	10
	25	<10	<10	<10	<10
Boundary South	27			<10	<10
	28			<10	<10
	29			<10	<10
Nearfield North	11	<10	<10	<10	<10
	11A	20	20	<10	10
	12	<10	<10	<10	10
	13	<10	<10	<10	20
Nearfield South	16	<10	<10	<10	<10
	17	<10	<10	<10	10
	18			<10	10
Reference Stations	41	<10	<10	<10	<10
	42	<10	<10	<10	<10
	43	20	20	<10	<10
Cable 1					
Boundary North	21	<10	20	<10	75
	22	10	41	<10	86
	23	<10	31	<10	41
	24	<10	10	<10	73
	25	<10	10	<10	41
	26	20	20	20	52
Boundary South	27	<10	41	10	41
	28	<10	63	<10	52
	29	<10	63	10	41
	30	<10	31	20	41

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Nearfield North	10	<10	121	<10	121
	11	20	52	<10	75
	12	<10	31	<10	63
	13	10	41	<10	85
	14	10	10	<10	31
Nearfield South	15	<10	121	<10	63
	16	<10	20	<10	52
	17	<10	31	10	63
	18	10	41	<10	52
	19	<10	51	10	30
Reference Stations	41	<10	62	10	31
	42	10	31	<10	31
	43	<10	31	<10	10
Cable 2					
Boundary North	21	<10	<10	<10	41
	22	10	10	<10	31
	23	20	41	<10	41
	24	<10	20	<10	52
	25	20	41	<10	41
	26	<10	<10	10	41
Boundary South	27	10	20	<10	20
	28	31	41	<10	31
	29	31	41	<10	31
	30	10	52	10	41
Nearfield North	10	20	20	<10	41
	11	20	20	<10	31
	12	31	31	<10	20
	13	20	31	<10	31
	14	<10	41	<10	41
Nearfield South	15	10	10	<10	41
	16	20	20	<10	52
	17	<10	31	<10	31
	18	31	41	10	31
	19	<10	<10	10	41
Reference Stations	41	10	20	10	31
	42	20	20	20	52
	43	10	41	<10	20

Location	Station*	Before Start of Cable Burial		During Cable Burial	
		Min	Max	Min	Max
Cable 3					
Boundary North	21	10	10	<10	10
	22	<10	<10	<10	10
	23	<10	10	<10	10
	24	10	10	<10	20
	25	<10	<10	<10	20
	26	10	10	<10	10
Boundary South	27	<10	20	<10	20
	28	<10	<10	<10	10
	29	<10	<10	<10	20
	30	<10	20	<10	10
Nearfield North	10	<10	10	<10	20
	11	<10	30	<10	20
	12	10	10	<10	10
	13	<10	10	<10	20
	14	10	20	<10	20
Nearfield South	15	<10	<10	<10	<10
	16	<10	<10	<10	31
	17	<10	10	<10	20
	18	<10	<10	<10	30
	19	<10	<10	<10	10
Reference Stations	41	<10	<10	<10	10
	42	10	20	<10	<10
	43	20	20	<10	10
Hand Jetting**					
Tidal Flats Boundary	10A	<10	20	<10	74
	11	108	108		
	15	<10	52	<10	52
Tidal Flats Reference	21	<10	52	<10	52
Channel Boundary	13	10	10		
	14A	<10	85	<10	63
	18	<10	<10		
	19A	<10	31	<10	52
Channel Reference	25	10	86	<10	120
	27	<10	52	<10	75

*****Green shading indicates stations on tidal flats; those with no shading are in the channel. For hand jetting, 14A and 19A served as approximate stations for both the channel and eastern tidal flats.

** The “A” after station numbers indicates that the locations are approximate, as the stations were sometimes shifted to better capture the progress of the hand jetting.

5 Conclusions

Sampling was conducted at 23 permanent stations, as well as supplemental transient stations for a total of 8 days during cable installation via jet plow and 28 days via hand jetting. The permanent stations included 10 nearfield and reference stations, 10 boundary stations and 3 reference stations. Water quality data were typically collected before construction activity started on a given day, during the activity, and after construction stopped for the day. More than 17,500 in-situ water quality measurements were collected in the course of the cable installation. These included in-situ measurements of turbidity, dissolved oxygen, temperature, salinity, and pH, and water samples for laboratory analyses for total suspended solids, nitrogen species, total and dissolved metals, and fecal coliform.

Turbidity was the primary measure of impacts from the cable installation. For the great majority of the installation, no exceedances of the BSAL were observed at the boundary stations. During Cables 1 and 2, a few exceedances were observed, but they all dropped back down below the BSAL on the next sample period, indicating a short-term, therefore ecologically insignificant, effect. The highest exceedance was on the tidal flats at Station 21 during Cable 2. That station remained approximately 5-10 NTU above the BSAL for an hour before dropping close to background. Again, this is within the natural variability observed in the bay and would not represent an ecological impact. During a December 15 storm, background turbidity increased to over 16 NTU for three days, indicating that the bay is periodically subjected to turbidity levels within the range measured during the cable installation.

The vast majority of results for dissolved oxygen, temperature, salinity and pH showed seasonal and storm event responses, but no changes that could be attributed to the jet plow activity.

Of the 3,285 TSS samples collected overall, over 91% had values below 20 mg/L. Of the remaining 298 samples, only 6 exceeded 50 mg/L, and all of these were inside the mixing zone boundary. The correlation between turbidity and TSS was relatively weak (r^2=0.60) overall, and even weaker (r^2=0.46) for the 99% of the TSS samples that fell below 50 mg/L. Two factors likely affect this. One is that these numbers are at the low range of turbidity levels, which limits the ability to draw relationships. The other is that turbidity was measured in situ, followed by water sample collection for TSS, meaning different water “parcels” were sampled for the two parameters. Because the sediment plumes were observed to be highly dynamic in both space and time, the brief intervals between turbidity measurements with the hand-held YSI sonde and water collection via the pump could result in considerable differences between water parcels and the resulting data.

Total suspended sediment (TSS) data also showed that the sediment dispersion model predictions were generally conservative. The average project-related TSS for all cable installation events were well below the concentrations predicted by the model, and although the plume periodically reached the mixing zone boundary (as evidenced in the drone videos), concentrations at the boundary stations were consistently below the 20 mg/L above background level indicated by the model.

More than 21,700 laboratory analyses were run measuring nitrogen species, total and dissolved arsenic and copper, and fecal coliforms. The vast majority of results for each parameter tested showed that changes to water quality caused by cable installation were minor, ephemeral, and

localized. Nitrogen species showed no differences in concentrations between samples collected before and during construction. Total and dissolved arsenic levels were well below any threshold of concern. Total copper values showed no temporal or spatial patterns. A small percentage of the dissolved copper samples appeared to exceed toxicity thresholds, but with one exception, these results are highly suspect because the dissolved phase was reported to be higher than the total copper. Per concurrence with NHDES, a single sample does not constitute an exceedance and appropriate averaging over depth and time showed that these apparent exceedances were too localized and ephemeral to reduce water quality. Fecal coliform values were clearly associated with weather events rather than project activity.

The drone was a useful tool for locating and measuring a turbidity plume, if present. There was a distinct difference between a visible plume and turbidity levels. Even though a plume was visible in the drone imagery, elevated turbidity levels were often not detectable and seldom reached or exceeded BSAL during the hourly sampling at the boundary stations. In combination, water quality measurements, water chemistry and images from the drone survey collected during the jet plow trial generally confirm the predictions of the plume modeling. The model basically characterized the plume as narrow, elongated and ephemeral. The drone data confirmed those characteristics for much of the tide cycle.

In conclusion, the SRP water quality monitoring program was completed in accordance with the NHDES-approved monitoring plan and demonstrated compliance with SEC permit conditions and the DES 401 water quality certificate. Based on turbidity and TSS sampling within the approved mixing zone, the sediment dispersion model predictions presented in the permit applications accurately represented sediment transport patterns and conservatively predicted the extent and amount of sediment suspension and deposition. The results of the extensive water quality sampling program demonstrated that state water quality standards were attained for all parameters and indicate that ecological impacts during construction were negligible

6 References

Normandeau. 2016. Natural Resource Impact Assessment. Appendix 34 in Application of Public Service Company of New Hampshire d/b/a Eversource Energy for Certificate of Site and Facility for the Construction of a New 115 kV Electrical Transmission Line from Madbury Substation to Portsmouth Substation. Application to the New Hampshire Site Evaluation Committee, SEC Docket No.2015-04. April 12, 2016.

Normandeau. 2019a. Seacoast Reliability Project Water Quality Monitoring Plan. Updated Based on Jet Plow Trial. Dated October 15, 2019. Prepared for Eversource Energy. 27 pp. + appendices.

Normandeau. 2019b. Seacoast Reliability Project Water Quality Monitoring Plan, Revised Final. Dated September 6, 2019. Prepared for Eversource Energy. 26 pp. + appendices.

Normandeau. 2019c. Seacoast Reliability Project Jet Plow Trial Summary Report, Revised. Dated October 2, 2019. Prepared for Eversource Energy. 32 pp. + appendices.

Normandeau. 2019d. Seacoast Reliability Project Cable #1 Preliminary Report. Dated October 25, 2109. Prepared for Eversource Energy. 22 pp. + appendices.

Normandeau. 2019e. Seacoast Reliability Project Cable #2 Preliminary Report. Dated November 4, 2019. Prepared for Eversource Energy. 20 pp. + appendices.

Normandeau. 2019f. Seacoast Reliability Project Water Quality Monitoring Plan. Revised Final. Dated November 14, 2019. Prepared for Eversource Energy. 20 pp. + appendices.

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RPS. 2016. Modeling Sediment Dispersion from Cable Burial for Seacoast Reliability Project, Little Bay, New Hampshire. Appendix 35 in Application of Public Service Company of New Hampshire d/b/a Eversource Energy for Certificate of Site and Facility for the Construction of a New 115 kV Electrical Transmission Line from Madbury Substation to Portsmouth Substation. Application to the New Hampshire Site Evaluation Committee, SEC Docket No.2015-04. April 12, 2016.

RPS. 2017. Revised Modeling Sediment Dispersion from Cable Burial for Seacoast Reliability Project, Upper Little Bay, New Hampshire. Document 1 in Supplemental Information, Application to the New Hampshire Site Evaluation Committee, SEC Docket No.2015-04. June 30, 2017.

USFDA. 2017. National Shellfish Sanitation Program (NSSP) Guide for the Control of Molluscan Shellfish 2017 Revision. 489 p.

Wood, MA and P Trowbridge. 2014 "Nitrogen, Phosphorus, and Suspended Solids Concentrations in Tributaries to the Great Bay Estuary Watershed in 2013". PREP Reports & Publications. 252. https://scholars.unh.edu/prep/252

Appendix A
NHDES' Final Recommendations for Approval

SRP Comprehensive Water Quality Report
Appendix A

Relevant NHDES Recommendations for Submarine Cable Installation

10/29/18 NHDES Revised Final Decision

39. Time of Year: Work in Little Bay shall comply with the Time of Year restrictions identified in condition 36 above.

44. Mixing Zone Plan: At least sixty {60) days prior to the start of construction in Little Bay, the Applicant shall submit a mixing zone request to the NHDES Watershed Management Bureau for approval that includes a description and map showing the proposed mixing zone in Little Bay, justification for the proposed limits of the mixing zone and documentation demonstrating that the proposed mixing zone complies with the minimum criteria in administrative rules Env-Wq 1707.02. The mixing zone shall be established for all jet plow and hand-jetting activities. Prior to submitting the proposed mixing zone request, the Applicant shall determine if there are any new aquaculture operations in Little Bay. Unless otherwise authorized by NHDES, the mixing zone shall not include any portion of an aquaculture site that has aquaculture product (i.e., oysters, etc.) in the water during and up to 24 hours following jet plow and hand-jetting activities.

45. Water Quality Monitoring and Adaptive Management Plan: At least ninety {90) days prior to in-water work in Little Bay, the Applicant shall submit to the NHDES Watershed Management Bureau for approval, a Water Quality Monitoring and Adaptive Management Plan for work in Little Bay. The Applicant shall then implement the approved plan.
In general, the plan shall include, but not be limited to, the following for jet plow and hand-jetting activities:
    a. parameters that will be monitored;
    b. monitoring locations (including latitude, longitude and a plan showing the locations);
    c. how and when sampling will be conducted;
    d. the number of sampling teams;
    e. when and how training will be conducted;
    f. the lab methods and field equipment that will be used (including meter accuracy);
    g. quality assurance/quality control provisions;
    h. how monitors will communicate real-time monitoring information to jet plow operators;
    i. the use of drones (especially in the shallower areas) to assist with real-time tracking of sediment plumes;
    j. how decisions will be made and communicated to modify jet plow operation based on real-time monitoring results to minimize sediment resuspension due to jet plow operation;
    k. how and when results will be reported;
    l. when data will be input electronically in the NHDES Environmental Monitoring Database.

Parameters shall include, but not be limited to, the following:
Field measurements:
Turbidity (reported as NTU), dissolved oxygen and salinity.
Samples for Laboratory Analysis:
Total nitrogen, nitrate/nitrite nitrogen, total Kjeldahl nitrogen (TKN) and, ammonia nitrogen;
TSS;
Dissolved copper and arsenic (filtered in the field using a 0.45-micron filter prior to collection);
Total copper and arsenic (unfiltered);

Fecal coliform; and
Other parameters (if directed by NHDES).

The plan shall include criteria, based on real-time turbidity measurements, that will be used in the field to determine when jet plow operations must stop or otherwise be modified to minimize sediment resuspension, as well as when operations can resume. The plan shall also include all methods that can be used to minimize sediment resuspension due to jet plow operation (including but not limited to changing the jet speed and pressure) and how long work can be temporarily suspended.

Sample collection shall include samples taken at multiple depths and times as well as at multiple locations, including, but not limited to, stations at the mixing zone boundary and stations within the mixing zone. Results for parameters specified by NHDES from samples collected for an individual cable installation shall be received and distributed to NHDES and the Independent Environmental Monitor prior to subsequent cable installations. The Applicant shall not conduct subsequent cable installations unless authorized by NHDES. NHDES may require modifications to the plan based on water quality results.

46. NHDES Shellfish Program Monitoring and Reporting Requirements: Two-week Prior Notification:

At least two-weeks prior to the start of jet plowing activities, the Applicant shall notify the NHDES Shellfish Program of the dates and times of all activities that will resuspend sediments and introduce turbidity to the water column of Little Bay, so that NHDES may assess possible changes in water column fecal coliform concentrations that may warrant temporary closure of shellfish harvest areas

Plan to Assess Shellfish Tissue Before and After Little Bay Cable Crossing:

At least six months prior to the start of jet plowing activities (or other time frame acceptable to NHDES) the Applicant shall submit a plan to the NHDES Shellfish Program for approval for assessing molluscan shellfish tissue concentrations of selected chemical contaminants before and after the project. The Applicant shall then implement the approved plan. Unless otherwise authorized by NHDES, the plan shall include provisions for the following :

Species to be tested: Blue mussels and American oysters shall be the primary species to be tested. To the extent practical, native species shall be used at all sites. If transplanted species must be used, NHDES Shellfish Program and the NH Fish and Game Department will need to approve the source of the shellfish, and the contractor will need to include provisions for additional shellfish tissue testing to document contaminant levels in the shellfish prior to transplant.

Location of testing sites: A total of at least four sites shall be monitored, with two sites inside the area affected by the plume, and two sites outside of the area affected by the plume.

Sites Affected by the Plume: At least two sites in areas that the Applicant believes will be affected by the sediment plume created by jet plowing will be identified. One of these sites shall be on the upstream side of the project, and the other shall be on the downstream side of the project. At least one of these two sites shall be in the vicinity of subtidal commercial oyster aquaculture farms in Little Bay. Water temperature and salinity shall be monitored with continuous data loggers (15-minute interval) at all sites.

Sites Not Affected by the Plume: At least two sites in areas that the Applicant believes will not be affected by the sediment plume created by jet plowing will be identified. One of these sites shall be on the upstream side of the project, and the other shall be on the downstream side of the project. To the extent practical, these sites shall be located at or near sites used for the NH GulfWatch program so that data generated

from this monitoring program can be compared to historical data.

Water temperature and salinity shall be documented with continuous data loggers (15- minute interval) at all sites. QA procedures to quantify data logger performance, accuracy, and precision shall be included in the plan and reported.

Timing of Sample Collection: All sites shall be sampled 1-2 two weeks before dredging or jet plowing begins and within one week of the completion of all dredging or jet plowing activities. A final round of sampling shall be completed within one week of the completion of all dredging activities.

All collected samples shall be immediately transported to the analytical laboratory(ies). The Applicant and/or its contractor shall assure the analytical laboratory completes testing as soon as possible, and report the results as soon as they are completed.

Constituents for Tissue Analysis:
Parameters Specified in the National Shellfish Sanitation Program shall be tested:

Deleterious Substances

Aldrin/Dieldrin, Chlordane, Chlordecone, DDT, DDE, TDE, Diquat, Glyphosate, Carbaryl, Endothall and its Monomethyl ester , Methyl Mercury, Heptachlor / Heptachlor Epoxide, Mirex, Polychlorinated Biphenyls (PCBs), 2,4-D

Chemotherapeutics

Chloramphenicol, Clenbuterol , Diethylstilbestrol (DES), Demetridazole, Ipronidazole and other nitroimidazoles, Furazolidone and other nitrofurans, Fluoroquinolones, Glycopeptides,

Additional Parameters that are part of the NH GulfWatch Program (note that some of the parameters below are also in the NSSP list).

Metals:

Aluminum, Cadmium, Chromium, Copper, Iron, Lead, Mercury, Nickel, Silver, Zinc.

Physical:

Lipid Content, Percent Solids

PAHs:

Acenaphthene, Acenaphthylene, Anthracene, Benzo(A)anthracene, Benzo(A)pyrene, Benzo(B)fluoranthene, Benzo(E)pyrene, Benzo(GHI)perylene, Benzo(K)fluoranthene, Biphenyl, Chrysene, Dibenzo(AH)anthracene, Dibenzothiophene, Fluoranthene, Fluorene, Indeno(123CD)pyrene, Naphthalene, Perylene, Phenanthrene, Pyrene
C1-Chrysene, C1-Dibenzothiophene, C1-Fluoranthene, C1-Fluorene, C1-Naphthalene, C1-Phenanthrene,
C2-Chrysene, C2-Dibenzothiophene, C2-Fluoranthene, C2-Fluorene, C2-Naphthalene, C2-Phenanthrene,
C3-Naphthalene, C3-Chrysene, C3-Phenanthrene, C3-Dibenzothiophene, C3-Fluorene,
C4-Chrysene, C4-Fluorene, C4-Naphthalene, C4-Phenanthrene,
Total PAHS

Pesticides:

A_BHC (Alpha Lindane), A-Endosulfan, Aldrin, B-Endosulfan, CIS-Chlordane, Dieldrin, Endrin, G-Chlordane, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, Lindane (G-HCH), Methoxychlor, Mirex, O,P'-DDD, O,P'-

DDE, O,P'-DDT, P,P'-DDD, P,P'-DDE, P,P'-DDT, Total DDT, Transnonachlor, Permethrin, Cypermethrin, Deltamethrin.

Polychlorinated Biphenyls (PCBs):

101; 90; 105; 118; 126; 128 ; 138; 153 ; 132; 169; 170; 190; 18; 15; 180; 187; 195; 208;206; 209; 28;29; 44; 50; 52; 66;95;77; 8; 5; 87;Sum PCBs.

Field and Laboratory Methods and Protocols: Field and laboratory methods and protocols shall be consistent with methods and protocols specified in the *National Shellfish Sanitation Program, Guidefor the Control of Molluscan Shellfish (2015 Revision)* and in documentation describing the NH GulfWatch Program, including number of organisms in each sample, and number of duplicates as specified in the GulfWatch program documentation.

Data Management and Communication of Results: All data will be digitially provided to the NHDES Shellfish Program in Microsoft Excel files and in a format consistent with NHDES Environmental Monitoring Database protocols, procedures, and reporting formats.

Compliance with all laws: The Applicant and/or its contractor shall be responsible for complying with all applicable local, state, and federal laws to execute this monitoring program, including but not limited to a NH Fish and Game Department permit to collect and test shellfish.

53. Weather: At least seven (7) days prior to the start of cable installation across Little Bay, the Applicant shall check the weather forecast for the area, shall maintain a written weather log, and shall not proceed with jet plowing for cable installation if the forecast predicts a storm event or excessive wind, which, in combination with tidal influences shall exacerbate the sediment turbidity plume beyond that predicted in the turbidity plume modeling presented in the application.

54. Wind: Beginning at least twelve {12) hours prior to planned cable installation activities, the independent environmental monitor shall monitor the latest National Weather Service weather forecast for Great Bay/Adams Point. If sustained wind speeds in excess of fifteen (IS) mph are forecast, the environmental monitor shall, based upon predicted and observed conditions within Little Bay, and in conjunction with NHDES, decide if cable installation should be allowed to commence.

56. Silt Curtains: To the maximum extent practicable, silt curtains shall be used to minimize turbidity during installation of the underground cables in the Little Bay Estuary. As a minimum, silt curtains shall be installed when divers hand-jet the cables on the west side of Little Bay and along approximately 311 feet (of the total S41 feet) of cable that is to be hand jetted on the east side of the estuary. At least ninety {90) days prior to removal of the silt curtains, the Applicant shall consult with and receive NHDES approval of, a plan to remove the silt curtains in a manner that will minimize turbidity associated with resuspension of the sediment deposited within the silt curtains due to hand-jetting. Monitoring to determine the effectiveness of the plan shall comply with the Water Quality Monitoring and Adaptive Management Plan (condition 4S).

57. Water-lift devices to assist the diver operated hand-jetting of sediment in Little Bay shall not be used.

58. Timing of Hand-Jetting and Jet Plowing: Unless otherwise authorized by NHDES, and to limit the combined impacts of construction activities on Little Bay water quality, hand-jetting shall not be conducted for the period beginning six hours before and ending six hours after jet plow cable installation or within six hours of turbidity criterion exceedances at the mixing zone boundary in the vicinity of the hand-jetting operation(s).

59. Minimum Time Between Cable Installations: Unless otherwise authorized by NHDES, after a cable is buried by jet plowing, installation of the next cable by jet plowing shall not commence for at least five (5) days.

60. Screen on Jet Plow Intake: The end of the jet plow intake pipe shall be equipped with a screen with openings no greater than 2 inches in diameter.

SRP Comprehensive Water Quality Report
Appendix A

60b. Jet Plow Trial Run: If the SEC determines that jet plowing should be allowed for submarine cable installation in Little Bay (instead of other alternatives such as horizontal directional drilling), and that a jet plow trial run (without cable) should be conducted prior to installation of the submarine cable (as recommended by NHDES in a letter dated February 28, 2018 to the SEC if jet plowing is the selected alternative), the Applicant shall, unless otherwise authorized by NHDES, comply with the following:

- At least 90 days prior to the trial, the Applicant shall submit a Jet Plow Trial Plan (JPTP) to NHDES for approval and then implement the approved plan. The JPTP shall describe in detail how and when the trial and monitoring will be conducted and results reported.
- At least 14 days prior to the scheduled start of submarine cable installation in Little Bay the Applicant shall submit a jet plow trial run summary report to the SEC and NHDES that addresses the following:
  - how well the model predicts the sediment plume ;
  - how well the water quality monitoring plan works (including communication between the monitors and jet plow operators) and what if, any, modifications to the plan are necessary;
  - water quality monitoring results within the mixing zone and at the boundary;
  - how measures taken to reduce sediment suspension due to jet plowing (including, but not limited to jet plow speed and pressure reductions) impact water quality;
  - if results suggest that cable installation by jet plowing is likely to meet NH surface water quality standards; and
  - if any additional sediment suspension reduction measures are needed to help ensure surface water quality standards will be met.

Installation of submarine cable in Little Bay shall not proceed until authorized by NHDES and the SEC.

Appendix B
Water Quality Sample Effort by Date, Time and Station for each Cable Installation Event

Jet Plow Trial

Sample Effort

Jet Plow Trial Sample Effort		Number of station depths (surface, mid, bottom)								
		Pre-Construction		Construction						
		Hour								
		-2	-1	1	2	3	4	5	6	7
Location	STATION									
Nearfield North	11	2		2	1	1				
	11A		2	2	1	1				
	12	3			3	3	3	3	4	3
	13		3			3	3	3	3	3
Nearfield South	16	2		2	1					
	17		3		3	3	3	3	3	3
	18							3	3	3
Boundary North	22	3		3	3	3				
	23		3	2	1	1				
	24	3			3	3	3	3	3	3
	25		3			3	3	3	3	3
Boundary South	27							3	3	3
	28							3	3	3
	29							3	3	3
Reference Stations	41	3				4				
	42		3		2					
	43	3		3						

Cable 1

Sample Effort

Cable 1 Sample Effort		Number of station depths (surface, mid, bottom)													
		Pre-Construction		Construction										Post-Construction	
		Hour													
		-2	-1	1	2	3	4	5	6	7	8	10	11	1	2
Location	STATION														
Nearfield North	10	2	2	6	5	2	2								
	11		7	7	7	6	2							2	1
	12	6	6	6	9	9	3		3	3				3	3
	13	3	6	3	3	9			3	3		3	3	3	3
	14	3							3		2	2			
Nearfield South	15	2	2	4	4	2	1							2	
	16	4	2	7	6	6	2							1	
	17	3	8	6	6	9	3	3		3	3			3	3
	18	6	6	3	3	3		3		3	3	3	3		3
	19		5								3	3	3		
Boundary North	21	3	6	6	6	3	3							3	
	22	3	6	12	9	9	3							3	
	23	6	3	9	12	6	6							3	3
	24	3	3	3	3	6	6							3	3
	25	6		3		3					3		3		
	26		2	2							2		1		
Boundary South	27	6	3	3	6	3			3	3	3				
	28		9	3	3	9			3	3	3				3
	29	6	6	3		6	3		3	3					
	30		9			3				3	6				
Reference Stations	41		6	3		6							3		
	42		5			2	2						2		
	43	6	3			3	3			3				3	

Cable 2

Sample Effort

Cable 2 Sample Effort		Number of station depths (surface, mid, bottom)										
		Pre-Construction		Construction							Post-Construction	
		Hour										
		-2	-1	1	2	3	4	5	6	8	1	2
Location	STATION											
Nearfield North	10	2		3	3	2	2	4				
	11	2		4	3	2	4	3				
	12	3	3	3	3		3	9	3	3	6	6
	13	3	3	3	3		3	3	3	3	3	3
	14	2	3						3	2	2	2
Nearfield South	15	3		3	3	2	2	4				
	16	3		4	2	3	6	5				
	17	3	3	3	3		3	9	3	3	3	3
	18	3	3	3	3		3	3	3	3	3	3
	19	1	3						3	2	2	2
Boundary North	21	3		3	3	3	3	6			3	
	22	3		3	3	3	3	3			3	3
	23	3	3	3	9		9	6	3			6
	24	3	3	3	3		6	6	3	3		6
	25	3	3	3	3		3	3	3	3	3	3
	26		3						3	2	1	
Boundary South	27	3	3	3	3		3	3	3	3	3	3
	28	6		3	3		3	3	3	3	3	3
	29	3	3	3	3		3	3	3			3
	30	3	3						3	6		
Reference Stations	41	3	3				3				3	3
	42		3				3				2	
	43	6			3		3				3	3

Cable 3

Sample Effort

Cable 3 Sample Effort		Number of station depths (surface, mid, bottom)									
		Pre-Construction		Construction						Post-Construction	
		Hour									
		-2	-1	1	2	3	4	5	6	1	2
Location	STATION										
Nearfield North	10	3	3	3	3	3	1				
	11	3	3		6		3	2			
	12	3	3	3	3		6	6	3	3	3
	13	3	3	3	3		3	3	6	6	6
	14	3		3			3	2		3	5
Nearfield South	15		2	4	2						
	16	2	2		2	4	1				
	17	3	3	3	3		9	3	3	3	3
	18	3	3	3	3		3	3	3	6	9
	19	3		3			3	3		3	3
Boundary North	21		6	3	3	3					
	22		6	3		6		6			
	23	3	3		6		6	3	3	3	3
	24	3	3	3	3		9		3	6	3
	25	3	3	3	3		3	3		6	9
	26	2	2				2	1		1	1
Boundary South	27	3	3	3	3			3		6	3
	28	3		6	3		3	6		3	3
	29	3	3	3	3		3	3		3	
	30	3	3				3	3		9	
Reference Stations	41	3	3				3		3	3	3
	42	2	2				2				2
	43	3	3				3	3		3	3

Hand Jet

Sample Effort

Hand Jet Sample Effort	Number of station depths (surface, mid, bottom)															
	Pre-Construction				Construction										Post-Construction	
	Hour															
Date	-4	-3	-2	-1	1	2	3	4	5	6	7	8	9	10	1	2
11/11/19				6	4	8	4	6							8	2
11/12/19			2	2	4	4	4	8							4	
11/14/19				8	8	14	12	10	4	8					12	
11/15/19			7	5	5	10	12	12	10	12	6				12	
11/16/19			2	8	6	12	14	8	12	4	8				10	
11/17/19			2	2	2	4	2	6	8						4	
11/18/19			2	10	10	10	8	8	10	12	4				12	
11/19/19				14	8	10	8	6	8	12	14				8	
11/20/19			8	10	7	6	6	6	4	6					14	
11/21/19			2	10	8	12	10	4	10	6	6	6			6	
11/22/19					5	6	6	6	5	4	4					
11/23/19				2	8	10	6	6	2	4	2				11	2
11/24/19					8		6								4	
11/25/19			6	2	8	6	8	10	8	8	8	8			8	
11/26/19				8	8	8	8	8	8	8	6	2				
12/05/19	4	2	8	6	2	4	2	4	6							
12/06/19			8	4	2		6		6		6				6	
12/07/19			4	4	2	4	4	2	4	2	6				5	
12/08/19			4	10	10	2	10	2	4						8	
12/09/19					12		12		10		6				7	
12/10/19				2	10		12		6		6				6	
12/11/19			4	8	9	8	10	8	4	2	4	2	6		7	
12/12/19			6	4	10	8	12		4	2	6				12	
12/13/19				7	6		6		6		6				6	
12/14/19				8	6		6	6	6						6	

Hand Jet Sample Effort	Number of station depths (surface, mid, bottom)															
	Pre-Construction				Construction										Post-Construction	
	Hour															
Date	-4	-3	-2	-1	1	2	3	4	5	6	7	8	9	10	1	2
12/16/19				8	6			6		6	6	6	6		4	
12/17/19				8	6	6	6	6	6	6	6	6	6	6	4	
12/18/19					2	2	2	8		8		12			2	

Appendix C
Calibration Logs for Handheld Meters and Data Loggers

Handheld YSI ProDSS
Calibration Records

Jet Plow Trial
Calibration Records

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 9/24/2019 13:35 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	15F100671
METER ID:	FA02191
INSTRUMENT FIRMWARE VERSION:	1.0.35
INSTRUMENT MODEL NUMBER:	ProDSS Handheld with GPS

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17J100968	3.0.0	9/8/2019 12:50	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.9	19	92.1	DO Air Cal	0.994736		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	18C103619	3.0.0	9/8/2019 12:43	Calibrated	pH		56.72295	95.9454
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.03	19.2	-13.5						
4	19.1	157.8						
10.07	18.9	-179.6						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	9/8/2019 12:37	Calibrated	Cond (µS/cm)	
CALIBRATION VALUE (µS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50000	18.6	Conductivity	41075	6.144799		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16J104921	3.0.0	9/8/2019 12:41	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	20.3	0.45	16.1			
100	20.3	2.69	113.7			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16J104921	3.0.0	9/9/2019 11:20	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	23	0.32	-77.3			
100	23.5	2.01	-2.1			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE

Turbidity	16J104921	3.0.0	9/9/2019 13:25	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	25.2	0.1	-13.3			
124	24.3	1.99	99.1			

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 9/24/2019 13:26 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	16C103921
METER ID:	FA02610
INSTRUMENT FIRMWARE VERSION:	1.1.8
INSTRUMENT MODEL NUMBER:	ProDSS Handheld

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17J102616	3.0.0	9/8/2019 13:58	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.4	19.7	86.2	DO Air Cal	1.073156		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	15L101744	3.0.0	9/8/2019 14:06	Calibrated	pH		47.36517	80.117
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7	20	-35.1						
4	19.7	101.9						
10	19.5	-177.1						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17H101923	3.0.5	9/8/2019 13:57	Calibrated	Cond (µS/cm)	
CALIBRATION VALUE (µS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50000	19.6	Conductivity	42707	6.065312		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19C100962	3.0.0	9/8/2019 14:01	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	19.7	1.5	55.93			
100	19.6	2.67	101.4			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19C100962	3.0.0	9/8/2019 14:03	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	19.6	0.92	-52.38			
100	19.7	2.48	87.81			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19C100962	3.0.0	9/9/2019 9:19	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	15.8	0.84	-14.92			
100	15.2	2.37	94.14			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19C100962	3.0.0	9/9/2019 12:03	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	20.9	0.27	10.62			
124	20.3	2.07	82.43			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19C100962	3.0.0	9/9/2019 12:07	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	19.1	0.27	0.02			
124	19.6	2.02	121.04			

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 9/25/2019 9:45 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	17B102399
METER ID:	FA03123
INSTRUMENT FIRMWARE VERSION:	1.0.35
INSTRUMENT MODEL NUMBER:	ProDSS Handheld with GPS

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17B101348	3.0.0	9/4/2019 18:12	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.2	21.6	83.2	DO Air Cal	1.133925		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17B101348	3.0.0	9/8/2019 14:29	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.8	19.7	78.2	DO Air Cal	1.183161		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	17B103198	3.0.0	9/4/2019 18:15	Calibrated	pH		57.67137	97.5497
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7	22.6	-32.7						
4	22.4	136						
10	22.8	-206.8						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	17B103198	3.0.0	9/8/2019 14:33	Calibrated	pH		56.56081	95.6712
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	20	-37.5						
4	19.5	127.6						
10.07	19.5	-209						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17B100414	3.0.5	9/4/2019 18:14	Calibrated	Cond (µS/cm)	
CALIBRATION VALUE (µS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50000	22.4	Conductivity	44112	5.796322		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17B100414	3.0.5	9/8/2019 14:26	Calibrated	Sp Cond (µS/cm)	
CALIBRATION VALUE (µS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50000	19.6	Sp. Conductance	53296	5.432983		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	17B100409	3.0.0	9/4/2019 18:09	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	22.9	0.12	4.1			
100	23.1	2.28	103.3			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	17B100409	3.0.0	9/8/2019 14:30	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	20.1	0.94	38.6			
100	20.1	2.26	100.5			

Cable 1
Calibration Records

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 10/22/2019 10:18 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	15F100671
METER ID:	FA02191
INSTRUMENT FIRMWARE VERSION:	1.0.35
INSTRUMENT MODEL NUMBER:	ProDSS Handheld with GPS

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17J100968	3.0.0	10/15/2019 14:24	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.6	19.8	92.3	DO Air Cal	0.999778		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16J104921	3.0.0	10/15/2019 13:39	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	22.8	0.04	-3.5			
124	23.3	3.14	1784.5			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16J104921	3.0.0	10/15/2019 13:50	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	22.8	0.09	2			
124	22.5	3.14	124			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17J100968	3.0.0	10/17/2019 8:33	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
95.6	20.7	90.1	DO Air Cal	0.997475		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16J104921	3.0.0	10/17/2019 9:21	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	21.9	0.09	0.1			
124	22.7	3.13	123.9			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	10/18/2019 11:32	Calibrated	ODO (% Sat)	

CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
98.4	19.7	87.2	DO Air Cal	1.043686		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	18C103619	3.0.0	10/18/2019 11:25	Calibrated	pH		61.47383	96.0185
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7	16.8	-16.7						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	15F102114	3.0.0	10/18/2019 12:01	Calibrated	pH		57.67598	97.5575
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	16.2	-10.4						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16J104921	3.0.0	10/18/2019 11:15	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	16.9	0.11	0.4			
124	16.1	3.11	123			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	10/18/2019 11:46	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	15.7	0.03	-0.2			
124	16.1	2.73	122.9			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	10/18/2019 22:04	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.7	12	78.2	DO Air Cal	1.046977		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	15F102114	3.0.0	10/18/2019 22:48	Calibrated	pH		57.67598	97.5575
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.05	14.5	-3.8						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE

Cond and Temp	18K104189	3.0.5	10/18/2019 23:00	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	16.5	Sp. Conductance	49.646	5.36534		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	10/18/2019 22:21	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	15.6	0.03	-0.1			
124	16.8	2.69	122.2			

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 10/22/2019 15:56 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	16C103921
Meter ID:	FA02610
INSTRUMENT FIRMWARE VERSION:	1.1.8
INSTRUMENT MODEL NUMBER:	ProDSS Handheld

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17J102616	3.0.0	10/15/2019 14:39	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.1	23.2	94.8	DO Air Cal	1.018547		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	15L101744	3.0.0	10/15/2019 15:08	Calibrated	pH		49.67504	84.0241
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7	22.2	-39.9						
4	21.5	107.2						
10	21	-187.1						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17H101923	3.0.5	10/15/2019 15:19	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	21.3	Sp. Conductance	58.996	5.140541		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19C100962	3.0.0	10/15/2019 15:33	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	21.3	0.16	3.29			
124	21.5	3.21	202.5			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19C100962	3.0.0	10/15/2019 15:50	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	21.2	0.13	-1.31			
124	21.3	3.19	123.32			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17J102616	3.0.0	10/17/2019 9:28	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
95.1	20.5	88.4	DO Air Cal	1.006986		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19C100962	3.0.0	10/17/2019 10:07	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	20.3	0.12	-0.33			
124	20.4	3.21	124.53			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17J102616	3.0.0	10/18/2019 11:05	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
97.8	18.5	88.6	DO Air Cal	1.003264		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	15L101744	3.0.0	10/18/2019 11:32	Calibrated	pH		49.67504	84.0241
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.05	14	-37.4						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19C100962	3.0.0	10/18/2019 11:24	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	15.9	0.11	-0.24			
124	15	3.2	123.51			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17J102616	3.0.0	10/18/2019 22:03	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.1	10.7	79.7	DO Air Cal	1.003444		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	15L101744	3.0.0	10/18/2019 22:48	Calibrated	pH		49.67504	84.0241

CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)				
7.04	16.1	-29.7				

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17H101923	3.0.5	10/18/2019 22:59	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	16.1	Sp. Conductance	49.08	5.236835		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19C100962	3.0.0	10/18/2019 22:38	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	14.5	0.13	0.63			
124	16.4	3.11	120.6			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17J102616	3.0.0	10/22/2019 12:24	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.2	21.1	93.5	DO Air Cal	1.003264		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	15L101744	3.0.0	10/22/2019 13:02	Calibrated	pH		44.21187	74.7833
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.01	21.9	-30.4						
4	20.2	92.9						
10.06	20.2	-170.2						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17H101923	3.0.5	10/22/2019 13:39	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	21.8	Sp. Conductance	51.469	5.087306		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19C100962	3.0.0	10/22/2019 14:16	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	21.4	0.01	-5.12			
124	21.9	3.06	122.09			

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 10/22/2019 15:56 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	17B102399
METER ID:	FA03123
INSTRUMENT FIRMWARE VERSION:	1.0.35
INSTRUMENT MODEL NUMBER:	ProDSS Handheld with GPS

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17B101348	3.0.0	10/15/2019 14:48	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.5	22.9	86	DO Air Cal	1.122548		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	17B103198	3.0.0	10/15/2019 16:41	Calibrated	pH		60.31503	97.9786
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7	20.9	-42.1						
4	20.5	131.2						
10	20.9	-225.2						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17B100414	3.0.5	10/15/2019 16:51	Calibrated	Sp Cond (µS/cm)	
CALIBRATION VALUE (µS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50000	20.3	Sp. Conductance	52644	5.159707		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	17B100409	3.0.0	10/15/2019 16:54	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	21	0.02	-3.6			
124	21.8	2.49	55.5			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17B101348	3.0.0	10/17/2019 9:38	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
95.5	20.9	81.2	DO Air Cal	1.108321		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE

Turbidity	17B100409	3.0.0	10/17/2019 10:27	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	20.9	0.03	0.2			
124	21.5	2.48	123.7			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17B101348	3.0.0	10/18/2019 11:13	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
98.2	18	81.1	DO Air Cal	1.09259		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	17B103198	3.0.0	10/18/2019 12:18	Calibrated	pH		60.31503	97.9786
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	16	-41.3						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	17B100409	3.0.0	10/18/2019 12:09	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	16.9	0.03	-0.2			
124	16.8	2.5	124.9			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17B101348	3.0.0	10/18/2019 22:08	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.6	9.2	71	DO Air Cal	1.101908		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	17B103198	3.0.0	10/18/2019 22:51	Calibrated	pH		60.31503	97.9786
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	15.8	-33.7						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17B100414	3.0.5	10/18/2019 22:59	Rejected	Sp Cond (µS/cm)	

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17B100414	3.0.5	10/18/2019 23:00	Calibrated	Sp Cond (mS/cm)	

CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	16.2	Sp. Conductance	50.378	5.120963		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	17B100409	3.0.0	10/18/2019 22:33	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	16.6	0.03	0.3			
124	16.9	2.43	120.2			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17B101348	3.0.0	10/22/2019 12:31	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.7	20.7	84.8	DO Air Cal	1.104916		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	17B103198	3.0.0	10/22/2019 12:55	Calibrated	pH		58.84966	99.5427
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	21	-33.7						
4	19.7	134.5						
10.06	20	-215.7						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17B100414	3.0.5	10/22/2019 13:33	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	21.3	Sp. Conductance	50.264	5.094116		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	17B100409	3.0.0	10/22/2019 14:13	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	22.1	0.05	0.9			
124	22.6	2.47	126.4			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	17B100409	3.0.0	10/22/2019 14:51	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	21.6	0.03	-1			

124	21.5	2.48	124.6			

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 10/22/2019 15:56 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	19J100181
METER ID:	FA04105
INSTRUMENT FIRMWARE VERSION:	1.2.6
INSTRUMENT MODEL NUMBER:	ProDSS Handheld

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	10/17/2019 15:52	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
98.5	21.2	92.1	DO Air Cal	1.011671		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100907	3.0.0	10/17/2019 15:26	Calibrated	pH		55.81865	94.352
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.01	23.3	-12.1						
10.02	23.2	-175.2						
4	23.2	158.2						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	19H104114	3.0.5	10/17/2019 15:29	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
7	23.2	Sp. Conductance	6.922	5.382509		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	10/17/2019 15:39	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	23.8	0.08	3.11			
124	23.7	2.5	120.06			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	10/18/2019 11:14	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
98.4	18.6	88.2	DO Air Cal	1.014915		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100907	3.0.0	10/18/2019 12:30	Calibrated	pH		55.81865	94.352
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.03	17.6	-20						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	10/18/2019 12:13	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	16.4	0.02	-3.3			
124	16.7	3.1	154.3			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	10/22/2019 12:32	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.8	22.1	94.5	DO Air Cal	1.011807		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100907	3.0.0	10/22/2019 13:18	Calibrated	pH		58.67817	99.1855
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.01	23.1	-13.4						
4	20.4	154.8						
10.06	20.2	-194.8						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	10/22/2019 13:48	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	22.2	Sp. Conductance	50.242	5.095374		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	10/22/2019 14:30	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	22	0	0			
124	22.1	3.19	126.96			

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 10/22/2019 15:56 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	19J100182
METER ID:	FA04106
INSTRUMENT FIRMWARE VERSION:	1.2.6
INSTRUMENT MODEL NUMBER:	ProDSS Handheld

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19J100842	3.0.0	10/15/2019 15:42	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.8	21	91	DO Air Cal	1.032949		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100908	3.0.0	10/15/2019 17:02	Calibrated	pH		56.62093	95.7081
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	21.5	-14.8						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100908	3.0.0	10/15/2019 17:03	Calibrated	pH		59.53463	99.3667
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7	21.3	-13.8						
4	21.3	158.4						
10.04	21.4	-196.5						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	19H104146	3.0.5	10/15/2019 17:10	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	21	Sp. Conductance	49.924	5.293137		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106267	3.0.0	10/15/2019 17:15	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	22.4	0	-3.16			
124	22.9	3.17	137.33			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19J100842	3.0.0	10/17/2019 9:36	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
95.7	21.7	88	DO Air Cal	1.035674		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106267	3.0.0	10/17/2019 10:21	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	21.6	0.01	0.39			
124	22.6	3.17	124.22			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19J100842	3.0.0	10/18/2019 11:10	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
98.5	17.6	86	DO Air Cal	1.025616		

SLOPE (mV/pH) SLOPE (%)

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
pH/ORP	19J100908	3.0.0	10/18/2019 11:52	Calibrated	pH	
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)				
7.04	15.1	-16.8				

59.53463 99.3667

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106267	3.0.0	10/18/2019 11:44	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	17.3	0	-0.24			
124	17.1	3.18	124.35			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19J100842	3.0.0	10/22/2019 12:31	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.9	21.2	91.4	DO Air Cal	1.033714		

SLOPE (mV/pH) SLOPE (%)

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
pH/ORP	19J100908	3.0.0	10/22/2019 13:10	Calibrated	pH	
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)				

59.57645 99.2961

7.02	21.8	-13				
4	20.3	154.2				
10.06	20.3	-200.4				

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	19H104146	3.0.5	10/22/2019 13:45	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	22.3	Sp. Conductance	50.118	5.239658		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106267	3.0.0	10/22/2019 14:24	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	22.8	0.06	2.44			
124	23.2	2.93	115.76			

10/15/19 13:00

15F101743	FA02191	
pH 7 – precal	7.06	postcal 7.00
pH 4 – precal	3.95	postcal 4.00
pH 10 – precal	10.45	postcal 10.00
Conductivity 50 mS/cm – precal	60.005	post cal 50.00 mS/cm
Turbidity 0 FNU precal	-3.5, 2.0	post cal 0, 0 FNU
" 124 FNU precal	1,786, 124	post cal 124, 124
DO% precal	99.1%	post cal 99.6%

16B101219	FA02610	
pH 7 – pre cal	7.07	post cal 7.00
pH 4 – pre cal	3.92	post cal 4.00
10 – pre cal	10.22	post cal 10.00
Cond. 50 mS/cm – precal	58.996	Post cal 50.000
Turb. 0 FNU pre cal	3.29, -1.30	post cal 0.00, 0.00
" 124 FNU post cal	202.50, 123.31	post cal 124.00, 124.0
DO% pre cal	104.4 %	post cal 99.1%

17B103258	FA03123	
DO% pre cal	104.8%	post cal 99.5%
pH 7	7.07	7.00
pH 4	3.96	4.00
pH 10	10.36	10.00
Sp Cond	52.644	50.000
Turb 0	-3.6	0.0
Turb 124	55.5	124.0

15F101742 FA02192

DO %	precal	119.8	post cal	99.8
pH 7		7.07, 7.04 7.08		7.00, 7.00 7.00
pH 4		4.15		4.0
pH 10		9.96		10.0
Sp Cond		54.06		50.0
Turb 0		-6.3, 0.2		0.0, 0.0
Turb 124		>10,000+, 123.1		124, 124

19H103687 FA04106

DO %	precal	101.4%	post cal	99.8%
pH 7		7.02		7.00
pH 4		3.92		4.00
pH 10		10.27		10.00
Sp Cond		49.924		50.00
Turb 0		-3.17		0.00
Turb 124		137.34		124.0

10/17/19 09:30

16B10219 FA02610

DO% : pre cal - 96.1 % post cal - 95.1%

pH 7.0 : Check = 6.94

Conductivity 50 mS/cm : check : 49.4 mS/cm

Turbidity 0 FNU : pre cal : -0.32 FNU post cal : 0.00 FNU

" 124 FNU : pre cal : 124.4 FNU post cal : 124.00 FNU

[illegible]53687 FA04106

DO% : pre cal - 95.5% post cal - 95.7%

Turb. 0 FNU : pre cal : 0.39 FNU post cal : 0.00 FNU

Tub. 124 FNU : pre cal : 124.20 FNU post cal : 124.00 FNU

pH 7.0 : check 6.94

Cond: 50 mS/cm : check : 50.230 mS/cm

15F101743 FA02191

DO% : pre cal - 95.8% post cal - 95.6%

Turb. 0 FNU pre cal: 0.10 FNU post cal: 0.00 FN

Turb. 124 FNU pre cal: 123.9 FNU post cal: 124.1

pH 7.0 : check: 7.12

Cond. 50 mS/cm check: 49.860 mS/cm

17B103258 FA03123

DO% pre cal - 96.7% post cal - 95.5%

Turb. 0 FNU pre cal: 0.2 FNU post cal: 0.00 FNU

Turb. 124 FNU pre cal: 123.8 FNU post c...

pH 7.0 : check: 6.94

Cond. 50 mS/cm check: 50.23 mS/cm

15F101742 FA02192

DO% pre cal - post cal -

Not Functional

10/18/10 11:05 Cal. check
FA02191 - Bad sensors

	Precal	postcal
Turb 0	0.4	0.0
Turb 124	123.0	124
pH 7	6.97	7.00

Done ✓

FA02610	precal	postcal
Turb 0	-0.25	0.00
Turb 124	123.52	124.0
pH 7	6.95	7.00
Sp Cond		
DO	98.2	97.8

Done ✓

FA04106	precal	postcal
Turb 0	-0.24	0.0
Turb 124	124.35	124.0
pH 7	7.01	7.04
Sp Cond		
DO	99.4	98.5

Done ✓

FA 03123	precal	Post cal	
Turb 0	-0.2	0.0	
Turb 124	124.9	124.0	
pH 7	6.93	7.04	Done ✓
Sp Cond			
DO	99.6	98.2	

FA 04103	precal	Post cal	New instrument
Turb 0	-3.29	0.0	
Turb 124	154.33	124.0	
pH 7	7.20	7.03	
Sp Cond			
DO	98.1	98.4	

FA 02192 Stand alone FA 02191 Handheld	precal	Post cal	New combo
Turb 0	-0.2	0.0	
Turb 124	122.9	124.0	Done ✓
pH 7	6.82	7.04	
Sp Cond			
DO	100.6	98.4	

10/16/19 2300 Post Cal

19H103687	precal	postcal
DO%	100.1	99.9
Turb 0	-0.11	0.0
Turb 124	122.2	124.0
PH 7	6.94	7.05
Sp Cond	~~49.989~~ 50.417	50

16B 101219	precal	postcal
DO%	99.9	99.1
Turb 0	0.65	0.0
Turb 124	120.62	124.0
PH 7	6.89	7.04
	49.077	50.0

15F 101742	precal	postcal
DO%	99.3	99.7
Turb 0	-0.1	0.0
Turb 124	122.37	124.00
PH 7	6.92	7.05
Sp. Cond	49.635	50.0

17B103258	precal	postcal
DO%	98.8	99.6
Turb 0	0.3	0.0
Turb	120.2	124.0
PH 7	6.41	7.04
Sp. Cond	~~50.401~~ 50.378	50.00

19H103688	precal	postcal
DO%	100.5	99.7
Turb 0	-0.49	0.00
Turb 124	124.89	124.00
PH 7	6.66	7.06
Sp. Cond	49.930	50.0

10/22/19 12:17 YSI ProDSS calibrations previous cal. 10/16/19 23:00

FA02610 S/N 16C103921

~~Temp~~	pre cal	post cal
DO	99.2	99.2
~~Wet~~ Temp	~~21.1~~ 21.1	21.2
pH 4	4.53	4.00
pH 7	7.05	7.01
pH 10	9.91	10.06
Turb 0	-5.12	0.00
Turb 124	122.09	124.00
Cond	51.469	50.000

FA02191 handheld / FA02192 sonde S/N 15F100671

	precal	postcal	
Temp	21.3	21.3	
DO	99.8	99.8	
pH 4	4.12	4.00	
pH 7	7.10	7.01	
pH 10	10.26	10.05	
Turb 0	0.1	0.0	Turb sensor stopped working
Turb 124	Fail	Fail	
Cond	51.151	50.000	

FA03123 S/N 17B102399

	precal	postcal
Temp	20.7	20.7
DO	99.4	99.7
pH4	4.20	4.00
pH7	7.04	7.02
pH10	10.11	10.06
Turb 0	0.9	0.0
Turb 124	126.4	124.0
cond	50.264	50.000

Recal. Turb @ 14:52

Turb	Pre	Post
0	-1.0	0.0
Turb 124	124.6	124.0

FA04106 S/N 19J100182

	precal	postcal
Temp	21.2	21.2
DO	99.81	99.7
pH 4	4.25	4.00
pH 7	7.10	7.02
pH 10	10.30	10.06
Turb 0	2.41	0.00
Turb 124	115.76	124.00
Cond	50.118	50.000

FA04105 S/N 19J100181

	precal	postcal
Temp	22.1	22.1
DO	99.3	99.8
pH4	4.24	4.00
pH7	7.30	7.01
pH10	10.60	10.06
Turb 0	0.00	0.00
Turb 124	126.96	124.00

10/18/19 10:30 Side by side reading in a bucket of water

Instruments last calibrated / checked 10/17/19 10:30

	T	DO	DO	pH	Cond	Turb
FA02192 ~~bad battery~~	16.2	9.44	96.2	7.52	0.320	3.8
FA02191 bad sensors	—	—	—	7.55	—	4.2
FA02610	16.1	9.25	94.0	7.84	0.334	3.83
FA04106	16.3	9.26	94.4	7.51	0.309	3.60
FA03123	15.8	9.32	94.1	7.64	0.329	3.80
FA04105 New	16.4	9.13	93.4	7.62	0.313	1.87
FA02192 Sonde FA02191 Handheld	16.4	9.40	96.1	7.45	0.314	3.6

10/22/19 11:35 YSI Pro DSS side by side readings in bucket of water. Previous deployment 10/19/19. Most recent cal. 10/18/19 23:00

Sonde	Temp	DO	DO	Sp. Cond.	pH	Turb.
FA02610	19.6	97.0%	8.89	0.388 mS/cm²	7.42	2.24
FA02191 / FA02192 Handheld meter	19.6	97.6%	8.93	0.389	7.80	3.1
FA03123	19.1	96.6	~~8.88~~ 8.94	0.384	7.65	3.1
FA04106	19.6	96.4	8.82	0.385	7.90	3.53
FA04105	19.7	97.1	8.88	~~0.~~ no reading bad sensor swapped sensor	7.70	3.44

Post-cal reading 14:42

Sonde	Temp	DO	DO	Sp Cond	pH	Turb	Turb @14:52
FA02610	20.0	96.7	8.79	0.375	6.90	3.34	3.42
FA02191/ FA02192	Not working						
FA03123	19.5	96.9	8.89	0.381	7.22	2.2 → recal.	3.2
FA04106	20.0	97.7	8.86	0.382	7.14	2.87	2.80 ~~2.78~~
FA04105	20.0	97.7	8.88	0.378	6.93	3.36	3.28

Cable 2
Calibration Records

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 11/4/2019 15:19 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	15F100671
METER ID:	FA02191
INSTRUMENT FIRMWARE VERSION:	1.0.35
INSTRUMENT MODEL NUMBER:	ProDSS Handheld with GPS

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	10/28/2019 7:24	Calibrated	ODO (mg/L)	
CALIBRATION VALUE (mg/L)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
9.15	20.6	88.4	DO mg/L	1.081401		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	15F102114	3.0.0	10/28/2019 7:38	Calibrated	pH		59.25051	99.7793
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	21.3	-16.9						
4	21.5	156.6						
10	21.6	-194.6						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	10/28/2019 8:18	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	22.2	Sp. Conductance	49.47	5.303271		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	10/28/2019 8:56	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	20.6	0.06	-1.8			
124	21.6	2.89	111.6			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	10/28/2019 21:44	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
101.3	14	82.4	DO Air Cal	1.040762		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)

pH/ORP	15F102114	3.0.0	10/28/2019 21:51	Calibrated	pH		58.26139	98.5477
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	15.3	-23.2						
4	14.6	148.2						
10.13	14.4	-196.4						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	10/28/2019 22:09	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	14.8	Sp. Conductance	50.546	5.246017		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	10/28/2019 22:24	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	14.9	0.05	-0.3			
124	14.9	2.95	126.5			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	10/30/2019 10:08	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
100.4	20.2	90.1	DO Air Cal	1.040425		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	15F102114	3.0.0	10/30/2019 11:16	Calibrated	pH		58.86203	99.5636
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	20.3	-17.6						
4	19.5	157.1						
10.06	20	-193.2						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	10/30/2019 11:42	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	20.5	Sp. Conductance	49.577	5.290773		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	10/30/2019 11:29	Calibrated	Turbidity (FNU)	

CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	18.8	0.08	1.2			
124	19.5	2.95	123.9			

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 11/4/2019 15:18 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	16C103921
METER ID:	FA02610
INSTRUMENT FIRMWARE VERSION:	1.1.8
INSTRUMENT MODEL NUMBER:	ProDSS Handheld

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17J102616	3.0.0	10/28/2019 7:31	Calibrated	ODO (mg/L)	
CALIBRATION VALUE (mg/L)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
8.66	21.6	93.1	DO mg/L	1.003436		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV	SLOPE (%)
pH/ORP	15L101744	3.0.0	10/28/2019 8:24	Calibrated	pH		46.1179	78.0073
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	20.7	-39.3						
4	20.6	97.1						
10.06	20.3	-177.9						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17H101923	3.0.5	10/28/2019 8:35	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	20.9	Sp. Conductance	49.257	5.164179		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19C100962	3.0.0	10/28/2019 8:54	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	20.7	0.01	-0.05			
124	21.4	3.1	125.28			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17J102616	3.0.0	10/28/2019 21:44	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
100.7	17.2	90	DO Air Cal	0.996608		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV	SLOPE (%)
pH/ORP	15L101744	3.0.0	10/28/2019 21:52	Calibrated	pH		40.49562	68.4973
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	15.9	-38.5						
4	15.4	78.5						
10.12	15.2	-161.2						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17H101923	3.0.5	10/28/2019 22:06	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	14.9	Sp. Conductance	50.194	5.144326		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19C100962	3.0.0	10/28/2019 22:13	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	19.6	0	-0.21			
124	16.3	3.11	124.47			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17J102616	3.0.0	10/30/2019 10:07	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.9	20	93.1	DO Air Cal	0.9973		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV	SLOPE (%)
pH/ORP	15L101744	3.0.0	10/30/2019 11:47	Rejected	pH		0	0
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	21.1	-39.2						
4	20.5	94.8						
10.06	20.3	-165.6						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV	SLOPE (%)
pH/ORP	15L101744	3.0.0	10/30/2019 12:06	Calibrated	pH		44.46786	75.2163
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	20.1	-30.4						
4	19.7	96.4						

10.06	19.6	-168.3				

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17H101923	3.0.5	10/30/2019 12:18	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	20.5	Sp. Conductance	49.994	5.144876		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19C100962	3.0.0	10/30/2019 12:22	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	19.2	0	-0.01			
124	20.2	3.12	124.43			

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 11/4/2019 15:16 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	17B102399
METER ID:	FA03123
INSTRUMENT FIRMWARE VERSION:	1.0.35
INSTRUMENT MODEL NUMBER:	ProDSS Handheld with GPS

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17B101348	3.0.0	10/28/2019 7:30	Calibrated	ODO (mg/L)	
CALIBRATION VALUE (mg/L)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
8.9	20.5	84	DO mg/L	1.106119		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	17B103198	3.0.0	10/28/2019 8:24	Calibrated	pH		60.00982	98.4949
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	21.3	-41.6						
10.06	20.4	-224.9						
4	20.5	132.7						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17B100414	3.0.5	10/28/2019 8:39	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	21.1	Sp. Conductance	49.774	5.117202		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	17B100409	3.0.0	10/28/2019 8:44	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	21.2	0	-1.4			
124	21.5	2.39	119.3			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17B101348	3.0.0	10/28/2019 21:43	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
101.1	16.1	81.1	DO Air Cal	1.093295		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)

pH/ORP	17B103198	3.0.0	10/28/2019 21:52	Calibrated	pH		58.81753	99.4884
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	16.1	-38.2						
4	14.8	128.8						
10.13	14.5	-219						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17B100414	3.0.5	10/28/2019 22:07	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	13.9	Sp. Conductance	50.538	5.062813		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	17B100409	3.0.0	10/28/2019 22:13	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	19.9	0	-0.1			
124	16.6	2.45	127.4			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17B101348	3.0.0	10/30/2019 10:10	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
100.3	19.4	84	DO Air Cal	1.099201		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	17B103198	3.0.0	10/30/2019 10:46	Calibrated	pH		58.64834	99.2022
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.03	18.5	-41.7						
4	17.7	130.5						
10.08	18.5	-217.7						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17B100414	3.0.5	10/30/2019 11:00	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	18.7	Sp. Conductance	49.671	5.096364		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	17B100409	3.0.0	10/30/2019 11:05	Calibrated	Turbidity (FNU)	

CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	21.1	0	0			
124	19.8	2.47	124.8			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	17B101348	3.0.0	11/1/2019 5:26	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
97.6	22.7	85.5	DO Air Cal	1.10535		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	17B103198	3.0.0	11/1/2019 5:29	Calibrated	pH		59.39822	99.5294
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.01	21.9	-42.1						
4	21.9	130.7						
10.03	22.2	-223.9						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17B100414	3.0.5	11/1/2019 5:39	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	22.3	Sp. Conductance	49.502	5.147479		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	17B100409	3.0.0	11/1/2019 5:42	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	22.9	0	-0.1			
124	23.7	2.46	123.6			

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 11/4/2019 15:12 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	19J100181
METER ID:	FA04105
INSTRUMENT FIRMWARE VERSION:	1.2.6
INSTRUMENT MODEL NUMBER:	ProDSS Handheld

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	10/28/2019 7:29	Calibrated	ODO (mg/L)	
CALIBRATION VALUE (mg/L)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
8.78	21.3	92.7	DO mg/L	1.012349		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV	SLOPE (%)
pH/ORP	19J100907	3.0.0	10/28/2019 8:00	Calibrated	pH		57.8396	97.7681
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	21.6	-16.8						
4	22	153.5						
10.05	20.9	-192						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	10/28/2019 8:14	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	21.9	Sp. Conductance	49.627	5.133649		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	10/28/2019 9:07	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	21.4	0	-0.15			
124	21.7	3.17	123.07			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	10/28/2019 21:44	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
101.3	16.6	88.7	DO Air Cal	1.005776		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV	SLOPE (%)
pH/ORP	19J100907	3.0.0	10/28/2019 21:58	Calibrated	pH		57.906	97.8803
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	15.7	-21.8						
4	15.4	149						
10.13	14.6	-193.9						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	10/28/2019 22:18	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	14.4	Sp. Conductance	50.621	5.07084		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	10/28/2019 22:27	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	15	0.01	0.18			
124	16.1	3.24	126.76			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	10/28/2019 22:52	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	15.9	0.14	5.35			
124	14.6	3.25	124.51			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	10/30/2019 10:11	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
100.4	20.6	93.8	DO Air Cal	1.003193		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV	SLOPE (%)
pH/ORP	19J100907	3.0.0	10/30/2019 10:13	Calibrated	pH		57.81494	97.7264
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	17	-19.3						
4	16.7	150.6						
10.09	17.4	-192.1						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	10/30/2019 10:25	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	17.4	Sp. Conductance	49.636	5.108061		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	10/30/2019 10:32	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	19.5	0.12	-0.98			
124	17.6	3.25	123.99			

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 11/4/2019 15:24 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	19J100182
METER ID:	FA04106
INSTRUMENT FIRMWARE VERSION:	1.2.6
INSTRUMENT MODEL NUMBER:	ProDSS Handheld

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19J100842	3.0.0	10/28/2019 7:27	Calibrated	ODO (mg/L)	
CALIBRATION VALUE (mg/L)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
8.94	20.9	91.4	DO mg/L	1.033628		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100908	3.0.0	10/28/2019 8:00	Calibrated	pH		59.67595	99.1279
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	21.2	-14.5						
4	20.8	160						
10.05	20.6	-195.8						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	19H104146	3.0.5	10/28/2019 8:15	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	20.8	Sp. Conductance	49.621	5.279883		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106267	3.0.0	10/28/2019 8:43	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	21.9	0.05	-0.43			
124	23.4	3.2	135.46			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19J100842	3.0.0	10/30/2019 10:06	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
100.6	19.5	90.8	DO Air Cal	1.021247		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100908	3.0.0	10/30/2019 12:41	Calibrated	pH		58.63349	99.11
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.01	22	-17.1						
4	21	152.8						
10.06	20.3	-196.9						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	19H104146	3.0.5	10/30/2019 12:49	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	21	Sp. Conductance	49.456	5.291076		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106267	3.0.0	10/30/2019 13:06	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	20	0.01	0.02			
124	21.3	3.17	125.05			

23840.039 SRP Turbidity Study - YSI ProDSS Calibration

Employee Name(s): Brian Emlaw

	Meter ID / Serial No. FA04106 / 19H103687		Meter ID / Serial No.		
	Date 10/28/19 Time 07:15		Date 10/28/19 Time 21:48		
	Calibration values		Calibration values		Notes
	pre-cal	post-cal	pre-cal	post-cal	
Temperature (During DO cal.)	21.4	21.4	16.7	16.7	
DO (mg/l)	8.85	8.86	10.13	10.03	
DO %	100.1	100.2	102.4	101.4	
Baro (mm Hg)	759.8	759.8	770.8	770.8	
pH 4	3.96	4.00	4.12	4.00	
pH 7	6.94	7.02	7.09	7.04	
pH 10	10.02	10.05	10.16	10.13	
Specific Cond.	49.621	50.0	50.445	50.000	
Turbidity 0	-0.43	0.00	-1.55	0.00	
Turbidity 123	135.46	124.00	121.85	124.00	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 10/28/19 Time 0917 QC Sample Type: Bucket of tap water

Employee Name(s): Detty, Emlaw

Most Recent Deployment [ ] Most Recent Calibration [ ] [ ]

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	19.1	99.0	9.15	0.398	~~6.98~~ 6.66	2.58	
FA04106	19.4	99.1	9.11	0.403	7.24	1.85	
FA03123	18.8	98.1	9.12	0.400	7.10	3.50	
FA02610	19.3	99.9	9.01	0.400	7.07	2.78	
FA02192	19.4	102.2	9.39	0.402	7.31	2.30	

Date 10/28/19 Time 2130 QC Sample Type: Bucket of water from Little Bay

Employee Name(s): Detty, Emlaw, Grayson, Baker

Most Recent Deployment 10/28/19 Most Recent Calibration 10/28/19 0810

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	12.0	90.2	8.16	40.612	7.71	161	
FA02610	12.0	90.8	8.24	40.603	7.18	2.49	
FA03123	11.4	90.3	8.37	40.654	7.63	1.50	
FA04105	11.9	90.6	8.30	40.810	7.69	2.12	
FA02192	12.0	94.2	8.62	40.677	7.69	1.70	

Date 10/28/19 Time 2235 QC Sample Type: Bucket of water from Little Bay

Employee Name(s): Detty, Emlaw,

Most Recent Deployment 10/28/19 Most Recent Calibration 10/28/19 2148

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	12.2	90.1	8.23	40.182	7.55	1.98	
FA02610	12.2	89.5	8.17	40.445	7.46	2.00	
FA03123	11.7	89.4	8.26	40.151	7.64	2.00	
FA04105	12.3	90.6	8.26	40.177	~~7.49~~ 7.48	2.10	
FA02192	12.3	91.1	8.30	40.081	7.60	~~2.00~~ 2.00	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 10/30/19 Time 0930 QC Sample Type: Bucket of tap water

Employee Name(s): Brian Emlaw

Most Recent Deployment 10/29/19 Most Recent Calibration 10/28/19 2148

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	16.5	101.5	9.91	0.375	7.84	0.30	
FA02610	16.4	101.0	9.87	0.375	7.91	0.71	
FA02192	16.5	101.6	9.92	0.395	7.62	0.50	
FA03123	15.9	101.0	9.97	0.357	7.52	0.60	
FA04105	16.5	102.2	9.98	0.349	7.75	0.40	

Date 10/30/19 Time 1255 QC Sample Type: Bucket of tap water

Employee Name(s): Brian Emlaw

Most Recent Deployment 10/29/19 Most Recent Calibration 10/30/19 0940

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	18.6	104.4	9.75	0.393	6.98	0.68	
FA02610	18.4	104.3	9.78	0.392	6.83	0.75	
FA02192	18.5	104.7	9.80	0.395	7.37	-0.70	
FA03123	17.9	104.7	9.92	0.394	7.22	0.40	
FA04105	18.5	105.1	9.84	0.393	7.35	0.49	

Date ____ Time ____ QC Sample Type: ____

Employee Name(s): ____

Most Recent Deployment ____ Most Recent Calibration ____

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT

Cable 3
Calibration Records

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 11/23/2019 18:32 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	15F100671
METER ID:	FA02192
INSTRUMENT FIRMWARE VERSION:	1.0.35
INSTRUMENT MODEL NUMBER:	ProDSS Handheld with GPS

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	11/5/2019 8:36	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
100.2	21.1	91.2	DO Air Cal	1.038694		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	15F102114	3.0.0	11/5/2019 11:05	Calibrated	pH		58.92813	99.6755
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.01	22.8	-16.8						
4	21.8	154.3						
10.04	21.5	-193.7						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	11/5/2019 11:20	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	22	Sp. Conductance	50.057	5.284827		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	11/5/2019 11:33	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	22.4	0.04	-1.7			
124	22.5	3.01	126.6			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	11/6/2019 16:53	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
101	13.6	83.6	DO Air Cal	1.018129		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	15F102114	3.0.0	11/6/2019 17:04	Calibrated	pH		57.15279	96.6725
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	16.2	-23.3						
4	16.5	145.4						
4	16.5	145.4						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	15F102114	3.0.0	11/6/2019 17:11	Calibrated	pH		57.38704	97.0687
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.03	17	-23.1						
4	17.8	145.9						
10.1	17	-194.9						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	11/6/2019 17:22	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	16.9	Sp. Conductance	49.98	5.28696		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	11/6/2019 17:24	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	13.1	0.04	0.1			
124	15.1	2.94	121.3			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	11/10/2019 21:32	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.4	20.1	89.1	DO Air Cal	1.038248		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	15F102114	3.0.0	11/10/2019 22:08	Calibrated	pH		59.68813	99.039
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	19.8	-22.1						
4	19.6	145.7						

10.06	19.9	-209.2				

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	11/10/2019 22:17	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	19.4	Sp. Conductance	49.544	5.335591		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	11/10/2019 22:19	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	19.1	Sp. Conductance	50.442	5.288939		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	11/10/2019 22:25	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	19.1	0.03	-0.3			
124	19.6	3	126.5			

23840.039 SRP Turbidity Study - YSI ProDSS Calibration

Employee Name(s): B. Emlaw

	Meter ID / Serial No. FA02610/16C103921		Meter ID / Serial No. FA02610/16C103921		
	Date 11/05/19 Time 0820		Date 11/06/19 Time 1643		
	Calibration values		Calibration values		Notes
	pre-cal	post-cal	pre-cal	post-cal	
Temperature (During DO cal.)	20.3	20 3	13.7	13.7	
DO (mg/l)		9.01			
DO %	99.8	99.7	104.4	100.5	
Baro (mm Hg)	757.4	757.4	763.7	763.7	
pH 4	4.08/3.93	4.00/4.00	4.21	4.00	
pH 7	7.09/7.02	7.01/7.02	7.04	7.04	
pH 10	10.19/10.20	10.05/10.04	10.02	10.10	
Specific Cond.	50.012	50.0	50.090	50.0	
Turbidity 0	-0.02	0.0	0.13	0.0	
Turbidity 123	124.21	124.0	122.80	124.0	

* pH out of range

* pH out of range

23840.039 SRP Turbidity Study - YSI ProDSS Calibration

Employee Name(s): B. Emlaw

	Meter ID / Serial No. FA03123 / 17B102399		Meter ID / Serial No. FA03123 / 17B102399		
	Date 11/05/19	Time 0820	Date 11/06/19	Time 1693	
	Calibration values		Calibration values		Notes
	pre-cal	post-cal	pre-cal	post-cal	
Temperature (During DO cal.)	19.4	19.4	12.7	12.7	
DO (mg/l)		9.20			
DO %	101.0	100.1	101.6	100.9	
Baro (mm Hg)	760.8	760.8	767.0	767.0	
pH 4	4.06	4.00	3.88	4.00	
pH 7	7.01	7.02	6.89	7.04	
pH 10	10.07	10.05	10.08	10.11	
Specific Cond.	50.215	50.0	50-298	50.0	
Turbidity 0	0.1	0.0	0.1	0.0	
Turbidity 123	124.1	124.0	124.4	124.0	

23840.039 SRP Turbidity Study - YSI ProDSS Calibration

Employee Name(s): Detty

	Meter ID / Serial No. FA02610 16B101219		Meter ID / Serial No. FA03123 17B103258		
	Date 11/10/19 Time 2120		Date 11/10/19 Time 2120		
	Calibration values		Calibration values		Notes
	pre-cal	post-cal	pre-cal	post-cal	
Temperature (During DO cal.)	19.6	19.7	19.4	19.5	
DO (mg/l)	8.67	9.04	9.05	9.12	
DO %	94.7	98.9	98.4	99.3	
Baro (mm Hg)	751.3	751.3	754.51	754.51	
pH 4	4.07	4.00	4.22	4.00	
pH 7	7.17	7.02	7.14	7.02	
pH 10	10.20	10.07	10.27	10.07	
Specific Cond.	49.934	50.0	49.561	50.0	
Turbidity 0	0.00	0.0	-0.1	0.0	
Turbidity 123	124.05	124.0	123.5	124.0	

↑ says pH cal. out of range

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 11/23/2019 18:42 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	19J100181
METER ID:	FA04105
INSTRUMENT FIRMWARE VERSION:	1.2.6
INSTRUMENT MODEL NUMBER:	ProDSS Handheld

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	11/5/2019 8:29	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
100.2	19.4	92.2	DO Air Cal	1.001006		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100907	3.0.0	11/5/2019 9:18	Calibrated	pH		58.06263	98.1451
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	21.8	-16.7						
4	21	154.4						
10.05	20.8	-191.9						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	11/5/2019 9:26	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	21.3	Sp. Conductance	49.589	5.152159		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	11/5/2019 9:35	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	21.9	0.12	0			
124	22.4	3.27	124.84			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	11/6/2019 16:52	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
101	12.7	85.5	DO Air Cal	0.98101		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100907	3.0.0	11/6/2019 17:00	Calibrated	pH		57.70634	97.5428
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	16.9	-16.5						
4	16.7	150.4						
10.11	16.3	-191.8						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	11/6/2019 17:15	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	16.3	Sp. Conductance	49.997	5.152351		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	11/6/2019 17:26	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	14.5	0.1	-0.9			
124	15.4	3.16	119.37			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	11/10/2019 21:34	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.4	20.2	92.7	DO Air Cal	0.999299		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100907	3.0.0	11/10/2019 21:39	Calibrated	pH		58.53975	98.9516
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	20.1	-17.5						
4	19.5	155.3						
10.07	19.4	-193.1						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	11/10/2019 21:51	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		

50	18.9	Sp. Conductance	50.279	5.123994		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	11/10/2019 21:58	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	20.1	0	-3.96			
124	20.2	3.17	123.84			

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 11/23/2019 18:46 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	19J100182
METER ID:	FA04106
INSTRUMENT FIRMWARE VERSION:	1.2.6
INSTRUMENT MODEL NUMBER:	ProDSS Handheld

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19J100842	3.0.0	11/5/2019 8:28	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
100.3	18.5	89.9	DO Air Cal	1.015734		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100908	3.0.0	11/5/2019 8:41	Calibrated	pH		59.77612	98.9586
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	21.5	-14						
4	21.3	161.9						
10.05	21.1	-194.8						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	19H104146	3.0.5	11/5/2019 8:51	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	21.4	Sp. Conductance	50.085	5.282073		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106267	3.0.0	11/5/2019 9:03	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	22.9	0	-0.62			
124	22.9	3.22	125.98			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19J100842	3.0.0	11/10/2019 21:30	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.5	19.9	90.5	DO Air Cal	1.023518		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100908	3.0.0	11/10/2019 22:32	Calibrated	pH		60.04719	98.5004
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	19.9	-18.6						
4	19.5	155.9						
10.06	19.8	-201.4						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	19H104146	3.0.5	11/10/2019 22:41	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	19.2	Sp. Conductance	49.928	5.28635		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106267	3.0.0	11/10/2019 22:52	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	20.7	0.06	0.53			
124	21	3.22	124.1			

23840.039 SRP Turbidity Study - YSI ProDSS Calibration

Employee Name(s): B. Emlaw

	Meter ID / Serial No. FA04106 / 19J100182		Meter ID / Serial No. FA04106 / 19J100182		
	Date 11/05/19	Time 0820	Date 11/06/19	Time 1643	
	Calibration values		Calibration values		Notes
	pre-cal	post-cal	pre-cal	post-cal	
Temperature (During DO cal.)	18.5	18.5	11.6	11.6	
DO (mg/l)		9.37		10.94	
DO %	100.9	100.3	102.4	101.2	
Baro (mm Hg)	762.6	762.6	769.2	769.2	
pH 4	3.87	4.00	4.14	4.00	
pH 7	6.91	7.02	7.04	7.04	
pH 10	10.04	10.05	10.17	10.10	
Specific Cond.	50.085	50.0	50.024	50.0	
Turbidity 0	-0.61/-0.62	0.0/0.0	2.0	0.0	
Turbidity 123	125.98	124.0	123.89	124.0	

Turbidity 0 NTU x 2

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 11/05/19 Time 0805 QC Sample Type: Bucket of tap water

Employee Name(s): Brian Emlaw

Most Recent Deployment 10/29/19 Most Recent Calibration 10/30/19 0940

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	15.8	104.7	10.38	0.262	7.28	-1.60	
FA04105	15.7	105.0	10.43	0.259	7.11	-0.83	
FA04106	15.7	104.7	10.38	0.264	7.34	-0.34	
FA02610	15.7	104.1	10.34	0.260	7.08	0.22	
FA03123	15.2	105.0	10.53	0.278	8.10	0.20	

Date 11/05/19 Time 1145 QC Sample Type: Bucket of tap water

Employee Name(s): B. Emlaw

Most Recent Deployment 10/29/19 Most Recent Calibration 11/05/19 0820

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	18.1	108.6	10.26	0.269	7.30	0.27	
FA04105	18.1	109.2	10.32	0.270	7.31	-1.12	
FA03123	17.6	108.5	10.36	0.268	7.27	0.20	
FA02610	18.0	108.1	10.22	0.267	7.03	0.29	pH off from unsuccessful calibration.
FA02192	18.1	108.3	10.23	0.268	7.36	0.10	

Date 11/06/19 Time 1638 QC Sample Type: Bucket of water from Piscataqua River

Employee Name(s): B. Emlaw

Most Recent Deployment 11/06/19 Most Recent Calibration 11/05/19 0820

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	10.3	89.9	8.70	36285	7.63	0.34	
FA04106	10.4	88.8	8.59	35994	7.67	1.38	
FA02610	10.3	89.6	8.69	35837	7.01	1.28	
FA02192	10.3	91.1	8.83	35817	7.85	0.20	
FA03123	9.9	89.9	8.79	35092	7.59	1.10	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 11/06/19 Time 1740 QC Sample Type: Bucket of water from River

Employee Name(s): B. Fenlaw

Most Recent Deployment 11/06/19 Most Recent Calibration 11/06/19 1643

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	12.5	94.4	9.16	24.429	6.69	45.1	use this
FA04105	12.6	94.5	9.16	24.576	6.71	0.63	
FA02192	12.5	94.5	9.17	24.380	6.55	9.10	use this
FA02610	12.4	91.7	8.92	24.290	6.68	4.23	
FA03123	11.9	95.0	9.34	24.423	6.90	4.10	use this

Date ____ Time ____ QC Sample Type: ____

Employee Name(s): ____

Most Recent Deployment ____ Most Recent Calibration ____ ____

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT

Date ____ Time ____ QC Sample Type: ____

Employee Name(s): ____

Most Recent Deployment ____ Most Recent Calibration ____ ____

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 11/08/19 Time 1520 QC Sample Type: Bucket of tap water

Employee Name(s): Detty

Most Recent Deployment 11/07/19 Most Recent Calibration 11/06/19 1643

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	15.1	102.4	10.30	0.254	7.67	0.22	← Check this
FA02192	15.1	102.3	10.28	0.253	7.35	3.8	
FA04106	15.1	102.4	10.29	0.253	7.41	5.21	
FA03123	14.6	103.1	10.48	0.250	7.45	3.6	
FA02610	15.1	99.7	10.03	0.252	7.39	4.6	

Date 11/10/19 Time 2100 QC Sample Type: Bucket of tap water - same as 11/08

Employee Name(s): Detty

Most Recent Deployment 11/07/19 Most Recent Calibration 11/06/19 1643

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	18.0	98.9	9.36	0.261	7.32	0.39	
FA02192	18.1	99.5	9.40	0.260	7.35	3.7	
FA04106	18.0	99.4	9.40	0.262	7.44	4.80	
FA03123	17.5	100.4	9.59	0.258	7.38	3.6	
FA02610	18.0	96.6	9.14	0.259	7.62	3.83	

Date 11/11/19 Time 2350 QC Sample Type: Bucket of tap water - Same water as

Employee Name(s): Detty

Most Recent Deployment 11/07/19 Most Recent Calibration 11/11/19 2120

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	18.5	101.8	9.53	0.260	7.38	3.90	ok 3
FA02192	18.6	102.0	9.53	0.261	7.22	3.9	ok 2
FA04106	18.6	102.1	9.54	0.263	7.15	3.99	ok 1
FA03123	18.0	101.8	9.62	0.262	7.18	3.8	Dont use 4
FA02610	18.5	101.4	9.50	0.259	6.85	3.8	pH slowly ↑ Dont use 5

Handjet
Calibration Records

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 12/21/2019 9:18 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	15F100671
METER ID:	FA02192
INSTRUMENT FIRMWARE VERSION:	1.0.35
INSTRUMENT MODEL NUMBER:	ProDSS Handheld with GPS

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	11/10/2019 21:32	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.4	20.1	89.1	DO Air Cal	1.038248		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV	SLOPE (%)
pH/ORP	15F102114	3.0.0	11/10/2019 22:08	Calibrated	pH		59.68813	99.039
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	19.8	-22.1						
4	19.6	145.7						
10.06	19.9	-209.2						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	11/10/2019 22:17	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	19.4	Sp. Conductance	49.544	5.335591		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	11/10/2019 22:19	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	19.1	Sp. Conductance	50.442	5.288939		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	11/10/2019 22:25	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	19.1	0.03	-0.3			

124	19.6	3	126.5			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	11/12/2019 15:54	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.5	17.9	87.6	DO Air Cal	1.026054		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (m\	SLOPE (%)
pH/ORP	15F102114	3.0.0	11/12/2019 16:01	Calibrated	pH		58.63	99.1712
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	16.3	-25.1						
4	16.3	150.7						
10.13	14.4	-197						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	11/12/2019 16:16	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	16.7	Sp. Conductance	50.046	5.283957		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	11/12/2019 16:25	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	18.3	0.04	0.3			
124	16.2	3.02	124.8			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	11/15/2019 18:09	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
100.3	16.3	85.9	DO Air Cal	1.027442		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (m\	SLOPE (%)
pH/ORP	15F102114	3.0.0	11/15/2019 18:20	Calibrated	pH		58.5966	99.1147
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						

7.03	18	-23				
4	17.7	152.2				
10.08	18	-195.7				

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	11/15/2019 18:34	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	18.4	Sp. Conductance	50.166	5.266748		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	11/15/2019 18:37	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	17.6	0.04	0.1			
124	17.4	2.98	122.2			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	11/15/2019 18:13	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
100.3	16.7	85.6	DO Air Cal	1.036997		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	11/18/2019 16:39	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.2	14.2	81.9	DO Air Cal	1.031007		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV	SLOPE (%)
pH/ORP	15F102114	3.0.0	11/18/2019 16:49	Calibrated	pH		58.86521	99.569
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	16.2	-24.1						
4	17.3	152						
10.1	17.1	-197.3						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	11/18/2019 17:07	Calibrated	Sp Cond (mS/cm)	

CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	16	Sp. Conductance	50.094	5.256845		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	11/18/2019 17:12	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	16.8	0.04	0.1			
124	17	3.04	126.6			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	11/21/2019 16:38	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
100.3	15.3	84.7	DO Air Cal	1.025809		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV	SLOPE (%)
pH/ORP	15F102114	3.0.0	11/21/2019 16:52	Calibrated	pH		58.32456	98.6545
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.03	17.3	-24.7						
4	17.5	149.1						
10.09	17.7	-197.1						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	11/21/2019 17:17	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	18.5	Sp. Conductance	49.43	5.317555		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	11/21/2019 17:25	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	16.2	0.04	-0.2			
124	17.6	3.02	123.3			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE

ODO	15L100654	3.0.0	11/24/2019 15:41	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
97.4	13	79.4	DO Air Cal	1.024756		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV	SLOPE (%)
pH/ORP	15F102114	3.0.0	11/24/2019 15:56	Calibrated	pH		58.3694	98.7304
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.03	18.4	-23.4						
4	19.2	146.9						
10.06	19.6	-200.3						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	11/24/2019 16:16	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	18.8	Sp. Conductance	50.314	5.284172		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	11/24/2019 16:26	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	18.5	0.05	0.3			
124	18.7	3.09	126.8			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	12/1/2019 15:35	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.2	18.2	86.8	DO Air Cal	1.034592		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV	SLOPE (%)
pH/ORP	15F102114	3.0.0	12/1/2019 16:02	Calibrated	pH		58.14354	98.3483
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.03	18.4	-41.3						
4	18.3	133.7						
10.08	18.7	-211.8						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	12/1/2019 16:26	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	18.4	Sp. Conductance	49.775	5.30792		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	12/1/2019 16:31	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	18	0.05	0			
124	17.8	3.11	124.5			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	12/12/2019 17:23	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
102.4	14	83.9	DO Air Cal	1.033696		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (m\	SLOPE (%)
pH/ORP	15F102114	3.0.0	12/12/2019 17:31	Calibrated	pH		58.92035	99.6623
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.05	14.8	-23.8						
4	15	151.8						
10.12	15	-196.8						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	12/12/2019 17:52	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	14	Sp. Conductance	50.664	5.238384		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	12/12/2019 17:59	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	14.2	0.05	0.2			
124	14	3.1	123.8			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	15L100654	3.0.0	12/15/2019 13:11	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
98.5	15.7	83.4	DO Air Cal	1.027483		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV	SLOPE (%)
pH/ORP	15F102114	3.0.0	12/15/2019 13:21	Calibrated	pH		58.99753	99.7928
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.05	14.4	-29.2						
4	14.1	138.5						
10.14	14	-210.1						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	18K104189	3.0.5	12/15/2019 13:45	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	13.6	Sp. Conductance	50.239	5.213493		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	16C101128	3.0.0	12/15/2019 13:52	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	15.4	0.06	0.3			
124	14.6	3.03	121.1			

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 12/21/2019 9:28 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	19J100181
METER ID:	FA04105
INSTRUMENT FIRMWARE VERSION:	1.2.6
INSTRUMENT MODEL NUMBER:	ProDSS Handheld

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	11/10/2019 21:34	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.4	20.2	92.7	DO Air Cal	0.999299		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100907	3.0.0	11/10/2019 21:39	Calibrated	pH		58.53975	98.9516
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	20.1	-17.5						
4	19.5	155.3						
10.07	19.4	-193.1						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	11/10/2019 21:51	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	18.9	Sp. Conductance	50.279	5.123994		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	11/10/2019 21:58	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	20.1	0	-3.96			
124	20.2	3.17	123.84			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	11/15/2019 18:11	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		

100.3	16.2	87.8	DO Air Cal	1.004879		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100907	3.0.0	11/15/2019 18:23	Calibrated	pH		58.33672	98.6084
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.03	18.3	-18						
4	18.2	153.9						
10.08	18.3	-192.7						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	11/15/2019 18:39	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	18.7	Sp. Conductance	49.692	5.12091		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	11/15/2019 18:45	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	18	0	0.15			
124	17.2	3.16	122.79			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	11/18/2019 18:12	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.1	13.2	83.2	DO Air Cal	0.998329		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100907	3.0.0	11/18/2019 18:22	Calibrated	pH		58.50173	98.8873
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	15.8	-22.1						
10.1	16.5	-194						
4	16.7	152.9						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	11/18/2019 18:39	Calibrated	Sp Cond (mS/cm)	

CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	16.2	Sp. Conductance	50.202	5.100354		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	11/18/2019 19:06	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	14.1	0.01	0.12			
124	17.4	3.16	124			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	11/21/2019 16:41	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
100.3	15.7	88.3	DO Air Cal	0.991723		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100907	3.0.0	11/21/2019 16:52	Calibrated	pH		58.41734	98.7447
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.03	17.3	-22						
4	17.3	152.1						
10.09	17.5	-194.6						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	11/21/2019 17:14	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	17.1	Sp. Conductance	49.668	5.135015		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	11/21/2019 17:25	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	16.3	0.01	0.06			
124	17.3	3.17	124.3			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE

ODO	19H104177	3.0.0	11/24/2019 15:42	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
97.4	13.1	83.1	DO Air Cal	0.979359		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100907	3.0.0	11/24/2019 15:52	Calibrated	pH		58.23842	98.4422
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.03	17.9	-21.6						
4	18.8	151.7						
10.07	19.2	-194.6						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	11/24/2019 16:05	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	18.8	Sp. Conductance	50.188	5.115783		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	11/24/2019 16:20	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	18.4	0.01	0			
124	19.1	3.17	124.01			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	12/1/2019 15:33	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.2	18.3	89.9	DO Air Cal	1.001887		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100907	3.0.0	12/1/2019 15:51	Calibrated	pH		57.93132	97.9231
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.03	18.1	-22.4						
4	17.9	148.1						
10.08	18.2	-196						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	12/1/2019 16:20	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	17.9	Sp. Conductance	50.012	5.114513		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	12/1/2019 16:22	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	19.1	0.01	0			
124	18.8	3.21	125.57			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	12/10/2019 17:22	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.2	14.6	85.5	DO Air Cal	0.993952		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100907	3.0.0	12/10/2019 17:38	Calibrated	pH		58.19667	98.3717
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	15.2	-22.7						
4	15.5	149.3						
10.12	15.6	-195.2						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	12/10/2019 17:58	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	14.8	Sp. Conductance	50.155	5.078437		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	12/10/2019 18:04	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	15.1	0	-0.11			
124	15.1	3.18	124.99			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	12/12/2019 17:21	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
102.4	14.3	87.7	DO Air Cal	0.995652		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100907	3.0.0	12/12/2019 17:31	Calibrated	pH		57.9402	97.9381
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	15	-25						
4	15.1	146.2						
10.12	15	-196.7						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	12/12/2019 17:58	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	14	Sp. Conductance	50.27	5.051143		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	12/12/2019 18:19	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	8.5	0.01	0.25			
124	11.9	3.18	123.97			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19H104177	3.0.0	12/15/2019 13:13	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
98.5	15	86.1	DO Air Cal	0.985798		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100907	3.0.0	12/15/2019 13:21	Calibrated	pH		59.25375	99.8415
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.05	14.3	-27.5						

4	14.2	143.5				
10.14	13.9	-206.7				

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	17M102639	3.0.5	12/15/2019 13:46	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	13.4	Sp. Conductance	50.15	5.036021		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106266	3.0.0	12/15/2019 13:55	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	16.5	0	-0.33			
124	15.7	3.08	120.08			

23840.039 SRP Turbidity Study - YSI ProDSS Calibration

Employee Name(s): B. Emlaw

	Meter ID / Serial No. FA04105 /		Meter ID / Serial No. FA04105 /		
	Date 11/12/19 Time 1605		Date 11/15/19 Time 1805		
	Calibration values		Calibration values		Notes
	pre-cal	post-cal	pre-cal	post-cal	
Temperature (During DO cal.)	17.9	17.9	16.5	16.5	
DO (mg/l)			9.79	9.84	
DO %	99.7	99.5	99.5	100.3	
Baro (mm Hg)	756.4	756.4	762.1	762.1	
pH 4	3.99	4.00	4.04	4.00	
pH 7	6.99	7.04	7.07	7.03	
pH 10	10.05	10.14	10.16	10.08	
Specific Cond.	50.341	50.0	49.692	50.0	
Turbidity 0	0.0	0.0	0.15	0.0	
Turbidity 123	124.90	124.0	122.79	124.0	

23840.039 SRP Turbidity Study - YSI ProDSS Calibration

Employee Name(s): B. Enlow

	Meter ID / Serial No. FA04105		Meter ID / Serial No. FA04106		
	Date 12/7/19 Time 1818		Date 12/7/19 Time 1818		
	Calibration values		Calibration values		Notes
	pre-cal	post-cal	pre-cal	post-cal	
Temperature (During DO cal.)	13.5	13.5	13.7	13.7	
DO (mg/l)	10.66	10.48	10.59	10.45	
DO %	102.0	100.7	101.8	100.8	
Baro (mm Hg)	765.1	765.1	766.4	766.4	
pH 4	3.87	4.00	4.02	4.00	
pH 7	6.96	7.05	7.02	7.04	
pH 10	10.04	10.12	10.04	10.12	
Specific Cond.	50.198	50.0	50.274	50.0	
Turbidity 0	0.00	0.00	-0.05	0.0	
Turbidity 123	122.02	124.0	123.07	124.0	

KorDSS CALIBRATION FILE EXPORT

FILE CREATED: 12/21/2019 9:39 Eastern Daylight Time

INSTRUMENT SERIAL NUMBER:	19J100182
METER ID:	FA04106
INSTRUMENT FIRMWARE VERSION:	1.2.6
INSTRUMENT MODEL NUMBER:	ProDSS Handheld

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19J100842	3.0.0	11/10/2019 21:30	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.5	19.9	90.5	DO Air Cal	1.023518		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100908	3.0.0	11/10/2019 22:32	Calibrated	pH		60.04719	98.5004
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.02	19.9	-18.6						
4	19.5	155.9						
10.06	19.8	-201.4						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	19H104146	3.0.5	11/10/2019 22:41	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	19.2	Sp. Conductance	49.928	5.28635		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106267	3.0.0	11/10/2019 22:52	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	20.7	0.06	0.53			
124	21	3.22	124.1			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19J100842	3.0.0	11/21/2019 16:40	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		

100.5	15.4	86.3	DO Air Cal	1.009283		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100908	3.0.0	11/21/2019 16:52	Calibrated	pH		59.35487	99.6706
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.03	17.6	-23.8						
4	18.1	152.5						
10.09	17.6	-200.2						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	19H104146	3.0.5	11/21/2019 17:18	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	18.1	Sp. Conductance	49.787	5.284831		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106267	3.0.0	11/21/2019 17:31	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	17.5	0.04	0.14			
124	18.7	3.24	123.57			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19J100842	3.0.0	12/1/2019 15:32	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.4	18.1	87.8	DO Air Cal	1.022779		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100908	3.0.0	12/1/2019 15:46	Calibrated	pH		60.10575	98.4014
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.03	18	-17.6						
4	17.9	156.9						
10.08	18.3	-200						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	19H104146	3.0.5	12/1/2019 15:55	Calibrated	Sp Cond (mS/cm)	

CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	17.2	Sp. Conductance	49.879	5.274803		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106267	3.0.0	12/1/2019 16:15	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	20	0.04	0.04			
124	19.6	3.27	125.86			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19J100842	3.0.0	12/10/2019 17:24	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
99.4	14.7	83.6	DO Air Cal	1.018897		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100908	3.0.0	12/10/2019 17:38	Calibrated	pH		58.89907	99.5589
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.04	15.3	-21.7						
4	15.4	152.3						
10.12	15.4	-196.4						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	19H104146	3.0.5	12/10/2019 17:58	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	15	Sp. Conductance	50.051	5.240622		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106267	3.0.0	12/10/2019 18:11	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	15.7	0.04	0.02			
124	15.8	3.25	124.15			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE

ODO	19J100842	3.0.0	12/15/2019 13:14	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
98.6	14.9	84.2	DO Air Cal	1.008345		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100908	3.0.0	12/15/2019 13:21	Calibrated	pH		58.98735	99.7082
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.05	14.2	-26.3						
4	14.2	145.7						
10.14	14	-202.9						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	19H104146	3.0.5	12/15/2019 13:47	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	13.4	Sp. Conductance	50.117	5.198264		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106267	3.0.0	12/15/2019 13:55	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	17.8	0.05	-0.24			
124	15.8	3.2	123.2			

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
ODO	19J100842	3.0.0	12/19/2019 8:14	Calibrated	ODO (% Sat)	
CALIBRATION VALUE (% Sat)	TEMPERATURE (°C)	SENSOR VALUE ()	METHOD	GAIN		
100.4	13.4	83.6	DO Air Cal	1.010243		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE	SLOPE (mV/pH)	SLOPE (%)
pH/ORP	19J100908	3.0.0	12/19/2019 8:20	Calibrated	pH		60.10714	98.399
CALIBRATION VALUE (pH)	TEMPERATURE (°C)	SENSOR VALUE (pH mV)						
7.05	14	-21.3						
4	14.7	151.5						
10.14	13.8	-204						

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Cond and Temp	19H104146	3.0.5	12/19/2019 8:33	Calibrated	Sp Cond (mS/cm)	
CALIBRATION VALUE (mS/cm)	TEMPERATURE (°C)	METHOD	PRE CAL VALUE ()	CELL CONSTANT		
50	14.2	Sp. Conductance	49.593	5.24088		

SENSOR NAME	SENSOR SERIAL NUMBER	SENSOR FIRMWARE VERSION	CALIBRATION DATE	CALIBRATION STATUS	PARAMETER TYPE	NOTE
Turbidity	19H106267	3.0.0	12/19/2019 8:46	Calibrated	Turbidity (FNU)	
CALIBRATION VALUE (FNU)	TEMPERATURE (°C)	SENSOR VALUE (RTU)	PRE CAL VALUE ()			
0	13.6	0.04	-0.1			
124	13.4	3.21	124.31			

23840.039 SRP Turbidity Study - YSI ProDSS Calibration

Employee Name(s): B. Emlaw,

	Meter ID / Serial No. FA02192		Meter ID / Serial No. FA04106		
	Date 11/12/19 Time 16:05		Date 11/12/19 Time 16:05		
	Calibration values		Calibration values		Notes
	pre-cal	post-cal	pre-cal	post-cal	
Temperature (During DO cal.)	18.1	18.1	17.5	17.6	
DO (mg/l)					
DO %	100.7	99.5	100.6	99.7	
Baro (mm Hg)	756.4	756.4	757.4	757.4	
pH 4	3.94	4.00	4.04	4.00	
pH 7	6.97	7.04	6.97	7.04	
pH 10	9.96	10.13	10.10	10.14	
Specific Cond.	50.046	50.0	50.330	50.	
Turbidity 0	0.3	0.0	-0.87	0.0	
Turbidity 123	124.8	124.0	124.71	124.0	

23840.039 SRP Turbidity Study - YSI ProDSS Calibration

Employee Name(s): B. Emlaw

	Meter ID / Serial No. FA02192		Meter ID / Serial No. FA04106		
	Date / Time: 11/15/19 1805		Date / Time: 11/15/19 1805		
	Calibration values		Calibration values		Notes
	pre-cal	post-cal	pre-cal	post-cal	
Temperature (During DO cal.)	16.7	16.7	16.1	16.1	
DO (mg/l)	9.66	9.75	9.89	9.88	
DO %	99.4	100.3	100.3	100.4	
Baro (mm Hg)	762.2	762.2	763.1	763.1	
pH 4	3.97	4.00	4.02	4.00	
pH 7	7.04	7.03	7.02	7.03	
pH 10	10.05	10.08	10.10	10.08	
Specific Cond.	50.166	50.0	49.090	50.0	
Turbidity 0	0.1	0.0	-0.02	0.0	
Turbidity 123	122.2	124.0	122.17	124.0	

23840.039 SRP Turbidity Study - YSI ProDSS Calibration

Employee Name(s): B. Emlaw, R. Judge

	Meter ID / Serial No. FA02192 / 15F100671		Meter ID / Serial No. FA04106 /		
	Date 11/18/19 Time 1632		Date 11/18/19 Time 1810		
	Calibration values		Calibration values		Notes
	pre-cal	post-cal	pre-cal	post-cal	
Temperature (During DO cal.)	14.2	14.2	13.5	13.5	
DO (mg/l)	10.25	10.17	10.32	10.35	
DO %	99.8	99.2	99.0	99.3	
Baro (mm Hg)	754.1	754.1	754.8	754.8	
pH 4	3.99	4.00	4.01	4.0	
pH 7	7.07	7.04	7.07	7.04	
pH 10	10.11	10.10	10.15	10.10	
Specific Cond.	50.094	50.0	50.785	50.0	
Turbidity 0	0.1	0.0	-0.25	0.0	
Turbidity 123	126.6	124.0	127.14	124.0	

23840.039 SRP Turbidity Study - YSI ProDSS Calibration

Employee Name(s): B. Emlaw

	Meter ID / Serial No. FA04106		Meter ID / Serial No. FA04105		
	Date 11/24/19 Time 1535		Date 11/24/19 Time 1535		
	Calibration values		Calibration values		Notes
	pre-cal	post-cal	pre-cal	post-cal	
Temperature (During DO cal.)	12.1	12.1	13.0	13.0	
DO (mg/l)	10.71	10.47	10.40	10.23	
DO %	99.1	97.6	98.6	97.4	
Baro (mm Hg)	741.6	741.6	740.2	740.2	
pH 4	4.05	4.00	4.01	4.00	
pH 7	7.04	7.03	7.04	7.03	
pH 10	10.04	10.07	10.06	10.07	
Specific Cond.	50.214	50.00	50.188	50.0	
Turbidity 0	0.02	0.00	0.00	0.00	
Turbidity 123	123.30	124.00	124.01	124.00	

23840.039 SRP Turbidity Study - YSI ProDSS Calibration

Employee Name(s): B. Enlow

	Meter ID / Serial No. FA04105		Meter ID / Serial No. FA04106		
	Date 12/7/19 Time 1818		Date 12/7/19 Time 1818		
	Calibration values		Calibration values		Notes
	pre-cal	post-cal	pre-cal	post-cal	
Temperature (During DO cal.)	13.5	13.5	13.7	13.7	
DO (mg/l)	10.66	10.48	10.59	10.45	
DO %	102.0	100.7	101.8	100.8	
Baro (mm Hg)	765.1	765.1	766.4	766.4	
pH 4	3.87	4.00	4.02	4.00	
pH 7	6.96	7.05	7.02	7.04	
pH 10	10.04	10.12	10.04	10.12	
Specific Cond.	50.198	50.0	50.274	50.0	
Turbidity 0	0.00	0.00	-0.05	0.0	
Turbidity 123	122.02	124.0	123.07	124.0	

23840.039 SRP Turbidity Study - YSI ProDSS Calibration

Employee Name(s): B. Emlaw , E. Duguay

	Meter ID / Serial No. FA04105		Meter ID / Serial No. FA04106		
	Date 12/12/19 Time 1711		Date 12/12/19 Time 1711		
	Calibration values		Calibration values		Notes
	pre-cal	post-cal	pre-cal	post-cal	
Temperature (During DO cal.)	14.3	14.3	14.0	14.0	
DO (mg/l)	10.47	10.48	10.57	10.56	
DO %	102.3	102.4	102.5	102.4	
Baro (mm Hg)	778.5	778.5	778.5	778.5	
pH 4	4.05	4.00	4.09	4.00	
pH 7	7.09	7.04	7.10	7.04	
pH 10	10.14	10.12	10.17	10.12	
Specific Cond.	50,270	50.00	50,288	50.00	
Turbidity 0	0.25	0.00	0.52	0.00	
Turbidity 123	123.97	124.00	123.09	124.00	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 1/1/19 Time 1607 QC Sample Type: Bucket of water from Piscataqua River

Employee Name(s): B. Emlaw

Most Recent Deployment 1/1/19 Most Recent Calibration 1/10/19 2/1/20

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	8.2	90.9	9.08	40.166	7.47	2.0	
FA04105	8.2	90.2	9.00	40.342	7.63	2.2	
FA04106	8.2	90.7	9.02	40.348	7.64	3.1	Recal. turbidity only pre 0.0 NTU post 0.0 NTU pre 123.22 post 124 NTU

Second Turbidity reading 1.3

Date 1/1/19 Time 0837 QC Sample Type: Bucket of water from River

Employee Name(s): B. Emlaw "Same as above"

Most Recent Deployment 1/1/19 Most Recent Calibration 1/10/19 2/1/20

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	15.6	102.6	8.78	38.667	7.62	0.60	
FA04105	15.6	102.1	8.73	38.770	7.67	1.65	
FA02192	15.6	102.4	8.76	38.606	7.49	1.60	

Date 1/1/19 Time 1540 QC Sample Type: Bucket of Water from River

Employee Name(s): B. Emlaw

Most Recent Deployment 1/1/19 Most Recent Calibration 1/1/19 2/1/20

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105*	15.9	101.4	8.63	38.793	7.72	1.11	This one was used lab did not go out.
FA04106	15.9	101.9	8.68	38.721	7.65	0.23	This one was used in fld today
FA02192	16.0	101.5	8.62	38.629	7.56	2.3	This was the back up.

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 11/12/19 Time 1645 QC Sample Type: Bucket of water from river

Employee Name(s): B. Emlaw, K. Payne "Same as previous QC check"

Most Recent Deployment 11/12/19 Most Recent Calibration 11/12/19 1605

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	16.5	100.9	8.51	38.444	7.34	1.00	- Turbidity unstable # use as backup.
FA04105	16.3	101.1	8.54	38.428	7.51	1.00	
FA02192	16.4	100.1	8.45	38.552	7.62	1.70	

Date 11/13/19 Time 0745 QC Sample Type: Bucket of water from River

Employee Name(s): B. Emlaw

Most Recent Deployment 11/12/19 Most Recent Calibration 11/12/19 1605

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	4.7	87.8	9.60	39.115	7.53	9.80	No work on 11/13
FA02192	4.8	88.6	9.67	39.189	7.55	9.60	" " " "

Date 11/14/19 Time 0732 QC Sample Type: Bucket of water from River

Employee Name(s): B. Emlaw, D.N. (same as 11/13/19 /0745)

Most Recent Deployment 11/12/19 Most Recent Calibration 11/12/19 1605

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	16.1	109.5	9.32	37.570	7.45	4.20	Sp
FA04105	16.0	107.9	9.22	37.459	7.33	4.79	
FA02192	16.3	107.8	9.15	37.777	7.43	5.00	Spare

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 11/14/19 Time 1650 QC Sample Type: Bucket of water from River

Employee Name(s): B. Emlaw, D.N. (same as 11/14/19 – 0732)

Most Recent Deployment 11/14/19 Most Recent Calibration 11/12/19 1605

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	16.3	106.7	9.12	35594	7.72	3.98	
FA04106	16.2	1064	9.12	35600	7.60	3.70	(spare)
FA02192	16.2	106.8	9.12	35660	7.59	3.60	

Date 11/15/19 Time 0635 QC Sample Type: Bucket of water from River

Employee Name(s): B. Emlaw (same as 11/14/19 – 1650)

Most Recent Deployment 11/14/19 Most Recent Calibration 11/12/19 1605

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	16.3	102.5	8.81	34660	7.38	1.60	
FA02192	16.2	1026	8.80	34536	7.50	1.90	
FA04106	16.2	101.5	8.74	34310	7.38	1.46	(spare)

Date 11/15/19 Time [ ] QC Sample Type: (Same as above – Bucket water)

Employee Name(s): B. Emlaw

Most Recent Deployment 11/15/19 Most Recent Calibration 11/12/19 1605

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	14.4	95.9	8.56	33592	7.44	2.35	
FA04105	15.3	97.0	8.51	34424	7.80	3.77	
FA02192	15.2	96.3	8.44	34202	7.55	3.90	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 1/15/19 Time 1856 QC Sample Type: (Same as previous)

Employee Name(s): B. Emlaw "Bucket / H_2O from River"

Most Recent Deployment 1/15/19 Most Recent Calibration 1/15/19 1805

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	16.1	99.2	8.56	34.475	6.54	18	
FA04106	16.1	97.9	8.43	34.902	7.20	17.5	
FA02142	16.2	98.7	8.51	34.401	7.57	18	

Date 1/16/19 Time 0629 QC Sample Type: (same as previous)

Employee Name(s): R. Judge Bucket of fresh H_2O from River

Most Recent Deployment 1/15/19 Most Recent Calibration 1/15/19 1805

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA 02192	5.3	93.0	9.91	41.147	7.63	2.80	
FA 04106	5.4	92.6	9.81	41.910	7.51	2.84	COND IS OFF. NOT RECALIBRATED. USED AS BACKUP
FA 04105	5.6	93.9	9.96	41.515	7.55	3.15	

Date 1/16/19 Time | QC Sample Type: (same as previous)

Employee Name(s): R. Judge Bucket of fresh H_2O from river

Most Recent Deployment 1/16/19 Most Recent Calibration 1/15/19 1805

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA 02192	14.4	107.8	9.39	40.325	7.63	2.00	
FA04106	14.3	108.6	9.41	40.983	7.52	1.32	COND IS OFF. NOT RECALIBRATED
FA04105	13.9	111.4	9.57	40.465	7.73	1.43	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 11/17/19 Time 1008 QC Sample Type: (same as previous) - same bucket of H_2O collected from river on 11/16/19 in AM

Employee Name(s): R. Judge

Most Recent Deployment 11/16/19 Most Recent Calibration 11/15/19 1805

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	15.3	107.6	9.27	38.615	7.63	1.50	
FA04106	15.3	107.3	9.22	39.000	7.43	1.30	
FA04105	15.4	108.0	9.28	38.718	7.46	1.15	

Date 11/17/19 Time 1745 QC Sample Type: (same as previous) - same bucket of H_2O collected from river on 11/16/19 AM

Employee Name(s): R. Judge

Most Recent Deployment 11/17/19 Most Recent Calibration 11/15/19 1805

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	15.4	107.4	9.28	37.356	7.67	1.50	
FA04106	15.8	106.7	9.14	38.037	7.51	0.54	Turb. is off
FA04105	14.9	108.3	9.46	37.333	7.71	0.88	Temp. is off

Date 11/18/19 Time 0624 QC Sample Type: (same as previous) - new, fresh bucket of H_2O collected from the river on 11/18/19

Employee Name(s): R. Judge

Most Recent Deployment 11/18/19 Most Recent Calibration 11/15/19 1805

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	5.5	90.9	9.58	43.661	7.56	1.70	
FA04106	5.3	90.0	9.48	43.860	7.50	0.83	
FA04105	5.4	91.6	9.64	43.413	7.21	1.32	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 11/18/19 Time 1628/1801 QC Sample Type: H_2O from River same as 11/18/19 AM collection

Employee Name(s): B. Emlaw

Most Recent Deployment 11/18/19 Most Recent Calibration 11/5/19 1810 5

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	12.2	104.6	9.52	40.886	7.72	1.20	This QC'd separate from 04106 and 04105
FA04106	1.25	104.9	9.48	41.149	7.57	0.33	
FA04105	12.8	105.6	9.49	40.725	7.48	0.61	

Date 11/18/19 Time 1902 QC Sample Type: same as previous – water collected AM – 11/18/19

Employee Name(s): B. Emlaw

Most Recent Deployment 11/18/19 Most Recent Calibration 11/18/19 1632/1810

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	13.4	104.3	9.26	40.738	7.66	0.60	
FA04106	13.3	104.9	9.35	40.732	7.53	0.35	
FA04105	13.3	104.9	9.35	40.559	7.37	0.38	use as spare pH climbing slowly

Date 11/19/19 Time 0617 QC Sample Type: same as previous – water collected on 11/18/19 from river in AM

Employee Name(s): R. Judge

Most Recent Deployment 11/18/19 Most Recent Calibration 11/18/19 1632/1810

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	14.5	103.9	9.05	40.030	7.50	0.40	
FA04106	14.5	104.9	9.14	40.104	7.39	0.89	
FA04105	14.6	105.0	9.14	40.022	7.16	0.49	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 11/19/19 Time 1749 QC Sample Type: same as previous - water collected

Employee Name(s): R. Judge, B. Emlaw on 11/18/19 from river in AM

Most Recent Deployment 11/19/19 Most Recent Calibration 11/18/19 6320/1810

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	14.4	102.1	8.96	38.230	7.64	0.40	
FA04106	13.9	103.1	9.18	38.054	7.52	0.83	SP COND. is off Did not recalibrate
FA 04105	14.3	102.5	9.05	38.189	7.37	0.49	

Date 11/20/19 Time 0607 QC Sample Type: Same as previous - water collected

Employee Name(s): R Judge on 11/18/19 from river in AM

Most Recent Deployment 11/19/19 Most Recent Calibration 11/18/19 6320/1810

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA 02192	13.8	97.7	8.74	37.260	7.44	0.40	
FA 04106	13.8	98.2	8.79	37.164	7.13	0.42	
FA 04105	13.9	97.9	8.73	37.271	7.31	0.82	

Date 11/20/19 Time 1719 QC Sample Type: Same as previous - water collected

Employee Name(s): R. Judge, B. Emlaw on 11/18/19 from river in AM

Most Recent Deployment 11/20/19 Most Recent Calibration 11/18/19 6320/1810

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA 04106	14.4	99.6	8.86	35.485	7.64	0.80	
FA04105	14.2	99.2	8.85	35.343	7.13	0.30	
FA02192	14.3	99.8	8.90	37.765	7.58	0.40	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 11/21/19 Time 0616 QC Sample Type: same as previous - water collected on 11/21/19 from river in the AM

Employee Name(s): R. Judge

Most Recent Deployment 11/20/19 Most Recent Calibration 11/18/19 1632/1810

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	5.9	93.2	9.64	44.748	7.36	1.88	
FA04106	5.9	92.9	9.58	44.877	7.64	1.93	
FA02192	6.2	92.2	9.48	44.534	7.55	1.80	

Date 11/21/19 Time 1620 QC Sample Type: water collected on 11/21/19 from River

Employee Name(s): B. Emlaw

Most Recent Deployment 11/21/19 Most Recent Calibration 11/18/19 1632/1810

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	12.0	104.7	9.48	43.099	7.66	1.30	
FA04105	11.9	1050	9.52	43.111	7.79	0.74	
FA02192	12.0	103.7	9.40	42.886	7.66	0.90	

Date 11/21/19 Time 1838 QC Sample Type: same as previous water

Employee Name(s): B. Emlaw

Most Recent Deployment 11/21/19 Most Recent Calibration 11/21/19 1627

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	12.5	103.8	9.30	43108	732	0.62	
FA04105	12.5	104.3	9.34	43242	712	0.62	
FA02192	12.6	102.6	9.17	43348	753	0.70	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 1/12/19 Time 0957 QC Sample Type: Same as previous water

Employee Name(s): R. Judge

Most Recent Deployment 1/12/19 Most Recent Calibration 1/21/19 1627

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	16.4	103.4	8.55	43.200	7.56	0.70	
FA04106	16.3	104.4	8.64	43.072	7.46	0.40	
FA04105	16.3	104.9	8.70	43.201	7.61	0.51	

Date 1/12/19 Time 1347 QC Sample Type: same as previous water

Employee Name(s): R. Judge

Most Recent Deployment 1/12/19 Most Recent Calibration 1/21/19 1627

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	16.5	102.5	8.46	43.169	7.62	0.53	
FA04106	16.2	102.1	8.46	42.861	7.50	0.32	
FA02192	16.5	102.8	8.49	43.114	7.82	0.60	

Date 1/23/19 Time 0958 QC Sample Type: Same as previous water

Employee Name(s): R. Judge

Most Recent Deployment 1/12/19 Most Recent Calibration 1/21/19 1627

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	17.3	99.8	8.14	42.052	7.59	0.41	
FA04106	17.4	99.1	8.07	42.001	7.37	0.34	
FA02192	17.4	98.9	8.08	41.917	7.55	0.80	- BACKUP

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 1/23/19 Time 1500 QC Sample Type: Same as previous bucket of water

Employee Name(s): R. Judge, B. Emlaw

Most Recent Deployment 1/23/19 Most Recent Calibration 1/21/19 1627

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	16.7	98.7	8.22	39.96	7.67	0.42	
FA04106	16.4	98.6	8.28	39.61	7.52	0.65	
FA02192	16.7	99.5	8.30	39.58	7.43	1.10	Backup meter

Date 1/24/19 Time 0848 QC Sample Type: New Bucket of water from River in Marina collected PM 1/24/19

Employee Name(s): B. Emlaw

Most Recent Deployment 1/23/19 Most Recent Calibration 1/21/19 1627

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	5.0	94.0	10.07	41.783	7.42	2.42	
FA04106	5.0	93.5	10.01	41.572	7.52	2.43	
FA02192	5.1	93.3	9.99	41.688	7.83	3.10	Backup meter

Date 1/24/19 Time 1530 QC Sample Type: New bucket of water from River collected PM 1/24/19

Employee Name(s): B. Emlaw

Most Recent Deployment 1/24/19 Most Recent Calibration 1/21/19 1627

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	5.2	94.6	10.35	36.32	7.67	3.51	
FA04105	5.2	95.5	10.44	36.559	7.83	3.55	
FA02192	5.3	95.2	10.38	36.437	7.68	5.20	spare meter

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 11/24/19 Time 1638 QC Sample Type: Bucket of water collected on 11/24/19 from River

Employee Name(s): B. Emlaw

Most Recent Deployment 11/24/19 Most Recent Calibration 11/24/19 1535

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	7.8	97.4	10.01	35.808	7.33	3.66	
FA04105	7.4	98.0	10.19	35.686	7.64	3.86	
FA02192	7.5	97.9	10.13	35.740	7.45	4.20	spare unit

Date 11/25/19 Time 0654 QC Sample Type: Bucket of water collected on 11/24/19 from river

Employee Name(s): R. Judge

Most Recent Deployment 11/24/19 Most Recent Calibration 11/24/19 1535

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	15.6	107.4	9.35	34.787	7.62	2.50	
FA04106	15.6	106.4	9.27	34.727	7.58	2.53	
FA04105	15.6	107.0	9.30	34.951	7.64	2.25	

Date 11/25/19 Time 1700 QC Sample Type: Bucket of water collected on 11/24/19 From River

Employee Name(s): J. Gagnon

Most Recent Deployment 11/25/19 Most Recent Calibration 11/24/19 1535

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	16.5	107.7	9.26	33.580	7.56	2.4	spare unit
FA04105	16.1	107.5	9.32	33.759	7.79	1.65	
FA04106	16.3	108.0	9.36	33.120	7.65	1.95	spare unit

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 1/2/6/19 Time 0644 QC Sample Type: Same as previous - bucket from 11/24/19

Employee Name(s): R. Judge

Most Recent Deployment 11/25/19 Most Recent Calibration 11/24/19 1535

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	18.1	100.9	8.42	33.866	7.51	2.10	
FA04106	17.8	100.3	8.39	33.752	7.46	1.71	
FA04105	17.8	100.8	8.43	33.986	7.72	1.58	

Date 1/2/6/19 Time 1619 QC Sample Type: Same as previous - bucket of H_2O from 11/24/19

Employee Name(s): R. Judge

Most Recent Deployment 1/2/6/19 Most Recent Calibration 11/24/19 1535

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	17.6	99.2	8.36	33.400	7.68	2.20	
FA04106	17.1	98.4	8.36	33.309	7.61	2.26	
FA04105	16.7	99.1	8.46	33.414	7.77	2.45	

Date 12/10/19 Time 1516 QC Sample Type: Bucket of water from tap

Employee Name(s): B. Emlaw

Most Recent Deployment 1/2/6/19 Most Recent Calibration 11/24/19 1535

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	18.8	114.5	10.65	0.255	6.89	0.65	
FA04105	18.9	115.2	10.71	0.254	6.98	0.99	
FA02192	18.9	114.9	10.68	0.255	8.40	0.60	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 12/01/19 Time 1636 QC Sample Type: Bucket of water from tap (same water as previous)

Employee Name(s): B. Emlaw

Most Recent Deployment 11/26/19 Most Recent Calibration 12/01/19 1525

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	18.6	116.5	10.89	0.257	6.78	0.06	
FA04105	18.6	115.8	10.82	0.253	6.75	-0.04	
FA02192	18.4	114.7	10.76	0.257	6.94	0.00	

Date 12/05/19 Time 0708 QC Sample Type: Bucket of H_2O from Bay - collected 12/5/19 AM

Employee Name(s): B. Emlaw

Most Recent Deployment 11/26/19 Most Recent Calibration 12/01/19 1525

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	2.9	93.6	10.69	39.941	7.57	1.75	
FA04105	2.9	95.2	10.83	39.991	7.18	1.57	spare unit

Date 12/05/19 Time 1630 QC Sample Type: Bucket of H_2O from Bay - collected 12/5/19 PM

Employee Name(s): B. Emlaw

Most Recent Deployment 12/05/19 Most Recent Calibration 12/01/19 1525

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	2.1	95.7	11.29	37.145	7.79	3.42	
FA04105	2.1	96.5	11.38	37.114	7.68	3.92	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 12/06/19 Time 0642 QC Sample Type: Bucket of H_2O from Bay collected 12/6/19 - AM

Employee Name(s): B. Emlaw

Most Recent Deployment 12/05/19 Most Recent Calibration 12/01/19 1525

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	1.18	94.1	11.14	37.511	7.58	2.72	
FA04105	22	96.1	11.29	37.489	7.40	2.14	

Date 12/06/19 Time 1626 QC Sample Type: Bucket of H_2O from Bay Collected 12/6/19 - AM

Employee Name(s): B. Emlaw

Most Recent Deployment 12/06/19 Most Recent Calibration 12/01/19 1525

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	-0.1	93.3	11.68	37574	7.80	3.13	
FA04105	-0.3	94.6	11.92	37249	7.71	2.50	pH is slow - used as spare

Date 12/07/19 Time 0720 QC Sample Type: Bucket of H_2O from Bay collected 12/7/19 - AM

Employee Name(s): B. Emlaw

Most Recent Deployment 12/06/19 Most Recent Calibration 12/01/19 1525

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	1.0	94.0	11.39	37384	7.58	3.00	
FA04105	1.0	95.0	11.53	37457	7.53	2.10	spare

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 12/7/19 Time 1815 QC Sample Type: Bucket of tap H_2O

Employee Name(s): B. Emlaw

Most Recent Deployment 12/7/19 Most Recent Calibration 12/11/19 1525

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	12.2	118.5	12.71	0.266	8.06	1.40	
FA04105	12.2	119.6	12.80	0.250	7.80	0.30	

Date 12/7/19 Time 1915 QC Sample Type: Same as previous tap water.

Employee Name(s): B. Emlaw

Most Recent Deployment 12/7/19 Most Recent Calibration 12/7/19 1818

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	13.6	119.2	12.39	0.249	7.27	0.00	pH slow to stabilize - Spare
FA04105	13.5	120.7	12.59	0.246	7.29	0.05	

Date 12/8/19 Time 0722 QC Sample Type: Bucket of water

Employee Name(s): B. Emlaw from bay - collected 12/8/19 AM

Most Recent Deployment 12/7/19 Most Recent Calibration 12/7/19 1818

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	1.4	92.9	11.23	37.377	7.43	1.53	
FA04106	1.5	93.6	11.28	37.262	7.61	1.49	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 12/8/19 Time 1647 QC Sample Type: Bucket of H_2O from Bay - collected 12/8/19-PM

Employee Name(s): B. Emlaw

Most Recent Deployment 12/8/19 Most Recent Calibration 12/7/19 1818

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	0.8	95.7	11.68	37.427	7.87	2.10	
FA04105	1.1	95.7	11.67	37.436	7.62	2.12	

Date 12/9/19 Time 0700 QC Sample Type: Bucket of H_2O from Bay - collected 12/8/19-PM

Employee Name(s): B. Emlaw

Most Recent Deployment 12/8/19 Most Recent Calibration 12/7/19 1818

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	1.14	115.7	10.97	35.602	7.58	1.40	
FA04105	1.15	115.9	10.97	35.772	7.11	1.36	pH slow - spare

Date 12/9/19 Time 1737 QC Sample Type: Same as previous water collected 12/8/19-PM

Employee Name(s): B. Emlaw

Most Recent Deployment 12/9/19 Most Recent Calibration 12/7/19 1818

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	12.4	111.4	10.43	35.506	7.80	1.20	
FA04105	12.4	109.8	10.23	35.124	7.56	0.80	pH slow to rise - spare

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 12/10/19 Time 0651 QC Sample Type: Same as previous H_2O collected 12/8/19 - PM

Employee Name(s): BEmlaw

Most Recent Deployment 12/09/19 Most Recent Calibration 12/07/19 1818

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	14.0	112.5	10.11	35.140	7.64	1.76	
FA04105	14.0	112.3	10.09	35.185	7.47	1.47	pH slow to rise — use as spare

Date 12/10/19 Time 1711 QC Sample Type: Same as previous (above)

Employee Name(s): B. Emlaw

Most Recent Deployment 12/10/19 Most Recent Calibration 12/07/19 1818

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	13.8	107.4	9.70	34.596	7.80	1.34	
FA04105	13.6	109.4	9.92	34.557	7.64	0.49	

Date 12/10/19 Time 1817 QC Sample Type: Same as previous (above)

Employee Name(s): B. Emlaw

Most Recent Deployment 12/10/19 Most Recent Calibration 12/10/19 1715

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	14.3	109.1	9.75	34688	7.57	0.53	
FA04106	14.4	109.1	9.76	34.576	7.58	0.60	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 12/11/19 Time 0641 QC Sample Type: Bucket of H_2O from Bay - collected 12/08/19 - PM

Employee Name(s): B. Emlaw

Most Recent Deployment 12/10/19 Most Recent Calibration 12/10/19 1715

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	14.0	104.0	9.38	34.647	7.55	0.50	
FA04105	13.9	104.1	9.39	34.709	7.59	0.50	
FA02192	14.1	103.1	9.27	35.015	7.27	0.50	Not calibrated 12/10/19 - 1715 (use as spare) 12/11/19 1525 calibrated

Date 12/11/19 Time 1717 QC Sample Type: (same as previous - above)

Employee Name(s): B. Emlaw

Most Recent Deployment 12/11/19 Most Recent Calibration 12/10/19 1715

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	13.3	101.7	9.26	34.892	7.77	0.51	
FA04105	13.8	103.1	9.30	34.799	7.78	0.60	
FA02192	13.9	103.0	9.28	34.780	7.44	0.50	

Date 12/12/19 Time 0643 QC Sample Type: (same as previous - above)

Employee Name(s): B. Emlaw

Most Recent Deployment 12/11/19 Most Recent Calibration 12/10/19 1715

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	13.7	99.2	9.00	34.549	7.27	0.60	
FA04105	13.7	98.9	8.99	34.290	7.53	0.65	
FA04106	13.6	98.8	8.98	34.241	7.47	0.62	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 12/12/19 Time 1702 QC Sample Type: Bucket of H_2O collected from Bay - 12/8/19-PM

Employee Name(s): B. Emlaw

Most Recent Deployment 12/2/19 Most Recent Calibration 12/10/19 1715

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	12.7	98.2	9.13	33.266	7.43	0.60	
FA04105	13.0	98.1	9.09	33.047	7.75	0.56	
FA04106	12.2	97.5	9.20	32.492	7.76	0.55	

Date 12/12/19 Time 1825 QC Sample Type: Bucket of H_2O collected from Bay - 12/8/19-PM

Employee Name(s): B. Emlaw

Most Recent Deployment 12/12/19 Most Recent Calibration 12/12/19 1711

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	13.0	97.1	9.01	32.679	7.73	0.4	
FA04105	12.8	97.8	9.11	32.409	7.45	0.60	
FA04106	12.9	96.7	8.99	32.460	7.55	0.65	

Date 12/13/19 Time 0615 QC Sample Type: Bucket of H_2O collected from bay - 12/8/19-PM

Employee Name(s): E. Duguay

Most Recent Deployment 12/12/19 Most Recent Calibration 12/12/19 1825

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	11.4	93.5	9.00	31.890	7.44	0.72	
FA04105	11.4	94.8	9.12	32.023	7.52	0.61	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 12/3/19 Time 1630 QC Sample Type: Bucket H2O from bay collected 12/3/19 4pm

Employee Name(s): E. Dugway

Most Recent Deployment 12/3/19 Most Recent Calibration 12/2/19 1711

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	2.1	97.1	11.81	30.554	7.69	4.30	
FA04105	2.0	98.8	11.98	30.559	7.49	4.50	

Date 12/3/19 Time 1705 QC Sample Type: Bucket H2O from bay collected 12/3/19-pm

Employee Name(s): E. Dugway

Most Recent Deployment 12/3/19 Most Recent Calibration 12/2/19 1711

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	1.18	94.6	9.04	31.293	7.64	0.37	
FA04105	1.19	95.3	9.14	31.379	7.61	0.47	

Date 12/4/19 Time 0825 QC Sample Type: Bucket H2O from bay collected 12/3/19-pm

Employee Name(s): E. Dugway

Most Recent Deployment 12/3/19 Most Recent Calibration 12/2/19 1711

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	1.24	93.2	8.90	30.955	7.42	0.26	
FA04105	1.24	94.1	8.81	30.945	7.24	0.34	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 12/14/19 Time 1545 QC Sample Type: Bucket H2O collected from bay - 12/14/19 AM

Employee Name(s): E. Duguay

Most Recent Deployment 12/4/19 Most Recent Calibration 12/2/19 1711

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	6.7	103.4	11.25	29.159	7.64	7.76	
FA04105	6.7	103.2	11.24	29.288	7.14	7.79	

Date 12/5/19 Time 1300 QC Sample Type: Bucket H2O collected from bay - 12/8/19-PM

Employee Name(s): E. Duguay

Most Recent Deployment 12/4/19 Most Recent Calibration 12/2/19 1711

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	13.2	94.9	8.84	30.869	7.66	0.3	
FA04105	13.1	94.6	8.84	30.832	7.29	0.24	
FA04106	13.1	94.4	8.81	30.789	7.44	0.11	

Date 12/5/19 Time 1400 QC Sample Type: Bucket H2O collected from bay - 12/8/19 - PM

Employee Name(s): E Duguay

Most Recent Deployment 12/4/19 Most Recent Calibration 12/5/19 1310

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA02192	13.2	94.6	8.81	30.624	7.39	0.8	
FA04105	13.1	94.3	8.79	30.688	7.21	0.66	
FA04106	13.2	94.1	8.77	30.602	7.24	0.68	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

12-16-19

Date 12/16/19 Time 1800 QC Sample Type: Bucket H_2O collected from Bay AK

Employee Name(s): [illegible]

Most Recent Deployment 12/16/19 Most Recent Calibration 12/5/19 1310

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	3.1	95.7	11.41	28.293	7.37	4.67	
FA02192	3.2	95.5	11.40	28.232	7.30	4.70	
FA04106	3.2	95.6	11.40	28.242	7.39	4.65	

Date 12/17/19 Time 0605 QC Sample Type: Bucket of water from Bay collected 12/17/19-AM

Employee Name(s): B. Emlaw

Most Recent Deployment 12/6/19 Most Recent Calibration 12/5/19 1310

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04105	3.1	95.6	11.55	26.078	7.10	4.02	
FA04106	3.2	95.4	11.49	26.090	7.17	3.40	

Date 12/17/19 Time 1820 QC Sample Type: Bucket of water from Bay collected 12/17/19 - PM

Employee Name(s): B. Emlaw

Most Recent Deployment 12/17/19 Most Recent Calibration 12/5/19 1310

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	3.2	95.3	11.31	29.779	7.58	3.56	
FA04105	3.1	95.4	11.32	29.803	7.60	3.72	

YSI ProDSS side by side readings in bucket of water-23840.039 Task 25
SRP - Seacoast Reliability Project - WQ monitoring

Date 12/18/19 Time 0649 QC Sample Type: water collected 12/17/19-PM from Bay

Employee Name(s): B. Emlaw

Most Recent Deployment 12/17/19 Most Recent Calibration 12/5/19 1310

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	9.9	107.2	10.83	29.099	7.44	3.36	
FA04105	9.8	107.5	10.87	29.169	7.38	3.53	

Date 12/18/19 Time 1559 QC Sample Type: water collected 12/17/19-PM from Bay

Employee Name(s): B Emlaw

Most Recent Deployment 12/18/19 Most Recent Calibration 12/5/19 1310

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT
FA04106	10.0	109.1	11.00	28.326	7.47	2.05	
FA04105	10.2	109.0	10.90	27.990	7.32	1.99	

Date Time QC Sample Type:

Employee Name(s):

Most Recent Deployment Most Recent Calibration

SONDE ID / SERIAL NUMBER	TEMP (°C)	DO (%)	DO (mg/L)	SP.COND. (mS/cm)	pH	TURBIDITY (NTU)	COMMENT

Fixed Station Calibration Records

Station 31

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	488061
Created	9/3/2019

Sensor	Conductivity
Serial Number	641239
Last Calibrated	9/3/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.045
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	47,215 µS/cm
Specific Conductivity	48,204 µS/cm

Post Measurement

Actual Conductivity	48,974 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	551117
Last Calibrated	9/3/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	170.1 mV
Temperature	23.95 °C

Pre Measurement

pH	4.11 pH
pH mV	169.9 mV

Post Measurement

pH	4.00 pH
pH mV	169.5 mV

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-3.4 mV
Temperature	24.31 °C

Pre Measurement

pH	7.05 pH

pH mV	-3.5 mV

Post Measurement

pH	7.00 pH
pH mV	-3.4 mV

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-175.2 mV
Temperature	23.90 °C

Pre Measurement

pH	9.96 pH
pH mV	-174.9 mV

Post Measurement

pH	10.00 pH
pH mV	-174.5 mV

Slope and Offset 1

Slope	-57.82 mV/pH
Offset	-3.4 mV

Slope and Offset 2

Slope	-57.26 mV/pH
Offset	-3.4 mV

ORP

ORP Solution	Quick-Cal
Offset	-98.8 mV
Temperature	22.33 °C
Pre Measurement	226.5 mV
Post Measurement	227.6 mV

Sensor	RDO
Serial Number	604076
Last Calibrated	9/3/2019

Calibration Details

Slope	1.010204
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.52 mg/L
Pre Measurement	98.54 %Sat
Post Measurement	100.00 %Sat
Temperature	23.51 °C
Barometric Pressure	1,026.5 mbar

Sensor	Turbidity
Serial Number	515947

Last Calibrated	9/3/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	0.5553291
Offset	-1.70 NTU

Calibration Point 1

Pre Measurement	2.88 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	127.99 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	488061
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	464008
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	542101
Created	9/17/2019

Sensor	Conductivity
Serial Number	673190
Last Calibrated	9/17/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	82.818
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	44,340 µS/cm
Specific Conductivity	49,209 µS/cm

Post Measurement

Actual Conductivity	45,053 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668449
Last Calibrated	9/17/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	164.9 mV
Temperature	19.85 °C

Pre Measurement

pH	4.02 pH
pH mV	168.8 mV

Post Measurement

pH	4.00 pH
pH mV	162.1 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-7.0 mV
Temperature	19.90 °C

Pre Measurement

pH	7.11 pH

pH mV	-6.8 mV

Post Measurement

pH	7.02 pH
pH mV	-6.8 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-176.2 mV
Temperature	19.76 °C

Pre Measurement

pH	10.26 pH
pH mV	-177.2 mV

Post Measurement

pH	10.04 pH
pH mV	-173.1 mV

Slope and Offset 1

Slope	-56.92 mV/pH
Offset	-5.8 mV

Slope and Offset 2

Slope	-56.03 mV/pH
Offset	-5.8 mV

ORP

ORP Solution	Quick-Cal
Offset	-1.5 mV
Temperature	23.70 °C

Sensor	RDO
Serial Number	645869
Last Calibrated	9/17/2019

Calibration Details

Slope	0.9958462
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.56 mg/L
Pre Measurement	97.35 %Sat
Post Measurement	100.00 %Sat
Temperature	19.76 °C
Barometric Pressure	1,060.3 mbar

Sensor	Turbidity
Serial Number	684116
Last Calibrated	9/17/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	0.9148155
Offset	-0.17 NTU

Calibration Point 1

Pre Measurement	0.23 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	109.49 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	542101
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	535619
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	542101
Created	9/25/2019

Sensor	Conductivity
Serial Number	673190
Last Calibrated	9/25/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.055
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	47,489 µS/cm
Specific Conductivity	49,849 µS/cm

Post Measurement

Actual Conductivity	47,632 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668449
Last Calibrated	9/25/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	162.9 mV
Temperature	22.54 °C

Pre Measurement

pH	4.06 pH
pH mV	162.8 mV

Post Measurement

pH	4.00 pH
pH mV	161.5 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-10.7 mV
Temperature	21.82 °C

Pre Measurement

pH	7.09 pH

pH mV	-10.7 mV

Post Measurement

pH	7.02 pH
pH mV	-10.6 mV

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-180.4 mV
Temperature	22.61 °C

Pre Measurement

pH	10.10 pH
pH mV	-181.0 mV

Post Measurement

pH	10.00 pH
pH mV	-179.0 mV

Slope and Offset 1

Slope	-57.47 mV/pH
Offset	-9.5 mV

Slope and Offset 2

Slope	-56.96 mV/pH
Offset	-9.5 mV

ORP

ORP Solution	Quick-Cal
Offset	-1.5 mV
Temperature	23.70 °C

Sensor	RDO
Serial Number	645869
Last Calibrated	9/25/2019

Calibration Details

Slope	0.9956272
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.85 mg/L
Pre Measurement	100.00 %Sat
Post Measurement	100.00 %Sat
Temperature	22.92 °C
Barometric Pressure	1,038.8 mbar

Sensor	Turbidity
Serial Number	684116
Last Calibrated	9/25/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.137
Offset	-0.31 NTU

Calibration Point 1

Pre Measurement	0.19 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	100.37 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	542101
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	535619
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	542101
Created	10/1/2019

Sensor	Conductivity
Serial Number	673190
Last Calibrated	10/1/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	368.926
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	42,133 µS/cm
Specific Conductivity	51,510 µS/cm

Post Measurement

Actual Conductivity	40,898 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668449
Last Calibrated	10/1/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	156.9 mV
Temperature	15.65 °C

Pre Measurement

pH	4.04 pH
pH mV	156.8 mV

Post Measurement

pH	4.00 pH
pH mV	152.0 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-12.8 mV
Temperature	15.82 °C

Pre Measurement

pH	7.08 pH

pH mV	-13.5 mV

Post Measurement

pH	7.02 pH
pH mV	-12.4 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-187.4 mV
Temperature	15.68 °C

Pre Measurement

pH	10.19 pH
pH mV	-187.4 mV

Post Measurement

pH	10.08 pH
pH mV	-181.5 mV

Slope and Offset 1

Slope	-56.18 mV/pH
Offset	-11.6 mV

Slope and Offset 2

Slope	-57.06 mV/pH
Offset	-11.6 mV

ORP

ORP Solution	Quick-Cal
Offset	-1.5 mV
Temperature	23.70 °C

Sensor	RDO
Serial Number	645869
Last Calibrated	10/1/2019

Calibration Details

Slope	1.002079
Offset	0.00 mg/L

Calibration point 100%

Concentration	10.34 mg/L
Pre Measurement	99.38 %Sat
Post Measurement	100.00 %Sat
Temperature	15.63 °C
Barometric Pressure	1,058.9 mbar

Sensor	Turbidity
Serial Number	684116
Last Calibrated	10/1/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.134564
Offset	-1.09 NTU

Calibration Point 1

Pre Measurement	0.91 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	124.95 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	542101
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	535619
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	542101
Created	10/9/2019

Sensor	Conductivity
Serial Number	673190
Last Calibrated	10/9/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.059
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	39,772 µS/cm
Specific Conductivity	49,454 µS/cm

Post Measurement

Actual Conductivity	40,211 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668449
Last Calibrated	10/9/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	158.6 mV
Temperature	14.59 °C

Pre Measurement

pH	4.02 pH
pH mV	155.1 mV

Post Measurement

pH	4.00 pH
pH mV	153.1 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-15.8 mV
Temperature	14.75 °C

Pre Measurement

pH	7.08 pH

pH mV	-15.9 mV

Post Measurement

pH	7.06 pH
pH mV	-15.3 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-187.1 mV
Temperature	14.62 °C

Pre Measurement

pH	10.09 pH
pH mV	-187.1 mV

Post Measurement

pH	10.08 pH
pH mV	-180.6 mV

Slope and Offset 1

Slope	-56.99 mV/pH
Offset	-12.4 mV

Slope and Offset 2

Slope	-56.73 mV/pH
Offset	-12.4 mV

ORP

ORP Solution	Quick-Cal
Offset	-1.5 mV
Temperature	23.70 °C

Sensor	RDO
Serial Number	645869
Last Calibrated	10/9/2019

Calibration Details

Slope	0.9968981
Offset	0.00 mg/L

Calibration point 100%

Concentration	10.34 mg/L
Pre Measurement	100.59 %Sat
Post Measurement	100.00 %Sat
Temperature	15.41 °C
Barometric Pressure	1,044.4 mbar

Sensor	Turbidity
Serial Number	684116
Last Calibrated	10/9/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.139199
Offset	-1.23 NTU

Calibration Point 1

Pre Measurement	0.07 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	123.60 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	542101
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	535619
Last Calibrated	10/1/2019

Calibration Details

Zero Offset	14.80 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.79 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	542101
Created	10/22/2019

Sensor	Conductivity
Serial Number	673190
Last Calibrated	10/22/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.158
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	40,605 µS/cm
Specific Conductivity	50,362 µS/cm

Post Measurement

Actual Conductivity	40,313 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668449
Last Calibrated	10/22/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	158.5 mV
Temperature	14.30 °C

Pre Measurement

pH	4.00 pH
pH mV	158.5 mV

Post Measurement

pH	4.00 pH
pH mV	152.8 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-13.3 mV
Temperature	14.55 °C

Pre Measurement

pH	7.02 pH

pH mV	-13.4 mV

Post Measurement

pH	7.06 pH
pH mV	-12.8 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-178.0 mV
Temperature	14.48 °C

Pre Measurement

pH	10.00 pH
pH mV	-182.2 mV

Post Measurement

pH	10.08 pH
pH mV	-171.8 mV

Slope and Offset 1

Slope	-56.14 mV/pH
Offset	-9.9 mV

Slope and Offset 2

Slope	-54.56 mV/pH
Offset	-10.0 mV

ORP

ORP Solution	Quick-Cal
Offset	-1.5 mV
Temperature	23.70 °C

Sensor	RDO
Serial Number	645869
Last Calibrated	10/22/2019

Calibration Details

Slope	0.9851292
Offset	0.00 mg/L

Calibration point 100%

Concentration	10.43 mg/L
Pre Measurement	101.22 %Sat
Post Measurement	100.00 %Sat
Temperature	15.37 °C
Barometric Pressure	1,040.1 mbar

Sensor	Turbidity
Serial Number	684116
Last Calibrated	10/22/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.128246
Offset	-0.32 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	124.12 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	542101
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	535619
Last Calibrated	10/1/2019

Calibration Details

Zero Offset	14.80 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.79 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	542101
Created	10/31/2019

Sensor	Conductivity
Serial Number	673190
Last Calibrated	10/31/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.054
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	46,151 µS/cm
Specific Conductivity	54,922 µS/cm

Post Measurement

Actual Conductivity	42,015 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668449
Last Calibrated	10/31/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	158.8 mV
Temperature	16.58 °C

Pre Measurement

pH	3.94 pH
pH mV	161.0 mV

Post Measurement

pH	4.00 pH
pH mV	154.3 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-8.2 mV
Temperature	16.59 °C

Pre Measurement

pH	6.98 pH

pH mV	-8.2 mV

Post Measurement

pH	7.02 pH
pH mV	-7.9 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-179.2 mV
Temperature	16.57 °C

Pre Measurement

pH	10.11 pH
pH mV	-179.2 mV

Post Measurement

pH	10.08 pH
pH mV	-174.2 mV

Slope and Offset 1

Slope	-55.28 mV/pH
Offset	-7.1 mV

Slope and Offset 2

Slope	-55.9 mV/pH
Offset	-7.0 mV

ORP

ORP Solution	Quick-Cal
Offset	-1.5 mV
Temperature	23.70 °C

Sensor	RDO
Serial Number	645869
Last Calibrated	10/31/2019

Calibration Details

Slope	1.013814
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.82 mg/L
Pre Measurement	97.11 %Sat
Post Measurement	100.00 %Sat
Temperature	17.40 °C
Barometric Pressure	1,051.3 mbar

Sensor	Turbidity
Serial Number	684116
Last Calibrated	10/31/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.124765
Offset	0.12 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	123.48 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	542101
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	535619
Last Calibrated	10/1/2019

Calibration Details

Zero Offset	14.80 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.79 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	542101
Created	11/5/2019

Sensor	Conductivity
Serial Number	673190
Last Calibrated	11/5/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.101
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	34,644 µS/cm
Specific Conductivity	47,418 µS/cm

Post Measurement

Actual Conductivity	36,530 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668449
Last Calibrated	11/5/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	153.5 mV
Temperature	10.32 °C

Pre Measurement

pH	4.02 pH
pH mV	154.3 mV

Post Measurement

pH	4.00 pH
pH mV	145.9 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-15.1 mV
Temperature	10.68 °C

Pre Measurement

pH	7.18 pH

pH mV	-16.6 mV

Post Measurement

pH	7.06 pH
pH mV	-14.4 mV

Calibration Point 3

pH of Buffer	10.12 pH
pH mV	-184.3 mV
Temperature	10.46 °C

Pre Measurement

pH	10.28 pH
pH mV	-186.6 mV

Post Measurement

pH	10.12 pH
pH mV	-175.3 mV

Slope and Offset 1

Slope	-55.11 mV/pH
Offset	-11.8 mV

Slope and Offset 2

Slope	-55.27 mV/pH
Offset	-11.8 mV

ORP

ORP Solution	Quick-Cal
Offset	-1.5 mV
Temperature	23.70 °C

Sensor	RDO
Serial Number	645869
Last Calibrated	11/5/2019

Calibration Details

Slope	0.9723528
Offset	0.00 mg/L

Calibration point 100%

Concentration	11.10 mg/L
Pre Measurement	104.20 %Sat
Post Measurement	100.00 %Sat
Temperature	12.49 °C
Barometric Pressure	1,026.3 mbar

Sensor	Turbidity
Serial Number	684116
Last Calibrated	11/5/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.113118
Offset	0.17 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	124.40 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	542101
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	535619
Last Calibrated	10/1/2019

Calibration Details

Zero Offset	14.80 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.79 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	542101
Created	11/18/2019

Sensor	**Conductivity**
Serial Number	673190
Last Calibrated	11/18/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.996
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	37,872 µS/cm
Specific Conductivity	55,249 µS/cm

Post Measurement

Actual Conductivity	34,274 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	**pH/ORP**
Serial Number	668449
Last Calibrated	11/18/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	162.4 mV
Temperature	8.31 °C

Pre Measurement

pH	3.81 pH
pH mV	162.6 mV

Post Measurement

pH	4.00 pH
pH mV	153.3 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-6.1 mV
Temperature	8.55 °C

Pre Measurement

pH	6.90 pH
pH mV	-6.1 mV

Post Measurement

pH	7.06 pH
pH mV	-5.8 mV

Calibration Point 3

pH of Buffer	10.12 pH
pH mV	-179.2 mV
Temperature	8.58 °C

Pre Measurement

pH	10.05 pH
pH mV	-179.2 mV

Post Measurement

pH	10.12 pH
pH mV	-169.3 mV

Slope and Offset 1

Slope	-55.08 mV/pH
Offset	-2.8 mV

Slope and Offset 2

Slope	-56.56 mV/pH
Offset	-2.7 mV

ORP

ORP Solution	Quick-Cal
Offset	-1.5 mV
Temperature	23.70 °C

Sensor	**RDO**
Serial Number	645869
Last Calibrated	11/18/2019

Calibration Details

Slope	0.9832171
Offset	0.00 mg/L

Calibration point 100%

Concentration	10.55 mg/L
Pre Measurement	98.76 %Sat
Post Measurement	100.00 %Sat
Temperature	14.38 °C
Barometric Pressure	1,028.1 mbar

Sensor	**Turbidity**
Serial Number	684116
Last Calibrated	11/18/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.101043
Offset	0.16 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	125.33 NTU
Post Measurement	124.00 NTU

Sensor	**Barometric Pressure**
Serial Number	542101
Last Calibrated	Factory Defaults

Sensor	**Pressure**
Serial Number	535619
Last Calibrated	10/1/2019

Calibration Details

Zero Offset	14.80 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.79 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	542101
Created	12/4/2019

Sensor	Conductivity
Serial Number	673190
Last Calibrated	12/4/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.015
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	37,868 µS/cm
Specific Conductivity	49,043 µS/cm

Post Measurement

Actual Conductivity	38,607 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668449
Last Calibrated	12/4/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	158.9 mV
Temperature	12.67 °C

Pre Measurement

pH	4.11 pH
pH mV	159.1 mV

Post Measurement

pH	4.00 pH
pH mV	152.4 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-10.5 mV
Temperature	12.18 °C

Pre Measurement

pH	7.18 pH

pH mV	-13.2 mV

Post Measurement

pH	7.06 pH
pH mV	-10.0 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-182.3 mV
Temperature	13.34 °C

Pre Measurement

pH	10.14 pH
pH mV	-183.1 mV

Post Measurement

pH	10.08 pH
pH mV	-175.2 mV

Slope and Offset 1

Slope	-55.36 mV/pH
Offset	-7.2 mV

Slope and Offset 2

Slope	-56.91 mV/pH
Offset	-7.1 mV

ORP

ORP Solution	Quick-Cal
Offset	-1.5 mV
Temperature	23.70 °C

Sensor	RDO
Serial Number	645869
Last Calibrated	12/4/2019

Calibration Details

Slope	0.9918048
Offset	0.00 mg/L

Calibration point 100%

Concentration	10.84 mg/L
Pre Measurement	99.06 %Sat
Post Measurement	100.00 %Sat
Temperature	11.24 °C
Barometric Pressure	993.76 mbar

Sensor	Turbidity
Serial Number	684116
Last Calibrated	12/4/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.10426
Offset	0.20 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	121.76 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	542101
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	535619
Last Calibrated	10/1/2019

Calibration Details

Zero Offset	14.80 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.79 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	542101
Created	12/26/2019

Sensor	Conductivity
Serial Number	673190
Last Calibrated	12/26/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.022
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	45,571 µS/cm
Specific Conductivity	49,693 µS/cm

Post Measurement

Actual Conductivity	45,853 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668449
Last Calibrated	12/26/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	163.7 mV
Temperature	20.27 °C

Pre Measurement

pH	3.99 pH
pH mV	163.6 mV

Post Measurement

pH	4.00 pH
pH mV	161.1 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-10.4 mV
Temperature	20.54 °C

Pre Measurement

pH	7.06 pH

pH mV	-10.5 mV

Post Measurement

pH	7.02 pH
pH mV	-10.2 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-186.2 mV
Temperature	20.55 °C

Pre Measurement

pH	10.06 pH
pH mV	-186.3 mV

Post Measurement

pH	10.04 pH
pH mV	-183.4 mV

Slope and Offset 1

Slope	-57.66 mV/pH
Offset	-9.3 mV

Slope and Offset 2

Slope	-58.22 mV/pH
Offset	-9.2 mV

ORP

ORP Solution	Quick-Cal
Offset	-1.5 mV
Temperature	23.70 °C

Sensor	RDO
Serial Number	645869
Last Calibrated	12/26/2019

Calibration Details

Slope	1.016522
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.33 mg/L
Pre Measurement	97.61 %Sat
Post Measurement	100.00 %Sat
Temperature	20.58 °C
Barometric Pressure	1,067.6 mbar

Sensor	Turbidity
Serial Number	684116
Last Calibrated	12/26/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.139855
Offset	-0.06 NTU

Calibration Point 1

Pre Measurement	0.22 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	120.40 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	542101
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	535619
Last Calibrated	10/1/2019

Calibration Details

Zero Offset	14.80 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.79 psi
Post Measurement	0.00 psi

Station 33

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	488061
Created	9/3/2019

Sensor	Conductivity
Serial Number	641239
Last Calibrated	9/3/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.045
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	47,215 µS/cm
Specific Conductivity	48,204 µS/cm

Post Measurement

Actual Conductivity	48,974 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	551117
Last Calibrated	9/3/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	170.1 mV
Temperature	23.95 °C

Pre Measurement

pH	4.11 pH
pH mV	169.9 mV

Post Measurement

pH	4.00 pH
pH mV	169.5 mV

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-3.4 mV
Temperature	24.31 °C

Pre Measurement

pH	7.05 pH

pH mV	-3.5 mV

Post Measurement

pH	7.00 pH
pH mV	-3.4 mV

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-175.2 mV
Temperature	23.90 °C

Pre Measurement

pH	9.96 pH
pH mV	-174.9 mV

Post Measurement

pH	10.00 pH
pH mV	-174.5 mV

Slope and Offset 1

Slope	-57.82 mV/pH
Offset	-3.4 mV

Slope and Offset 2

Slope	-57.26 mV/pH
Offset	-3.4 mV

ORP

ORP Solution	Quick-Cal
Offset	-98.8 mV
Temperature	22.33 °C
Pre Measurement	226.5 mV
Post Measurement	227.6 mV

Sensor	RDO
Serial Number	604076
Last Calibrated	9/3/2019

Calibration Details

Slope	1.010204
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.52 mg/L
Pre Measurement	98.54 %Sat
Post Measurement	100.00 %Sat
Temperature	23.51 °C
Barometric Pressure	1,026.5 mbar

Sensor	Turbidity
Serial Number	515947

Last Calibrated	9/3/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	0.5553291
Offset	-1.70 NTU

Calibration Point 1

Pre Measurement	2.88 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	127.99 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	488061
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	464008
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	460352
Created	9/12/2019

Sensor	Conductivity
Serial Number	674490
Last Calibrated	9/12/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.064
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	40,700 µS/cm
Specific Conductivity	48,126 µS/cm

Post Measurement

Actual Conductivity	42,286 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574685
Last Calibrated	9/12/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	154.4 mV
Temperature	16.68 °C

Pre Measurement

pH	4.29 pH
pH mV	154.4 mV

Post Measurement

pH	4.00 pH
pH mV	150.1 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-6.0 mV
Temperature	16.23 °C

Pre Measurement

pH	7.10 pH

pH mV	-5.9 mV

Post Measurement

pH	7.02 pH
pH mV	-5.8 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-177.4 mV
Temperature	16.84 °C

Pre Measurement

pH	10.19 pH
pH mV	-177.8 mV

Post Measurement

pH	10.08 pH
pH mV	-172.6 mV

Slope and Offset 1

Slope	-53.09 mV/pH
Offset	-4.9 mV

Slope and Offset 2

Slope	-56.04 mV/pH
Offset	-4.8 mV

ORP

ORP Solution	Quick-Cal
Offset	-77.9 mV
Temperature	22.69 °C
Pre Measurement	226.6 mV
Post Measurement	227.0 mV

Sensor	RDO
Serial Number	531222
Last Calibrated	9/12/2019

Calibration Details

Slope	1.007549
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.41 mg/L
Pre Measurement	104.05 %Sat
Post Measurement	100.00 %Sat
Temperature	16.94 °C
Barometric Pressure	992.57 mbar

Sensor	Turbidity
Serial Number	641496

Last Calibrated	9/12/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.220888
Offset	-5.22 NTU

Calibration Point 1

Pre Measurement	0.14 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	88.91 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	460352
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	455571
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	460352
Created	9/18/2019

Sensor	Conductivity
Serial Number	674490
Last Calibrated	9/18/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	63.568
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	46,269 µS/cm
Specific Conductivity	53,712 µS/cm

Post Measurement

Actual Conductivity	43,072 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574685
Last Calibrated	9/18/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	158.2 mV
Temperature	17.72 °C

Pre Measurement

pH	3.83 pH
pH mV	164.2 mV

Post Measurement

pH	4.00 pH
pH mV	154.3 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-9.0 mV
Temperature	17.44 °C

Pre Measurement

pH	7.08 pH

pH mV	-9.1 mV

Post Measurement

pH	7.02 pH
pH mV	-8.7 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-183.7 mV
Temperature	17.97 °C

Pre Measurement

pH	10.19 pH
pH mV	-184.5 mV

Post Measurement

pH	10.04 pH
pH mV	-179.4 mV

Slope and Offset 1

Slope	-55.35 mV/pH
Offset	-7.9 mV

Slope and Offset 2

Slope	-57.86 mV/pH
Offset	-7.8 mV

ORP

ORP Solution	Quick-Cal
Offset	-77.9 mV
Temperature	22.69 °C
Pre Measurement	226.6 mV
Post Measurement	227.0 mV

Sensor	RDO
Serial Number	531222
Last Calibrated	9/18/2019

Calibration Details

Slope	1.012982
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.21 mg/L
Pre Measurement	99.57 %Sat
Post Measurement	100.00 %Sat
Temperature	18.21 °C
Barometric Pressure	1,003.4 mbar

Sensor	Turbidity
Serial Number	641496

Last Calibrated	9/18/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.136902
Offset	0.48 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	127.58 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	460352
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	455571
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	460352
Created	9/25/2019

Sensor	Conductivity
Serial Number	674490
Last Calibrated	9/25/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.989
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	41,325 µS/cm
Specific Conductivity	48,949 µS/cm

Post Measurement

Actual Conductivity	42,213 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574685
Last Calibrated	9/25/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	163.6 mV
Temperature	16.87 °C

Pre Measurement

pH	3.90 pH
pH mV	163.5 mV

Post Measurement

pH	4.00 pH
pH mV	159.2 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-9.1 mV
Temperature	17.07 °C

Pre Measurement

pH	7.03 pH

pH mV	-9.3 mV

Post Measurement

pH	7.02 pH
pH mV	-8.9 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-184.5 mV
Temperature	16.81 °C

Pre Measurement

pH	10.06 pH
pH mV	-184.6 mV

Post Measurement

pH	10.08 pH
pH mV	-179.4 mV

Slope and Offset 1

Slope	-57.21 mV/pH
Offset	-8.0 mV

Slope and Offset 2

Slope	-57.31 mV/pH
Offset	-8.0 mV

ORP

ORP Solution	Quick-Cal
Offset	-77.9 mV
Temperature	22.69 °C
Pre Measurement	226.6 mV
Post Measurement	227.0 mV

Sensor	RDO
Serial Number	531222
Last Calibrated	9/25/2019

Calibration Details

Slope	1.024251
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.16 mg/L
Pre Measurement	98.97 %Sat
Post Measurement	100.00 %Sat
Temperature	17.79 °C
Barometric Pressure	1,000.4 mbar

Sensor	Turbidity
Serial Number	641496

Last Calibrated	9/25/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.127908
Offset	0.14 NTU

Calibration Point 1

Pre Measurement	0.29 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	126.42 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	460352
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	455571
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	460352
Created	10/2/2019

Sensor	Conductivity
Serial Number	674490
Last Calibrated	10/2/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	440.813
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	44,350 µS/cm
Specific Conductivity	49,939 µS/cm

Post Measurement

Actual Conductivity	44,404 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574685
Last Calibrated	10/2/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	165.3 mV
Temperature	19.07 °C

Pre Measurement

pH	3.94 pH
pH mV	168.3 mV

Post Measurement

pH	4.00 pH
pH mV	162.1 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-7.5 mV
Temperature	19.31 °C

Pre Measurement

pH	6.98 pH

pH mV	-6.9 mV

Post Measurement

pH	7.02 pH
pH mV	-7.3 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-187.3 mV
Temperature	19.05 °C

Pre Measurement

pH	10.11 pH
pH mV	-187.2 mV

Post Measurement

pH	10.04 pH
pH mV	-183.5 mV

Slope and Offset 1

Slope	-57.22 mV/pH
Offset	-6.3 mV

Slope and Offset 2

Slope	-59.53 mV/pH
Offset	-6.3 mV

ORP

ORP Solution	Quick-Cal
Offset	-77.9 mV
Temperature	22.69 °C

Sensor	RDO
Serial Number	531222
Last Calibrated	10/2/2019

Calibration Details

Slope	1.076303
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.76 mg/L
Pre Measurement	95.18 %Sat
Post Measurement	100.00 %Sat
Temperature	19.83 °C
Barometric Pressure	1,048.8 mbar

Sensor	Turbidity
Serial Number	641496
Last Calibrated	10/2/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.15514
Offset	-0.05 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	121.28 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	460352
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	455571
Last Calibrated	10/2/2019

Calibration Details

Zero Offset	14.65 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.65 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	460352
Created	10/9/2019

Sensor	Conductivity
Serial Number	674490
Last Calibrated	10/9/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	277.717
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	41,570 µS/cm
Specific Conductivity	49,878 µS/cm

Post Measurement

Actual Conductivity	41,671 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574685
Last Calibrated	10/9/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	161.1 mV
Temperature	15.74 °C

Pre Measurement

pH	4.04 pH
pH mV	161.0 mV

Post Measurement

pH	4.00 pH
pH mV	156.1 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-9.9 mV
Temperature	15.66 °C

Pre Measurement

pH	7.06 pH

pH mV	-10.0 mV

Post Measurement

pH	7.02 pH
pH mV	-9.6 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-184.6 mV
Temperature	15.98 °C

Pre Measurement

pH	10.04 pH
pH mV	-185.2 mV

Post Measurement

pH	10.08 pH
pH mV	-179.0 mV

Slope and Offset 1

Slope	-56.61 mV/pH
Offset	-8.7 mV

Slope and Offset 2

Slope	-57.11 mV/pH
Offset	-8.7 mV

ORP

ORP Solution	Quick-Cal
Offset	-77.9 mV
Temperature	22.69 °C

Sensor	RDO
Serial Number	531222
Last Calibrated	10/9/2019

Calibration Details

Slope	1.031474
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.56 mg/L
Pre Measurement	104.39 %Sat
Post Measurement	100.00 %Sat
Temperature	16.15 °C
Barometric Pressure	1,027.1 mbar

Sensor	Turbidity
Serial Number	641496
Last Calibrated	10/9/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.155661
Offset	0.35 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	123.93 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	460352
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	455571
Last Calibrated	10/2/2019

Calibration Details

Zero Offset	14.65 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.65 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	460352
Created	10/22/2019

Sensor	Conductivity
Serial Number	674490
Last Calibrated	10/22/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.989
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	42,230 µS/cm
Specific Conductivity	49,923 µS/cm

Post Measurement

Actual Conductivity	42,295 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574685
Last Calibrated	10/22/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	162.8 mV
Temperature	16.73 °C

Pre Measurement

pH	3.98 pH
pH mV	163.1 mV

Post Measurement

pH	4.00 pH
pH mV	158.3 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-8.2 mV
Temperature	16.46 °C

Pre Measurement

pH	7.00 pH

pH mV	-8.7 mV

Post Measurement

pH	7.02 pH
pH mV	-8.0 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-178.1 mV
Temperature	16.73 °C

Pre Measurement

pH	9.96 pH
pH mV	-178.4 mV

Post Measurement

pH	10.08 pH
pH mV	-173.2 mV

Slope and Offset 1

Slope	-56.65 mV/pH
Offset	-7.1 mV

Slope and Offset 2

Slope	-55.52 mV/pH
Offset	-7.1 mV

ORP

ORP Solution	Quick-Cal
Offset	-77.9 mV
Temperature	22.69 °C

Sensor	RDO
Serial Number	531222
Last Calibrated	10/22/2019

Calibration Details

Slope	1.038036
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.12 mg/L
Pre Measurement	99.31 %Sat
Post Measurement	100.00 %Sat
Temperature	18.31 °C
Barometric Pressure	1,020.2 mbar

Sensor	Turbidity
Serial Number	641496
Last Calibrated	10/22/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.238111
Offset	-10.12 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	125.61 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	460352
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	455571
Last Calibrated	10/2/2019

Calibration Details

Zero Offset	14.65 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.65 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	460352
Created	10/31/2019

Sensor	Conductivity
Serial Number	674490
Last Calibrated	10/31/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.978
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	42,560 µS/cm
Specific Conductivity	50,562 µS/cm

Post Measurement

Actual Conductivity	42,088 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574685
Last Calibrated	10/31/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	160.6 mV
Temperature	16.47 °C

Pre Measurement

pH	4.04 pH
pH mV	160.6 mV

Post Measurement

pH	4.00 pH
pH mV	156.0 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-7.2 mV
Temperature	16.29 °C

Pre Measurement

pH	7.00 pH

pH mV	-7.3 mV

Post Measurement

pH	7.02 pH
pH mV	-7.0 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-175.9 mV
Temperature	16.68 °C

Pre Measurement

pH	10.04 pH
pH mV	-176.1 mV

Post Measurement

pH	10.08 pH
pH mV	-171.0 mV

Slope and Offset 1

Slope	-55.55 mV/pH
Offset	-6.1 mV

Slope and Offset 2

Slope	-55.14 mV/pH
Offset	-6.1 mV

ORP

ORP Solution	Quick-Cal
Offset	-77.9 mV
Temperature	22.69 °C

Sensor	RDO
Serial Number	531222
Last Calibrated	10/31/2019

Calibration Details

Slope	1.09328
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.27 mg/L
Pre Measurement	94.99 %Sat
Post Measurement	100.00 %Sat
Temperature	16.87 °C
Barometric Pressure	1,058.7 mbar

Sensor	Turbidity
Serial Number	641496
Last Calibrated	10/31/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.146541
Offset	0.60 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	123.17 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	460352
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	455571
Last Calibrated	10/2/2019

Calibration Details

Zero Offset	14.65 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.65 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	460352
Created	11/5/2019

Sensor	Conductivity
Serial Number	674490
Last Calibrated	11/5/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.037
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	36,411 µS/cm
Specific Conductivity	47,150 µS/cm

Post Measurement

Actual Conductivity	38,612 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574685
Last Calibrated	11/5/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	160.9 mV
Temperature	11.78 °C

Pre Measurement

pH	3.95 pH
pH mV	160.7 mV

Post Measurement

pH	4.00 pH
pH mV	153.7 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-11.2 mV
Temperature	11.64 °C

Pre Measurement

pH	7.10 pH

pH mV	-11.4 mV

Post Measurement

pH	7.06 pH
pH mV	-10.7 mV

Calibration Point 3

pH of Buffer	10.12 pH
pH mV	-183.6 mV
Temperature	11.99 °C

Pre Measurement

pH	10.28 pH
pH mV	-184.2 mV

Post Measurement

pH	10.12 pH
pH mV	-175.6 mV

Slope and Offset 1

Slope	-56.22 mV/pH
Offset	-7.8 mV

Slope and Offset 2

Slope	-56.37 mV/pH
Offset	-7.8 mV

ORP

ORP Solution	Quick-Cal
Offset	-77.9 mV
Temperature	22.69 °C

Sensor	RDO
Serial Number	531222
Last Calibrated	11/5/2019

Calibration Details

Slope	1.061418
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.88 mg/L
Pre Measurement	102.98 %Sat
Post Measurement	100.00 %Sat
Temperature	14.28 °C
Barometric Pressure	1,037.4 mbar

Sensor	Turbidity
Serial Number	641496
Last Calibrated	11/5/2019

Calibration Details	
TSS Conversion Factor (mg/L)	0
Slope	1.131817
Offset	0.71 NTU

Calibration Point 1	
Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2	
Pre Measurement	125.33 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	460352
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	455571
Last Calibrated	10/2/2019

Calibration Details	
Zero Offset	14.65 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.65 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	460352
Created	11/17/2019

Sensor	Conductivity
Serial Number	674490
Last Calibrated	11/17/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.956
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	39,071 µS/cm
Specific Conductivity	54,470 µS/cm

Post Measurement

Actual Conductivity	35,865 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574685
Last Calibrated	11/17/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	157.7 mV
Temperature	10.22 °C

Pre Measurement

pH	4.01 pH
pH mV	159.3 mV

Post Measurement

pH	4.00 pH
pH mV	149.9 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-13.3 mV
Temperature	9.79 °C

Pre Measurement

pH	7.07 pH

pH mV	-11.7 mV

Post Measurement

pH	7.06 pH
pH mV	-12.6 mV

Calibration Point 3

pH of Buffer	10.12 pH
pH mV	-185.5 mV
Temperature	10.26 °C

Pre Measurement

pH	10.17 pH
pH mV	-185.7 mV

Post Measurement

pH	10.12 pH
pH mV	-176.4 mV

Slope and Offset 1

Slope	-55.9 mV/pH
Offset	-10.0 mV

Slope and Offset 2

Slope	-56.28 mV/pH
Offset	-9.9 mV

ORP

ORP Solution	Quick-Cal
Offset	-77.9 mV
Temperature	22.69 °C

Sensor	RDO
Serial Number	531222
Last Calibrated	11/17/2019

Calibration Details

Slope	1.015202
Offset	0.00 mg/L

Calibration point 100%

Concentration	11.03 mg/L
Pre Measurement	104.55 %Sat
Post Measurement	100.00 %Sat
Temperature	9.41 °C
Barometric Pressure	991.31 mbar

Sensor	Turbidity
Serial Number	641496
Last Calibrated	11/17/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	44.83062
Offset	29.60 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	126.38 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	460352
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	455571
Last Calibrated	10/2/2019

Calibration Details

Zero Offset	14.65 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.65 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	460352
Created	12/4/2019

Sensor	Conductivity
Serial Number	674490
Last Calibrated	12/4/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.977
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	36,457 µS/cm
Specific Conductivity	48,889 µS/cm

Post Measurement

Actual Conductivity	37,286 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574685
Last Calibrated	12/4/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	164.8 mV
Temperature	11.65 °C

Pre Measurement

pH	3.90 pH
pH mV	164.3 mV

Post Measurement

pH	4.00 pH
pH mV	157.4 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-8.3 mV
Temperature	11.74 °C

Pre Measurement

pH	6.97 pH

pH mV	-8.5 mV

Post Measurement

pH	7.06 pH
pH mV	-7.9 mV

Calibration Point 3

pH of Buffer	10.12 pH
pH mV	-181.7 mV
Temperature	11.72 °C

Pre Measurement

pH	10.05 pH
pH mV	-182.8 mV

Post Measurement

pH	10.12 pH
pH mV	-173.6 mV

Slope and Offset 1

Slope	-56.58 mV/pH
Offset	-4.9 mV

Slope and Offset 2

Slope	-56.65 mV/pH
Offset	-4.9 mV

ORP

ORP Solution	Quick-Cal
Offset	-77.9 mV
Temperature	22.69 °C

Sensor	RDO
Serial Number	531222
Last Calibrated	12/4/2019

Calibration Details

Slope	1.055701
Offset	0.00 mg/L

Calibration point 100%

Concentration	10.14 mg/L
Pre Measurement	96.19 %Sat
Post Measurement	100.00 %Sat
Temperature	12.38 °C
Barometric Pressure	1,015.6 mbar

Sensor	Turbidity
Serial Number	641496
Last Calibrated	12/4/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	-13.18989
Offset	170.59 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	122.89 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	460352
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	455571
Last Calibrated	10/2/2019

Calibration Details

Zero Offset	14.65 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.65 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	460352
Created	12/26/2019

Sensor	Conductivity
Serial Number	674490
Last Calibrated	12/26/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.972
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	45,913 µS/cm
Specific Conductivity	50,281 µS/cm

Post Measurement

Actual Conductivity	45,657 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574685
Last Calibrated	12/26/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	166.1 mV
Temperature	20.18 °C

Pre Measurement

pH	3.97 pH
pH mV	171.4 mV

Post Measurement

pH	4.00 pH
pH mV	163.4 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-8.3 mV
Temperature	20.38 °C

Pre Measurement

pH	6.97 pH

pH mV	-3.2 mV

Post Measurement

pH	7.02 pH
pH mV	-8.2 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-181.6 mV
Temperature	20.35 °C

Pre Measurement

pH	10.03 pH
pH mV	-181.7 mV

Post Measurement

pH	10.04 pH
pH mV	-178.8 mV

Slope and Offset 1

Slope	-57.74 mV/pH
Offset	-7.2 mV

Slope and Offset 2

Slope	-57.39 mV/pH
Offset	-7.2 mV

ORP

ORP Solution	Quick-Cal
Offset	-77.9 mV
Temperature	22.69 °C

Sensor	RDO
Serial Number	531222
Last Calibrated	12/26/2019

Calibration Details

Slope	1.078574
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.00 mg/L
Pre Measurement	97.89 %Sat
Post Measurement	100.00 %Sat
Temperature	19.50 °C
Barometric Pressure	1,069.6 mbar

Sensor	Turbidity
Serial Number	641496
Last Calibrated	12/26/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.140442
Offset	0.22 NTU

Calibration Point 1

Pre Measurement	0.01 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	108.64 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	460352
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	455571
Last Calibrated	10/2/2019

Calibration Details

Zero Offset	14.65 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.65 psi
Post Measurement	0.00 psi

Station 34

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	448975
Created	9/3/2019

Sensor	Conductivity
Serial Number	618680
Last Calibrated	9/3/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.055
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	45,720 µS/cm
Specific Conductivity	46,497 µS/cm

Post Measurement

Actual Conductivity	49,165 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574783
Last Calibrated	9/3/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	169.8 mV
Temperature	23.93 °C

Pre Measurement

pH	4.10 pH
pH mV	169.8 mV

Post Measurement

pH	4.00 pH
pH mV	169.2 mV

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-1.7 mV
Temperature	24.36 °C

Pre Measurement

pH	7.01 pH

pH mV	-1.8 mV

Post Measurement

pH	7.00 pH
pH mV	-1.7 mV

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-173.8 mV
Temperature	23.99 °C

Pre Measurement

pH	9.93 pH
pH mV	-173.6 mV

Post Measurement

pH	10.00 pH
pH mV	-173.2 mV

Slope and Offset 1

Slope	-57.18 mV/pH
Offset	-1.7 mV

Slope and Offset 2

Slope	-57.35 mV/pH
Offset	-1.7 mV

ORP

ORP Solution	Quick-Cal
Offset	-104.3 mV
Temperature	22.79 °C
Pre Measurement	225.7 mV
Post Measurement	226.9 mV

Sensor	RDO
Serial Number	645865
Last Calibrated	9/3/2019

Calibration Details

Slope	0.9643743
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.66 mg/L
Pre Measurement	100.65 %Sat
Post Measurement	100.00 %Sat
Temperature	23.67 °C
Barometric Pressure	999.53 mbar

Sensor	Turbidity
Serial Number	650637

Last Calibrated	9/3/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.022103
Offset	1.74 NTU

Calibration Point 1

Pre Measurement	0.43 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	87.83 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	448975
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457280
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	448975
Created	9/12/2019

Sensor	Conductivity
Serial Number	618680
Last Calibrated	9/12/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.09
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	40,771 µS/cm
Specific Conductivity	48,400 µS/cm

Post Measurement

Actual Conductivity	42,118 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574783
Last Calibrated	9/12/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	148.9 mV
Temperature	16.44 °C

Pre Measurement

pH	4.30 pH
pH mV	148.9 mV

Post Measurement

pH	4.00 pH
pH mV	144.6 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-11.1 mV
Temperature	16.11 °C

Pre Measurement

pH	7.17 pH

pH mV	-11.1 mV

Post Measurement

pH	7.02 pH
pH mV	-10.7 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-180.9 mV
Temperature	16.72 °C

Pre Measurement

pH	10.21 pH
pH mV	-181.3 mV

Post Measurement

pH	10.08 pH
pH mV	-175.8 mV

Slope and Offset 1

Slope	-52.97 mV/pH
Offset	-10.0 mV

Slope and Offset 2

Slope	-55.49 mV/pH
Offset	-10.0 mV

ORP

ORP Solution	Quick-Cal
Offset	-104.3 mV
Temperature	22.79 °C
Pre Measurement	225.7 mV
Post Measurement	226.9 mV

Sensor	RDO
Serial Number	645865
Last Calibrated	9/12/2019

Calibration Details

Slope	0.9226639
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.98 mg/L
Pre Measurement	104.54 %Sat
Post Measurement	100.00 %Sat
Temperature	16.84 °C
Barometric Pressure	962.75 mbar

Sensor	Turbidity
Serial Number	650637

Last Calibrated	9/12/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.130969
Offset	2.49 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	89.64 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	448975
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457280
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	448975
Created	9/18/2019

Sensor	Conductivity
Serial Number	618680
Last Calibrated	9/18/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.026
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	45,502 µS/cm
Specific Conductivity	53,464 µS/cm

Post Measurement

Actual Conductivity	42,554 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574783
Last Calibrated	9/18/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	158.3 mV
Temperature	16.87 °C

Pre Measurement

pH	3.83 pH
pH mV	158.2 mV

Post Measurement

pH	4.00 pH
pH mV	154.0 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-12.0 mV
Temperature	16.62 °C

Pre Measurement

pH	7.04 pH

pH mV	-12.2 mV

Post Measurement

pH	7.02 pH
pH mV	-11.7 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-183.7 mV
Temperature	17.31 °C

Pre Measurement

pH	10.13 pH
pH mV	-184.3 mV

Post Measurement

pH	10.08 pH
pH mV	-178.9 mV

Slope and Offset 1

Slope	-56.42 mV/pH
Offset	-10.9 mV

Slope and Offset 2

Slope	-56.08 mV/pH
Offset	-10.9 mV

ORP

ORP Solution	Quick-Cal
Offset	-104.3 mV
Temperature	22.79 °C
Pre Measurement	225.7 mV
Post Measurement	226.9 mV

Sensor	RDO
Serial Number	645865
Last Calibrated	9/18/2019

Calibration Details

Slope	0.921019
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.81 mg/L
Pre Measurement	100.29 %Sat
Post Measurement	100.00 %Sat
Temperature	17.90 °C
Barometric Pressure	966.48 mbar

Sensor	Turbidity
Serial Number	650637

Last Calibrated	9/18/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	0.7462288
Offset	1.57 NTU

Calibration Point 1

Pre Measurement	0.09 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	123.47 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	448975
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457280
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	448975
Created	9/25/2019

Sensor	Conductivity
Serial Number	618680
Last Calibrated	9/25/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.011
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	44,981 µS/cm
Specific Conductivity	50,731 µS/cm

Post Measurement

Actual Conductivity	44,334 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574783
Last Calibrated	9/25/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	165.8 mV
Temperature	18.93 °C

Pre Measurement

pH	3.89 pH
pH mV	165.8 mV

Post Measurement

pH	4.00 pH
pH mV	162.4 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-5.6 mV
Temperature	18.97 °C

Pre Measurement

pH	6.91 pH

pH mV	-5.8 mV

Post Measurement

pH	7.02 pH
pH mV	-5.5 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-177.8 mV
Temperature	19.14 °C

Pre Measurement

pH	9.95 pH
pH mV	-177.9 mV

Post Measurement

pH	10.04 pH
pH mV	-174.3 mV

Slope and Offset 1

Slope	-56.77 mV/pH
Offset	-4.5 mV

Slope and Offset 2

Slope	-57 mV/pH
Offset	-4.5 mV

ORP

ORP Solution	Quick-Cal
Offset	-104.3 mV
Temperature	22.79 °C
Pre Measurement	225.7 mV
Post Measurement	226.9 mV

Sensor	RDO
Serial Number	645865
Last Calibrated	9/25/2019

Calibration Details

Slope	0.9473608
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.29 mg/L
Pre Measurement	97.16 %Sat
Post Measurement	100.00 %Sat
Temperature	19.66 °C
Barometric Pressure	975.07 mbar

Sensor	Turbidity
Serial Number	650637

Last Calibrated	9/25/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.130826
Offset	2.00 NTU

Calibration Point 1

Pre Measurement	0.23 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	82.43 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	448975
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457280
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	448975
Created	10/1/2019

Sensor	Conductivity
Serial Number	618680
Last Calibrated	10/1/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.008
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	41,122 µS/cm
Specific Conductivity	50,132 µS/cm

Post Measurement

Actual Conductivity	41,014 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574783
Last Calibrated	10/1/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	158.6 mV
Temperature	15.62 °C

Pre Measurement

pH	4.08 pH
pH mV	159.3 mV

Post Measurement

pH	4.00 pH
pH mV	153.6 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-11.3 mV
Temperature	15.66 °C

Pre Measurement

pH	7.12 pH

pH mV	-11.4 mV

Post Measurement

pH	7.02 pH
pH mV	-11.0 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-183.0 mV
Temperature	15.63 °C

Pre Measurement

pH	10.17 pH
pH mV	-183.2 mV

Post Measurement

pH	10.08 pH
pH mV	-177.3 mV

Slope and Offset 1

Slope	-56.27 mV/pH
Offset	-10.2 mV

Slope and Offset 2

Slope	-56.11 mV/pH
Offset	-10.2 mV

ORP

ORP Solution	Quick-Cal
Offset	-104.3 mV
Temperature	22.79 °C
Pre Measurement	225.7 mV
Post Measurement	226.9 mV

Sensor	RDO
Serial Number	645865
Last Calibrated	10/1/2019

Calibration Details

Slope	0.9373025
Offset	0.00 mg/L

Calibration point 100%

Concentration	10.06 mg/L
Pre Measurement	101.06 %Sat
Post Measurement	100.00 %Sat
Temperature	16.05 °C
Barometric Pressure	969.99 mbar

Sensor	Turbidity
Serial Number	650637

Last Calibrated	10/1/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.13561
Offset	1.68 NTU

Calibration Point 1

Pre Measurement	0.21 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	124.36 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	448975
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457280
Last Calibrated	10/1/2019

Calibration Details

Zero Offset	14.82 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.82 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	448975
Created	10/9/2019

Sensor	Conductivity
Serial Number	618680
Last Calibrated	10/9/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.002
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	42,342 µS/cm
Specific Conductivity	50,310 µS/cm

Post Measurement

Actual Conductivity	42,081 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574783
Last Calibrated	10/9/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	159.7 mV
Temperature	16.30 °C

Pre Measurement

pH	3.97 pH
pH mV	160.8 mV

Post Measurement

pH	4.00 pH
pH mV	155.1 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-10.9 mV
Temperature	16.32 °C

Pre Measurement

pH	7.00 pH

pH mV	-10.3 mV

Post Measurement

pH	7.02 pH
pH mV	-10.6 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-181.2 mV
Temperature	16.36 °C

Pre Measurement

pH	10.03 pH
pH mV	-180.9 mV

Post Measurement

pH	10.08 pH
pH mV	-176.0 mV

Slope and Offset 1

Slope	-56.5 mV/pH
Offset	-9.8 mV

Slope and Offset 2

Slope	-55.66 mV/pH
Offset	-9.8 mV

ORP

ORP Solution	Quick-Cal
Offset	-104.3 mV
Temperature	22.79 °C
Pre Measurement	225.7 mV
Post Measurement	226.9 mV

Sensor	RDO
Serial Number	645865
Last Calibrated	10/9/2019

Calibration Details

Slope	0.9956973
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.71 mg/L
Pre Measurement	94.16 %Sat
Post Measurement	100.00 %Sat
Temperature	17.23 °C
Barometric Pressure	1,018.8 mbar

Sensor	Turbidity
Serial Number	650637

Last Calibrated	10/9/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.132998
Offset	2.30 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	123.30 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	448975
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457280
Last Calibrated	10/1/2019

Calibration Details

Zero Offset	14.82 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.82 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	448975
Created	10/22/2019

Sensor	Conductivity
Serial Number	618680
Last Calibrated	10/22/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	171.518
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	41,939 µS/cm
Specific Conductivity	49,150 µS/cm

Post Measurement

Actual Conductivity	42,664 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574783
Last Calibrated	10/22/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	162.6 mV
Temperature	17.19 °C

Pre Measurement

pH	3.94 pH
pH mV	163.6 mV

Post Measurement

pH	4.00 pH
pH mV	158.3 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-8.5 mV
Temperature	17.12 °C

Pre Measurement

pH	6.97 pH

pH mV	-8.0 mV

Post Measurement

pH	7.02 pH
pH mV	-8.3 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-176.3 mV
Temperature	17.13 °C

Pre Measurement

pH	9.98 pH
pH mV	-176.3 mV

Post Measurement

pH	10.08 pH
pH mV	-171.7 mV

Slope and Offset 1

Slope	-56.65 mV/pH
Offset	-7.4 mV

Slope and Offset 2

Slope	-54.84 mV/pH
Offset	-7.4 mV

ORP

ORP Solution	Quick-Cal
Offset	-104.3 mV
Temperature	22.79 °C
Pre Measurement	225.7 mV
Post Measurement	226.9 mV

Sensor	RDO
Serial Number	645865
Last Calibrated	10/22/2019

Calibration Details

Slope	0.9349031
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.98 mg/L
Pre Measurement	104.72 %Sat
Post Measurement	100.00 %Sat
Temperature	17.83 °C
Barometric Pressure	982.23 mbar

Sensor	Turbidity
Serial Number	650637

Last Calibrated	10/22/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.128445
Offset	2.22 NTU

Calibration Point 1

Pre Measurement	0.08 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	124.25 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	448975
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457280
Last Calibrated	10/1/2019

Calibration Details

Zero Offset	14.82 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.82 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	448975
Created	10/31/2019

Sensor	Conductivity
Serial Number	618680
Last Calibrated	10/31/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.016
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	42,246 µS/cm
Specific Conductivity	49,945 µS/cm

Post Measurement

Actual Conductivity	42,293 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574783
Last Calibrated	10/31/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	161.5 mV
Temperature	16.77 °C

Pre Measurement

pH	4.01 pH
pH mV	161.6 mV

Post Measurement

pH	4.00 pH
pH mV	157.0 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-7.5 mV
Temperature	16.69 °C

Pre Measurement

pH	7.00 pH

pH mV	-7.5 mV

Post Measurement

pH	7.02 pH
pH mV	-7.3 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-175.7 mV
Temperature	16.80 °C

Pre Measurement

pH	10.09 pH
pH mV	-176.9 mV

Post Measurement

pH	10.08 pH
pH mV	-170.9 mV

Slope and Offset 1

Slope	-55.94 mV/pH
Offset	-6.4 mV

Slope and Offset 2

Slope	-54.99 mV/pH
Offset	-6.4 mV

ORP

ORP Solution	Quick-Cal
Offset	-104.3 mV
Temperature	22.79 °C
Pre Measurement	225.7 mV
Post Measurement	226.9 mV

Sensor	RDO
Serial Number	645865
Last Calibrated	10/31/2019

Calibration Details

Slope	1.095756
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.64 mg/L
Pre Measurement	85.31 %Sat
Post Measurement	100.00 %Sat
Temperature	17.33 °C
Barometric Pressure	1,113.2 mbar

Sensor	Turbidity
Serial Number	650637

Last Calibrated	10/31/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	-0.469681
Offset	174.51 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	123.73 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	448975
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457280
Last Calibrated	10/1/2019

Calibration Details

Zero Offset	14.82 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.82 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	448975
Created	11/5/2019

Sensor	Conductivity
Serial Number	618680
Last Calibrated	11/5/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	118.299
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	40,562 µS/cm
Specific Conductivity	51,132 µS/cm

Post Measurement

Actual Conductivity	39,664 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574783
Last Calibrated	11/5/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	158.0 mV
Temperature	13.74 °C

Pre Measurement

pH	4.03 pH
pH mV	158.1 mV

Post Measurement

pH	4.00 pH
pH mV	152.0 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-11.0 mV
Temperature	13.48 °C

Pre Measurement

pH	7.09 pH

pH mV	-11.1 mV

Post Measurement

pH	7.06 pH
pH mV	-10.6 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-181.1 mV
Temperature	13.91 °C

Pre Measurement

pH	10.21 pH
pH mV	-181.2 mV

Post Measurement

pH	10.08 pH
pH mV	-174.3 mV

Slope and Offset 1

Slope	-55.23 mV/pH
Offset	-7.7 mV

Slope and Offset 2

Slope	-56.3 mV/pH
Offset	-7.7 mV

ORP

ORP Solution	Quick-Cal
Offset	-104.3 mV
Temperature	22.79 °C
Pre Measurement	225.7 mV
Post Measurement	226.9 mV

Sensor	RDO
Serial Number	645865
Last Calibrated	11/5/2019

Calibration Details

Slope	0.9028489
Offset	0.00 mg/L

Calibration point 100%

Concentration	10.91 mg/L
Pre Measurement	120.09 %Sat
Post Measurement	100.00 %Sat
Temperature	14.33 °C
Barometric Pressure	1,006.1 mbar

Sensor	Turbidity
Serial Number	650637

Last Calibrated	11/5/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.107694
Offset	2.55 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	123.10 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	448975
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457280
Last Calibrated	10/1/2019

Calibration Details

Zero Offset	14.82 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.82 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	448975
Created	11/17/2019

Sensor	Conductivity
Serial Number	618680
Last Calibrated	11/17/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.999
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	35,500 µS/cm
Specific Conductivity	49,685 µS/cm

Post Measurement

Actual Conductivity	35,724 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574783
Last Calibrated	11/17/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	151.9 mV
Temperature	9.76 °C

Pre Measurement

pH	4.06 pH
pH mV	152.6 mV

Post Measurement

pH	4.00 pH
pH mV	144.1 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-14.2 mV
Temperature	9.35 °C

Pre Measurement

pH	7.12 pH

pH mV	-14.4 mV

Post Measurement

pH	7.06 pH
pH mV	-13.5 mV

Calibration Point 3

pH of Buffer	10.12 pH
pH mV	-183.6 mV
Temperature	9.92 °C

Pre Measurement

pH	10.17 pH
pH mV	-184.0 mV

Post Measurement

pH	10.12 pH
pH mV	-174.3 mV

Slope and Offset 1

Slope	-54.29 mV/pH
Offset	-11.0 mV

Slope and Offset 2

Slope	-55.34 mV/pH
Offset	-10.9 mV

ORP

ORP Solution	Quick-Cal
Offset	-104.3 mV
Temperature	22.79 °C
Pre Measurement	225.7 mV
Post Measurement	226.9 mV

Sensor	RDO
Serial Number	645865
Last Calibrated	11/17/2019

Calibration Details

Slope	0.9226928
Offset	0.00 mg/L

Calibration point 100%

Concentration	11.64 mg/L
Pre Measurement	97.96 %Sat
Post Measurement	100.00 %Sat
Temperature	9.65 °C
Barometric Pressure	956.71 mbar

Sensor	Turbidity
Serial Number	650637

Last Calibrated	11/17/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.096258
Offset	2.55 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	125.27 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	448975
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457280
Last Calibrated	10/1/2019

Calibration Details

Zero Offset	14.82 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.82 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	448975
Created	12/4/2019

Sensor	Conductivity
Serial Number	618680
Last Calibrated	12/4/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.972
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	37,934 µS/cm
Specific Conductivity	51,470 µS/cm

Post Measurement

Actual Conductivity	36,851 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574783
Last Calibrated	12/4/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	153.2 mV
Temperature	11.10 °C

Pre Measurement

pH	3.99 pH
pH mV	153.0 mV

Post Measurement

pH	4.00 pH
pH mV	146.1 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-16.7 mV
Temperature	11.09 °C

Pre Measurement

pH	7.10 pH

pH mV	-16.8 mV

Post Measurement

pH	7.06 pH
pH mV	-15.9 mV

Calibration Point 3

pH of Buffer	10.12 pH
pH mV	-186.9 mV
Temperature	11.22 °C

Pre Measurement

pH	10.16 pH
pH mV	-187.1 mV

Post Measurement

pH	10.12 pH
pH mV	-178.3 mV

Slope and Offset 1

Slope	-55.53 mV/pH
Offset	-13.3 mV

Slope and Offset 2

Slope	-55.63 mV/pH
Offset	-13.3 mV

ORP

ORP Solution	Quick-Cal
Offset	-104.3 mV
Temperature	22.79 °C
Pre Measurement	225.7 mV
Post Measurement	226.9 mV

Sensor	RDO
Serial Number	645865
Last Calibrated	12/4/2019

Calibration Details

Slope	0.9307869
Offset	0.00 mg/L

Calibration point 100%

Concentration	11.78 mg/L
Pre Measurement	99.03 %Sat
Post Measurement	100.00 %Sat
Temperature	9.76 °C
Barometric Pressure	979.11 mbar

Sensor	Turbidity
Serial Number	650637

Last Calibrated	12/4/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.09061
Offset	2.47 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	125.01 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	448975
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457280
Last Calibrated	10/1/2019

Calibration Details

Zero Offset	14.82 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.82 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	448975
Created	12/26/2019

Sensor	Conductivity
Serial Number	618680
Last Calibrated	12/26/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	44,571 µS/cm
Specific Conductivity	48,588 µS/cm

Post Measurement

Actual Conductivity	45,867 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	574783
Last Calibrated	12/26/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	166.8 mV
Temperature	20.50 °C

Pre Measurement

pH	3.96 pH
pH mV	160.3 mV

Post Measurement

pH	4.00 pH
pH mV	164.3 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-8.4 mV
Temperature	20.68 °C

Pre Measurement

pH	6.95 pH

pH mV	-11.0 mV

Post Measurement

pH	7.02 pH
pH mV	-8.3 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-184.9 mV
Temperature	20.63 °C

Pre Measurement

pH	9.98 pH
pH mV	-185.0 mV

Post Measurement

pH	10.04 pH
pH mV	-182.1 mV

Slope and Offset 1

Slope	-58.02 mV/pH
Offset	-7.3 mV

Slope and Offset 2

Slope	-58.42 mV/pH
Offset	-7.3 mV

ORP

ORP Solution	Quick-Cal
Offset	-104.3 mV
Temperature	22.79 °C
Pre Measurement	225.7 mV
Post Measurement	226.9 mV

Sensor	RDO
Serial Number	645865
Last Calibrated	12/26/2019

Calibration Details

Slope	1.071021
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.14 mg/L
Pre Measurement	86.85 %Sat
Post Measurement	100.00 %Sat
Temperature	20.73 °C
Barometric Pressure	1,105.0 mbar

Sensor	Turbidity
Serial Number	650637

Last Calibrated	12/26/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.140197
Offset	1.98 NTU

Calibration Point 1

Pre Measurement	0.53 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	118.94 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	448975
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457280
Last Calibrated	10/1/2019

Calibration Details

Zero Offset	14.82 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	14.82 psi
Post Measurement	0.00 psi

Station SM-1

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	663632
Created	8/13/2019

Sensor	Conductivity
Serial Number	673190
Last Calibrated	8/13/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.036
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	47,870 µS/cm
Specific Conductivity	49,311 µS/cm

Post Measurement

Actual Conductivity	48,539 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	Turbidity
Serial Number	528947
Last Calibrated	8/13/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	0.9025308
Offset	-0.28 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	91.18 NTU
Post Measurement	100.00 NTU

Sensor	RDO
Serial Number	611548
Last Calibrated	8/13/2019

Calibration Details

Slope	1.040993
Offset	0.00 mg/L

Calibration point 100%	
Concentration	8.29 mg/L
Pre Measurement	96.84 %Sat
Post Measurement	100.00 %Sat
Temperature	23.15 °C
Barometric Pressure	1,022.1 mbar

Sensor	pH/ORP
Serial Number	612367
Last Calibrated	8/13/2019

Calibration Details

Calibration Point 1	
pH of Buffer	4.00 pH
pH mV	163.8 mV
Temperature	23.29 °C

Pre Measurement	
pH	4.19 pH
pH mV	163.7 mV

Post Measurement	
pH	4.00 pH
pH mV	162.9 mV

Calibration Point 2	
pH of Buffer	7.00 pH
pH mV	-10.1 mV
Temperature	22.92 °C

Pre Measurement	
pH	7.14 pH
pH mV	-10.2 mV

Post Measurement	
pH	7.00 pH
pH mV	-10.0 mV

Calibration Point 3	
pH of Buffer	10.00 pH
pH mV	-182.1 mV
Temperature	23.20 °C

Pre Measurement	
pH	10.07 pH
pH mV	-182.3 mV

Post Measurement	
pH	10.00 pH
pH mV	-181.0 mV

Slope and Offset 1

Slope	-57.97 mV/pH
Offset	-10.1 mV

Slope and Offset 2

Slope	-57.33 mV/pH
Offset	-10.1 mV

ORP

ORP Solution	Quick-Cal
Offset	-100.6 mV
Temperature	22.89 °C
Pre Measurement	250.1 mV
Post Measurement	226.7 mV

Sensor	Barometric Pressure
Serial Number	663632
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	663632
Created	8/15/2019

Sensor	Conductivity
Serial Number	673190
Last Calibrated	8/13/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.036
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	47,870 µS/cm
Specific Conductivity	49,311 µS/cm

Post Measurement

Actual Conductivity	48,539 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	Turbidity
Serial Number	621211
Last Calibrated	8/15/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.009558
Offset	-2.24 NTU

Calibration Point 1

Pre Measurement	2.27 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	92.58 NTU
Post Measurement	100.00 NTU

Sensor	RDO
Serial Number	611548
Last Calibrated	8/13/2019

Calibration Details

Slope	1.040993
Offset	0.00 mg/L

Calibration point 100%	
Concentration	8.29 mg/L
Pre Measurement	96.84 %Sat
Post Measurement	100.00 %Sat
Temperature	23.15 °C
Barometric Pressure	1,022.1 mbar

Sensor	pH/ORP
Serial Number	612367
Last Calibrated	8/13/2019

Calibration Details

Calibration Point 1	
pH of Buffer	4.00 pH
pH mV	163.8 mV
Temperature	23.29 °C

Pre Measurement	
pH	4.19 pH
pH mV	163.7 mV

Post Measurement	
pH	4.00 pH
pH mV	162.9 mV

Calibration Point 2	
pH of Buffer	7.00 pH
pH mV	-10.1 mV
Temperature	22.92 °C

Pre Measurement	
pH	7.14 pH
pH mV	-10.2 mV

Post Measurement	
pH	7.00 pH
pH mV	-10.0 mV

Calibration Point 3	
pH of Buffer	10.00 pH
pH mV	-182.1 mV
Temperature	23.20 °C

Pre Measurement	
pH	10.07 pH
pH mV	-182.3 mV

Post Measurement	
pH	10.00 pH
pH mV	-181.0 mV

Slope and Offset 1

Slope	-57.97 mV/pH
Offset	-10.1 mV

Slope and Offset 2

Slope	-57.33 mV/pH
Offset	-10.1 mV

ORP

ORP Solution	Quick-Cal
Offset	-100.6 mV
Temperature	22.89 °C
Pre Measurement	250.1 mV
Post Measurement	226.7 mV

Sensor	Barometric Pressure
Serial Number	663632
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	442265
Created	8/22/2019

Sensor	**Conductivity**
Serial Number	641742
Last Calibrated	8/22/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.965
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	44,232 µS/cm
Specific Conductivity	46,337 µS/cm

Post Measurement

Actual Conductivity	47,728 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	**pH/ORP**
Serial Number	668217
Last Calibrated	8/22/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	-249.2 mV
Temperature	22.87 °C

Pre Measurement

pH	4.09 pH
pH mV	168.2 mV

Post Measurement

pH	4.00 pH
pH mV	-247.4 mV

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-29.0 mV
Temperature	23.05 °C

Pre Measurement

pH	7.18 pH
pH mV	-6.5 mV

Post Measurement

pH	7.00 pH
pH mV	-28.8 mV

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-173.4 mV
Temperature	22.79 °C

Pre Measurement

pH	10.10 pH
pH mV	-172.9 mV

Post Measurement

pH	10.00 pH
pH mV	-172.1 mV

Slope and Offset 1

Slope	73.41 mV/pH
Offset	-29.0 mV

Slope and Offset 2

Slope	-48.15 mV/pH
Offset	-29.0 mV

ORP

ORP Solution	Quick-Cal
Offset	-8.7 mV
Temperature	23.94 °C

Sensor	**RDO**
Serial Number	613770
Last Calibrated	8/22/2019

Calibration Details

Slope	1.047021
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.61 mg/L
Pre Measurement	99.99 %Sat
Post Measurement	100.00 %Sat
Temperature	22.68 °C
Barometric Pressure	1,057.4 mbar

Sensor	**Turbidity**
Serial Number	609778
Last Calibrated	8/22/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.968786
Offset	-95.13 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	98.30 NTU
Post Measurement	100.00 NTU

Sensor	**Barometric Pressure**
Serial Number	442265
Last Calibrated	Factory Defaults

Sensor	**Pressure**
Serial Number	434255
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	442265
Created	8/26/2019

Sensor	Conductivity
Serial Number	641742
Last Calibrated	8/26/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.979
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	41,838 µS/cm
Specific Conductivity	49,321 µS/cm

Post Measurement

Actual Conductivity	42,414 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668217
Last Calibrated	8/26/2019

Calibration Details

Calibration Point 1

pH of Buffer	7.02 pH
pH mV	-13.4 mV
Temperature	16.39 °C

Pre Measurement

pH	7.21 pH
pH mV	-13.5 mV

Post Measurement

pH	7.02 pH
pH mV	-13.0 mV

Calibration Point 2

pH of Buffer	10.08 pH
pH mV	-182.2 mV
Temperature	16.09 °C

Pre Measurement

pH	10.27 pH

pH mV	-181.9 mV

Post Measurement

pH	10.08 pH
pH mV	-176.7 mV

Slope and Offset 1

Slope	-55.15 mV/pH
Offset	-12.3 mV

ORP

ORP Solution	Quick-Cal
Offset	-8.7 mV
Temperature	23.94 °C

Sensor	RDO
Serial Number	613770
Last Calibrated	8/26/2019

Calibration Details

Slope	0.9522524
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.70 mg/L
Pre Measurement	109.81 %Sat
Post Measurement	100.00 %Sat
Temperature	18.03 °C
Barometric Pressure	989.99 mbar

Sensor	Turbidity
Serial Number	609778
Last Calibrated	8/26/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	0.9877074
Offset	1.84 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	102.78 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	442265
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434255
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	442265
Created	9/4/2019

Sensor	Conductivity
Serial Number	641742
Last Calibrated	9/4/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.011
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	45,969 µS/cm
Specific Conductivity	48,406 µS/cm

Post Measurement

Actual Conductivity	47,483 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668217
Last Calibrated	9/4/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	164.4 mV
Temperature	22.30 °C

Pre Measurement

pH	3.86 pH
pH mV	164.3 mV

Post Measurement

pH	4.00 pH
pH mV	162.9 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-6.5 mV
Temperature	22.08 °C

Pre Measurement

pH	6.89 pH

pH mV	-6.6 mV

Post Measurement

pH	7.02 pH
pH mV	-6.4 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-178.9 mV
Temperature	22.27 °C

Pre Measurement

pH	9.96 pH
pH mV	-179.0 mV

Post Measurement

pH	10.04 pH
pH mV	-177.2 mV

Slope and Offset 1

Slope	-56.57 mV/pH
Offset	-5.3 mV

Slope and Offset 2

Slope	-57.09 mV/pH
Offset	-5.3 mV

ORP

ORP Solution	Quick-Cal
Offset	-8.7 mV
Temperature	23.94 °C

Sensor	RDO
Serial Number	613770
Last Calibrated	9/4/2019

Calibration Details

Slope	0.9577447
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.68 mg/L
Pre Measurement	97.29 %Sat
Post Measurement	100.00 %Sat
Temperature	22.29 °C
Barometric Pressure	970.27 mbar

Sensor	Turbidity
Serial Number	609778
Last Calibrated	9/4/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	0.9926749
Offset	1.93 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	99.10 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	442265
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434255
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	442265
Created	9/12/2019

Sensor	Conductivity
Serial Number	641742
Last Calibrated	9/12/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.032
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	42,324 µS/cm
Specific Conductivity	48,967 µS/cm

Post Measurement

Actual Conductivity	43,216 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668217
Last Calibrated	9/12/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	148.9 mV
Temperature	17.73 °C

Pre Measurement

pH	4.23 pH
pH mV	148.8 mV

Post Measurement

pH	4.00 pH
pH mV	145.3 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-17.0 mV
Temperature	17.29 °C

Pre Measurement

pH	7.21 pH

pH mV	-17.1 mV

Post Measurement

pH	7.02 pH
pH mV	-16.5 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-185.7 mV
Temperature	17.84 °C

Pre Measurement

pH	10.22 pH
pH mV	-186.1 mV

Post Measurement

pH	10.04 pH
pH mV	-181.3 mV

Slope and Offset 1

Slope	-54.92 mV/pH
Offset	-15.9 mV

Slope and Offset 2

Slope	-55.89 mV/pH
Offset	-15.8 mV

ORP

ORP Solution	Quick-Cal
Offset	-8.7 mV
Temperature	23.94 °C

Sensor	RDO
Serial Number	613770
Last Calibrated	9/12/2019

Calibration Details

Slope	0.9529039
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.75 mg/L
Pre Measurement	100.55 %Sat
Post Measurement	100.00 %Sat
Temperature	16.96 °C
Barometric Pressure	974.15 mbar

Sensor	Turbidity
Serial Number	609778
Last Calibrated	9/12/2019

Calibration Details	
TSS Conversion Factor (mg/L)	0
Slope	1.107353
Offset	2.88 NTU

Calibration Point 1	
Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2	
Pre Measurement	89.17 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	442265
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434255
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	442265
Created	9/18/2019

Sensor	Conductivity
Serial Number	641742
Last Calibrated	9/18/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.953
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	43,902 µS/cm
Specific Conductivity	54,114 µS/cm

Post Measurement

Actual Conductivity	40,564 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668217
Last Calibrated	9/18/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	157.0 mV
Temperature	15.07 °C

Pre Measurement

pH	3.83 pH
pH mV	156.9 mV

Post Measurement

pH	4.00 pH
pH mV	151.7 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-14.0 mV
Temperature	15.25 °C

Pre Measurement

pH	6.97 pH

pH mV	-13.9 mV

Post Measurement

pH	7.02 pH
pH mV	-13.6 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-187.9 mV
Temperature	15.06 °C

Pre Measurement

pH	10.11 pH
pH mV	-188.0 mV

Post Measurement

pH	10.08 pH
pH mV	-181.6 mV

Slope and Offset 1

Slope	-56.62 mV/pH
Offset	-12.9 mV

Slope and Offset 2

Slope	-56.81 mV/pH
Offset	-12.9 mV

ORP

ORP Solution	Quick-Cal
Offset	-8.7 mV
Temperature	23.94 °C

Sensor	RDO
Serial Number	613770
Last Calibrated	9/18/2019

Calibration Details

Slope	0.9658113
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.70 mg/L
Pre Measurement	97.87 %Sat
Post Measurement	100.00 %Sat
Temperature	22.24 °C
Barometric Pressure	979.23 mbar

Sensor	Turbidity
Serial Number	609778
Last Calibrated	9/18/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.111645
Offset	2.70 NTU

Calibration Point 1

Pre Measurement	0.15 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	123.10 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	442265
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434255
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	442265
Created	9/25/2019

Sensor	Conductivity
Serial Number	641742
Last Calibrated	9/25/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.973
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	46,267 µS/cm
Specific Conductivity	48,960 µS/cm

Post Measurement

Actual Conductivity	47,250 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668217
Last Calibrated	9/25/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	164.9 mV
Temperature	21.76 °C

Pre Measurement

pH	3.93 pH
pH mV	164.9 mV

Post Measurement

pH	4.00 pH
pH mV	163.1 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-8.8 mV
Temperature	21.51 °C

Pre Measurement

pH	6.92 pH

pH mV	-8.8 mV

Post Measurement

pH	7.02 pH
pH mV	-8.7 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-181.1 mV
Temperature	21.89 °C

Pre Measurement

pH	9.90 pH
pH mV	-181.5 mV

Post Measurement

pH	10.04 pH
pH mV	-179.2 mV

Slope and Offset 1

Slope	-57.52 mV/pH
Offset	-7.6 mV

Slope and Offset 2

Slope	-57.05 mV/pH
Offset	-7.6 mV

ORP

ORP Solution	Quick-Cal
Offset	-8.7 mV
Temperature	23.94 °C

Sensor	RDO
Serial Number	613770
Last Calibrated	9/25/2019

Calibration Details

Slope	1.064271
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.79 mg/L
Pre Measurement	90.53 %Sat
Post Measurement	100.00 %Sat
Temperature	21.36 °C
Barometric Pressure	1,069.5 mbar

Sensor	Turbidity
Serial Number	609778
Last Calibrated	9/25/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.152827
Offset	-0.68 NTU

Calibration Point 1

Pre Measurement	1.68 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	124.08 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	442265
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434255
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	442265
Created	10/1/2019

Sensor	Conductivity
Serial Number	641742
Last Calibrated	10/1/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	296.347
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	42,796 µS/cm
Specific Conductivity	50,272 µS/cm

Post Measurement

Actual Conductivity	42,564 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668217
Last Calibrated	10/1/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	160.7 mV
Temperature	16.94 °C

Pre Measurement

pH	4.03 pH
pH mV	160.6 mV

Post Measurement

pH	4.00 pH
pH mV	156.4 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-12.6 mV
Temperature	16.86 °C

Pre Measurement

pH	7.07 pH

pH mV	-11.7 mV

Post Measurement

pH	7.02 pH
pH mV	-12.3 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-184.5 mV
Temperature	17.00 °C

Pre Measurement

pH	10.15 pH
pH mV	-184.7 mV

Post Measurement

pH	10.08 pH
pH mV	-179.6 mV

Slope and Offset 1

Slope	-57.38 mV/pH
Offset	-11.4 mV

Slope and Offset 2

Slope	-56.18 mV/pH
Offset	-11.5 mV

ORP

ORP Solution	Quick-Cal
Offset	-8.7 mV
Temperature	23.94 °C

Sensor	RDO
Serial Number	613770
Last Calibrated	10/1/2019

Calibration Details

Slope	1.028035
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.36 mg/L
Pre Measurement	102.49 %Sat
Post Measurement	100.00 %Sat
Temperature	17.83 °C
Barometric Pressure	1,050.5 mbar

Sensor	Turbidity
Serial Number	609778
Last Calibrated	10/1/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.145976
Offset	2.44 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	120.98 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	442265
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434255
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	442265
Created	10/9/2019

Sensor	Conductivity
Serial Number	641742
Last Calibrated	10/9/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	269.545
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	40,405 µS/cm
Specific Conductivity	49,629 µS/cm

Post Measurement

Actual Conductivity	40,707 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668217
Last Calibrated	10/9/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	157.2 mV
Temperature	14.94 °C

Pre Measurement

pH	4.06 pH
pH mV	156.1 mV

Post Measurement

pH	4.00 pH
pH mV	151.9 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-15.9 mV
Temperature	14.74 °C

Pre Measurement

pH	7.07 pH

pH mV	-15.3 mV

Post Measurement

pH	7.06 pH
pH mV	-15.4 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-186.8 mV
Temperature	15.03 °C

Pre Measurement

pH	10.15 pH
pH mV	-187.2 mV

Post Measurement

pH	10.08 pH
pH mV	-180.5 mV

Slope and Offset 1

Slope	-56.56 mV/pH
Offset	-12.5 mV

Slope and Offset 2

Slope	-56.58 mV/pH
Offset	-12.5 mV

ORP

ORP Solution	Quick-Cal
Offset	-8.7 mV
Temperature	23.94 °C

Sensor	RDO
Serial Number	613770
Last Calibrated	10/9/2019

Calibration Details

Slope	1.01427
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.89 mg/L
Pre Measurement	100.95 %Sat
Post Measurement	100.00 %Sat
Temperature	15.66 °C
Barometric Pressure	1,036.9 mbar

Sensor	Turbidity
Serial Number	609778
Last Calibrated	10/9/2019

Calibration Details	
TSS Conversion Factor (mg/L)	0
Slope	1.128556
Offset	2.52 NTU

Calibration Point 1	
Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2	
Pre Measurement	125.95 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	442265
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434255
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	442265
Created	10/22/2019

Sensor	Conductivity
Serial Number	641742
Last Calibrated	10/22/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	156.524
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	40,873 µS/cm
Specific Conductivity	49,930 µS/cm

Post Measurement

Actual Conductivity	40,930 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668217
Last Calibrated	10/22/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	160.5 mV
Temperature	15.22 °C

Pre Measurement

pH	3.94 pH
pH mV	160.5 mV

Post Measurement

pH	4.00 pH
pH mV	155.2 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-14.3 mV
Temperature	15.19 °C

Pre Measurement

pH	6.98 pH

pH mV	-11.3 mV

Post Measurement

pH	7.02 pH
pH mV	-13.8 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-182.9 mV
Temperature	15.36 °C

Pre Measurement

pH	9.97 pH
pH mV	-180.7 mV

Post Measurement

pH	10.08 pH
pH mV	-177.0 mV

Slope and Offset 1

Slope	-57.89 mV/pH
Offset	-13.1 mV

Slope and Offset 2

Slope	-55.1 mV/pH
Offset	-13.2 mV

ORP

ORP Solution	Quick-Cal
Offset	-8.7 mV
Temperature	23.94 °C

Sensor	RDO
Serial Number	613770
Last Calibrated	10/22/2019

Calibration Details

Slope	1.01138
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.22 mg/L
Pre Measurement	98.55 %Sat
Post Measurement	100.00 %Sat
Temperature	16.74 °C
Barometric Pressure	1,033.6 mbar

Sensor	Turbidity
Serial Number	609778
Last Calibrated	10/22/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.12898
Offset	2.38 NTU

Calibration Point 1

Pre Measurement	0.15 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	124.27 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	442265
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434255
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	442265
Created	10/31/2019

Sensor	Conductivity
Serial Number	641742
Last Calibrated	10/31/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.957
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	42,233 µS/cm
Specific Conductivity	49,984 µS/cm

Post Measurement

Actual Conductivity	42,247 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668217
Last Calibrated	10/31/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	157.1 mV
Temperature	16.57 °C

Pre Measurement

pH	4.11 pH
pH mV	155.0 mV

Post Measurement

pH	4.00 pH
pH mV	152.6 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-11.1 mV
Temperature	16.37 °C

Pre Measurement

pH	6.95 pH

pH mV	-10.6 mV

Post Measurement

pH	7.02 pH
pH mV	-10.8 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-180.5 mV
Temperature	16.69 °C

Pre Measurement

pH	10.02 pH
pH mV	-180.6 mV

Post Measurement

pH	10.08 pH
pH mV	-175.4 mV

Slope and Offset 1

Slope	-55.69 mV/pH
Offset	-10.0 mV

Slope and Offset 2

Slope	-55.34 mV/pH
Offset	-10.0 mV

ORP

ORP Solution	Quick-Cal
Offset	-8.7 mV
Temperature	23.94 °C

Sensor	RDO
Serial Number	613770
Last Calibrated	10/31/2019

Calibration Details

Slope	1.067965
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.64 mg/L
Pre Measurement	94.25 %Sat
Post Measurement	100.00 %Sat
Temperature	16.64 °C
Barometric Pressure	1,071.5 mbar

Sensor	Turbidity
Serial Number	609778
Last Calibrated	10/31/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.127182
Offset	2.93 NTU

Calibration Point 1

Pre Measurement	0.03 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	123.89 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	442265
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434255
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	442265
Created	11/5/2019

Sensor	Conductivity
Serial Number	641742
Last Calibrated	11/5/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.956
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	37,102 µS/cm
Specific Conductivity	50,056 µS/cm

Post Measurement

Actual Conductivity	37,060 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668217
Last Calibrated	11/5/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	156.2 mV
Temperature	11.05 °C

Pre Measurement

pH	3.98 pH
pH mV	155.1 mV

Post Measurement

pH	4.00 pH
pH mV	148.9 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-14.0 mV
Temperature	11.24 °C

Pre Measurement

pH	7.08 pH

pH mV	-14.1 mV

Post Measurement

pH	7.06 pH
pH mV	-13.3 mV

Calibration Point 3

pH of Buffer	10.12 pH
pH mV	-185.1 mV
Temperature	11.16 °C

Pre Measurement

pH	10.22 pH
pH mV	-184.9 mV

Post Measurement

pH	10.12 pH
pH mV	-176.5 mV

Slope and Offset 1

Slope	-55.61 mV/pH
Offset	-10.7 mV

Slope and Offset 2

Slope	-55.91 mV/pH
Offset	-10.6 mV

ORP

ORP Solution	Quick-Cal
Offset	-8.7 mV
Temperature	23.94 °C

Sensor	RDO
Serial Number	613770
Last Calibrated	11/5/2019

Calibration Details

Slope	1.047099
Offset	0.00 mg/L

Calibration point 100%

Concentration	10.54 mg/L
Pre Measurement	102.93 %Sat
Post Measurement	100.00 %Sat
Temperature	12.67 °C
Barometric Pressure	1,053.5 mbar

Sensor	Turbidity
Serial Number	609778
Last Calibrated	11/5/2019

Calibration Details	
TSS Conversion Factor (mg/L)	0
Slope	1.127111
Offset	2.65 NTU

Calibration Point 1	
Pre Measurement	0.19 NTU
Post Measurement	0.00 NTU

Calibration Point 2	
Pre Measurement	124.48 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	442265
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434255
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	442265
Created	11/17/2019

Sensor	Conductivity
Serial Number	641742
Last Calibrated	11/17/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	72.551
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	38,180 µS/cm
Specific Conductivity	51,936 µS/cm

Post Measurement

Actual Conductivity	36,757 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668217
Last Calibrated	11/17/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	153.3 mV
Temperature	10.02 °C

Pre Measurement

pH	4.05 pH
pH mV	152.6 mV

Post Measurement

pH	4.00 pH
pH mV	145.6 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-15.7 mV
Temperature	9.38 °C

Pre Measurement

pH	7.09 pH

pH mV	-15.7 mV

Post Measurement

pH	7.06 pH
pH mV	-14.8 mV

Calibration Point 3

pH of Buffer	10.12 pH
pH mV	-184.3 mV
Temperature	10.42 °C

Pre Measurement

pH	10.13 pH
pH mV	-184.9 mV

Post Measurement

pH	10.12 pH
pH mV	-175.3 mV

Slope and Offset 1

Slope	-55.22 mV/pH
Offset	-12.3 mV

Slope and Offset 2

Slope	-55.1 mV/pH
Offset	-12.3 mV

ORP

ORP Solution	Quick-Cal
Offset	-8.7 mV
Temperature	23.94 °C

Sensor	RDO
Serial Number	613770
Last Calibrated	11/17/2019

Calibration Details

Slope	0.9855262
Offset	0.00 mg/L

Calibration point 100%

Concentration	11.69 mg/L
Pre Measurement	105.85 %Sat
Post Measurement	100.00 %Sat
Temperature	8.28 °C
Barometric Pressure	993.73 mbar

Sensor	Turbidity
Serial Number	609778
Last Calibrated	11/17/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.104704
Offset	3.25 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	125.71 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	442265
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434255
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	442265
Created	12/4/2019

Sensor	Conductivity
Serial Number	641742
Last Calibrated	12/4/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.926
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	37,898 µS/cm
Specific Conductivity	49,974 µS/cm

Post Measurement

Actual Conductivity	37,917 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668217
Last Calibrated	12/4/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	164.0 mV
Temperature	12.32 °C

Pre Measurement

pH	3.86 pH
pH mV	162.2 mV

Post Measurement

pH	4.00 pH
pH mV	157.0 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-9.5 mV
Temperature	12.16 °C

Pre Measurement

pH	6.95 pH

pH mV	-9.5 mV

Post Measurement

pH	7.06 pH
pH mV	-9.1 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-181.1 mV
Temperature	12.73 °C

Pre Measurement

pH	10.03 pH
pH mV	-181.4 mV

Post Measurement

pH	10.08 pH
pH mV	-173.7 mV

Slope and Offset 1

Slope	-56.71 mV/pH
Offset	-6.1 mV

Slope and Offset 2

Slope	-56.83 mV/pH
Offset	-6.1 mV

ORP

ORP Solution	Quick-Cal
Offset	-8.7 mV
Temperature	23.94 °C

Sensor	RDO
Serial Number	613770
Last Calibrated	12/4/2019

Calibration Details

Slope	1.052624
Offset	0.00 mg/L

Calibration point 100%

Concentration	10.55 mg/L
Pre Measurement	92.67 %Sat
Post Measurement	100.00 %Sat
Temperature	10.60 °C
Barometric Pressure	1,011.7 mbar

Sensor	Turbidity
Serial Number	609778
Last Calibrated	12/4/2019

Calibration Details	
TSS Conversion Factor (mg/L)	0
Slope	1.148764
Offset	2.17 NTU

Calibration Point 1	
Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2	
Pre Measurement	107.93 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	442265
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434255
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	442265
Created	12/26/2019

Sensor	Conductivity
Serial Number	641742
Last Calibrated	12/26/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.945
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	44,704 µS/cm
Specific Conductivity	49,017 µS/cm

Post Measurement

Actual Conductivity	45,600 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668217
Last Calibrated	12/26/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	161.9 mV
Temperature	19.44 °C

Pre Measurement

pH	4.11 pH
pH mV	161.7 mV

Post Measurement

pH	4.00 pH
pH mV	158.9 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-10.1 mV
Temperature	20.11 °C

Pre Measurement

pH	7.07 pH

pH mV	-10.2 mV

Post Measurement

pH	7.02 pH
pH mV	-9.9 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-184.6 mV
Temperature	20.13 °C

Pre Measurement

pH	10.09 pH
pH mV	-186.7 mV

Post Measurement

pH	10.04 pH
pH mV	-181.5 mV

Slope and Offset 1

Slope	-56.96 mV/pH
Offset	-8.9 mV

Slope and Offset 2

Slope	-57.77 mV/pH
Offset	-8.9 mV

ORP

ORP Solution	Quick-Cal
Offset	-8.7 mV
Temperature	23.94 °C

Sensor	RDO
Serial Number	613770
Last Calibrated	12/26/2019

Calibration Details

Slope	1.058455
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.04 mg/L
Pre Measurement	99.53 %Sat
Post Measurement	100.00 %Sat
Temperature	20.34 °C
Barometric Pressure	1,071.7 mbar

Sensor	Turbidity
Serial Number	609778
Last Calibrated	12/26/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.13566
Offset	3.23 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	124.34 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	442265
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434255
Last Calibrated	Factory Defaults

Station SM-2

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	518558
Created	8/13/2019

Sensor	Conductivity
Serial Number	673235
Last Calibrated	8/13/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.01
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	49,451 µS/cm
Specific Conductivity	50,821 µS/cm

Post Measurement

Actual Conductivity	48,653 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	551112
Last Calibrated	8/13/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	157.7 mV
Temperature	23.16 °C

Pre Measurement

pH	4.17 pH
pH mV	157.7 mV

Post Measurement

pH	4.00 pH
pH mV	156.7 mV

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-12.2 mV
Temperature	23.07 °C

Pre Measurement

pH	7.06 pH

pH mV	-12.2 mV

Post Measurement

pH	7.00 pH
pH mV	-12.1 mV

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-181.7 mV
Temperature	23.11 °C

Pre Measurement

pH	9.95 pH
pH mV	-181.9 mV

Post Measurement

pH	10.00 pH
pH mV	-180.6 mV

Slope and Offset 1

Slope	-56.61 mV/pH
Offset	-12.2 mV

Slope and Offset 2

Slope	-56.53 mV/pH
Offset	-12.2 mV

ORP

ORP Solution	Quick-Cal
Offset	1.7 mV
Temperature	21.09 °C
Pre Measurement	126.1 mV
Post Measurement	229.4 mV

Sensor	RDO
Serial Number	606970
Last Calibrated	8/13/2019

Calibration Details

Slope	1.030642
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.40 mg/L
Pre Measurement	96.82 %Sat
Post Measurement	100.00 %Sat
Temperature	23.11 °C
Barometric Pressure	1,024.3 mbar

Sensor	Turbidity
Serial Number	622929

Last Calibrated 8/13/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	0.9848446
Offset	-3.02 NTU

Calibration Point 1

Pre Measurement	1.90 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	94.82 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	518558
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	518558
Created	8/20/2019

Sensor	Conductivity
Serial Number	673235
Last Calibrated	8/20/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.011
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	49,957 µS/cm
Specific Conductivity	49,926 µS/cm

Post Measurement

Actual Conductivity	50,032 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	551112
Last Calibrated	8/20/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	160.6 mV
Temperature	25.43 °C

Pre Measurement

pH	3.97 pH
pH mV	160.6 mV

Post Measurement

pH	4.00 pH
pH mV	160.8 mV

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-10.5 mV
Temperature	25.10 °C

Pre Measurement

pH	6.97 pH

pH mV	-10.6 mV

Post Measurement

pH	7.00 pH
pH mV	-10.5 mV

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-180.6 mV
Temperature	25.48 °C

Pre Measurement

pH	9.96 pH
pH mV	-180.9 mV

Post Measurement

pH	10.00 pH
pH mV	-180.9 mV

Slope and Offset 1

Slope	-57.04 mV/pH
Offset	-10.5 mV

Slope and Offset 2

Slope	-56.71 mV/pH
Offset	-10.5 mV

ORP

ORP Solution	Quick-Cal
Offset	1.7 mV
Temperature	21.09 °C
Pre Measurement	126.1 mV
Post Measurement	229.4 mV

Sensor	RDO
Serial Number	606970
Last Calibrated	8/20/2019

Calibration Details

Slope	1.024361
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.00 mg/L
Pre Measurement	100.67 %Sat
Post Measurement	100.00 %Sat
Temperature	25.75 °C
Barometric Pressure	1,018.6 mbar

Sensor	Turbidity
Serial Number	622929

Last Calibrated 8/20/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	0.9944881
Offset	-1.96 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	96.57 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	518558
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	443813
Created	8/22/2019

Sensor	Conductivity
Serial Number	611670
Last Calibrated	8/22/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.017
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	46,187 µS/cm
Specific Conductivity	48,243 µS/cm

Post Measurement

Actual Conductivity	47,870 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668242
Last Calibrated	8/22/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	169.7 mV
Temperature	23.12 °C

Pre Measurement

pH	4.03 pH
pH mV	169.6 mV

Post Measurement

pH	4.00 pH
pH mV	168.6 mV

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-7.4 mV
Temperature	23.55 °C

Pre Measurement

pH	7.14 pH

pH mV	-7.6 mV

Post Measurement

pH	7.00 pH
pH mV	-7.3 mV

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-179.1 mV
Temperature	22.97 °C

Pre Measurement

pH	10.09 pH
pH mV	-178.7 mV

Post Measurement

pH	10.00 pH
pH mV	-177.9 mV

Slope and Offset 1

Slope	-59.02 mV/pH
Offset	-7.4 mV

Slope and Offset 2

Slope	-57.24 mV/pH
Offset	-7.4 mV

ORP

ORP Solution	Quick-Cal
Offset	2.8 mV
Temperature	24.27 °C

Sensor	RDO
Serial Number	527450
Last Calibrated	8/22/2019

Calibration Details

Slope	1.308955
Offset	0.00 mg/L

Calibration point 100%

Concentration	7.39 mg/L
Pre Measurement	91.47 %Sat
Post Measurement	100.00 %Sat
Temperature	22.75 °C
Barometric Pressure	1,133.9 mbar

Sensor	Turbidity
Serial Number	611737
Last Calibrated	8/22/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	0.9725754
Offset	-2.00 NTU

Calibration Point 1

Pre Measurement	2.14 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	103.84 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	443813
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434120
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	443813
Created	8/26/2019

Sensor	Conductivity
Serial Number	611670
Last Calibrated	8/26/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.026
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	40,062 µS/cm
Specific Conductivity	49,579 µS/cm

Post Measurement

Actual Conductivity	40,402 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668242
Last Calibrated	8/26/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	149.0 mV
Temperature	15.08 °C

Pre Measurement

pH	4.24 pH
pH mV	151.3 mV

Post Measurement

pH	4.00 pH
pH mV	144.0 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-14.1 mV
Temperature	15.50 °C

Pre Measurement

pH	7.12 pH

pH mV	-14.0 mV

Post Measurement

pH	7.02 pH
pH mV	-13.7 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-188.0 mV
Temperature	14.91 °C

Pre Measurement

pH	10.24 pH
pH mV	-187.2 mV

Post Measurement

pH	10.08 pH
pH mV	-181.6 mV

Slope and Offset 1

Slope	-54.02 mV/pH
Offset	-13.1 mV

Slope and Offset 2

Slope	-56.81 mV/pH
Offset	-13.0 mV

ORP

ORP Solution	Quick-Cal
Offset	2.8 mV
Temperature	24.27 °C

Sensor	RDO
Serial Number	527450
Last Calibrated	8/26/2019

Calibration Details

Slope	1.11412
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.41 mg/L
Pre Measurement	117.49 %Sat
Post Measurement	100.00 %Sat
Temperature	17.15 °C
Barometric Pressure	986.03 mbar

Sensor	Turbidity
Serial Number	611737
Last Calibrated	8/26/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	0.9712153
Offset	-1.78 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	100.17 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	443813
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434120
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	443813
Created	9/4/2019

Sensor	Conductivity
Serial Number	611670
Last Calibrated	9/4/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.06
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	47,044 µS/cm
Specific Conductivity	48,415 µS/cm

Post Measurement

Actual Conductivity	48,583 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668242
Last Calibrated	9/4/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	163.2 mV
Temperature	23.27 °C

Pre Measurement

pH	3.82 pH
pH mV	163.2 mV

Post Measurement

pH	4.00 pH
pH mV	162.3 mV

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-7.6 mV
Temperature	22.80 °C

Pre Measurement

pH	6.90 pH

pH mV	-7.6 mV

Post Measurement

pH	7.00 pH
pH mV	-7.5 mV

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-179.8 mV
Temperature	23.37 °C

Pre Measurement

pH	9.86 pH
pH mV	-180.0 mV

Post Measurement

pH	10.00 pH
pH mV	-178.8 mV

Slope and Offset 1

Slope	-56.93 mV/pH
Offset	-7.6 mV

Slope and Offset 2

Slope	-57.39 mV/pH
Offset	-7.6 mV

ORP

ORP Solution	Quick-Cal
Offset	2.8 mV
Temperature	24.27 °C

Sensor	RDO
Serial Number	527450
Last Calibrated	9/4/2019

Calibration Details

Slope	1.129534
Offset	0.00 mg/L

Calibration point 100%

Concentration	7.23 mg/L
Pre Measurement	98.37 %Sat
Post Measurement	100.00 %Sat
Temperature	24.84 °C
Barometric Pressure	999.27 mbar

Sensor	Turbidity
Serial Number	611737
Last Calibrated	9/4/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.039634
Offset	-2.99 NTU

Calibration Point 1

Pre Measurement	1.04 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	93.51 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	443813
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434120
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	443813
Created	9/12/2019

Sensor	Conductivity
Serial Number	611670
Last Calibrated	9/12/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.106
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	41,930 µS/cm
Specific Conductivity	47,938 µS/cm

Post Measurement

Actual Conductivity	43,733 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668242
Last Calibrated	9/12/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	148.3 mV
Temperature	18.10 °C

Pre Measurement

pH	4.21 pH
pH mV	148.3 mV

Post Measurement

pH	4.00 pH
pH mV	144.9 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-14.9 mV
Temperature	18.00 °C

Pre Measurement

pH	7.13 pH

pH mV	-15.0 mV

Post Measurement

pH	7.02 pH
pH mV	-14.6 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-185.4 mV
Temperature	18.21 °C

Pre Measurement

pH	10.15 pH
pH mV	-185.6 mV

Post Measurement

pH	10.04 pH
pH mV	-181.2 mV

Slope and Offset 1

Slope	-54.07 mV/pH
Offset	-13.9 mV

Slope and Offset 2

Slope	-56.44 mV/pH
Offset	-13.8 mV

ORP

ORP Solution	Quick-Cal
Offset	2.8 mV
Temperature	24.27 °C

Sensor	RDO
Serial Number	527450
Last Calibrated	9/12/2019

Calibration Details

Slope	1.105191
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.25 mg/L
Pre Measurement	102.26 %Sat
Post Measurement	100.00 %Sat
Temperature	18.54 °C
Barometric Pressure	986.93 mbar

Sensor	Turbidity
Serial Number	611737
Last Calibrated	9/12/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.129705
Offset	-2.80 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	91.79 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	443813
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434120
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	443813
Created	9/18/2019

Sensor	Conductivity
Serial Number	611670
Last Calibrated	9/18/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.024
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	42,045 µS/cm
Specific Conductivity	53,984 µS/cm

Post Measurement

Actual Conductivity	38,942 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668242
Last Calibrated	9/18/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	150.2 mV
Temperature	13.11 °C

Pre Measurement

pH	3.93 pH
pH mV	149.4 mV

Post Measurement

pH	4.00 pH
pH mV	144.2 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-20.4 mV
Temperature	13.22 °C

Pre Measurement

pH	7.14 pH

pH mV	-21.2 mV

Post Measurement

pH	7.06 pH
pH mV	-19.6 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-195.2 mV
Temperature	13.13 °C

Pre Measurement

pH	10.29 pH
pH mV	-196.3 mV

Post Measurement

pH	10.08 pH
pH mV	-187.4 mV

Slope and Offset 1

Slope	-55.75 mV/pH
Offset	-17.0 mV

Slope and Offset 2

Slope	-57.89 mV/pH
Offset	-16.9 mV

ORP

ORP Solution	Quick-Cal
Offset	2.8 mV
Temperature	24.27 °C

Sensor	RDO
Serial Number	527450
Last Calibrated	9/18/2019

Calibration Details

Slope	1.096433
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.66 mg/L
Pre Measurement	100.55 %Sat
Post Measurement	100.00 %Sat
Temperature	16.22 °C
Barometric Pressure	980.32 mbar

Sensor	Turbidity
Serial Number	611737
Last Calibrated	9/18/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.129175
Offset	-2.14 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	123.68 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	443813
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434120
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	443813
Created	9/25/2019

Sensor	Conductivity
Serial Number	611670
Last Calibrated	9/25/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.328
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	40,202 µS/cm
Specific Conductivity	49,504 µS/cm

Post Measurement

Actual Conductivity	40,605 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668242
Last Calibrated	9/25/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	152.6 mV
Temperature	15.61 °C

Pre Measurement

pH	3.98 pH
pH mV	152.6 mV

Post Measurement

pH	4.00 pH
pH mV	147.8 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-16.1 mV
Temperature	15.87 °C

Pre Measurement

pH	7.01 pH

pH mV	-17.5 mV

Post Measurement

pH	7.02 pH
pH mV	-15.6 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-190.4 mV
Temperature	15.34 °C

Pre Measurement

pH	9.97 pH
pH mV	-190.1 mV

Post Measurement

pH	10.08 pH
pH mV	-184.2 mV

Slope and Offset 1

Slope	-55.84 mV/pH
Offset	-14.9 mV

Slope and Offset 2

Slope	-56.98 mV/pH
Offset	-14.9 mV

ORP

ORP Solution	Quick-Cal
Offset	2.8 mV
Temperature	24.27 °C

Sensor	RDO
Serial Number	527450
Last Calibrated	9/25/2019

Calibration Details

Slope	1.290393
Offset	0.00 mg/L

Calibration point 100%

Concentration	7.81 mg/L
Pre Measurement	84.92 %Sat
Post Measurement	100.00 %Sat
Temperature	20.98 °C
Barometric Pressure	1,141.4 mbar

Sensor	Turbidity
Serial Number	611737
Last Calibrated	9/25/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.213893
Offset	-4.04 NTU

Calibration Point 1

Pre Measurement	3.76 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	122.86 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	443813
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434120
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	443813
Created	10/2/2019

Sensor	Conductivity
Serial Number	611670
Last Calibrated	10/2/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.024
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	44,492 µS/cm
Specific Conductivity	49,789 µS/cm

Post Measurement

Actual Conductivity	44,681 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668242
Last Calibrated	10/2/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	161.8 mV
Temperature	19.21 °C

Pre Measurement

pH	3.83 pH
pH mV	164.3 mV

Post Measurement

pH	4.00 pH
pH mV	158.6 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-10.5 mV
Temperature	19.36 °C

Pre Measurement

pH	6.92 pH

pH mV	-10.8 mV

Post Measurement

pH	7.02 pH
pH mV	-10.3 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-188.6 mV
Temperature	19.21 °C

Pre Measurement

pH	10.01 pH
pH mV	-188.7 mV

Post Measurement

pH	10.04 pH
pH mV	-185.0 mV

Slope and Offset 1

Slope	-57.06 mV/pH
Offset	-9.4 mV

Slope and Offset 2

Slope	-58.97 mV/pH
Offset	-9.4 mV

ORP

ORP Solution	Quick-Cal
Offset	2.8 mV
Temperature	24.27 °C

Sensor	RDO
Serial Number	527450
Last Calibrated	10/2/2019

Calibration Details

Slope	1.284006
Offset	0.00 mg/L

Calibration point 100%

Concentration	7.87 mg/L
Pre Measurement	100.42 %Sat
Post Measurement	100.00 %Sat
Temperature	20.15 °C
Barometric Pressure	1,126.5 mbar

Sensor	Turbidity
Serial Number	611737
Last Calibrated	10/2/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.207579
Offset	-3.87 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	124.06 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	443813
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434120
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	443813
Created	10/9/2019

Sensor	Conductivity
Serial Number	611670
Last Calibrated	10/9/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.016
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	40,384 µS/cm
Specific Conductivity	50,477 µS/cm

Post Measurement

Actual Conductivity	40,002 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668242
Last Calibrated	10/9/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	156.6 mV
Temperature	14.27 °C

Pre Measurement

pH	4.05 pH
pH mV	156.1 mV

Post Measurement

pH	4.00 pH
pH mV	151.0 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-15.5 mV
Temperature	14.42 °C

Pre Measurement

pH	7.11 pH

pH mV	-15.7 mV

Post Measurement

pH	7.06 pH
pH mV	-14.9 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-187.5 mV
Temperature	14.39 °C

Pre Measurement

pH	10.08 pH
pH mV	-187.7 mV

Post Measurement

pH	10.08 pH
pH mV	-180.9 mV

Slope and Offset 1

Slope	-56.25 mV/pH
Offset	-12.1 mV

Slope and Offset 2

Slope	-56.97 mV/pH
Offset	-12.1 mV

ORP

ORP Solution	Quick-Cal
Offset	2.8 mV
Temperature	24.27 °C

Sensor	RDO
Serial Number	527450
Last Calibrated	10/9/2019

Calibration Details

Slope	1.249631
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.68 mg/L
Pre Measurement	102.47 %Sat
Post Measurement	100.00 %Sat
Temperature	15.40 °C
Barometric Pressure	1,098.2 mbar

Sensor	Turbidity
Serial Number	611737
Last Calibrated	10/9/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.360728
Offset	-23.48 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	127.09 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	443813
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434120
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	443813
Created	10/22/2019

Sensor	Conductivity
Serial Number	611670
Last Calibrated	10/22/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.024
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	39,620 µS/cm
Specific Conductivity	49,661 µS/cm

Post Measurement

Actual Conductivity	39,891 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668242
Last Calibrated	10/22/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	160.6 mV
Temperature	13.92 °C

Pre Measurement

pH	3.95 pH
pH mV	159.5 mV

Post Measurement

pH	4.00 pH
pH mV	154.6 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-10.5 mV
Temperature	14.03 °C

Pre Measurement

pH	6.99 pH

pH mV	-11.6 mV

Post Measurement

pH	7.06 pH
pH mV	-10.1 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-180.7 mV
Temperature	14.01 °C

Pre Measurement

pH	9.98 pH
pH mV	-181.4 mV

Post Measurement

pH	10.08 pH
pH mV	-174.1 mV

Slope and Offset 1

Slope	-55.93 mV/pH
Offset	-7.2 mV

Slope and Offset 2

Slope	-56.36 mV/pH
Offset	-7.2 mV

ORP

ORP Solution	Quick-Cal
Offset	2.8 mV
Temperature	24.27 °C

Sensor	RDO
Serial Number	527450
Last Calibrated	10/22/2019

Calibration Details

Slope	1.234868
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.68 mg/L
Pre Measurement	100.81 %Sat
Post Measurement	100.00 %Sat
Temperature	15.92 °C
Barometric Pressure	1,096.6 mbar

Sensor	Turbidity
Serial Number	611737
Last Calibrated	10/22/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.145041
Offset	-3.38 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	128.08 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	443813
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434120
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	443813
Created	10/31/2019

Sensor	Conductivity
Serial Number	611670
Last Calibrated	10/31/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.019
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	41,908 µS/cm
Specific Conductivity	50,200 µS/cm

Post Measurement

Actual Conductivity	41,742 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668242
Last Calibrated	10/31/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	161.8 mV
Temperature	16.42 °C

Pre Measurement

pH	4.01 pH
pH mV	161.6 mV

Post Measurement

pH	4.00 pH
pH mV	157.1 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-10.1 mV
Temperature	16.20 °C

Pre Measurement

pH	7.05 pH

pH mV	-10.2 mV

Post Measurement

pH	7.02 pH
pH mV	-9.8 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-180.8 mV
Temperature	16.31 °C

Pre Measurement

pH	10.03 pH
pH mV	-179.5 mV

Post Measurement

pH	10.08 pH
pH mV	-175.5 mV

Slope and Offset 1

Slope	-56.92 mV/pH
Offset	-9.0 mV

Slope and Offset 2

Slope	-55.77 mV/pH
Offset	-9.0 mV

ORP

ORP Solution	Quick-Cal
Offset	2.8 mV
Temperature	24.27 °C

Sensor	RDO
Serial Number	527450
Last Calibrated	10/31/2019

Calibration Details

Slope	1.307776
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.36 mg/L
Pre Measurement	93.94 %Sat
Post Measurement	100.00 %Sat
Temperature	17.26 °C
Barometric Pressure	1,149.8 mbar

Sensor	Turbidity
Serial Number	611737
Last Calibrated	10/31/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.181292
Offset	-3.57 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	120.31 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	443813
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434120
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	443813
Created	11/5/2019

Sensor	Conductivity
Serial Number	611670
Last Calibrated	11/5/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.968
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	38,083 µS/cm
Specific Conductivity	52,615 µS/cm

Post Measurement

Actual Conductivity	36,190 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668242
Last Calibrated	11/5/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	157.3 mV
Temperature	10.13 °C

Pre Measurement

pH	4.02 pH
pH mV	157.2 mV

Post Measurement

pH	4.00 pH
pH mV	149.4 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-12.2 mV
Temperature	10.24 °C

Pre Measurement

pH	7.06 pH

pH mV	-12.3 mV

Post Measurement

pH	7.06 pH
pH mV	-11.6 mV

Calibration Point 3

pH of Buffer	10.12 pH
pH mV	-186.4 mV
Temperature	10.14 °C

Pre Measurement

pH	10.25 pH
pH mV	-186.5 mV

Post Measurement

pH	10.12 pH
pH mV	-177.1 mV

Slope and Offset 1

Slope	-55.39 mV/pH
Offset	-8.9 mV

Slope and Offset 2

Slope	-56.92 mV/pH
Offset	-8.8 mV

ORP

ORP Solution	Quick-Cal
Offset	2.8 mV
Temperature	24.27 °C

Sensor	RDO
Serial Number	527450
Last Calibrated	11/5/2019

Calibration Details

Slope	1.216156
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.28 mg/L
Pre Measurement	107.63 %Sat
Post Measurement	100.00 %Sat
Temperature	12.68 °C
Barometric Pressure	1,077.2 mbar

Sensor	Turbidity
Serial Number	611737
Last Calibrated	11/5/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.168522
Offset	-3.67 NTU

Calibration Point 1

Pre Measurement	0.14 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	124.56 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	443813
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434120
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	443813
Created	11/17/2019

Sensor	**Conductivity**
Serial Number	611670
Last Calibrated	11/17/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	215.664
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	38,728 µS/cm
Specific Conductivity	48,856 µS/cm

Post Measurement

Actual Conductivity	39,635 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	**pH/ORP**
Serial Number	668242
Last Calibrated	11/17/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	152.0 mV
Temperature	13.73 °C

Pre Measurement

pH	4.11 pH
pH mV	153.2 mV

Post Measurement

pH	4.00 pH
pH mV	146.3 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-13.4 mV
Temperature	12.93 °C

Pre Measurement

pH	7.08 pH
pH mV	-13.7 mV

Post Measurement

pH	7.06 pH
pH mV	-12.9 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-184.5 mV
Temperature	13.20 °C

Pre Measurement

pH	10.05 pH
pH mV	-184.6 mV

Post Measurement

pH	10.08 pH
pH mV	-177.2 mV

Slope and Offset 1

Slope	-54.07 mV/pH
Offset	-10.2 mV

Slope and Offset 2

Slope	-56.64 mV/pH
Offset	-10.0 mV

ORP

ORP Solution	Quick-Cal
Offset	2.8 mV
Temperature	24.27 °C

Sensor	**RDO**
Serial Number	527450
Last Calibrated	11/17/2019

Calibration Details

Slope	1.188304
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.57 mg/L
Pre Measurement	101.12 %Sat
Post Measurement	100.00 %Sat
Temperature	9.91 °C
Barometric Pressure	1,026.3 mbar

Sensor	**Turbidity**
Serial Number	611737
Last Calibrated	11/17/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.122344
Offset	-4.00 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	130.05 NTU
Post Measurement	124.00 NTU

Sensor	**Barometric Pressure**
Serial Number	443813
Last Calibrated	Factory Defaults

Sensor	**Pressure**
Serial Number	434120
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	443813
Created	12/4/2019

Sensor	Conductivity
Serial Number	611670
Last Calibrated	12/4/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.009
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	38,619 µS/cm
Specific Conductivity	49,539 µS/cm

Post Measurement

Actual Conductivity	38,978 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668242
Last Calibrated	12/4/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	161.9 mV
Temperature	13.83 °C

Pre Measurement

pH	3.81 pH
pH mV	162.4 mV

Post Measurement

pH	4.00 pH
pH mV	155.8 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-10.6 mV
Temperature	15.61 °C

Pre Measurement

pH	7.01 pH

pH mV	-10.8 mV

Post Measurement

pH	7.02 pH
pH mV	-10.3 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-183.5 mV
Temperature	14.15 °C

Pre Measurement

pH	10.01 pH
pH mV	-181.3 mV

Post Measurement

pH	10.08 pH
pH mV	-176.8 mV

Slope and Offset 1

Slope	-57.1 mV/pH
Offset	-9.4 mV

Slope and Offset 2

Slope	-56.5 mV/pH
Offset	-9.5 mV

ORP

ORP Solution	Quick-Cal
Offset	2.8 mV
Temperature	24.27 °C

Sensor	RDO
Serial Number	527450
Last Calibrated	12/4/2019

Calibration Details

Slope	1.201233
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.42 mg/L
Pre Measurement	98.84 %Sat
Post Measurement	100.00 %Sat
Temperature	10.53 °C
Barometric Pressure	1,028.8 mbar

Sensor	Turbidity
Serial Number	611737
Last Calibrated	12/4/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.126726
Offset	-2.86 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	121.07 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	443813
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434120
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	443813
Created	12/26/2019

Sensor	Conductivity
Serial Number	611670
Last Calibrated	12/26/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.992
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	46,411 µS/cm
Specific Conductivity	50,982 µS/cm

Post Measurement

Actual Conductivity	45,517 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668242
Last Calibrated	12/26/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	161.5 mV
Temperature	19.62 °C

Pre Measurement

pH	4.06 pH
pH mV	161.5 mV

Post Measurement

pH	4.00 pH
pH mV	158.5 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-12.7 mV
Temperature	20.15 °C

Pre Measurement

pH	7.05 pH

pH mV	-12.2 mV

Post Measurement

pH	7.02 pH
pH mV	-12.4 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-188.7 mV
Temperature	20.10 °C

Pre Measurement

pH	10.12 pH
pH mV	-188.7 mV

Post Measurement

pH	10.04 pH
pH mV	-185.6 mV

Slope and Offset 1

Slope	-57.65 mV/pH
Offset	-11.5 mV

Slope and Offset 2

Slope	-58.29 mV/pH
Offset	-11.5 mV

ORP

ORP Solution	Quick-Cal
Offset	2.8 mV
Temperature	24.27 °C

Sensor	RDO
Serial Number	527450
Last Calibrated	12/26/2019

Calibration Details

Slope	1.301062
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.04 mg/L
Pre Measurement	92.21 %Sat
Post Measurement	100.00 %Sat
Temperature	20.09 °C
Barometric Pressure	1,164.9 mbar

Sensor	Turbidity
Serial Number	611737
Last Calibrated	12/26/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.173434
Offset	-2.88 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	119.29 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	443813
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434120
Last Calibrated	Factory Defaults

Station SM-3

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	511701
Created	8/13/2019

Sensor	Conductivity
Serial Number	664874
Last Calibrated	8/6/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.008
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	7,819.7 µS/cm
Specific Conductivity	7,937.5 µS/cm

Post Measurement

Actual Conductivity	7,881.3 µS/cm
Specific Conductivity	8,000.0 µS/cm

Sensor	pH/ORP
Serial Number	598233
Last Calibrated	8/6/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	176.4 mV
Temperature	24.02 °C

Pre Measurement

pH	3.92 pH
pH mV	176.4 mV

Post Measurement

pH	4.00 pH
pH mV	175.8 mV

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	7.9 mV
Temperature	24.00 °C

Pre Measurement

pH	6.77 pH

pH mV	7.9 mV

Post Measurement

pH	7.00 pH
pH mV	7.9 mV

Slope and Offset 1

Slope	-56.15 mV/pH
Offset	7.9 mV

ORP

ORP Solution	Quick-Cal
Offset	3.4 mV
Temperature	24.22 °C
Pre Measurement	220.4 mV
Post Measurement	224.7 mV

Sensor	RDO
Serial Number	538730
Last Calibrated	8/6/2019

Calibration Details

Slope	1.013008
Offset	0.00 mg/L

Calibration point 100%

Concentration	6.87 mg/L
Pre Measurement	100.82 %Sat
Post Measurement	100.00 %Sat
Temperature	24.47 °C
Barometric Pressure	850.14 mbar

Sensor	Turbidity
Serial Number	525227
Last Calibrated	8/13/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.002209
Offset	-2.29 NTU

Calibration Point 1

Pre Measurement	1.32 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	91.86 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure

Serial Number	511701
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	613994
Created	8/20/2019

Sensor	Conductivity
Serial Number	594781
Last Calibrated	8/20/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.95
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	54,035 µS/cm
Specific Conductivity	50,996 µS/cm

Post Measurement

Actual Conductivity	52,980 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	598226
Last Calibrated	8/20/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.01 pH
pH mV	170.2 mV
Temperature	28.83 °C

Pre Measurement

pH	4.07 pH
pH mV	170.1 mV

Post Measurement

pH	4.01 pH
pH mV	172.4 mV

Calibration Point 2

pH of Buffer	6.99 pH
pH mV	-4.6 mV
Temperature	28.31 °C

Pre Measurement

pH	7.05 pH

pH mV	-4.7 mV

Post Measurement

pH	6.99 pH
pH mV	-4.6 mV

Calibration Point 3

pH of Buffer	9.96 pH
pH mV	-177.4 mV
Temperature	29.53 °C

Pre Measurement

pH	10.00 pH
pH mV	-178.1 mV

Post Measurement

pH	9.96 pH
pH mV	-180.1 mV

Slope and Offset 1

Slope	-58.66 mV/pH
Offset	-5.2 mV

Slope and Offset 2

Slope	-58.21 mV/pH
Offset	-5.1 mV

ORP

ORP Solution	Quick-Cal
Offset	3.9 mV
Temperature	19.02 °C

Sensor	RDO
Serial Number	612050
Last Calibrated	8/20/2019

Calibration Details

Slope	1.055376
Offset	0.00 mg/L

Calibration point 100%

Concentration	7.20 mg/L
Pre Measurement	101.67 %Sat
Post Measurement	100.00 %Sat
Temperature	27.93 °C
Barometric Pressure	983.27 mbar

Sensor	Turbidity
Serial Number	513340
Last Calibrated	8/20/2019

Calibration Details	
TSS Conversion Factor (mg/L)	0
Slope	1.03906
Offset	-2.49 NTU

Calibration Point 1	
Pre Measurement	1.37 NTU
Post Measurement	0.00 NTU

Calibration Point 2	
Pre Measurement	98.24 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	613994
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	458014
Created	8/22/2019

Sensor	**Conductivity**
Serial Number	623453
Last Calibrated	8/22/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.029
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	48,532 µS/cm
Specific Conductivity	50,615 µS/cm

Post Measurement

Actual Conductivity	47,942 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	**pH/ORP**
Serial Number	668172
Last Calibrated	8/22/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	-41.7 mV
Temperature	23.48 °C

Pre Measurement

pH	4.12 pH
pH mV	166.8 mV

Post Measurement

pH	4.00 pH
pH mV	-41.5 mV

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-8.8 mV
Temperature	23.68 °C

Pre Measurement

pH	7.16 pH
pH mV	-9.0 mV

Post Measurement

pH	7.00 pH
pH mV	-8.8 mV

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-179.9 mV
Temperature	23.24 °C

Pre Measurement

pH	10.09 pH
pH mV	-179.5 mV

Post Measurement

pH	10.00 pH
pH mV	-178.8 mV

Slope and Offset 1

Slope	10.96 mV/pH
Offset	-8.8 mV

Slope and Offset 2

Slope	-57.02 mV/pH
Offset	-8.8 mV

ORP

ORP Solution	Quick-Cal
Offset	7.5 mV
Temperature	22.88 °C

Sensor	**RDO**
Serial Number	505697
Last Calibrated	8/22/2019

Calibration Details

Slope	1.082689
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.14 mg/L
Pre Measurement	93.95 %Sat
Post Measurement	100.00 %Sat
Temperature	23.37 °C
Barometric Pressure	1,047.3 mbar

Sensor	**Turbidity**
Serial Number	641465
Last Calibrated	8/22/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	0.9662088
Offset	0.21 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	103.60 NTU
Post Measurement	100.00 NTU

Sensor	**Barometric Pressure**
Serial Number	458014
Last Calibrated	Factory Defaults

Sensor	**Pressure**
Serial Number	457637
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	458014
Created	8/26/2019

Sensor	Conductivity
Serial Number	623453
Last Calibrated	8/26/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.052
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	43,692 µS/cm
Specific Conductivity	48,967 µS/cm

Post Measurement

Actual Conductivity	44,613 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668172
Last Calibrated	8/26/2019

Calibration Details

Calibration Point 1

pH of Buffer	7.02 pH
pH mV	-12.2 mV
Temperature	19.25 °C

Pre Measurement

pH	7.06 pH
pH mV	-12.3 mV

Post Measurement

pH	7.02 pH
pH mV	-12.0 mV

Calibration Point 2

pH of Buffer	10.04 pH
pH mV	-185.0 mV
Temperature	18.83 °C

Pre Measurement

pH	10.14 pH

pH mV	-184.8 mV

Post Measurement

pH	10.04 pH
pH mV	-181.2 mV

Slope and Offset 1

Slope	-57.22 mV/pH
Offset	-11.1 mV

ORP

ORP Solution	Quick-Cal
Offset	7.5 mV
Temperature	22.88 °C

Sensor	RDO
Serial Number	505697
Last Calibrated	8/26/2019

Calibration Details

Slope	1.00402
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.99 mg/L
Pre Measurement	105.52 %Sat
Post Measurement	100.00 %Sat
Temperature	19.80 °C
Barometric Pressure	1,002.1 mbar

Sensor	Turbidity
Serial Number	641465
Last Calibrated	8/26/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	0.9772971
Offset	0.27 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	97.84 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	458014
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457637
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	458014
Created	9/4/2019

Sensor	Conductivity
Serial Number	623453
Last Calibrated	9/4/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.066
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	46,848 µS/cm
Specific Conductivity	49,351 µS/cm

Post Measurement

Actual Conductivity	47,463 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668172
Last Calibrated	9/4/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	160.9 mV
Temperature	21.80 °C

Pre Measurement

pH	4.02 pH
pH mV	160.8 mV

Post Measurement

pH	4.00 pH
pH mV	159.2 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-8.9 mV
Temperature	21.54 °C

Pre Measurement

pH	6.96 pH

pH mV	-9.1 mV

Post Measurement

pH	7.02 pH
pH mV	-8.8 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-180.8 mV
Temperature	21.88 °C

Pre Measurement

pH	9.94 pH
pH mV	-181.1 mV

Post Measurement

pH	10.04 pH
pH mV	-178.9 mV

Slope and Offset 1

Slope	-56.23 mV/pH
Offset	-7.8 mV

Slope and Offset 2

Slope	-56.92 mV/pH
Offset	-7.8 mV

ORP

ORP Solution	Quick-Cal
Offset	7.5 mV
Temperature	22.88 °C

Sensor	RDO
Serial Number	505697
Last Calibrated	9/4/2019

Calibration Details

Slope	1.04554
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.35 mg/L
Pre Measurement	95.82 %Sat
Post Measurement	100.00 %Sat
Temperature	22.76 °C
Barometric Pressure	1,026.6 mbar

Sensor	Turbidity
Serial Number	641465
Last Calibrated	9/4/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.016875
Offset	-0.34 NTU

Calibration Point 1

Pre Measurement	0.68 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	97.01 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	458014
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457637
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	458014
Created	9/12/2019

Sensor	Conductivity
Serial Number	623453
Last Calibrated	9/12/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.085
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	41,866 µS/cm
Specific Conductivity	49,162 µS/cm

Post Measurement

Actual Conductivity	42,579 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668172
Last Calibrated	9/12/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	146.3 mV
Temperature	17.19 °C

Pre Measurement

pH	4.22 pH
pH mV	146.1 mV

Post Measurement

pH	4.00 pH
pH mV	142.4 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-14.1 mV
Temperature	16.66 °C

Pre Measurement

pH	7.12 pH

pH mV	-14.1 mV

Post Measurement

pH	7.02 pH
pH mV	-13.7 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-185.7 mV
Temperature	17.31 °C

Pre Measurement

pH	10.18 pH
pH mV	-186.1 mV

Post Measurement

pH	10.08 pH
pH mV	-180.9 mV

Slope and Offset 1

Slope	-53.09 mV/pH
Offset	-13.0 mV

Slope and Offset 2

Slope	-56.08 mV/pH
Offset	-12.9 mV

ORP

ORP Solution	Quick-Cal
Offset	7.5 mV
Temperature	22.88 °C

Sensor	RDO
Serial Number	505697
Last Calibrated	9/12/2019

Calibration Details

Slope	1.002285
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.47 mg/L
Pre Measurement	102.45 %Sat
Post Measurement	100.00 %Sat
Temperature	16.85 °C
Barometric Pressure	992.71 mbar

Sensor	Turbidity
Serial Number	641465
Last Calibrated	9/12/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.141227
Offset	0.58 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	88.54 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	458014
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457637
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	458014
Created	9/18/2019

Sensor	Conductivity
Serial Number	623453
Last Calibrated	9/18/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.025
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	46,723 µS/cm
Specific Conductivity	52,923 µS/cm

Post Measurement

Actual Conductivity	44,143 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668172
Last Calibrated	9/18/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	156.7 mV
Temperature	18.58 °C

Pre Measurement

pH	3.82 pH
pH mV	156.4 mV

Post Measurement

pH	4.00 pH
pH mV	153.4 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-13.1 mV
Temperature	18.03 °C

Pre Measurement

pH	7.02 pH

pH mV	-14.1 mV

Post Measurement

pH	7.02 pH
pH mV	-12.8 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-186.5 mV
Temperature	18.75 °C

Pre Measurement

pH	10.10 pH
pH mV	-188.1 mV

Post Measurement

pH	10.04 pH
pH mV	-182.6 mV

Slope and Offset 1

Slope	-56.26 mV/pH
Offset	-12.0 mV

Slope and Offset 2

Slope	-57.4 mV/pH
Offset	-12.0 mV

ORP

ORP Solution	Quick-Cal
Offset	7.5 mV
Temperature	22.88 °C

Sensor	RDO
Serial Number	505697
Last Calibrated	9/18/2019

Calibration Details

Slope	1.013254
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.16 mg/L
Pre Measurement	98.71 %Sat
Post Measurement	100.00 %Sat
Temperature	18.72 °C
Barometric Pressure	1,008.3 mbar

Sensor	Turbidity
Serial Number	641465
Last Calibrated	9/18/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.270777
Offset	-13.75 NTU

Calibration Point 1

Pre Measurement	0.32 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	124.01 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	458014
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457637
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	458014
Created	9/25/2019

Sensor	Conductivity
Serial Number	623453
Last Calibrated	9/25/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.018
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	47,986 µS/cm
Specific Conductivity	50,335 µS/cm

Post Measurement

Actual Conductivity	47,666 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668172
Last Calibrated	9/25/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	170.9 mV
Temperature	21.54 °C

Pre Measurement

pH	3.93 pH
pH mV	162.4 mV

Post Measurement

pH	4.00 pH
pH mV	168.9 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-9.2 mV
Temperature	21.10 °C

Pre Measurement

pH	6.95 pH

pH mV	-9.2 mV

Post Measurement

pH	7.02 pH
pH mV	-9.0 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-182.3 mV
Temperature	21.79 °C

Pre Measurement

pH	9.93 pH
pH mV	-182.8 mV

Post Measurement

pH	10.04 pH
pH mV	-180.4 mV

Slope and Offset 1

Slope	-59.62 mV/pH
Offset	-8.0 mV

Slope and Offset 2

Slope	-57.34 mV/pH
Offset	-8.0 mV

ORP

ORP Solution	Quick-Cal
Offset	7.5 mV
Temperature	22.88 °C

Sensor	RDO
Serial Number	505697
Last Calibrated	9/25/2019

Calibration Details

Slope	1.090586
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.33 mg/L
Pre Measurement	92.66 %Sat
Post Measurement	100.00 %Sat
Temperature	22.75 °C
Barometric Pressure	1,066.6 mbar

Sensor	Turbidity
Serial Number	641465
Last Calibrated	9/25/2019

Calibration Details	
TSS Conversion Factor (mg/L)	0
Slope	1.151484
Offset	0.18 NTU

Calibration Point 1	
Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2	
Pre Measurement	123.03 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	458014
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457637
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	458014
Created	10/1/2019

Sensor	Conductivity
Serial Number	623453
Last Calibrated	10/1/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	8.643
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	43,715 µS/cm
Specific Conductivity	51,749 µS/cm

Post Measurement

Actual Conductivity	42,238 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668172
Last Calibrated	10/1/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	153.5 mV
Temperature	16.62 °C

Pre Measurement

pH	4.15 pH
pH mV	159.0 mV

Post Measurement

pH	4.00 pH
pH mV	149.2 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-13.2 mV
Temperature	16.58 °C

Pre Measurement

pH	7.10 pH

pH mV	-13.3 mV

Post Measurement

pH	7.02 pH
pH mV	-12.8 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-185.5 mV
Temperature	16.73 °C

Pre Measurement

pH	10.16 pH
pH mV	-186.2 mV

Post Measurement

pH	10.08 pH
pH mV	-180.4 mV

Slope and Offset 1

Slope	-55.19 mV/pH
Offset	-12.1 mV

Slope and Offset 2

Slope	-56.32 mV/pH
Offset	-12.1 mV

ORP

ORP Solution	Quick-Cal
Offset	7.5 mV
Temperature	22.88 °C

Sensor	RDO
Serial Number	505697
Last Calibrated	10/1/2019

Calibration Details

Slope	1.065318
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.29 mg/L
Pre Measurement	102.10 %Sat
Post Measurement	100.00 %Sat
Temperature	17.32 °C
Barometric Pressure	1,043.9 mbar

Sensor	Turbidity
Serial Number	641465
Last Calibrated	10/1/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.131098
Offset	-0.32 NTU

Calibration Point 1

Pre Measurement	0.33 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	126.41 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	458014
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457637
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	458014
Created	10/9/2019

Sensor	Conductivity
Serial Number	623453
Last Calibrated	10/9/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.982
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	41,563 µS/cm
Specific Conductivity	49,961 µS/cm

Post Measurement

Actual Conductivity	41,596 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668172
Last Calibrated	10/9/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	154.7 mV
Temperature	15.21 °C

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-15.7 mV
Temperature	15.22 °C

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-187.0 mV
Temperature	15.35 °C

Slope and Offset 1

Slope	-56.42 mV/pH
Offset	-14.6 mV

Slope and Offset 2

Slope	-55.98 mV/pH
Offset	-14.6 mV

ORP

ORP Solution	Quick-Cal
Offset	7.5 mV
Temperature	22.88 °C

Sensor	RDO
Serial Number	505697
Last Calibrated	10/9/2019

Calibration Details

Slope	1.071188
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.21 mg/L
Pre Measurement	99.07 %Sat
Post Measurement	100.00 %Sat
Temperature	17.12 °C
Barometric Pressure	1,036.8 mbar

Sensor	Turbidity
Serial Number	641465
Last Calibrated	10/9/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.107666
Offset	0.35 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	125.47 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	458014
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457637
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	458014
Created	10/22/2019

Sensor	Conductivity
Serial Number	623453
Last Calibrated	10/22/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.992
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	42,161 µS/cm
Specific Conductivity	49,516 µS/cm

Post Measurement

Actual Conductivity	42,574 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668172
Last Calibrated	10/22/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	163.5 mV
Temperature	17.11 °C

Pre Measurement

pH	3.89 pH
pH mV	162.2 mV

Post Measurement

pH	4.00 pH
pH mV	159.2 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-10.8 mV
Temperature	17.02 °C

Pre Measurement

pH	6.93 pH

pH mV	-10.8 mV

Post Measurement

pH	7.02 pH
pH mV	-10.5 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-179.8 mV
Temperature	17.12 °C

Pre Measurement

pH	9.94 pH
pH mV	-180.3 mV

Post Measurement

pH	10.08 pH
pH mV	-175.1 mV

Slope and Offset 1

Slope	-57.72 mV/pH
Offset	-9.6 mV

Slope and Offset 2

Slope	-55.25 mV/pH
Offset	-9.7 mV

ORP

ORP Solution	Quick-Cal
Offset	7.5 mV
Temperature	22.88 °C

Sensor	RDO
Serial Number	505697
Last Calibrated	10/22/2019

Calibration Details

Slope	1.050748
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.38 mg/L
Pre Measurement	101.67 %Sat
Post Measurement	100.00 %Sat
Temperature	16.76 °C
Barometric Pressure	1,028.7 mbar

Sensor	Turbidity
Serial Number	641465
Last Calibrated	10/22/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.134524
Offset	0.55 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	121.08 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	458014
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457637
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	458014
Created	10/31/2019

Sensor	Conductivity
Serial Number	623453
Last Calibrated	10/31/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.02
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	41,506 µS/cm
Specific Conductivity	48,640 µS/cm

Post Measurement

Actual Conductivity	42,666 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668172
Last Calibrated	10/31/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	159.6 mV
Temperature	17.10 °C

Pre Measurement

pH	4.00 pH
pH mV	159.4 mV

Post Measurement

pH	4.00 pH
pH mV	155.3 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-7.6 mV
Temperature	17.04 °C

Pre Measurement

pH	6.97 pH

pH mV	-7.5 mV

Post Measurement

pH	7.02 pH
pH mV	-7.4 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-178.9 mV
Temperature	17.17 °C

Pre Measurement

pH	10.06 pH
pH mV	-179.2 mV

Post Measurement

pH	10.08 pH
pH mV	-174.2 mV

Slope and Offset 1

Slope	-55.35 mV/pH
Offset	-6.5 mV

Slope and Offset 2

Slope	-56 mV/pH
Offset	-6.5 mV

ORP

ORP Solution	Quick-Cal
Offset	7.5 mV
Temperature	22.88 °C

Sensor	RDO
Serial Number	505697
Last Calibrated	10/31/2019

Calibration Details

Slope	1.110082
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.16 mg/L
Pre Measurement	94.71 %Sat
Post Measurement	100.00 %Sat
Temperature	17.36 °C
Barometric Pressure	1,073.2 mbar

Sensor	Turbidity
Serial Number	641465
Last Calibrated	10/31/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.13199
Offset	0.56 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	123.99 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	458014
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457637
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	458014
Created	11/5/2019

Sensor	Conductivity
Serial Number	623453
Last Calibrated	11/5/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.006
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	39,403 µS/cm
Specific Conductivity	50,666 µS/cm

Post Measurement

Actual Conductivity	38,884 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668172
Last Calibrated	11/5/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	157.8 mV
Temperature	12.84 °C

Pre Measurement

pH	4.01 pH
pH mV	156.6 mV

Post Measurement

pH	4.00 pH
pH mV	151.4 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-13.4 mV
Temperature	12.73 °C

Pre Measurement

pH	7.13 pH

pH mV	-13.7 mV

Post Measurement

pH	7.06 pH
pH mV	-12.8 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-182.1 mV
Temperature	13.13 °C

Pre Measurement

pH	10.20 pH
pH mV	-183.2 mV

Post Measurement

pH	10.08 pH
pH mV	-174.9 mV

Slope and Offset 1

Slope	-55.96 mV/pH
Offset	-10.0 mV

Slope and Offset 2

Slope	-55.87 mV/pH
Offset	-10.0 mV

ORP

ORP Solution	Quick-Cal
Offset	7.5 mV
Temperature	22.88 °C

Sensor	RDO
Serial Number	505697
Last Calibrated	11/5/2019

Calibration Details

Slope	1.093366
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.68 mg/L
Pre Measurement	100.90 %Sat
Post Measurement	100.00 %Sat
Temperature	14.56 °C
Barometric Pressure	1,052.7 mbar

Sensor	Turbidity
Serial Number	641465
Last Calibrated	11/5/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.114254
Offset	0.69 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	125.64 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	458014
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457637
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	458014
Created	11/17/2019

Sensor	Conductivity
Serial Number	623453
Last Calibrated	11/17/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	168.818
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	37,297 µS/cm
Specific Conductivity	51,970 µS/cm

Post Measurement

Actual Conductivity	35,884 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668172
Last Calibrated	11/17/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	153.4 mV
Temperature	9.99 °C

Pre Measurement

pH	4.07 pH
pH mV	152.4 mV

Post Measurement

pH	4.00 pH
pH mV	145.7 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-15.7 mV
Temperature	9.72 °C

Pre Measurement

pH	7.12 pH

pH mV	-16.3 mV

Post Measurement

pH	7.06 pH
pH mV	-14.9 mV

Calibration Point 3

pH of Buffer	10.12 pH
pH mV	-185.4 mV
Temperature	10.05 °C

Pre Measurement

pH	10.18 pH
pH mV	-185.9 mV

Post Measurement

pH	10.12 pH
pH mV	-176.1 mV

Slope and Offset 1

Slope	-55.26 mV/pH
Offset	-12.4 mV

Slope and Offset 2

Slope	-55.44 mV/pH
Offset	-12.4 mV

ORP

ORP Solution	Quick-Cal
Offset	7.5 mV
Temperature	22.88 °C

Sensor	RDO
Serial Number	505697
Last Calibrated	11/17/2019

Calibration Details

Slope	1.050606
Offset	0.00 mg/L

Calibration point 100%

Concentration	11.01 mg/L
Pre Measurement	103.86 %Sat
Post Measurement	100.00 %Sat
Temperature	8.59 °C
Barometric Pressure	1,006.6 mbar

Sensor	Turbidity
Serial Number	641465
Last Calibrated	11/17/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.10966
Offset	0.56 NTU

Calibration Point 1

Pre Measurement	0.06 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	124.76 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	458014
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457637
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	458014
Created	12/4/2019

Sensor	Conductivity
Serial Number	623453
Last Calibrated	12/4/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	140.427
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	37,540 µS/cm
Specific Conductivity	50,015 µS/cm

Post Measurement

Actual Conductivity	37,528 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668172
Last Calibrated	12/4/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	157.7 mV
Temperature	11.50 °C

Pre Measurement

pH	3.94 pH
pH mV	157.5 mV

Post Measurement

pH	4.00 pH
pH mV	150.5 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-13.8 mV
Temperature	11.19 °C

Pre Measurement

pH	7.02 pH

pH mV	-13.3 mV

Post Measurement

pH	7.06 pH
pH mV	-13.2 mV

Calibration Point 3

pH of Buffer	10.12 pH
pH mV	-184.1 mV
Temperature	12.25 °C

Pre Measurement

pH	10.06 pH
pH mV	-183.6 mV

Post Measurement

pH	10.12 pH
pH mV	-176.2 mV

Slope and Offset 1

Slope	-56.04 mV/pH
Offset	-10.5 mV

Slope and Offset 2

Slope	-55.63 mV/pH
Offset	-10.5 mV

ORP

ORP Solution	Quick-Cal
Offset	7.5 mV
Temperature	22.88 °C

Sensor	RDO
Serial Number	505697
Last Calibrated	12/4/2019

Calibration Details

Slope	1.102701
Offset	0.00 mg/L

Calibration point 100%

Concentration	10.03 mg/L
Pre Measurement	94.78 %Sat
Post Measurement	100.00 %Sat
Temperature	10.94 °C
Barometric Pressure	1,019.2 mbar

Sensor	Turbidity
Serial Number	641465
Last Calibrated	12/4/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	26.69349
Offset	17.36 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	122.82 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	458014
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457637
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	458014
Created	12/26/2019

Sensor	Conductivity
Serial Number	623453
Last Calibrated	12/26/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.988
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	45,408 µS/cm
Specific Conductivity	50,066 µS/cm

Post Measurement

Actual Conductivity	45,348 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668172
Last Calibrated	12/26/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	160.1 mV
Temperature	19.23 °C

Pre Measurement

pH	4.04 pH
pH mV	159.6 mV

Post Measurement

pH	4.00 pH
pH mV	157.0 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-12.7 mV
Temperature	19.86 °C

Pre Measurement

pH	7.04 pH

pH mV	-12.9 mV

Post Measurement

pH	7.02 pH
pH mV	-12.5 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-189.1 mV
Temperature	19.81 °C

Pre Measurement

pH	10.11 pH
pH mV	-189.2 mV

Post Measurement

pH	10.04 pH
pH mV	-185.8 mV

Slope and Offset 1

Slope	-57.22 mV/pH
Offset	-11.6 mV

Slope and Offset 2

Slope	-58.4 mV/pH
Offset	-11.5 mV

ORP

ORP Solution	Quick-Cal
Offset	7.5 mV
Temperature	22.88 °C

Sensor	RDO
Serial Number	505697
Last Calibrated	12/26/2019

Calibration Details

Slope	1.093389
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.83 mg/L
Pre Measurement	100.70 %Sat
Post Measurement	100.00 %Sat
Temperature	20.30 °C
Barometric Pressure	1,080.9 mbar

Sensor	Turbidity
Serial Number	641465
Last Calibrated	12/26/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.136305
Offset	0.47 NTU

Calibration Point 1

Pre Measurement	0.05 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	109.17 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	458014
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	457637
Last Calibrated	Factory Defaults

Station SM-4

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	613994
Created	8/13/2019

Sensor	Conductivity
Serial Number	594781
Last Calibrated	8/13/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.969
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	46,455 µS/cm
Specific Conductivity	47,332 µS/cm

Post Measurement

Actual Conductivity	49,073 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	598226
Last Calibrated	8/13/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	171.2 mV
Temperature	24.15 °C

Pre Measurement

pH	4.12 pH
pH mV	170.8 mV

Post Measurement

pH	4.00 pH
pH mV	170.7 mV

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-1.7 mV
Temperature	24.15 °C

Pre Measurement

pH	7.14 pH

pH mV	-1.8 mV

Post Measurement

pH	7.00 pH
pH mV	-1.7 mV

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-175.0 mV
Temperature	24.01 °C

Pre Measurement

pH	10.18 pH
pH mV	-174.8 mV

Post Measurement

pH	10.00 pH
pH mV	-174.4 mV

Slope and Offset 1

Slope	-57.64 mV/pH
Offset	-1.7 mV

Slope and Offset 2

Slope	-57.76 mV/pH
Offset	-1.7 mV

ORP

ORP Solution	Quick-Cal
Offset	3.9 mV
Temperature	19.02 °C

Sensor	RDO
Serial Number	612050
Last Calibrated	8/13/2019

Calibration Details

Slope	1.071893
Offset	0.00 mg/L

Calibration point 100%

Concentration	7.70 mg/L
Pre Measurement	102.75 %Sat
Post Measurement	100.00 %Sat
Temperature	24.55 °C
Barometric Pressure	1,004.3 mbar

Sensor	Turbidity
Serial Number	513340
Last Calibrated	8/13/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.006862
Offset	-1.52 NTU

Calibration Point 1

Pre Measurement	1.37 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	99.43 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	613994
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600
Serial Number	663632
Created	8/20/2019

Sensor	Conductivity
Serial Number	673190
Last Calibrated	8/20/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.008
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	52,890 µS/cm
Specific Conductivity	51,405 µS/cm

Post Measurement

Actual Conductivity	51,445 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	612367
Last Calibrated	8/20/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	165.4 mV
Temperature	27.35 °C

Pre Measurement

pH	4.01 pH
pH mV	165.4 mV

Post Measurement

pH	4.00 pH
pH mV	166.7 mV

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-9.2 mV
Temperature	26.70 °C

Pre Measurement

pH	6.98 pH

pH mV	-9.2 mV

Post Measurement

pH	7.00 pH
pH mV	-9.2 mV

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-182.4 mV
Temperature	27.14 °C

Pre Measurement

pH	9.97 pH
pH mV	-182.7 mV

Post Measurement

pH	10.00 pH
pH mV	-183.7 mV

Slope and Offset 1

Slope	-58.18 mV/pH
Offset	-9.2 mV

Slope and Offset 2

Slope	-57.73 mV/pH
Offset	-9.2 mV

ORP

ORP Solution	Quick-Cal
Offset	-100.6 mV
Temperature	22.89 °C
Pre Measurement	250.1 mV
Post Measurement	226.7 mV

Sensor	RDO
Serial Number	611548
Last Calibrated	8/20/2019

Calibration Details

Slope	1.040277
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.04 mg/L
Pre Measurement	100.06 %Sat
Post Measurement	100.00 %Sat
Temperature	25.35 °C
Barometric Pressure	1,032.1 mbar

Sensor	Turbidity
Serial Number	621211

Last Calibrated	8/15/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.009558
Offset	-2.24 NTU

Calibration Point 1

Pre Measurement	2.27 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	92.58 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	663632
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	449588
Created	8/21/2019

Sensor	Conductivity
Serial Number	675389
Last Calibrated	8/21/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.031
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	46,229 µS/cm
Specific Conductivity	48,486 µS/cm

Post Measurement

Actual Conductivity	47,672 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668219
Last Calibrated	8/21/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	170.6 mV
Temperature	22.97 °C

Pre Measurement

pH	4.07 pH
pH mV	170.3 mV

Post Measurement

pH	4.00 pH
pH mV	169.4 mV

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-4.7 mV
Temperature	23.22 °C

Pre Measurement

pH	7.09 pH

pH mV	-5.0 mV

Post Measurement

pH	7.00 pH
pH mV	-4.7 mV

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-174.3 mV
Temperature	22.67 °C

Pre Measurement

pH	10.04 pH
pH mV	-173.7 mV

Post Measurement

pH	10.00 pH
pH mV	-173.0 mV

Slope and Offset 1

Slope	-58.43 mV/pH
Offset	-4.7 mV

Slope and Offset 2

Slope	-56.54 mV/pH
Offset	-4.7 mV

ORP

ORP Solution	Quick-Cal
Offset	10.2 mV
Temperature	23.31 °C

Sensor	RDO
Serial Number	576371
Last Calibrated	8/21/2019

Calibration Details

Slope	1.118726
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.04 mg/L
Pre Measurement	92.67 %Sat
Post Measurement	100.00 %Sat
Temperature	23.29 °C
Barometric Pressure	1,067.3 mbar

Sensor	Turbidity
Serial Number	622616
Last Calibrated	8/21/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	0.998805
Offset	-1.85 NTU

Calibration Point 1

Pre Measurement	1.86 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	101.62 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	449588
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	449082
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	443813
Created	8/26/2019

Sensor	Conductivity
Serial Number	611670
Last Calibrated	8/26/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.026
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	40,062 µS/cm
Specific Conductivity	49,579 µS/cm

Post Measurement

Actual Conductivity	40,402 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668242
Last Calibrated	8/26/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	149.0 mV
Temperature	15.08 °C

Pre Measurement

pH	4.24 pH
pH mV	151.3 mV

Post Measurement

pH	4.00 pH
pH mV	144.0 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-14.1 mV
Temperature	15.50 °C

Pre Measurement

pH	7.12 pH

pH mV	-14.0 mV

Post Measurement

pH	7.02 pH
pH mV	-13.7 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-188.0 mV
Temperature	14.91 °C

Pre Measurement

pH	10.24 pH
pH mV	-187.2 mV

Post Measurement

pH	10.08 pH
pH mV	-181.6 mV

Slope and Offset 1

Slope	-54.02 mV/pH
Offset	-13.1 mV

Slope and Offset 2

Slope	-56.81 mV/pH
Offset	-13.0 mV

ORP

ORP Solution	Quick-Cal
Offset	2.8 mV
Temperature	24.27 °C

Sensor	RDO
Serial Number	527450
Last Calibrated	8/26/2019

Calibration Details

Slope	1.11412
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.41 mg/L
Pre Measurement	117.49 %Sat
Post Measurement	100.00 %Sat
Temperature	17.15 °C
Barometric Pressure	986.03 mbar

Sensor	Turbidity
Serial Number	611737
Last Calibrated	8/26/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	0.9712153
Offset	-1.78 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	100.17 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	443813
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	434120
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	449588
Created	9/4/2019

Sensor	Conductivity
Serial Number	675389
Last Calibrated	9/4/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.071
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	46,779 µS/cm
Specific Conductivity	50,326 µS/cm

Post Measurement

Actual Conductivity	46,476 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668219
Last Calibrated	9/4/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	159.0 mV
Temperature	21.08 °C

Pre Measurement

pH	3.98 pH
pH mV	158.7 mV

Post Measurement

pH	4.00 pH
pH mV	156.9 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-8.9 mV
Temperature	20.94 °C

Pre Measurement

pH	6.97 pH

pH mV	-9.0 mV

Post Measurement

pH	7.02 pH
pH mV	-8.8 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-181.2 mV
Temperature	21.19 °C

Pre Measurement

pH	9.98 pH
pH mV	-181.4 mV

Post Measurement

pH	10.04 pH
pH mV	-178.9 mV

Slope and Offset 1

Slope	-55.59 mV/pH
Offset	-7.8 mV

Slope and Offset 2

Slope	-57.06 mV/pH
Offset	-7.7 mV

ORP

ORP Solution	Quick-Cal
Offset	10.2 mV
Temperature	23.31 °C

Sensor	RDO
Serial Number	576371
Last Calibrated	9/4/2019

Calibration Details

Slope	1.071051
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.44 mg/L
Pre Measurement	97.31 %Sat
Post Measurement	100.00 %Sat
Temperature	21.54 °C
Barometric Pressure	1,038.0 mbar

Sensor	Turbidity
Serial Number	622616
Last Calibrated	9/4/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.058542
Offset	-2.54 NTU

Calibration Point 1

Pre Measurement	1.23 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	96.39 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	449588
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	449082
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	449588
Created	9/12/2019

Sensor	Conductivity
Serial Number	675389
Last Calibrated	9/12/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.115
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	41,062 µS/cm
Specific Conductivity	48,012 µS/cm

Post Measurement

Actual Conductivity	42,762 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668219
Last Calibrated	9/12/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	152.1 mV
Temperature	17.23 °C

Pre Measurement

pH	4.09 pH
pH mV	152.1 mV

Post Measurement

pH	4.00 pH
pH mV	148.1 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-11.3 mV
Temperature	16.71 °C

Pre Measurement

pH	7.07 pH

pH mV	-11.3 mV

Post Measurement

pH	7.02 pH
pH mV	-11.0 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-181.6 mV
Temperature	17.40 °C

Pre Measurement

pH	10.09 pH
pH mV	-181.9 mV

Post Measurement

pH	10.08 pH
pH mV	-177.0 mV

Slope and Offset 1

Slope	-54.09 mV/pH
Offset	-10.2 mV

Slope and Offset 2

Slope	-55.67 mV/pH
Offset	-10.2 mV

ORP

ORP Solution	Quick-Cal
Offset	10.2 mV
Temperature	23.31 °C

Sensor	RDO
Serial Number	576371
Last Calibrated	9/12/2019

Calibration Details

Slope	1.05642
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.14 mg/L
Pre Measurement	101.17 %Sat
Post Measurement	100.00 %Sat
Temperature	17.49 °C
Barometric Pressure	1,022.3 mbar

Sensor	Turbidity
Serial Number	622616
Last Calibrated	9/12/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.167883
Offset	-1.87 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	90.43 NTU
Post Measurement	100.00 NTU

Sensor	Barometric Pressure
Serial Number	449588
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	449082
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	449588
Created	9/18/2019

Sensor	Conductivity
Serial Number	675389
Last Calibrated	9/18/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.035
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	47,286 µS/cm
Specific Conductivity	53,972 µS/cm

Post Measurement

Actual Conductivity	43,806 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668219
Last Calibrated	9/18/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	158.1 mV
Temperature	18.71 °C

Pre Measurement

pH	3.91 pH
pH mV	158.0 mV

Post Measurement

pH	4.00 pH
pH mV	154.7 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-14.2 mV
Temperature	18.07 °C

Pre Measurement

pH	7.07 pH

pH mV	-14.1 mV

Post Measurement

pH	7.02 pH
pH mV	-13.8 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-186.0 mV
Temperature	18.55 °C

Pre Measurement

pH	10.15 pH
pH mV	-186.5 mV

Post Measurement

pH	10.04 pH
pH mV	-182.0 mV

Slope and Offset 1

Slope	-57.02 mV/pH
Offset	-13.0 mV

Slope and Offset 2

Slope	-56.92 mV/pH
Offset	-13.0 mV

ORP

ORP Solution	Quick-Cal
Offset	10.2 mV
Temperature	23.31 °C

Sensor	RDO
Serial Number	576371
Last Calibrated	9/18/2019

Calibration Details

Slope	1.039632
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.22 mg/L
Pre Measurement	101.37 %Sat
Post Measurement	100.00 %Sat
Temperature	17.66 °C
Barometric Pressure	1,018.6 mbar

Sensor	Turbidity
Serial Number	622616
Last Calibrated	9/18/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.209552
Offset	-3.07 NTU

Calibration Point 1

Pre Measurement	1.01 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	120.90 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	449588
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	449082
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	449588
Created	9/25/2019

Sensor	Conductivity
Serial Number	675389
Last Calibrated	9/25/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.044
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	44,630 µS/cm
Specific Conductivity	49,590 µS/cm

Post Measurement

Actual Conductivity	44,999 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668219
Last Calibrated	9/25/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	163.0 mV
Temperature	19.68 °C

Pre Measurement

pH	3.92 pH
pH mV	162.9 mV

Post Measurement

pH	4.00 pH
pH mV	160.1 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-10.2 mV
Temperature	19.55 °C

Pre Measurement

pH	6.95 pH

pH mV	-10.3 mV

Post Measurement

pH	7.02 pH
pH mV	-10.0 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-183.9 mV
Temperature	19.96 °C

Pre Measurement

pH	9.99 pH
pH mV	-184.5 mV

Post Measurement

pH	10.04 pH
pH mV	-180.8 mV

Slope and Offset 1

Slope	-57.34 mV/pH
Offset	-9.1 mV

Slope and Offset 2

Slope	-57.5 mV/pH
Offset	-9.1 mV

ORP

ORP Solution	Quick-Cal
Offset	10.2 mV
Temperature	23.31 °C

Sensor	RDO
Serial Number	576371
Last Calibrated	9/25/2019

Calibration Details

Slope	1.104939
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.56 mg/L
Pre Measurement	93.94 %Sat
Post Measurement	100.00 %Sat
Temperature	20.53 °C
Barometric Pressure	1,063.5 mbar

Sensor	Turbidity
Serial Number	622616
Last Calibrated	9/25/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.203008
Offset	-4.20 NTU

Calibration Point 1

Pre Measurement	1.14 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	124.76 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	449588
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	449082
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	449588
Created	10/1/2019

Sensor	Conductivity
Serial Number	675389
Last Calibrated	10/1/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.041
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	41,781 µS/cm
Specific Conductivity	50,141 µS/cm

Post Measurement

Actual Conductivity	41,663 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668219
Last Calibrated	10/1/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	161.4 mV
Temperature	16.25 °C

Pre Measurement

pH	4.01 pH
pH mV	160.6 mV

Post Measurement

pH	4.00 pH
pH mV	156.6 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-10.6 mV
Temperature	16.25 °C

Pre Measurement

pH	7.03 pH

pH mV	-10.6 mV

Post Measurement

pH	7.02 pH
pH mV	-10.3 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-187.2 mV
Temperature	16.28 °C

Pre Measurement

pH	10.13 pH
pH mV	-186.7 mV

Post Measurement

pH	10.08 pH
pH mV	-181.7 mV

Slope and Offset 1

Slope	-56.95 mV/pH
Offset	-9.5 mV

Slope and Offset 2

Slope	-57.7 mV/pH
Offset	-9.5 mV

ORP

ORP Solution	Quick-Cal
Offset	10.2 mV
Temperature	23.31 °C

Sensor	RDO
Serial Number	576371
Last Calibrated	10/1/2019

Calibration Details

Slope	1.076561
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.22 mg/L
Pre Measurement	102.29 %Sat
Post Measurement	100.00 %Sat
Temperature	17.01 °C
Barometric Pressure	1,039.9 mbar

Sensor	Turbidity
Serial Number	622616
Last Calibrated	10/1/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.236316
Offset	-5.84 NTU

Calibration Point 1

Pre Measurement	1.19 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	121.12 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	449588
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	449082
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	449588
Created	10/9/2019

Sensor	Conductivity
Serial Number	675389
Last Calibrated	10/9/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.029
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	43,108 µS/cm
Specific Conductivity	50,620 µS/cm

Post Measurement

Actual Conductivity	42,580 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668219
Last Calibrated	10/9/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	160.0 mV
Temperature	16.75 °C

Pre Measurement

pH	4.03 pH
pH mV	159.9 mV

Post Measurement

pH	4.00 pH
pH mV	155.6 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-12.6 mV
Temperature	16.66 °C

Pre Measurement

pH	7.06 pH

pH mV	-12.7 mV

Post Measurement

pH	7.02 pH
pH mV	-12.3 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-184.5 mV
Temperature	17.01 °C

Pre Measurement

pH	10.03 pH
pH mV	-184.8 mV

Post Measurement

pH	10.08 pH
pH mV	-179.6 mV

Slope and Offset 1

Slope	-57.16 mV/pH
Offset	-11.5 mV

Slope and Offset 2

Slope	-56.17 mV/pH
Offset	-11.5 mV

ORP

ORP Solution	Quick-Cal
Offset	10.2 mV
Temperature	23.31 °C

Sensor	RDO
Serial Number	576371
Last Calibrated	10/9/2019

Calibration Details

Slope	1.064006
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.21 mg/L
Pre Measurement	101.03 %Sat
Post Measurement	100.00 %Sat
Temperature	17.18 °C
Barometric Pressure	1,031.5 mbar

Sensor	Turbidity
Serial Number	622616
Last Calibrated	10/9/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.245534
Offset	-5.51 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	122.76 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	449588
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	449082
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	449588
Created	10/22/2019

Sensor	Conductivity
Serial Number	675389
Last Calibrated	10/22/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.996
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	44,079 µS/cm
Specific Conductivity	51,681 µS/cm

Post Measurement

Actual Conductivity	42,645 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668219
Last Calibrated	10/22/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	161.9 mV
Temperature	17.03 °C

Pre Measurement

pH	4.03 pH
pH mV	158.8 mV

Post Measurement

pH	4.00 pH
pH mV	157.6 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-7.2 mV
Temperature	16.82 °C

Pre Measurement

pH	6.97 pH

pH mV	-9.6 mV

Post Measurement

pH	7.02 pH
pH mV	-7.0 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-177.6 mV
Temperature	17.20 °C

Pre Measurement

pH	10.00 pH
pH mV	-180.6 mV

Post Measurement

pH	10.08 pH
pH mV	-172.9 mV

Slope and Offset 1

Slope	-55.99 mV/pH
Offset	-6.1 mV

Slope and Offset 2

Slope	-55.67 mV/pH
Offset	-6.1 mV

ORP

ORP Solution	Quick-Cal
Offset	10.2 mV
Temperature	23.31 °C

Sensor	RDO
Serial Number	576371
Last Calibrated	10/22/2019

Calibration Details

Slope	1.061853
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.26 mg/L
Pre Measurement	99.83 %Sat
Post Measurement	100.00 %Sat
Temperature	16.89 °C
Barometric Pressure	1,028.7 mbar

Sensor	Turbidity
Serial Number	622616
Last Calibrated	10/22/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.223508
Offset	-3.63 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	123.77 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	449588
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	449082
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	449588
Created	10/31/2019

Sensor	Conductivity
Serial Number	675389
Last Calibrated	10/31/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	125.176
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	42,136 µS/cm
Specific Conductivity	48,662 µS/cm

Post Measurement

Actual Conductivity	43,294 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668219
Last Calibrated	10/31/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	169.6 mV
Temperature	17.76 °C

Pre Measurement

pH	3.94 pH
pH mV	165.9 mV

Post Measurement

pH	4.00 pH
pH mV	165.5 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-3.5 mV
Temperature	17.63 °C

Pre Measurement

pH	6.99 pH

pH mV	-5.4 mV

Post Measurement

pH	7.02 pH
pH mV	-3.4 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-176.9 mV
Temperature	17.93 °C

Pre Measurement

pH	10.06 pH
pH mV	-176.9 mV

Post Measurement

pH	10.04 pH
pH mV	-172.7 mV

Slope and Offset 1

Slope	-57.31 mV/pH
Offset	-2.3 mV

Slope and Offset 2

Slope	-57.44 mV/pH
Offset	-2.3 mV

ORP

ORP Solution	Quick-Cal
Offset	10.2 mV
Temperature	23.31 °C

Sensor	RDO
Serial Number	576371
Last Calibrated	10/31/2019

Calibration Details

Slope	1.107367
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.73 mg/L
Pre Measurement	93.55 %Sat
Post Measurement	100.00 %Sat
Temperature	18.45 °C
Barometric Pressure	1,085.4 mbar

Sensor	Turbidity
Serial Number	622616
Last Calibrated	10/31/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.258716
Offset	-5.76 NTU

Calibration Point 1

Pre Measurement	0.12 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	123.86 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	449588
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	449082
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	449588
Created	11/5/2019

Sensor	Conductivity
Serial Number	675389
Last Calibrated	11/5/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.028
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	39,753 µS/cm
Specific Conductivity	49,791 µS/cm

Post Measurement

Actual Conductivity	39,919 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668219
Last Calibrated	11/5/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	163.6 mV
Temperature	13.83 °C

Pre Measurement

pH	4.00 pH
pH mV	163.3 mV

Post Measurement

pH	4.00 pH
pH mV	157.5 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-6.7 mV
Temperature	13.83 °C

Pre Measurement

pH	7.02 pH

pH mV	-6.4 mV

Post Measurement

pH	7.06 pH
pH mV	-6.5 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-179.3 mV
Temperature	13.99 °C

Pre Measurement

pH	10.05 pH
pH mV	-180.4 mV

Post Measurement

pH	10.08 pH
pH mV	-172.7 mV

Slope and Offset 1

Slope	-55.67 mV/pH
Offset	-3.4 mV

Slope and Offset 2

Slope	-57.14 mV/pH
Offset	-3.3 mV

ORP

ORP Solution	Quick-Cal
Offset	10.2 mV
Temperature	23.31 °C

Sensor	RDO
Serial Number	576371
Last Calibrated	11/5/2019

Calibration Details

Slope	1.110668
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.60 mg/L
Pre Measurement	99.58 %Sat
Post Measurement	100.00 %Sat
Temperature	15.05 °C
Barometric Pressure	1,071.3 mbar

Sensor	Turbidity
Serial Number	622616
Last Calibrated	11/5/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.285374
Offset	-7.61 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	123.71 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	449588
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	449082
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	449588
Created	11/17/2019

Sensor	Conductivity
Serial Number	675389
Last Calibrated	11/17/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	242.684
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	37,748 µS/cm
Specific Conductivity	52,444 µS/cm

Post Measurement

Actual Conductivity	35,989 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668219
Last Calibrated	11/17/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	153.8 mV
Temperature	9.81 °C

Pre Measurement

pH	4.15 pH
pH mV	152.9 mV

Post Measurement

pH	4.00 pH
pH mV	146.0 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-15.8 mV
Temperature	9.63 °C

Pre Measurement

pH	7.22 pH

pH mV	-15.6 mV

Post Measurement

pH	7.06 pH
pH mV	-15.0 mV

Calibration Point 3

pH of Buffer	10.12 pH
pH mV	-184.2 mV
Temperature	9.96 °C

Pre Measurement

pH	10.23 pH
pH mV	-185.2 mV

Post Measurement

pH	10.12 pH
pH mV	-174.9 mV

Slope and Offset 1

Slope	-55.43 mV/pH
Offset	-12.5 mV

Slope and Offset 2

Slope	-55.02 mV/pH
Offset	-12.5 mV

ORP

ORP Solution	Quick-Cal
Offset	10.2 mV
Temperature	23.31 °C

Sensor	RDO
Serial Number	576371
Last Calibrated	11/17/2019

Calibration Details

Slope	1.046552
Offset	0.00 mg/L

Calibration point 100%

Concentration	10.96 mg/L
Pre Measurement	105.85 %Sat
Post Measurement	100.00 %Sat
Temperature	9.06 °C
Barometric Pressure	1,010.5 mbar

Sensor	Turbidity
Serial Number	622616
Last Calibrated	11/17/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.10441
Offset	0.21 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	136.34 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	449588
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	449082
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	449588
Created	12/4/2019

Sensor	Conductivity
Serial Number	675389
Last Calibrated	12/4/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.99
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	37,626 µS/cm
Specific Conductivity	49,914 µS/cm

Post Measurement

Actual Conductivity	37,691 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668219
Last Calibrated	12/4/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	163.0 mV
Temperature	12.40 °C

Pre Measurement

pH	3.86 pH
pH mV	163.0 mV

Post Measurement

pH	4.00 pH
pH mV	156.1 mV

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-7.3 mV
Temperature	12.21 °C

Pre Measurement

pH	6.91 pH

pH mV	-7.4 mV

Post Measurement

pH	7.06 pH
pH mV	-7.0 mV

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-179.5 mV
Temperature	12.59 °C

Pre Measurement

pH	10.00 pH
pH mV	-179.6 mV

Post Measurement

pH	10.08 pH
pH mV	-172.0 mV

Slope and Offset 1

Slope	-55.66 mV/pH
Offset	-4.0 mV

Slope and Offset 2

Slope	-57.01 mV/pH
Offset	-3.9 mV

ORP

ORP Solution	Quick-Cal
Offset	10.2 mV
Temperature	23.31 °C

Sensor	RDO
Serial Number	576371
Last Calibrated	12/4/2019

Calibration Details

Slope	1.170431
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.69 mg/L
Pre Measurement	89.06 %Sat
Post Measurement	100.00 %Sat
Temperature	12.26 °C
Barometric Pressure	1,071.5 mbar

Sensor	Turbidity
Serial Number	622616
Last Calibrated	12/4/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.211598
Offset	-4.20 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	102.42 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	449588
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	449082
Last Calibrated	Factory Defaults

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	449588
Created	12/26/2019

Sensor	Conductivity
Serial Number	675389
Last Calibrated	12/26/2019

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	1.005
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	44,919 µS/cm
Specific Conductivity	49,292 µS/cm

Post Measurement

Actual Conductivity	45,565 µS/cm
Specific Conductivity	50,000 µS/cm

Sensor	pH/ORP
Serial Number	668219
Last Calibrated	12/26/2019

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	162.3 mV
Temperature	19.88 °C

Pre Measurement

pH	4.08 pH
pH mV	162.8 mV

Post Measurement

pH	4.00 pH
pH mV	159.5 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-10.6 mV
Temperature	20.24 °C

Pre Measurement

pH	7.12 pH

pH mV	-10.9 mV

Post Measurement

pH	7.02 pH
pH mV	-10.4 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-186.8 mV
Temperature	20.29 °C

Pre Measurement

pH	10.12 pH
pH mV	-186.9 mV

Post Measurement

pH	10.04 pH
pH mV	-183.9 mV

Slope and Offset 1

Slope	-57.24 mV/pH
Offset	-9.5 mV

Slope and Offset 2

Slope	-58.35 mV/pH
Offset	-9.4 mV

ORP

ORP Solution	Quick-Cal
Offset	10.2 mV
Temperature	23.31 °C

Sensor	RDO
Serial Number	576371
Last Calibrated	12/26/2019

Calibration Details

Slope	1.11259
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.78 mg/L
Pre Measurement	105.14 %Sat
Post Measurement	100.00 %Sat
Temperature	20.06 °C
Barometric Pressure	1,088.0 mbar

Sensor	Turbidity
Serial Number	622616
Last Calibrated	12/26/2019

Calibration Details

TSS Conversion Factor (mg/L)	0
Slope	1.256571
Offset	-5.17 NTU

Calibration Point 1

Pre Measurement	0.03 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	98.67 NTU
Post Measurement	124.00 NTU

Sensor	Barometric Pressure
Serial Number	449588
Last Calibrated	Factory Defaults

Sensor	Pressure
Serial Number	449082
Last Calibrated	Factory Defaults

Appendix D
Daily Operation Logs

Table 1. Jet Plow Trial Installation Procedures, Durations and Conditions

Time	Activity	Distance Travelled	Tide	BSAL
Day 1 (Sep 9)	NW-SE Wind, 3-7, gusting to 7, clear			
1030	Water quality (WQ) background sampling		1031 Hi	TF=13
1239	Plow start			Ch=14
1425	Stop to transition at edge of channel; idle	580'		
1537	Resume plowing			
1626	Halt plowing			
1626	Move anchors; idle	1037'	1643 Lo	
1920	All stop for day; plow shut down			

BSAL = Boundary Station Action Level
TF = tidal flat
Ch = channel

Table 2. Cable 1 Installation Procedures, Durations and Conditions

Time	Activity	Distance Travelled	Tide	BSAL
Day 1 (Oct 16)	SE Wind, 8-14, gusting to 20, cloudy			
1330	Water quality (WQ) background sampling		1509 Hi	TF=13
1535	Pump on			Ch=14
1600	Plow start			
1744	All stop for night; plow shut down	155'	2137 Lo	
1822	Last WQ sample			
Day 2 (Oct 17)	WSW Wind, 24-15, gusting to 40, cloudy			
1400	WQ background sampling		1543 Hi	TF=16
1532	Plow start			Ch=13
1640	Stop to move holdback barge; idle			
1706	Resume plowing			
	Three 10 min stops to reposition assist barge; idle			
1940	All stop for night; plow shut down	1170'		
2146	Last WQ sample		2216 Lo	
Day 3 (Oct 18)	WNW Wind, 16-12, gusting to 28, partly cloudy			
1439	WQ background sampling			TF=15
1632	Plow start		1622 Hi	Ch=16
1819	Stop; plow reached lay barge, reconfigure for towing; idle			
2000	All stop for night; plow shut down	670'		
1955	Last WQ sample		2300 Lo	
Day 4 (Oct 19)	WNW Wind, 5-6, gusting to 13, clear			
0955	WQ background sampling			TF=15
1028	Plow start		1110 Lo	Ch=16
1144	Stop to remove external GPS and anchor change; idle	749'		
1508	Resume plowing			
	Occasional stops/slows for sand waves and slopes		1708 Hi	
1755	Bow anchor change			
1919	Resume plowing			
2014	Brief stop for shortening plow setback			
2125	All stop for night; plow shut down	1595'		
2115	Last WQ sample			
			2349 Lo	

BSAL = Boundary Station Action Level
TF = tidal flat
Ch = channel

Table 3. Cable 2 Installation Procedures, Durations and Conditions

Time	Activity	Distance Travelled	Tide	BSAL
Day 1 (Oct 28)	E Wind, 5-7, gusting to 10, cloudy			
1115	Water quality (WQ) background sampling			TF=15
1320	Plow start		1328 Hi	Ch=15
1403	Stop to attach wires to redirect plow; idle	634'		
1515	Resume plowing			
1823	All stop for night; plow shut down	1863'		
2000	Last WQ sample		1957 Lo	
Day 2 (Oct 29)	S Wind, 6-8, gusting to 14, cloudy			
0915	WQ background sampling		0815 Lo	TF=15
1007	Plow start			Ch=15
1018	Stop to adjust cable; idle			
1052	Resume plowing			
1135	Stop for anchor change; idle	587'		
1420	Resume plowing		1416 Hi	
	Short stops through sand waves			
1552	Stop to move forward anchors; idle			
1658	Resume plowing			
1810	All stop for night on east shore; plow shut down	3500		
1945	Last WQ sample			

BSAL = Boundary Station Action Level
TF = tidal flat
Ch = channel

Table 4. Cable 3 Installation Procedures, Durations and Conditions

Time	Activity	Distance Travelled	Tide	BSAL
Day 1 (Nov 6)	W Wind, 6-12, gusting to 24, clear			
0700	Water quality (WQ) background sampling			TF=15
0830	Plow start		0823 Hi	Ch=15
1015	Stop to remove divers, use boat to remove cable floats; idle	1132′		
1108	Resume plowing			
1155	Stop to transition at edge of channel; idle			
1305	Resume plowing			
1403	All stop for day; anchor change; plow shut down	2785′		
1540	Last WQ sample		1440 Lo	
Day 2 (Nov 7)	SW-W Wind, 8-12, gusting to 24, cloudy			
0700	WQ background sampling			TF=15
0817	Plow start			Ch=15
0942	Stop for forward anchor change; idle	952′	0915 Hi	
1045	Resume plowing			
1227	All stop for day on east shore; plow shut down	1584′		
1425	Last WQ sample		1536 Lo	

BSAL = Boundary Station Action Level
TF = tidal flat
Ch = channel

Table 5. Hand jet Installation Procedures, Durations and Conditions

Time	Activity	Distance Travelled	Tide	BSAL
Day 1 (Nov 11)	W-E Wind, 5-9, gusting to 16, overcast	East Channel		
0915	Water quality (WQ) background sampling		0554 low	TF=15
1000	Start hand jet on north cable		1155 hi	Ch=16
1400	All stop for day	60'		
1510	Last WQ sample			
Day 2 (Nov 12)	NE-W wind, 3-17, gusting to about 30	East Channel		
0950	Water quality (WQ) background sampling			TF=15
1030	Start hand jet on center cable		0629 low	Ch=15
1412	All stop for day	65'	1229 hi	
1425	Last WQ sample			
Day 3 (Nov 14)	SW wind, 5-10, gusting to 20	West Flats		
1028	Water quality (WQ) background sampling			TF=18
1100	Start hand jet on south cable		0741 low	Ch=18
1500 (est)	All stop for day	35'	1339 hi	
1535	Last WQ sample			
		East Channel		
0915	Water quality (WQ) background sampling			
0935	Start hand jet on center & south cable			
1500 (est)	All stop for day	120'		
1550	Last WQ sample			
Day 4 (Nov 15)	WSW wind, 8-14, gusting to 25	West Flats		
0945	Water quality (WQ) background sampling			TF=16
1040	Start hand jet on south cable		0820 low	Ch=16
1620	All stop for day	100'	1417 hi	
1645	Last WQ sample			
		East Channel		
0715	Water quality (WQ) background sampling			
0820	Start hand jet on center & south cable			
1510	All stop for day	105'		
1533	Last WQ sample			
Day 5 (Nov 16)	N wind, 6-12, gusting to 25	West Flats		
0925	Water quality (WQ) background sampling (only at Sta 21, Sta 10 & 15 at 1100)			TF=19
1145	Start hand jet on center cable		0902 low	Ch=18
1615	All stop for day	60'	1500 hi	
1718	Last WQ sample			
0715	Water quality (WQ) background sampling			
0758	Start hand jet on center & south cable			
1445	All stop for day			
1522	Last WQ sample			
Day 6 (Nov 17)	NE wind, 8-10, gusting to 16	West Flats		
1125	Water quality (WQ) background sampling			

Time	Activity	Distance Travelled	Tide	BSAL
1145	Start hand jet on center cable		0950 low	
1615	All stop for day	65'	1548 hi	
1708	Last WQ sample			
Day 7 (Nov 18)	NE wind, 14-15, gusting to 25	West Flats		
0712	Water quality (WQ) background sampling			TF=16
0755	Start hand jet on center & north cable		1043 low	Ch=15
1010-1335	Pause for low tide		1643 hi	
1618	All stop for day	65		
1726	Last WQ sample			
		East Channel		
0755	Water quality (WQ) background sampling			
0858	Start hand jet on center cable			
1500	All stop for day	40'		
1522	Last WQ sample			
Day 8 (Nov 19)	NW wind, 2-3, gusting to 5	West Flats		
0700	Water quality (WQ) background sampling			TF=16
0755	Start hand jet on north cable		1143 low	Ch=15
1105-1345	Pause for low tide		1744 high	
1615	All stop for day	90'		
1712	Last WQ sample			
		East Channel		
0822	Water quality (WQ) background sampling			
0927	Start hand jet on south cable			
1530	All stop for day	40'		
1602	Last WQ sample			
Day 9 (Nov 20)	N wind, 7-9, gusting to 20	West Flats		
0700	Water quality (WQ) background sampling			TF=18
0802	Start hand jet on center & north cable		0634 high	Ch=15
1140-1454	Pause for low tide		1247 low	
1610	All stop for day	60'		
1653	Last WQ sample			
		East Channel		
0855	Water quality (WQ) background sampling			
1040	Start hand jet on north cable			
1300-1500	Pause for strong currents			
1615	All stop for day	30'		
1628	Last WQ sample			
Day 10 (Nov 21)	N wind, 7-9, gusting to 20	West Flats		
0655	Water quality (WQ) background sampling			TF=16
0752	Start hand jet on center cable	40'	0736 high	Ch=15
1405	All stop for day		1354 low	
1215	Last WQ sample (too shallow)			
		East Channel		
0718	Water quality (WQ) background sampling			

Time	Activity	Distance Travelled	Tide	BSAL
0755	Start hand jet on north cable			
0930-1105	Pause for strong currents			
1500	All stop for day	45'		
1528	Last WQ sample			
Day 11 (Nov 22)	SW-W wind, 10-14, gusting to 31	West Flats		
0705	Water quality (WQ) - no background sampling			TF=16
0650	Start hand jet on south & center cables		0838 high	Ch=15
1310	All stop for day	25'	1501 low	
1312	Last WQ sample			
		East Channel		
	Work cancelled due to failed pump. WQ boat sent home	0'		
Day 12 (Nov 23)	W wind, 6-13, gusting to 29	West Flats		
1045	Water quality (WQ) - no background sampling			TF=16
0949	Brief start hand jet on north cable – no progress		0936 high	Ch=15
1135	Turbidity barrier dragged over cables	0'	1604 low	
1305	Last WQ sample			
		East Channel		
0655	Water quality (WQ) - no background sampling			
0656	Start hand jet on north cable			
0800-0845	Pause for strong currents			
1030-1200	Pause for strong currents			
1330	All stop for day	45'		
1425	Last WQ sample			
Day 13 (Nov 24)	NE-N wind, 5-23, gusting to 39	West Flats		
	Turbidity barrier dragged over cables – Mackworth repairing.			TF=16
	Dive team moved to east side	0'	1029 hghi	Ch=15
		East Channel	1700 low	
1143	Water quality (WQ) - no background sampling			
1107	Start hand jet on north cable			
1200-1303	Pause for strong currents; 2 dive teams in			
1424	All stop for day due to rough weather	30'		
1442	Last WQ sample			
Day 14 (Nov 25)	W wind, 7-15, gusting to 33	West Flats		
	Turbidity barrier dragged over cables – Mackworth repairing.	0'		TF=17
		East Channel	1120 high	Ch=17
0740	Water quality (WQ) background sampling		1753 low	
0811	Start hand jet on south & north cables; 2 dive teams			
1301-1354	Pause for strong currents;			
1542	All stop for day	95'		

Time	Activity	Distance Travelled	Tide	BSAL
1622	Last WQ sample			
Day 15 (Nov 26)	SW-W wind, 5-12, gusting to 24	West Flats		
	Mackworth repairing west barrier. Durocher pulled east barrier across to site	0'		TF=16
		East Channel	1208 high	Ch=15
0725	Water quality (WQ) background sampling		1844 low	
0755	Start hand jet on south & north cables; 2 dive teams			
1510	All stop for day	95'		
1500	Last WQ sample			
Day 16 (Dec 5)	W wind, 7-12, gusting to 25	West Flats		
0830	Water quality (WQ) background sampling			TF=16
	No work on west side. Fiber cable damage investigation	0'	0734 high	Ch=15
1055	Last WQ sample		1352 low	
		East Channel		
0725	Water quality (WQ) background sampling			
1226	Start hand jet on north cable; 1 dive team			
1615	All stop for day	20'		
1625	Last WQ sample			
Day 17 (Dec 6)	W-S wind, 3-9, gusting to 21	West Flats		
	No work on west side. Fiber cable damage investigation	0'		TF=16
		East Channel	0826 high	Ch=15
0705	Water quality (WQ) background sampling		1450 low	
0828	Start hand jet on north cable; 1 dive team			
1605	All stop for day	60'		
1625	Last WQ sample			
Day 18 (Dec 7)	NW wind, 7-8, gusting to 15	West Flats		
	No work on west side. Fiber cable damage repair	0'		TF=16
		East Channel	0914 high	Ch=15
0750	Water quality (WQ) background sampling		1543 low	
0831	Start hand jet on north & south cables; 2 dive teams			
1527	All stop for day	85'		
1558	Last WQ sample			
Day 19 (Dec 8)	SW wind, 7-10, gusting to 24	West Flats		
0900	Water quality (WQ) background sampling			TF=16
0935	Start hand jet on south cables; 1 dive team		0959 high	Ch=15
1414	All stop for day	40'	1629 low	
1508	Last WQ sample			
		East Channel/Flats		

Time	Activity	Distance Travelled	Tide	BSAL
0745	Water quality (WQ) background sampling			
1120	Start hand jet on center cable; 1 dive team			
1553	All stop for day	50'		
1610	Last WQ sample			
Day 20 (Dec 9)	SSW wind, 7-14, gusting to 40	West Flats		
0920	Water quality (WQ) - no background sampling			TF=16
0904	Start hand jet on south cable; 1 dive team		1039 high	Ch=15
1431	All stop for day	60'	1711 low	
1405	Last WQ sample			
		East Flats		
0820	Water quality (WQ) – no background sampling			
0805	Start hand jet on south & center cables; 1 dive team			
1612	All stop for day	40'		
1635	Last WQ sample			
Day 21 (Dec 10)	SW wind, 10-12, gusting to 32	West Flats		
0725	Water quality background sampling			TF=16
0804	Start hand jet on south cable; 1 dive team		1117 high	Ch=15
1045	**West side complete**! Diver out	10'	1751 low	
1045	Last WQ sample			
		East Flats		
0800	Water quality – no background sampling			
0749	Start hand jet on north cable; 1 dive team. Turbidity barrier dragged over south & center cables.			
1555	All stop for day	30'		
1612	Last WQ sample			
Day 22 (Dec 11)	W wind, 3-6, gusting to 8	West Flats		
0838	Water quality background sampling			TF=16
0945	Mackworth reefing barrier for removal		1155 high	Ch=15
1255	Pulled barrier to barge		1831 low	
1515	Halted disposal for day			
1545	Last WQ sample			
		East Flats		
0740	Water quality background sampling			
0823	Start hand jet on north & south cables; 2 dive teams			
1621	All stop for day	120'		
1625	Last WQ sample			
Day 23 (Dec 12)	W wind, 5-9, gusting to 16	West Flats		
0830	Water quality background sampling			TF=16
0910	Mackworth pulled remaining barrier to barge		0633 low	Ch=15
1200	Completed barrier removal; concrete mattress installation begins		1234 high	

Time	Activity	Distance Travelled	Tide	BSAL
1224	Last WQ sample			
		East Flats		
0720	Water quality background sampling			
0815	Start hand jet on north & south cables; 2 dive teams			
1215-1321	Move barge			
1606	All stop for day	90'		
1622	Last WQ sample			
Day 24 (Dec 13)	S wind, 8-13, gusting to 22	West Flats		
	West side complete; concrete mattress installation continues			TF=16
		East Flats	0715 low	Ch=15
0740	Water quality background sampling		1315 high	
0903	Start hand jet on north & center cables; 2 dive teams			
1507	Diver on center cable had to abort to avoid barrier that was dragging northward			
1607	Second dive team out; All stop for day	80'		
1630	Last WQ sample			
Day 25 (Dec 14)	SE-SW wind, 2-10, gusting to 21	West Flats		
	West side complete; concrete mattress installation completed (18 mats laid)			TF=28
		East Flats	0758 low	Ch=15
0912	Water quality – no background sampling		1358 high	
0954	Start hand jet on north & south cables; 2 dive teams			
1500	All stop, divers out; barrier snapped anchor lines and dragged across cables	45'		
1542	Last WQ sample			
Dec 15	W wind, 18-21, gusting to 43 – IEM cancelled due to hazardous weather	East Flats		
Day 26 (Dec 16)	W wind, 9-13, gusting to 23	East Flats		
0700	Water quality background sampling; Mackworth installed Type 1 silt curtain			TF=28
0815	Start hand jet on north & center cables; 2 dive teams; large logs buried in route		0934 low	Ch=28
1640	All stop for day	30'	1534 high	
1715	Last WQ sample			
Day 27 (Dec 17)	NW-NE wind, 1-9, gusting to 16	East Flats		
0615	Water quality background sampling			TF=22
0712	Start hand jet on center cable; 2 dive teams; third one added late in day for 2.5 hours to get cables flush with flats in mattress areas		1029 low	Ch=21
1655	All stop for day	20'	1629 high	

Time	Activity	Distance Travelled	Tide	BSAL
1715	Last WQ sample			
Day 28 (Dec 18)	NW-W wind, 5-8, gusting to 15	East Flats		
	Water quality background sampling			TF=16
0725	Start hand jet on north cable; 3 dive teams; complete burial and get cables flush with flats in mattress areas		1129 low	Ch=15
1425	**In water hand jet complete**! Cable inspections	20'	1730 high	
1700	All stop for day			
1505	Last WQ sample			

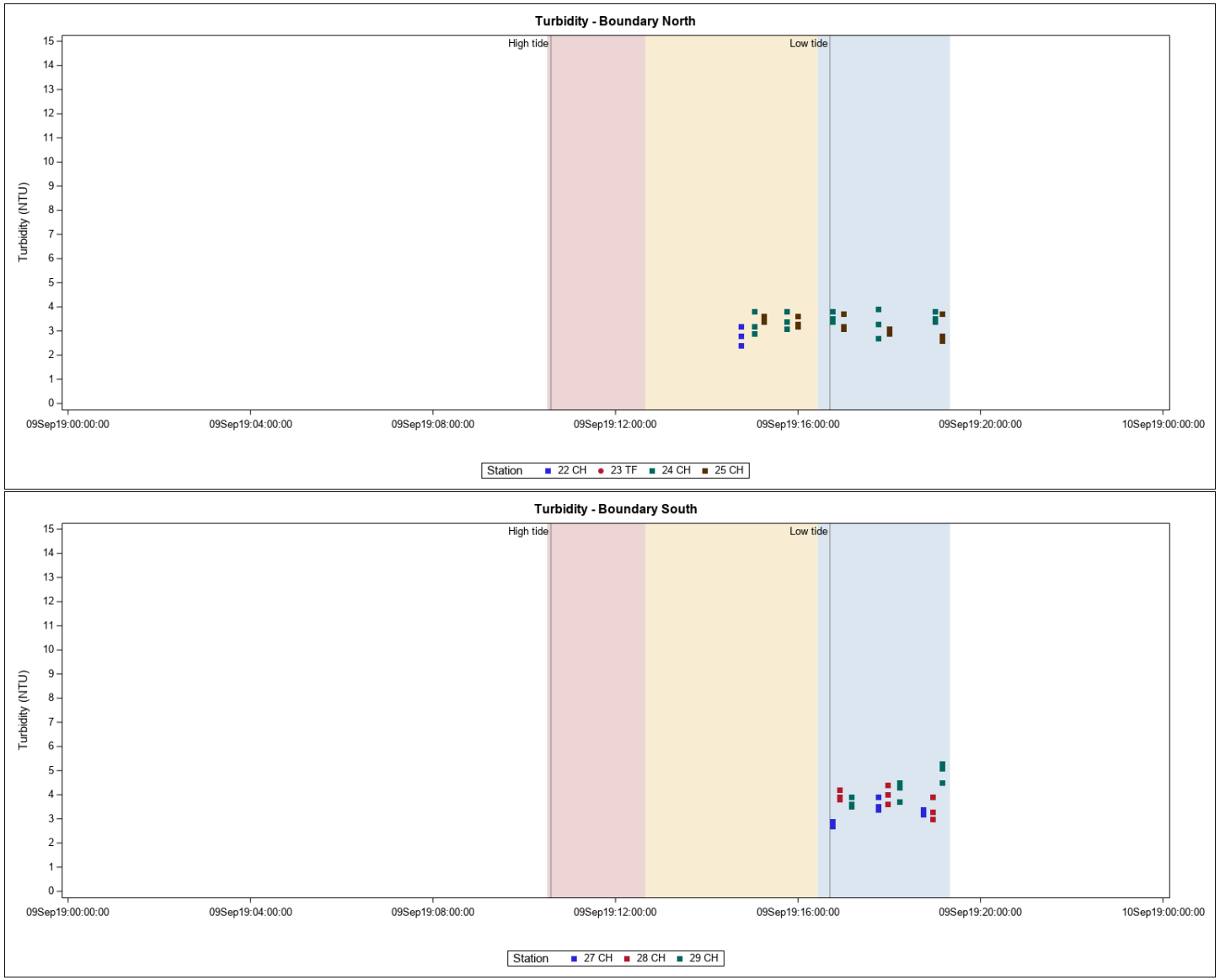
BSAL = Boundary Station Action Level
TF = tidal flat
Ch = channel

Appendix E
Boat-Based Turbidity Plots and Tables

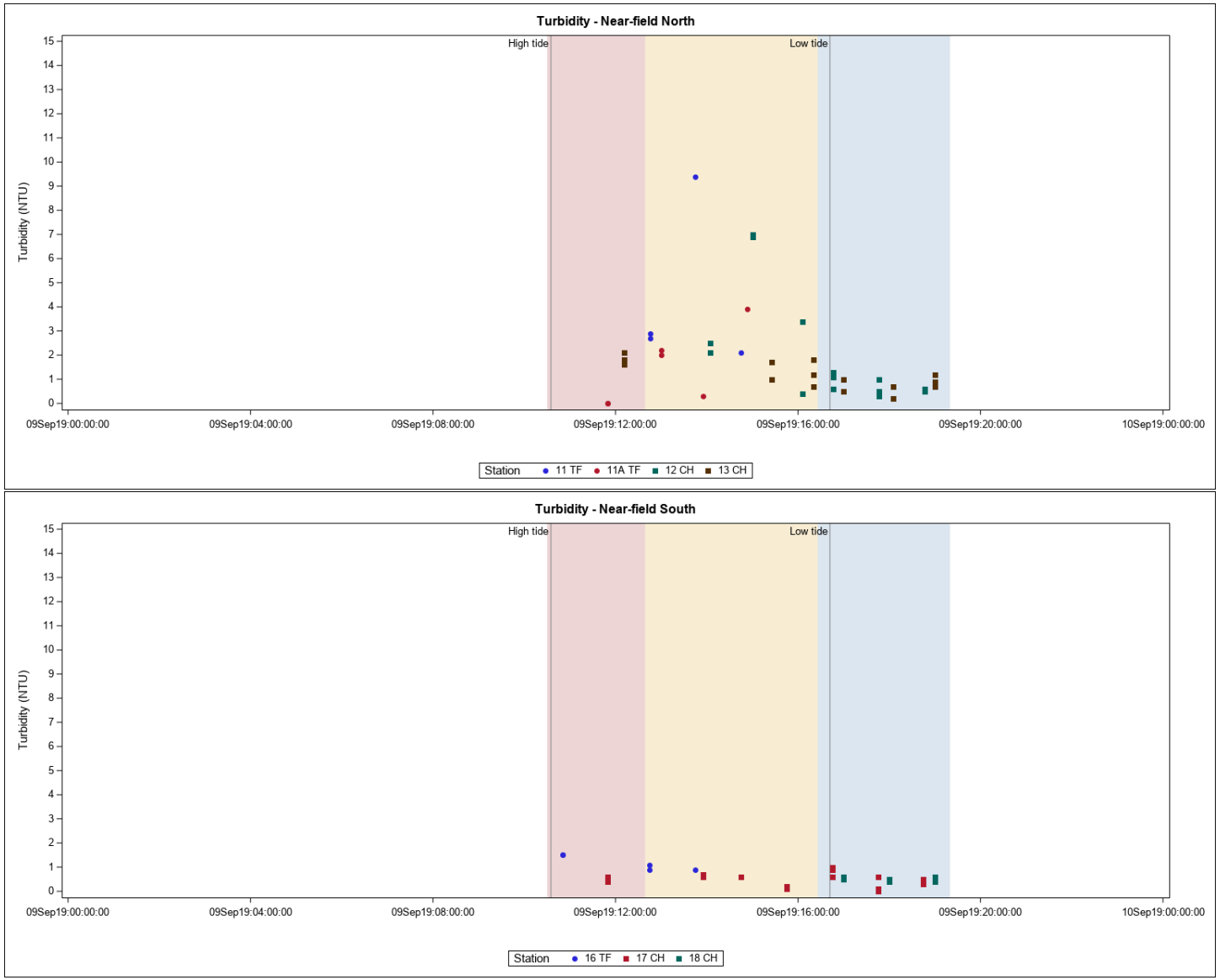
Jet Plow Trial

Turbidity

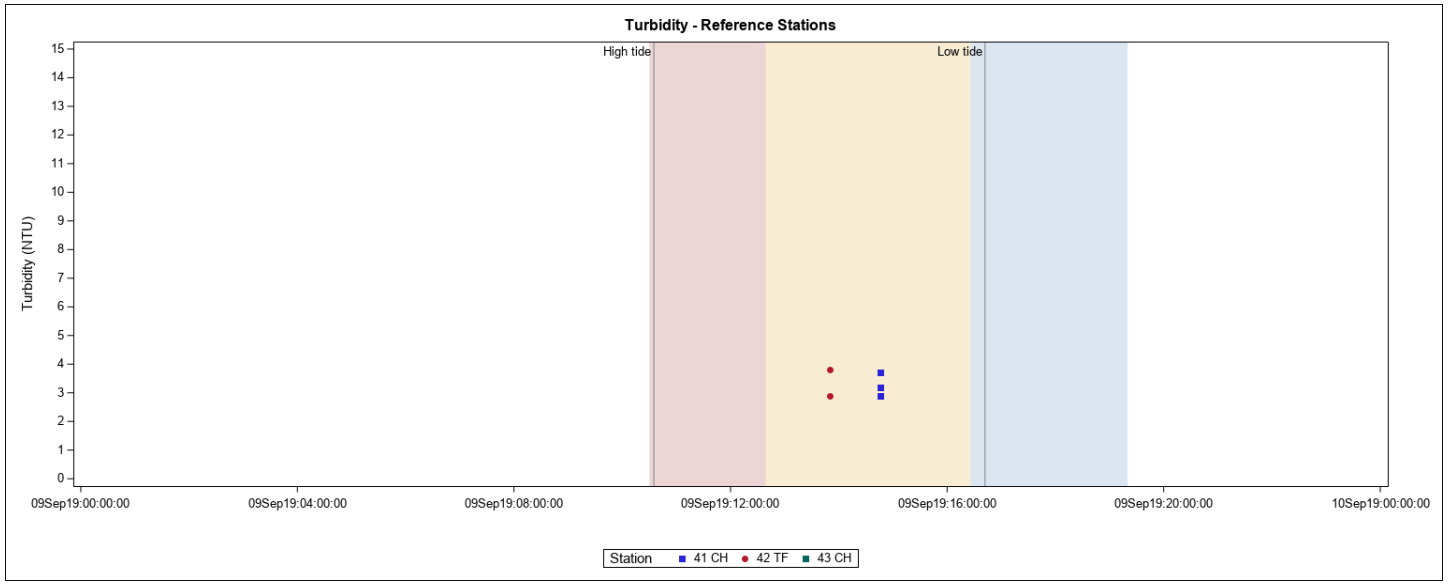
Turbidity (NTU)		09 SEP 2019											
		Before Start of Jet Plow											
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22							2.4	2.4	2.8	2.8	3.2	3.2
	23												
	24							2.7	3.4	3.2	3.8	3.5	3.9
	25							2.6	3.4	2.8	3.7	3.1	3.7
Boundary South	27							2.7	3.4	2.9	3.9	2.7	3.5
	28							3	3.9	3.8	4	3.3	4.4
	29							3.5	5.1	3.6	4.5	3.9	5.3
Nearfield North	11							2.7	2.7			2.1	9.4
	11A	0	0			0	0	2.2	2.2			0.3	3.9
	12							0.3	6.9	0.4	6.9	0.5	7
	13	2.1	2.1	1.8	1.8	1.6	1.6	0.2	1.7	0.7	1.2	0.7	1.8
Nearfield South	16	1.5	1.5			1.5	1.5	0.9	0.9			0.9	1.1
	17	0.4	0.4	0.4	0.4	0.6	0.6	0	1	0.1	0.9	0.1	0.6
	18							0.4	0.6	0.4	0.6	0.5	0.6
Reference Stations	41							2.9	2.9	3.7	3.7	3.2	3.2
	42							2.9	2.9			3.8	3.8
	43												



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 1

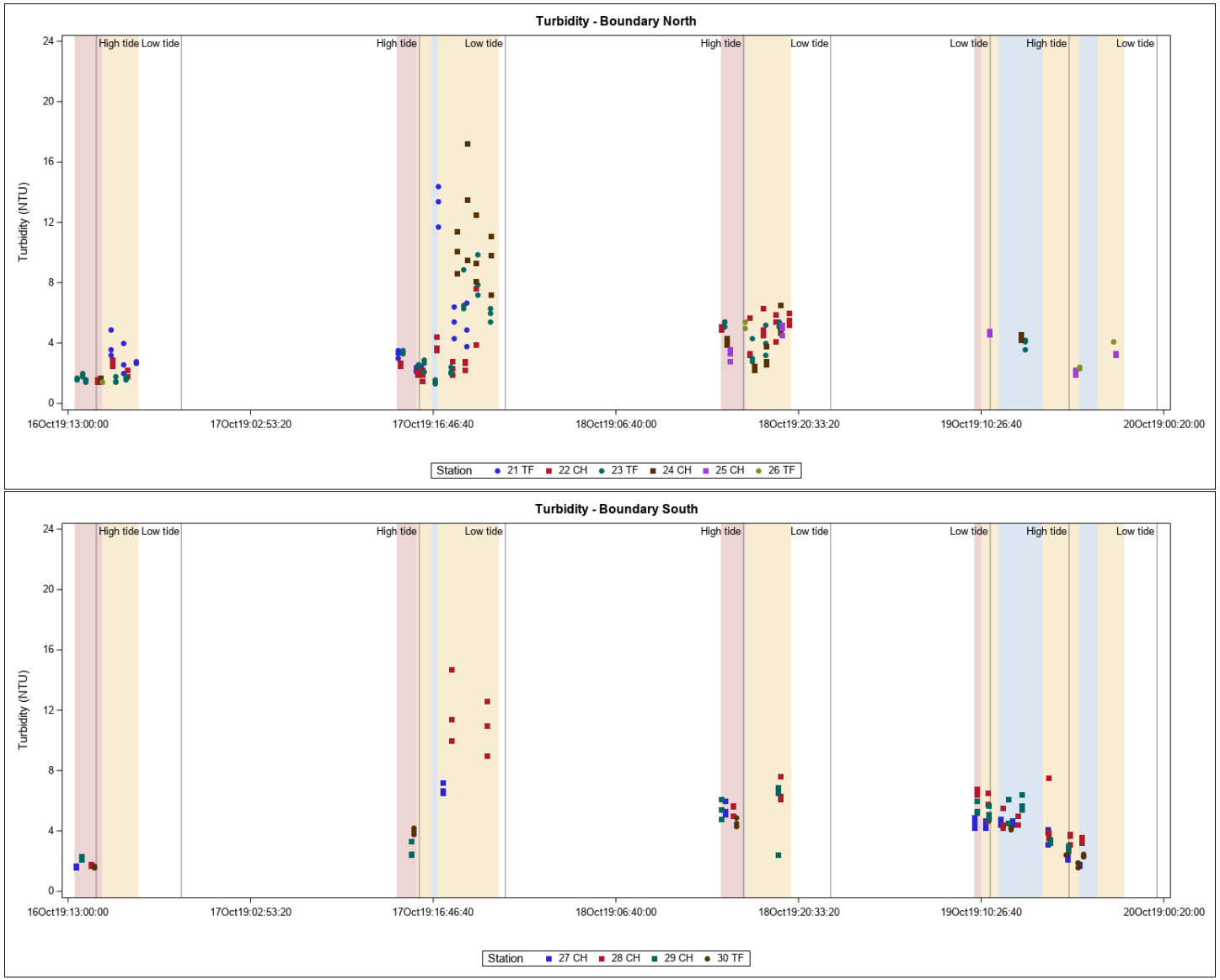
Turbidity

Turbidity (NTU)		16 OCT 19											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	1.8	1.8	1.8	1.8	2	2	2.8	4	2.6	3.6	2	4.9
	22	1.6	1.6	1.5	1.5	1.4	1.4	2.2	2.5	2.2	2.7	1.8	2.9
	23	1.6	1.6	1.7	1.7	1.7	1.7	1.4	1.6	1.5	1.7	1.8	1.8
	24	1.6	1.6	1.7	1.7	1.4	1.4						
	25	1.4	1.4	1.6	1.6	1.6	1.6						
	26							1.4	1.4			1.4	1.4
Boundary South	27	1.6	1.6	1.7	1.7	1.7	1.7						
	28	1.7	1.7	1.8	1.8	1.8	1.8						
	29	2.1	2.1	2.3	2.3	2.1	2.1						
	30	1.7	1.7	1.6	1.6	1.6	1.6						
Nearfield North	10	2.9	2.9			3.1	3.1	6.8	22.7	20.7	20.7	7.5	19.3
	11	2.8	2.8	2.7	2.7	2.8	2.8	2.7	2.8			2.8	3.2
	12	3.1	3.1	3.2	3.2	3.2	3.2						
	13	2.7	2.7	2.4	2.4	2.4	2.4						
	14	2.5	2.5	2.7	2.7	2.5	2.5						
Nearfield South	15	3.2	3.2			3.2	3.2	3.8	4.8			3.6	4
	16	3.2	3.2			3.2	3.2	3	3.2	3.4	3.4	3.1	3.8
	17	3.1	3.1	3.1	3.1	3.1	3.1						
	18	3.2	3.2	3.3	3.3	3	3						
	19	2.9	2.9	2.9	2.9	2.9	2.9						
Reference Stations	41	1.7	1.7	1.5	1.5	1.3	1.3						
	42	1.6	1.6			1.6	1.6						
	43	2.2	2.2	2.3	2.3	2	2						

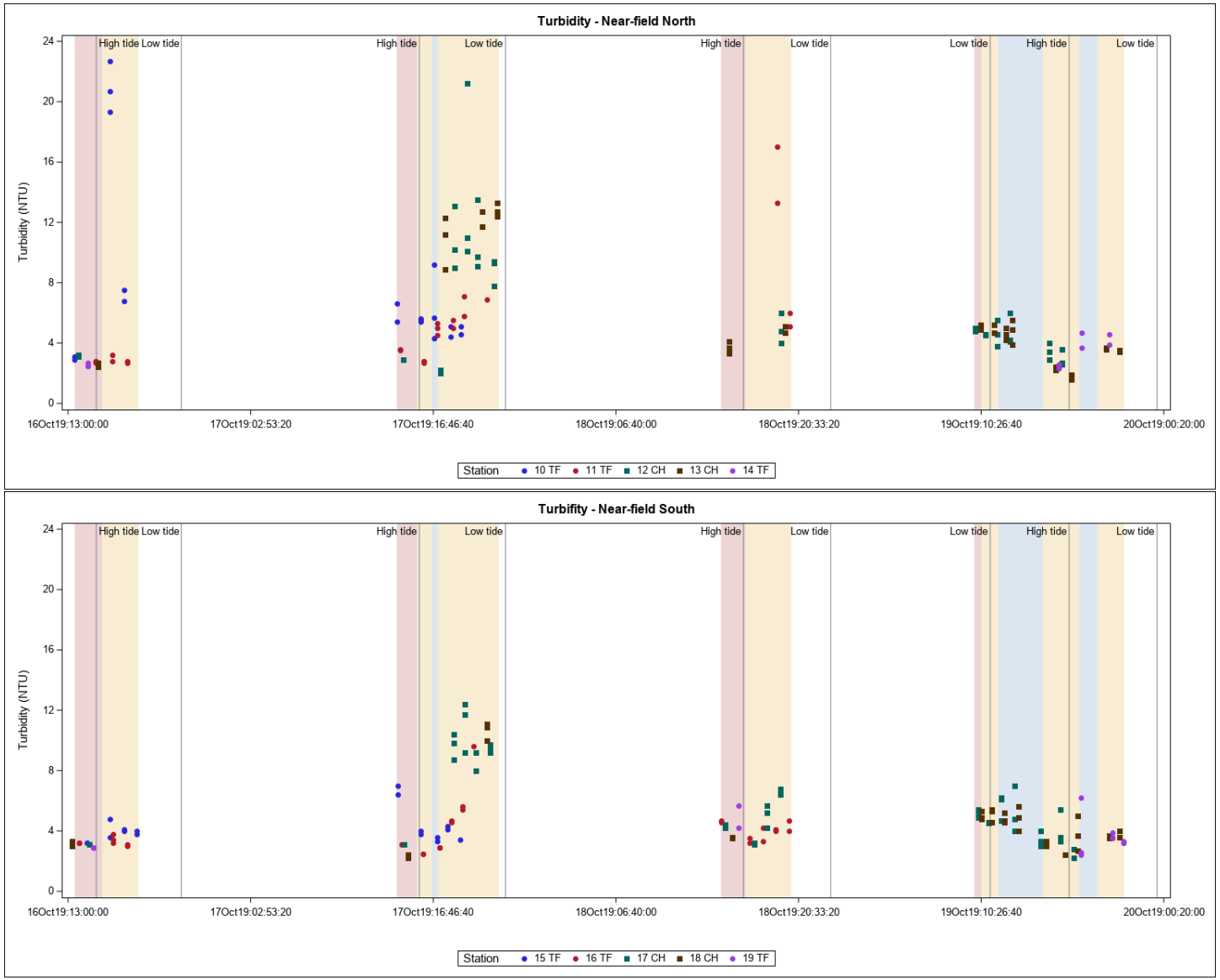
Turbidity (NTU)		17 OCT 19											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	2.4	3.5	2.2	3.3	2.1	3	2.4	13.4	2	11.7	2	14.4
	22	2.5	2.5	2.6	2.6	2.7	2.7	2.2	7.6	1.9	7.6	1.5	4.4
	23	3.3	3.3	3.4	3.4	3.5	3.5	1.3	7.2	1.4	7.9	1.6	9.9
	24							7.2	9.5	9.3	13.5	11.1	17.2
Boundary South	27							6.5	6.5	7.2	7.2	6.7	6.7
	28							12.6	14.7	11	11.4	9	10
	29	3.3	3.3	2.5	2.5	2.4	2.4						
	30	4.2	4.2	4	4	3.8	3.8						
Nearfield North	10	6.6	6.6			5.4	5.4	4.3	5.6	5.4	5.7	4.4	9.2
	11	3.6	3.6			3.5	3.5	2.7	13.5	2.8	5	2.8	17.9
	12	2.9	2.9	2.9	2.9	2.9	2.9	2	10.1	2.1	11	2.2	21.2
	13							8.9	12.7	11.2	13.3	11.7	12.7
Nearfield South	15	7	7			6.4	6.4	3.6	4.1			3.3	4.3
	16	3.1	3.1			3.1	3.1	2.5	5.4			2.5	9.6
	17	3.1	3.1			3.1	3.1	8	9.4	8	11.7	9.2	12.4
	18	2.2	2.2	2.3	2.3	2.4	2.4	10	10	10.9	10.9	11.1	11.1
Reference Stations	41							1.8	1.8	1.5	1.5	1.2	1.2
	42							3.9	3.9			3.7	3.7
	43							9.5	17.4	8.2	10.2	5.6	8.5

Turbidity (NTU)		18 OCT 19											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	5.1	5.1	4.9	4.9	5	5	3.3	6	3.2	5.5	4.1	6.3
	23	5.1	5.1	5.4	5.4	5.4	5.4	2.8	5.4	3	5.1	4.3	5.2
	24	3.9	3.9	4.2	4.2	4.3	4.3	2.2	4.7	2.4	4.9	2.5	6.5
	25	2.8	2.8	3.3	3.3	3.6	3.6	4.5	4.5	5	5	5.2	5.2
	26	5.4	5.4			5	5						
Boundary South	27	5.1	5.1	5.3	5.3	6	6						
	28	5	5	5.6	5.6	5.7	5.7	6.1	6.1	6.3	6.3	7.6	7.6
	29	4.8	4.8	5.4	5.4	6.1	6.1	2.4	2.4	6.5	6.5	6.9	6.9
	30	4.9	4.9	4.5	4.5	4.3	4.3						
Nearfield North	11	4	4			4.3	4.3	3.2	13.5			3.3	28
	12	3.9	3.9	4.5	4.5	4.2	4.2	2.6	4	2.7	4.8	2.8	6
	13	3.3	3.3	3.7	3.7	4.1	4.1	4.7	4.7	5.1	5.1	5.1	5.1
Nearfield South	16	4.7	4.7			4.6	4.6	3.2	4			3.5	4.7
	17	4.3	4.3	4.4	4.4	4.2	4.2	3.1	6.5	3.2	6.4	3.2	6.8
	18	3.6	3.6	3.6	3.6	3.5	3.5						
	19	5.7	5.7			4.2	4.2						
Reference Stations	41	2.2	2.2	2	2	2.2	2.2	4.4	4.4	5.3	5.3	4.5	4.5
	42	2.4	2.4	2.4	2.4	2.4	2.4						
	43	6.2	6.2	6.9	6.9	6.7	6.7						

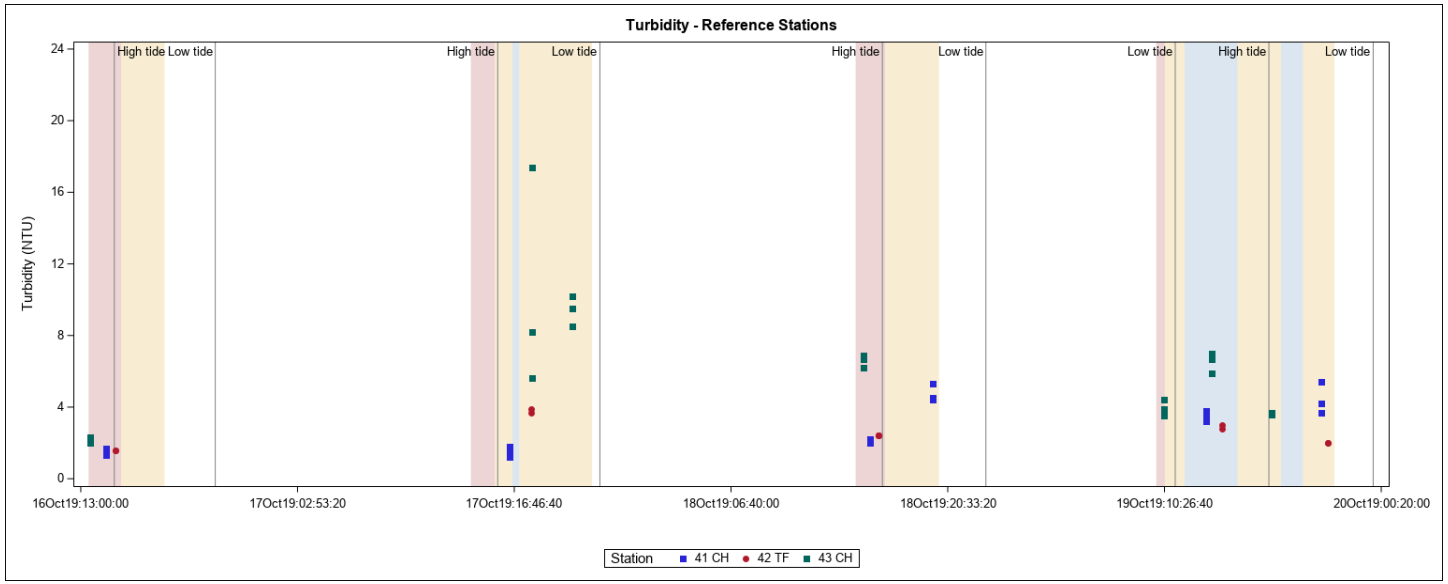
Turbidity (NTU)		19 OCT 19											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	23							3.6	3.6	4.1	4.1	4.2	4.2
	24							4.2	4.2	4.6	4.6	4.6	4.6
	25							1.9	4.6	2.1	4.8	2.2	4.6
	26							2.4	2.4			2.3	4.1
Boundary South	27	4.6	4.6	4.2	4.2	4.9	4.9	1.8	4.8	1.7	4.7	1.8	4.5
	28	5.2	5.2	6.4	6.4	6.8	6.8	3.1	4.7	3.6	7.5	3.4	5.8
	29	6	6	5.2	5.2	5.3	5.3	2.7	5.4	3	6.1	3	6.4
	30							1.9	4.2	1.6	4.2	1.9	4.1
Nearfield North	12	5	5	4.8	4.8	5	5	2.6	4.5	2.7	4.6	3.6	6
	13	4.9	4.9	5.2	5.2	5.1	5.1	1.9	4.7	1.6	5.2	1.9	5.5
	14							2.3	3.9	2.5	2.5	2.6	4.7
Nearfield South	17	4.9	4.9	5.4	5.4	5.2	5.2	2.2	6.2	2.8	4.8	2.2	7
	18	4.8	4.8	5.3	5.3	4.9	4.9	2.4	4.7	2.4	5.3	2.4	5.6
	19							3.2	6.2	2.6	3.5	2.4	3.9
Reference Stations	41							3.2	4.2	3.5	5.4	3.7	3.8
	42							2	2.8			2	3
	43	3.5	3.5	4.4	4.4	3.9	3.9	3.6	5.9	3.7	7	3.6	6.7



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



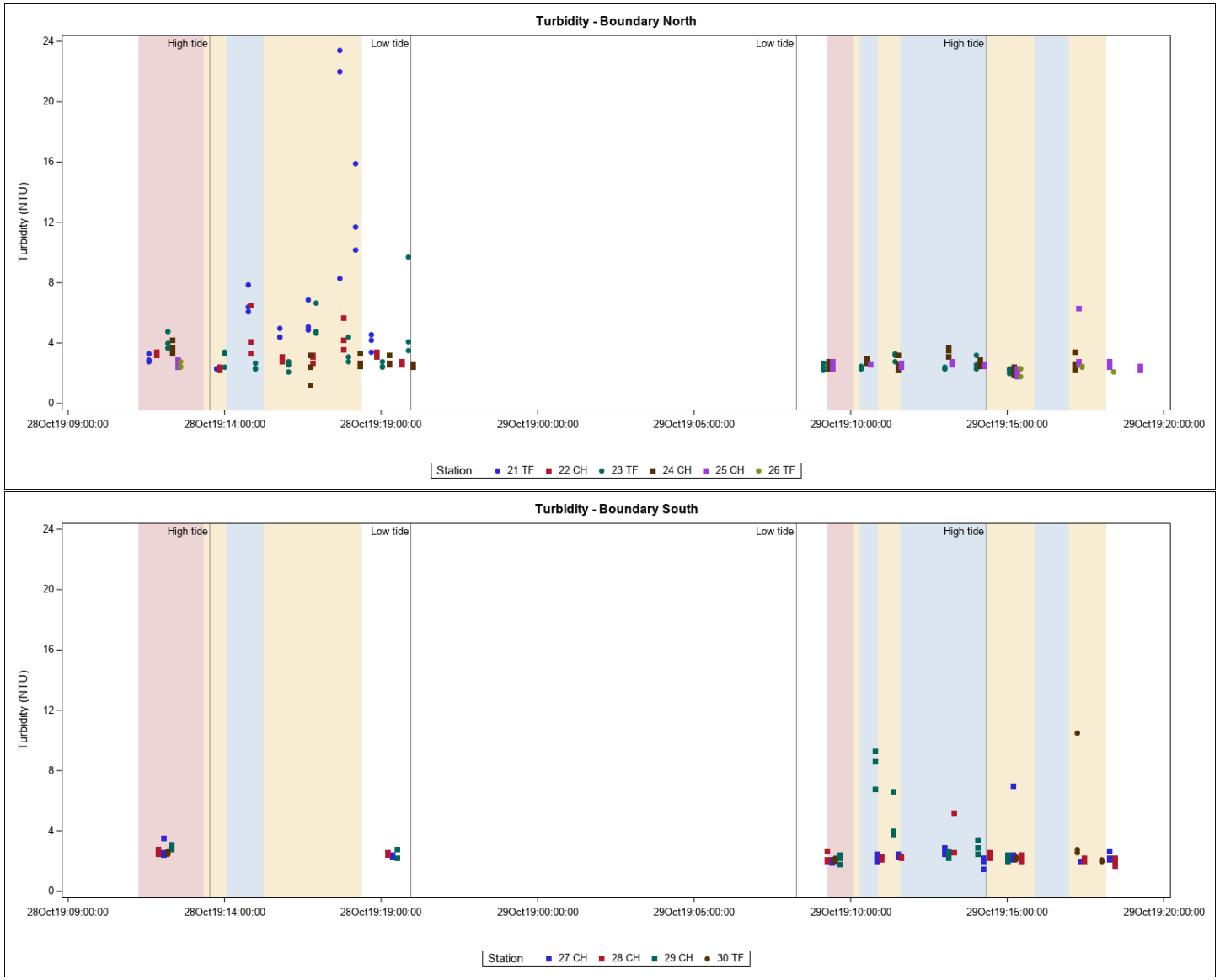
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 2

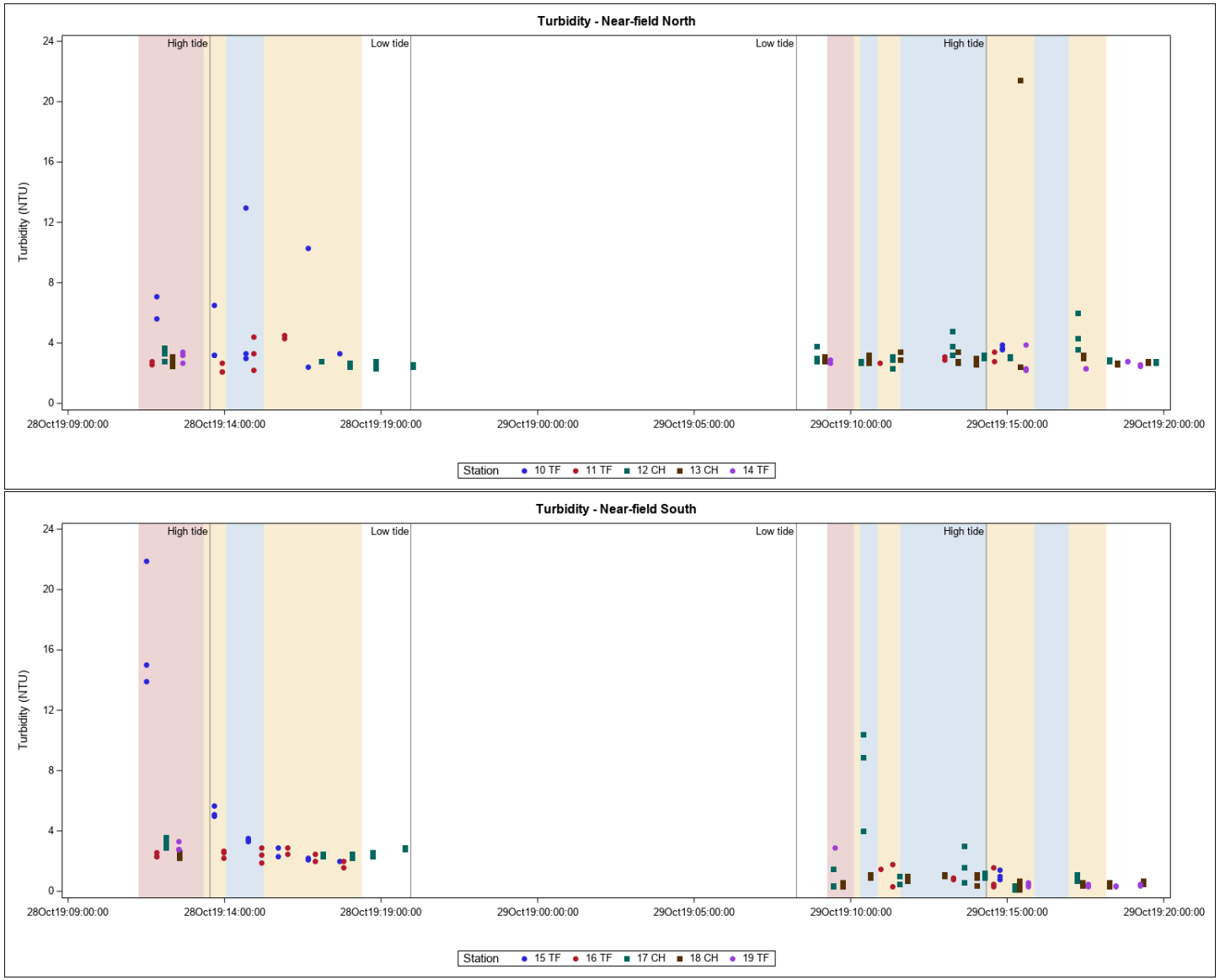
Turbidity

Turbidity (NTU)		28 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	2.8	2.8	2.9	2.9	3.3	3.3	2.3	15.9	2.3	22	2.3	23.4
	22	3.2	3.2	3.4	3.4	3.3	3.3	2.2	6.5	2.2	4.2	2.4	5.7
	23	3.7	3.7	4	4	4.8	4.8	2.1	4.7	2.3	6.7	2.7	9.7
	24	4.2	4.2	3.7	3.7	3.3	3.3	1.2	2.7	2.4	2.7	2.4	3.3
	25	2.4	2.4	2.7	2.7	2.9	2.9						
	26	2.8	2.8	2.4	2.4	2.5	2.5						
Boundary South	27	2.4	2.4	2.6	2.6	3.5	3.5	2.3	2.3	2.4	2.4	2.3	2.3
	28	2.5	2.5	2.8	2.8	2.7	2.7	2.5	2.5	2.4	2.4	2.6	2.6
	29	2.8	2.8	3	3	3.1	3.1	2.2	2.2	2.8	2.8	2.8	2.8
	30	2.7	2.7	2.5	2.5	2.6	2.6						
Nearfield North	10	5.6	5.6			7.1	7.1	3	55	3.2	3.3	2.4	62
	11	2.6	2.6			2.8	2.8	2.1	147	2.1	3.3	2.7	196
	12	2.8	2.8	3.3	3.3	3.7	3.7	2.3	2.8	2.4	2.8	2.5	2.8
	13	2.5	2.5	2.8	2.8	3.1	3.1						
	14	2.7	2.7	3.2	3.2	3.4	3.4						
Nearfield South	15	15	15	13.9	13.9	21.9	21.9	2	5.1	3.5	5.7	2.2	5
	16	2.3	2.3	2.6	2.6	2.3	2.3	1.6	2.6	2.2	2.9	2	2.9
	17	2.9	2.9	3.2	3.2	3.6	3.6	2.2	2.8	2.3	2.8	2.3	2.9
	18	2.2	2.2	2.4	2.4	2.6	2.6						
	19	2.8	2.8	2.8	2.8	3.3	3.3						
Reference Stations	41	1.9	1.9	2.4	2.4	2.4	2.4	2.3	2.3	2.7	2.7	2.8	2.8
	42	1.8	1.8	2.2	2.2	2.3	2.3	1.9	1.9			1.8	1.8
	43	2.7	2.7	3.2	3.2	3.2	3.2	2.6	2.6	2.5	2.5	2.7	2.7

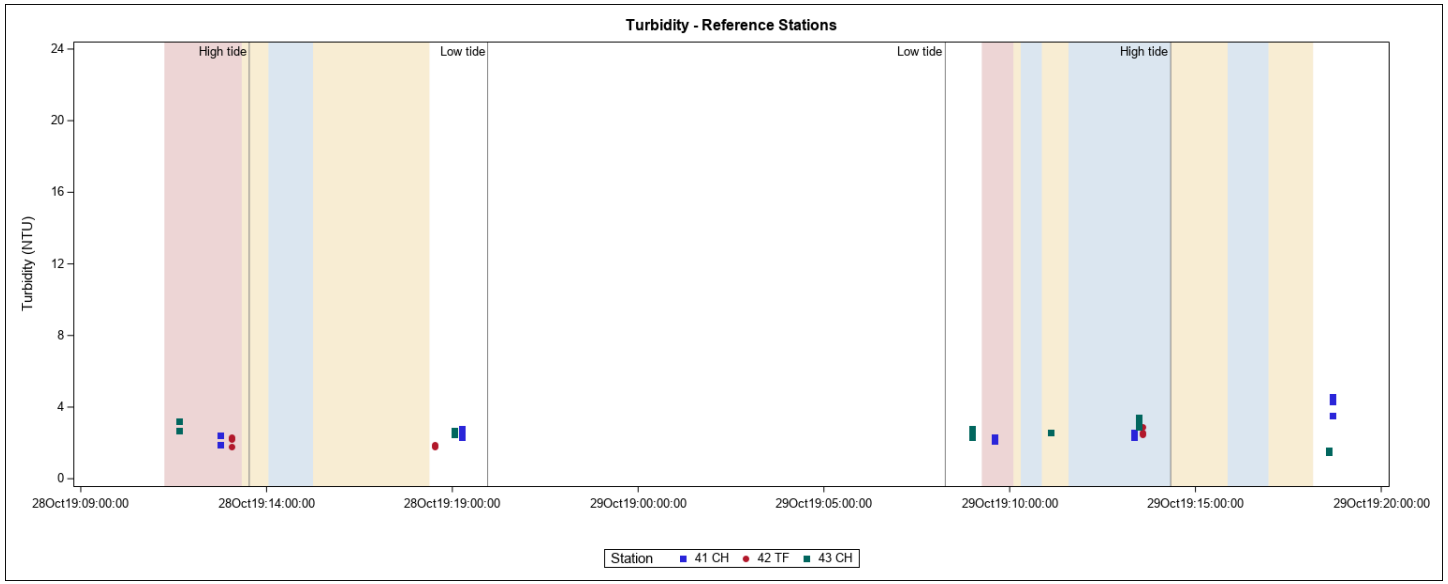
Turbidity (NTU)		29 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	23	2.2	2.2	2.4	2.4	2.7	2.7	2	2.8	2.2	3.3	2.3	3.2
	24	2.3	2.3	2.4	2.4	2.8	2.8	1.9	3.7	2.3	3.1	2.4	3.5
	25	2.3	2.3	2.4	2.4	2.8	2.8	1.8	2.8	2.1	2.7	2.3	6.3
	26							1.8	2.4	2.3	2.3	2.1	2.5
Boundary South	27	1.9	1.9	2.1	2.1	2.1	2.1	1.5	7	2	2.9	2	2.7
	28	2	2	2.1	2.1	2.7	2.7	1.7	5.2	2	2.6	2	2.6
	29	1.8	1.8	2.2	2.2	2.4	2.4	2	8.6	2.1	9.3	2.4	6.8
	30	2	2	2.2	2.2	2.1	2.1	2	10.5	2	2.8	2.1	2.6
Nearfield North	10							3.7	3.7	3.6	3.6	3.9	3.9
	11							2.7	2.9			3.1	3.4
	12	2.8	2.8	3	3	3.8	3.8	2.3	3.6	2.8	4.3	2.7	6
	13	2.9	2.9	3.1	3.1	2.8	2.8	2.4	3.1	2.4	3.4	2.7	21.4
	14	2.7	2.7			2.9	2.9	2.3	2.8	2.2	2.2	2.3	3.9
Nearfield South	15							0.8	0.8	1	1	1.4	1.4
	16							0.3	0.8	0.5	0.5	0.9	1.8
	17	0.3	0.3	0.4	0.4	1.5	1.5	0.1	10.4	0.2	4	0.4	8.9
	18	0.3	0.3	0.4	0.4	0.6	0.6	0.1	1	0.5	1	0.5	1.1
	19	2.9	2.9					0.3	0.4	0.5	0.5	0.3	0.6
Reference Stations	41	2.1	2.1	2.2	2.2	2.3	2.3	2.3	3.5	2.6	4.3	2.4	4.6
	42							2.5	2.5	2.6	2.6	2.9	2.9
	43	2.8	2.8	2.4	2.4	2.3	2.3	1.5	2.9	1.5	3.2	1.6	3.4



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



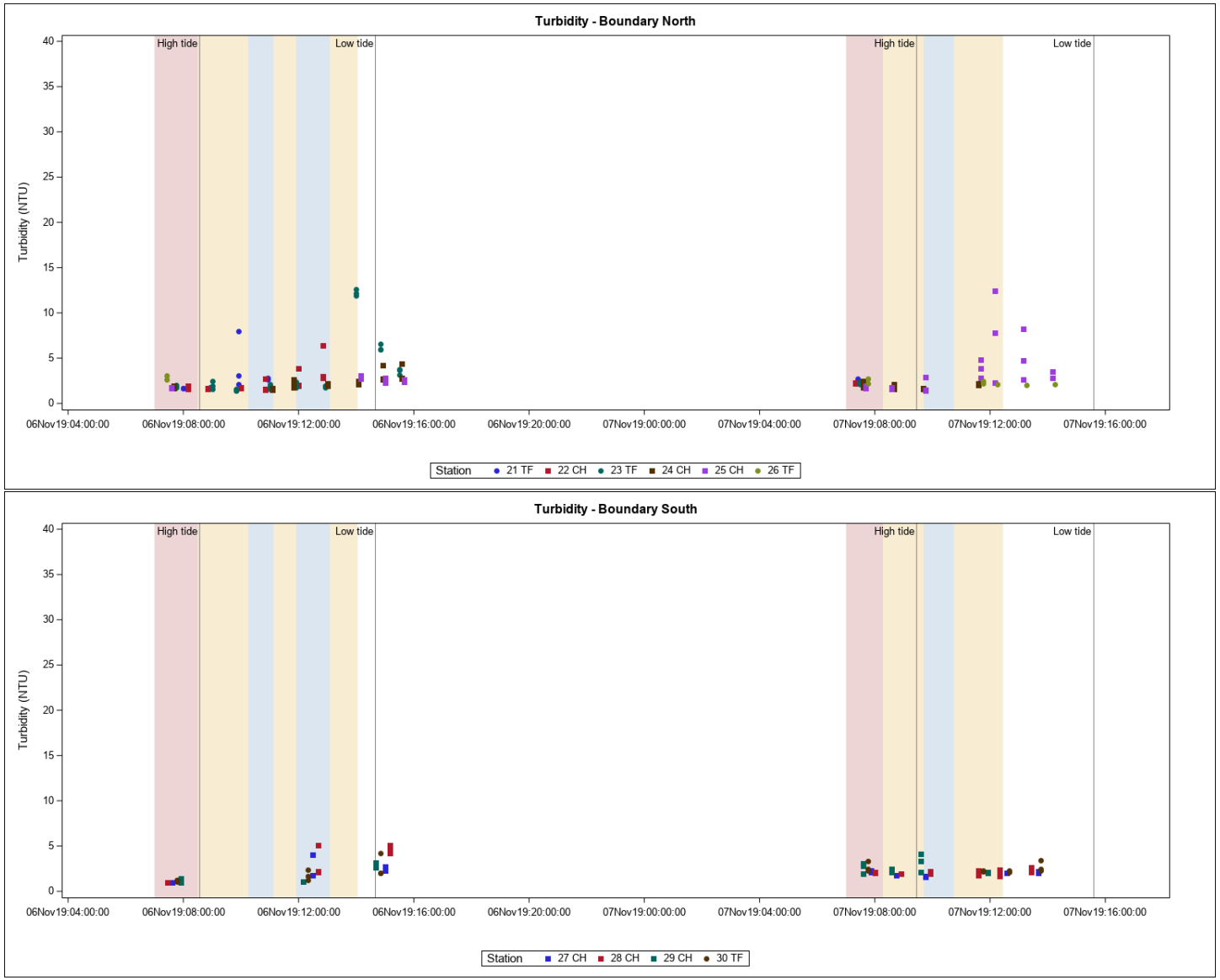
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 3

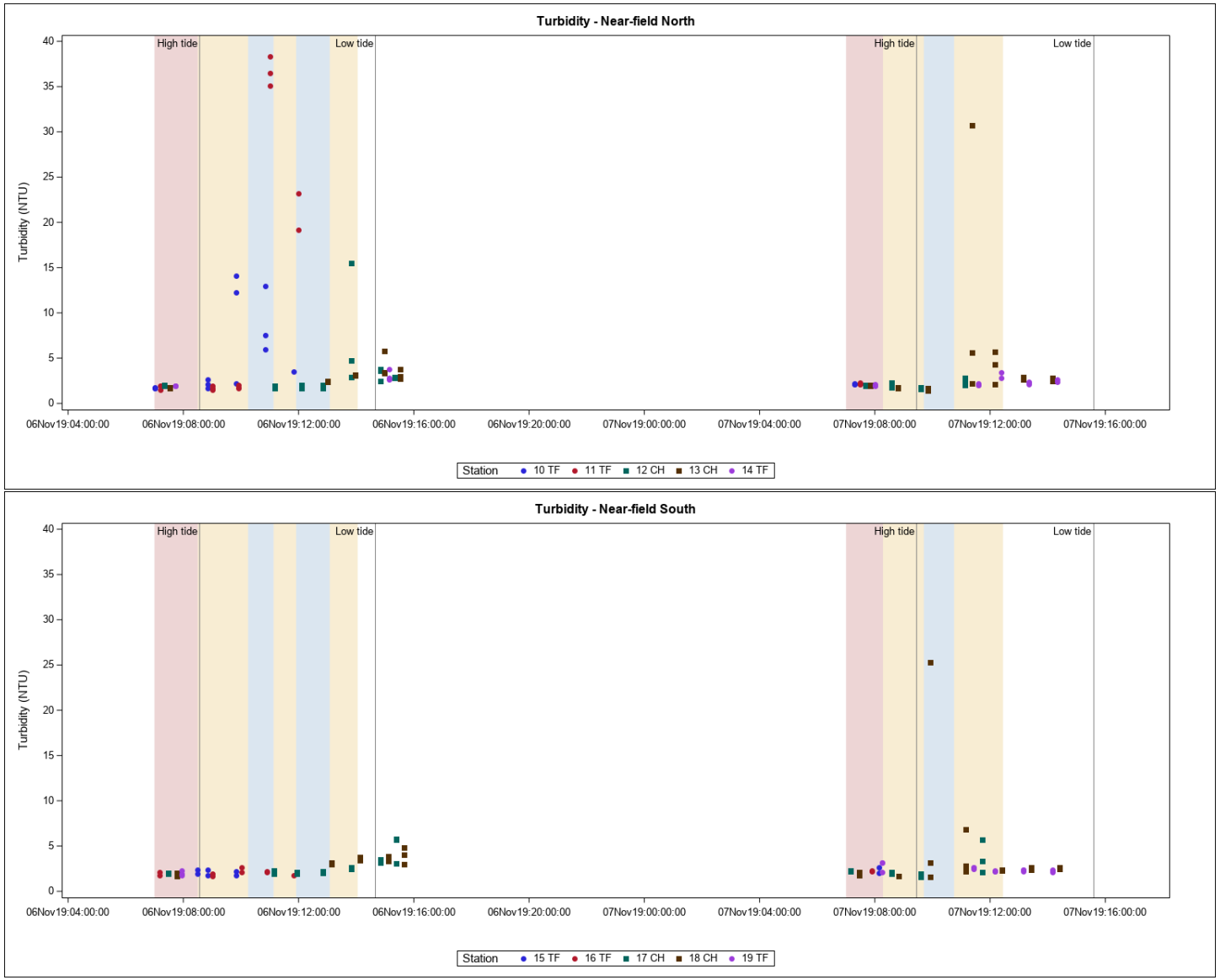
Turbidity

Turbidity (NTU)		06 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	1.7	1.7	1.7	1.7	1.7	1.7	1.8	8	1.8	3.1	1.7	2.7
	22	1.9	1.9	1.7	1.7	1.6	1.6	1.6	6.4	1.5	3	1.6	2.8
	23	1.8	1.8	1.8	1.8	2	2	1.4	11.9	1.4	12.6	1.6	12.2
	24	1.7	1.7	1.8	1.8	1.9	1.9	1.5	2.7	1.6	2.8	1.7	4.4
	25	1.7	1.7	1.7	1.7	1.8	1.8	2.5	2.8	2.4	2.9	2.3	3.1
	26	3.1	3.1			2.6	2.6						
Boundary South	27	1	1	1	1	1	1	2.7	4	2.3	4	1.8	2.6
	28	1	1	1	1	1	1	2.2	4.2	5.1	5.1	2.1	4.7
	29	1	1	1.4	1.4	1.3	1.3	1.1	3.2	1.1	3	1.1	2.6
	30	1.2	1.2	1.2	1.2	1.1	1.1	1.2	4.2	2	2.4	1.7	2
Nearfield North	10	1.7	1.7	1.8	1.8	1.7	1.7	1.7	6	2.6	12.3	2.1	14.1
	11	1.5	1.5	1.9	1.9	1.9	1.9	1.5	35.1	1.7	38.3	1.9	36.5
	12	1.9	1.9	2	2	1.9	1.9	1.7	2.9	1.7	4.7	1.9	15.5
	13	1.7	1.7	1.8	1.8	1.7	1.7	2.4	3.4	2.4	3.3	2.5	5.8
	14	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.6	2.8	2.8	3.8	3.8
Nearfield South	15	1.9	1.9			2.4	2.4	1.8	1.8			2.2	2.4
	16	1.8	1.8			2.1	2.1	1.7	2.2			1.8	2.6
	17	1.9	1.9	1.9	1.9	2	2	1.9	5.7	2.1	3.3	2	5.8
	18	1.7	1.7	1.9	1.9	2	2	3	3.4	3.2	4	3	4.8
	19	1.8	1.8	1.9	1.9	2.3	2.3						
Reference Stations	41	1.5	1.5	1.6	1.6	1.8	1.8	1.9	2	2	2	1.9	1.9
	42	1.9	1.9			1.9	1.9	2.3	2.3				
	43	1.5	1.5	1.4	1.4	1.2	1.2	2.1	7.6	2.3	5.2	2.7	4.1

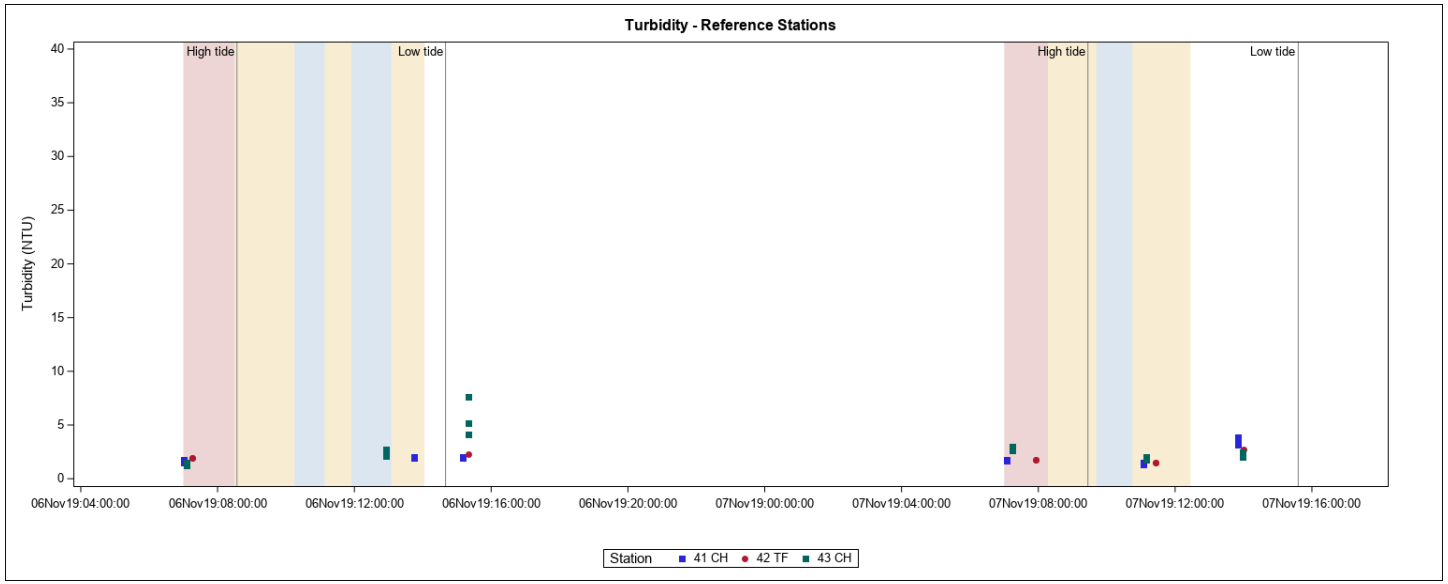
Turbidity (NTU)		07 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	2.3	2.3	2.3	2.3	2.7	2.7						
	22	2.2	2.2	2.3	2.3	2.3	2.3						
	23	2.1	2.1	2.3	2.3	2.4	2.4						
	24	1.8	1.8	2.2	2.2	2.5	2.5	1.6	2	1.7	2.2	1.6	2
	25	1.7	1.7	1.9	1.9	1.8	1.8	1.8	2.9	1.5	7.8	1.4	12.4
	26	2.7	2.7			2.2	2.2	2.5	2.5			2	2.2
Boundary South	27	2.3	2.3	2.1	2.1	2.2	2.2	1.7	2.2	1.6	2	1.7	2.2
	28	2	2	2.1	2.1	2	2	1.9	2.4	1.9	2.6	1.7	2.3
	29	1.9	1.9	3.1	3.1	2.8	2.8	2	2.3	2.1	3.3	2	4.1
	30	3.3	3.3	2.3	2.3	2.5	2.5	2.3	3.4	2.2	2.5	2.1	2.3
Nearfield North	10	2.2	2.2	2.1	2.1	2.1	2.1						
	11	2.3	2.3	2.1	2.1	2.1	2.1						
	12	2	2	1.9	1.9	2	2	1.6	2	1.8	2.8	1.8	2.4
	13	1.9	1.9	1.9	1.9	2	2	1.4	2.7	1.5	5.6	1.7	30.7
	14	1.9	1.9	2.1	2.1	1.9	1.9	2.1	2.8	2	2.4	2	3.4
Nearfield South	15	2.6	2.6			2	2						
	16	2.3	2.3			2.2	2.2						
	17	2.2	2.2	2.2	2.2	2.3	2.3	1.6	2.1	1.8	3.3	1.9	5.7
	18	1.8	1.8	1.9	1.9	2.1	2.1	1.6	2.5	1.7	3.2	1.7	25.3
	19	3.2	3.2	3.2	3.2	2.1	2.1	2.1	2.5	2.2	2.6	2.3	2.6
Reference Stations	41	1.7	1.7	1.8	1.8	1.8	1.8	1.4	3.2	1.5	3.4	1.3	3.9
	42	1.8	1.8			1.8	1.8	1.5	1.5			1.5	2.7
	43	3	3	2.7	2.7	2.6	2.6	1.8	2	1.9	2.1	2	2.5



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

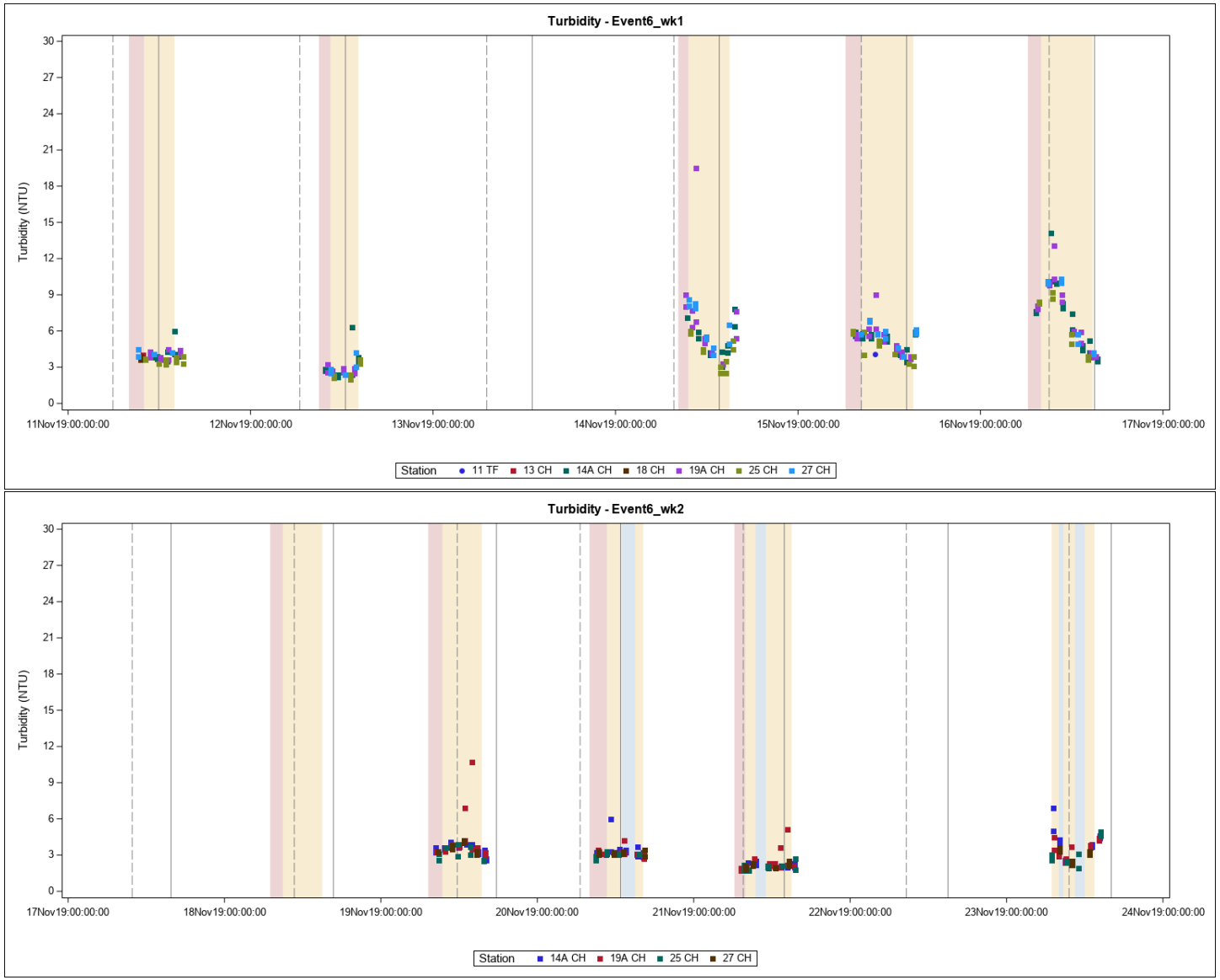


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

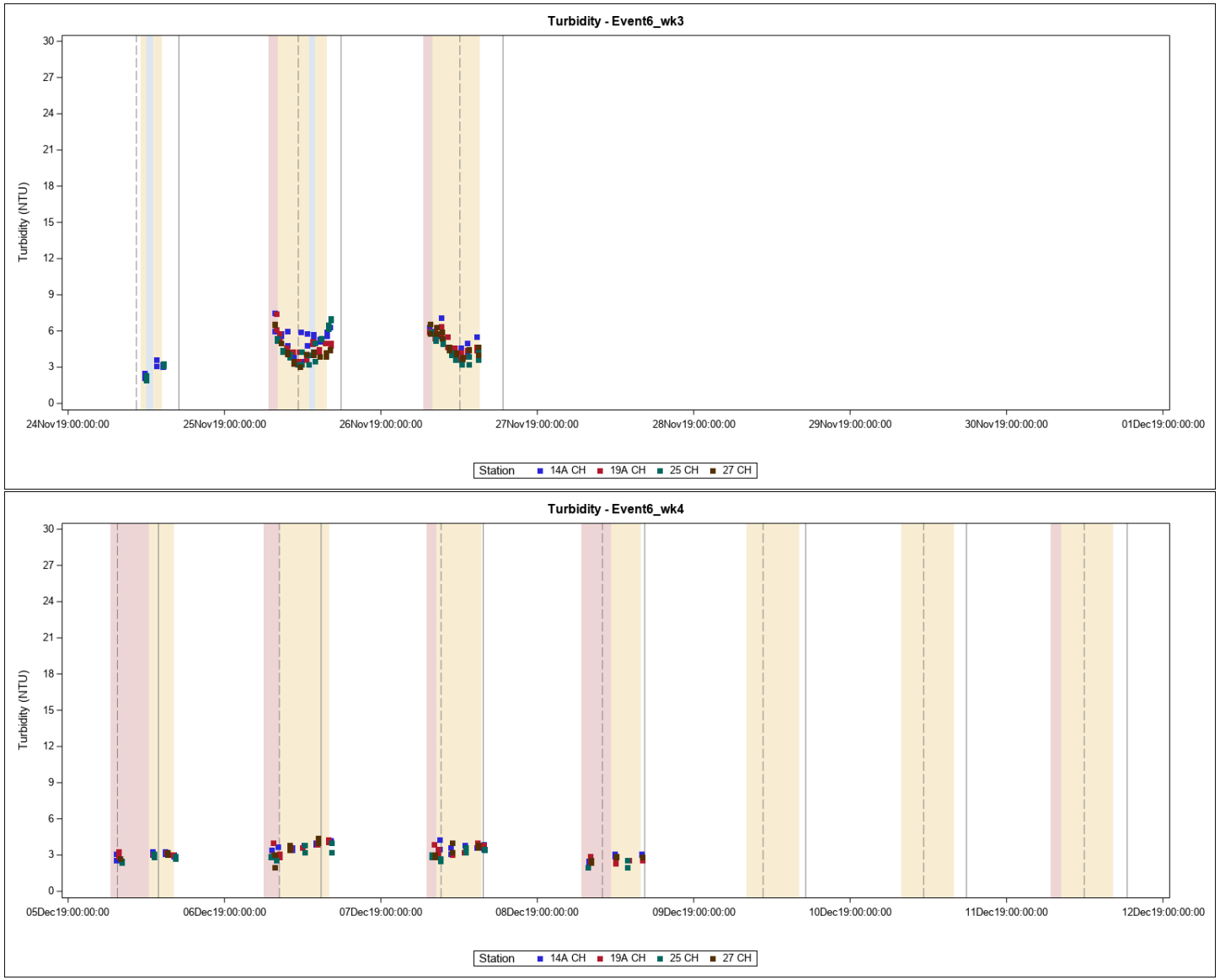
Hand Jet

Turbidity

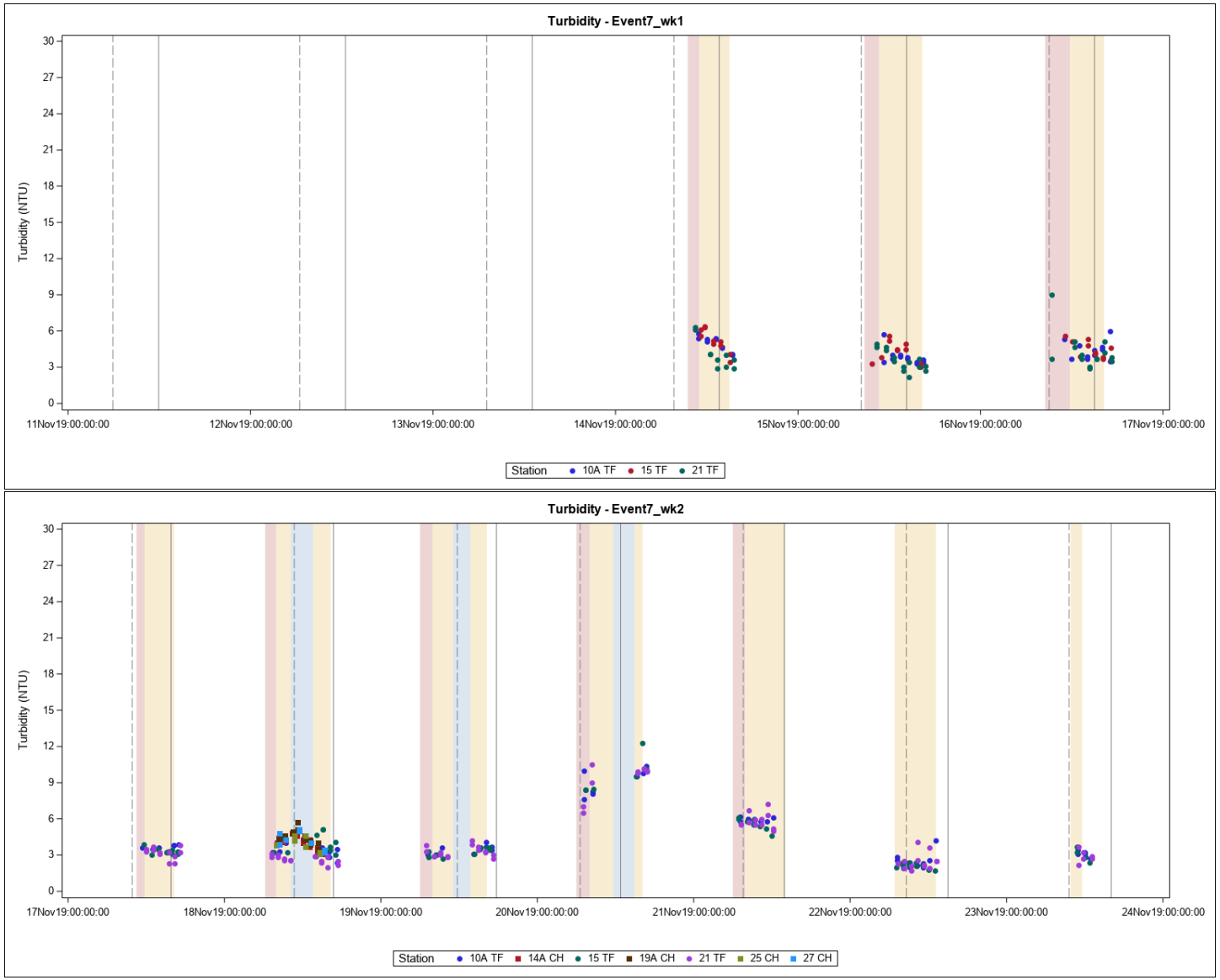
Turbidity (NTU)		11 NOV 2019 – 18 DEC 2019							
		Before Start of Jet Plow				During Jet Plowing			
		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max
Location	Station								
West Side Boundary	10A	2.4	10	2.6	7.6	1.9	8.3	2	14.2
	11			4.1	4.1				
	15	2.5	8.4	2.6	8.4	2.1	7.5	1.7	12.3
West Side Reference	21	1.9	9	1.8	6.5	1.9	10.5	1.5	10.2
East Side Boundary	13	3.8	3.8	4	4				
	14A	1.8	16	1.9	16.3	1.9	17.5	1.8	22.2
	18	3.9	3.9	3.6	3.6				
	19A	1.7	24	1.9	15.1	1.7	27.2	2	20.6
East Side Reference	25	1.7	16.2	2	14.4	1.7	18	1.7	19.6
	27	2.4	17.8	2	17	1.8	18.2	1.9	21.5



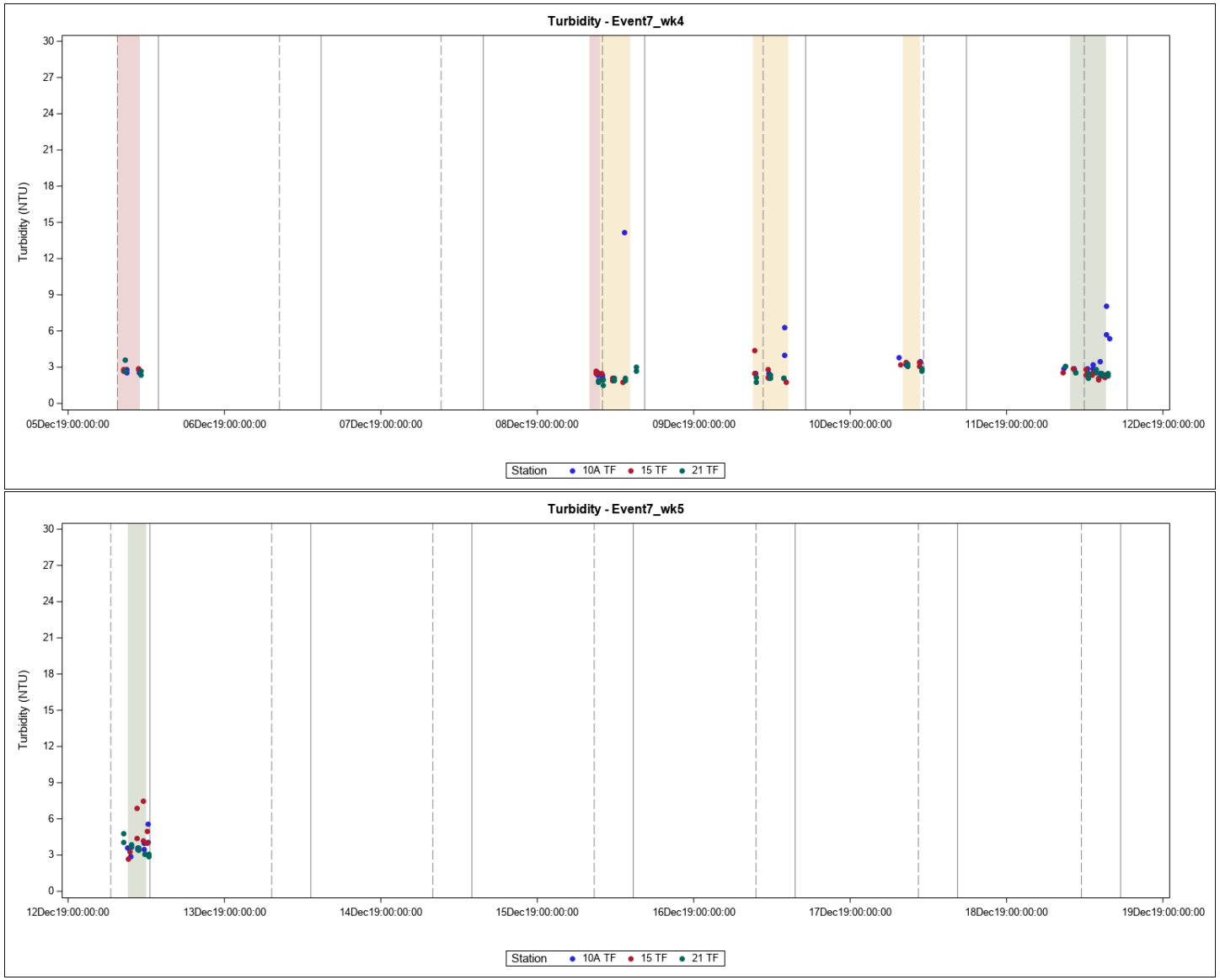
Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



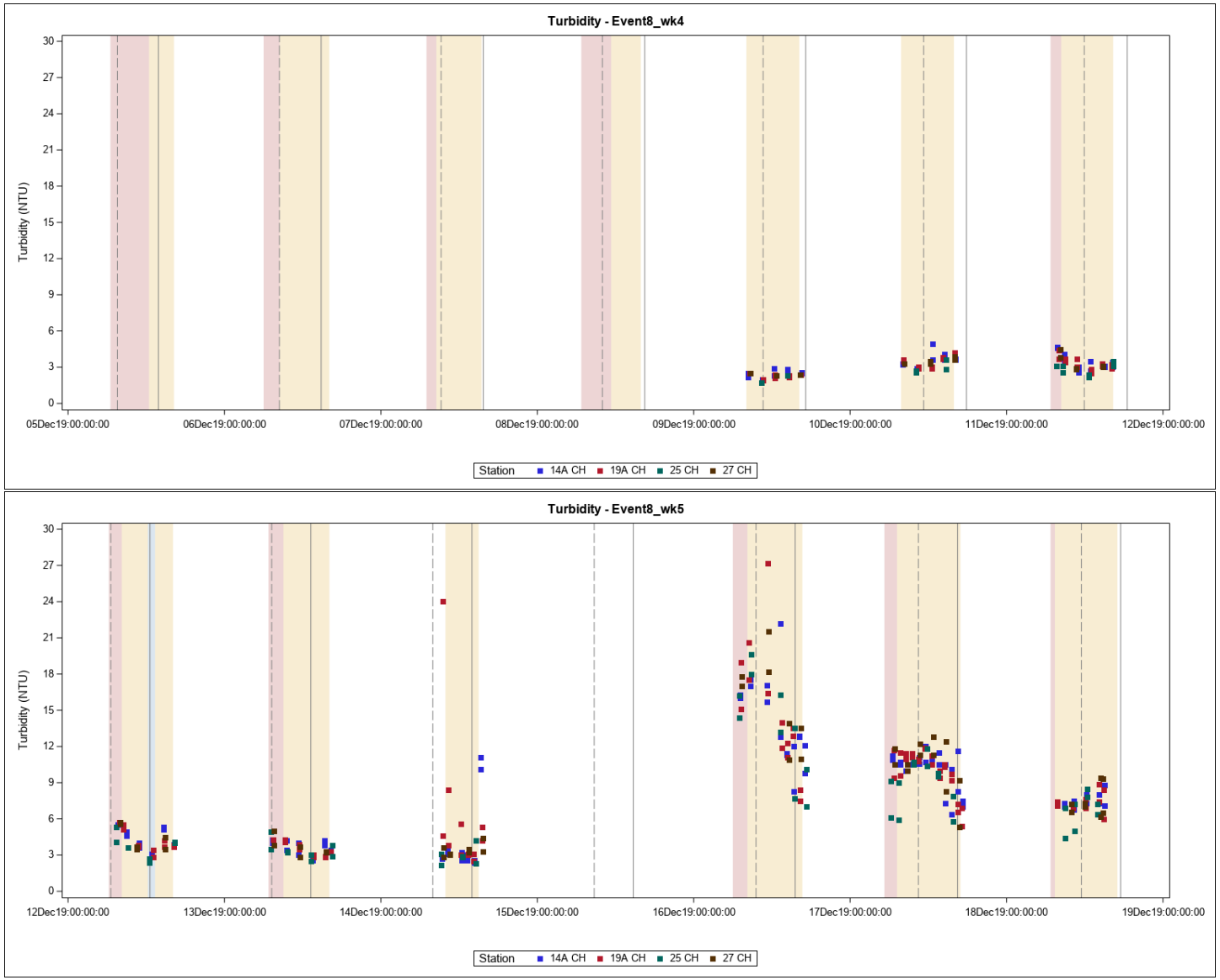
Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation; green shading indicates turbidity barrier removal. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

Appendix F
Daily Weather

Event	Date	Precipitation[1] (in)	High Temp[1] (°F)	Low Temp[1] (°F)	Sustained Wind Speed[2] (mph)	Sustained Wind Direction[2]	Max Wind speed[2] (mph)	High Tide[3]	High Tide[3]	Low Tide[3]	Low Tide[3]	High Tide[3]	High Tide[3]	Low Tide[3]	Low Tide[3]
								Ht (ft)	Time	Ht (ft)	Time	Ht (ft)	Time	Ht (ft)	Time
Pre Jet Plow Trial[4]	9/8/2019	0.01	73	55	6-9	W	16	5.95	0930	0.96	1541				
Jet Plow Trial	9/9/2019	0	70	47	3-7	NW-SE	7	5.95	1031	0.96	1643				
Pre Cable 1[4]	10/15/2019	0	61	43	3-10	WNW	23	6.82	1437	0.10	2101				
Cable 1	10/16/2019	0	59	36	8-14	SE	20	6.84	1509	0.10	2137				
	10/17/2019	1.77	60	46	15-24	WSW	40	6.82	1543	0.14	2216				
	10/18/2019	0.06	58	46	12-16	WNW	28	6.8	1622	0.20	2300				
	10/19/2019	0	59	39	5-6	WNW	13			0.83	1110	6.75	1708	0.28	2349
Pre Cable 2[4]	10/27/2019	0	51	40	6-18	ESE	31	7.81	1239	-0.94	1906				
Cable 2	10/28/2019	0.96	53	46	5-7	E	10	8.02	1328	-1.13	1957				
	10/29/2019	0.04	53	48	6-8	S	14			-0.62	0815	8.06	1416		
Pre Cable 3[4]	11/5/2019	0	58	41	3-9	S-WNW	20	5.83	0726	1.29	1338				
Cable 3	11/6/2019	0.07	52	37	6-12	W	24	5.88	0823	1.22	1440				
	11/7/2019	0	51	31	8-12	SW-W	24	6.04	0915	1.03	1536				
Pre Hand Jet[4]	11/10/2019	0	49	30	9-14	SW	25			0.53	0519	6.66	1120		
Hand Jet	11/11/2019	0	45	32	5-9	W-E	16			0.51	0554	6.84	1155		
	11/12/2019	0	37	20	3-17	NE-W	30			0.48	0629	6.96	1229		
No Work	11/13/2019	0	27	15	13-18	NW	32			0.48	0704	7.05	1303		
Hand Jet	11/14/2019	0	34	16	5-10	SW	20			0.51	0741	7.1	1339		
	11/15/2019	0	50	29	8-14	WSW	25			0.53	0820	7.12	1417		

[1] Precipitation, High Temp, and Low Temp data derived from Weather Underground past weather history at Portsmouth International Airport at Pease Station, https://www.wunderground.com/calendar/us/nh/portsmouth/KPSM/date/2019-9

[2] Sustained Wind Speed, Sustained Wind Direction, and Max Wind Speed data derived from:

a. https://www.sailflow.com/ - 9/8/2019 and 9/9/2019 – Portsmouth Weather Station

b. https://www.windfinder.com/forecast/pease_air_force_base_portsmouth - 10/15/2019 through 12/18/2019 – Pease Air Force Base/Portsmouth Weather Station

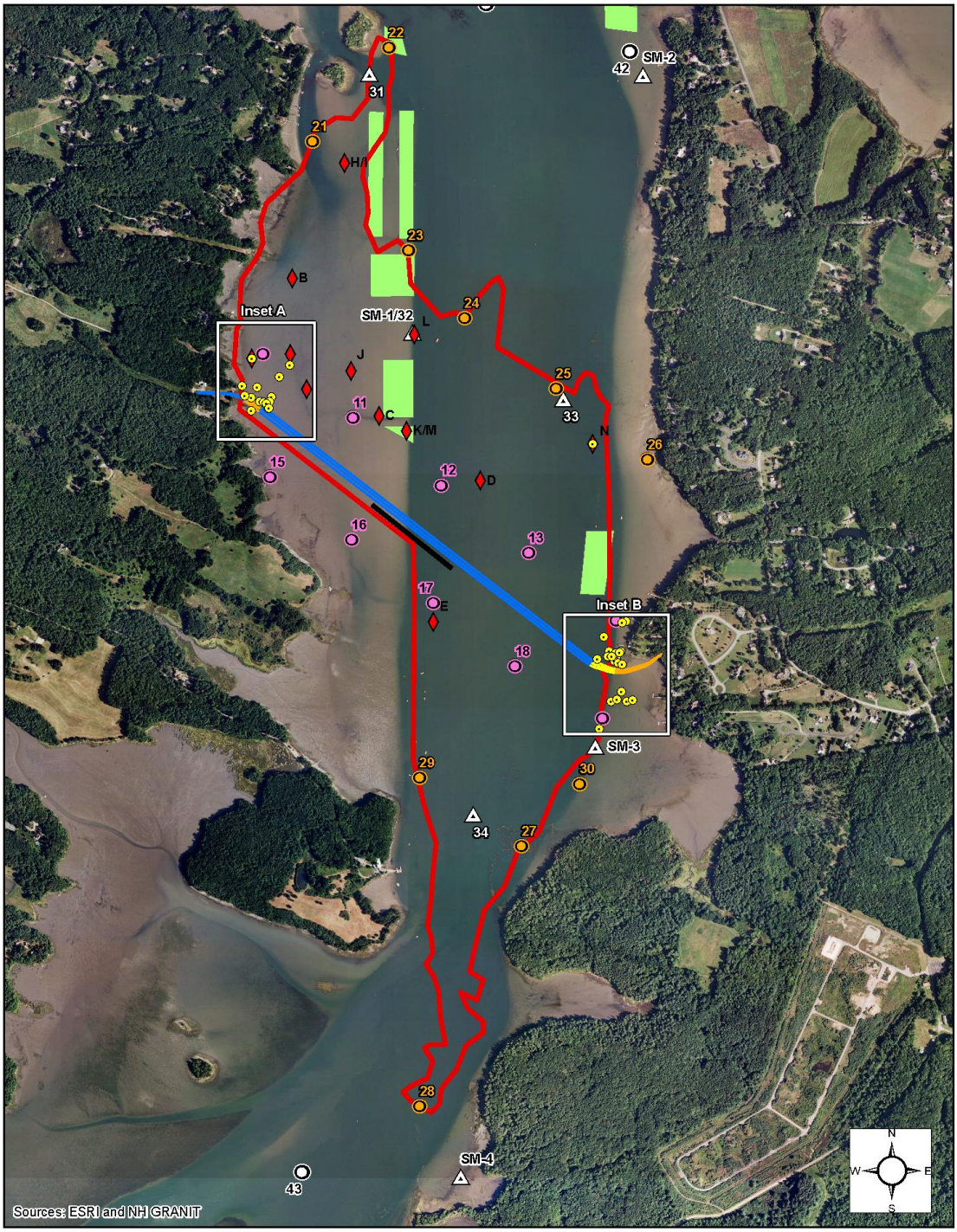
[3] High Tide and Low Tide data derived from Willy Weather Tide Time and Heights at Great Bay – Adams Point data Station, https://tides.willyweather.com/nh/strafford-county/great-bay--adams-point.html

[4] Pre weather data is shown to account for weather events prior to work days which could potentially affect water quality sampling.

Event	Date	Precipitation[1] (in)	High Temp[1] (°F)	Low Temp[1] (°F)	Sustained Wind Speed[2] (mph)	Sustained Wind Direction[2]	Max Wind speed[2] (mph)	High Tide[3]	High Tide[3]	Low Tide[3]	Low Tide[3]	High Tide[3]	High Tide[3]	Low Tide[3]	Low Tide[3]
								Ht (ft)	Time	Ht (ft)	Time	Ht (ft)	Time	Ht (ft)	Time
	11/16/2019	0	35	19	6-12	N	25			0.60	0902	7.07	1500		
	11/17/2019	0	35	19	8-10	NE	16			0.67	0950	6.98	1548		
	11/18/2019	0	39	33	14-15	NE	25			0.73	1043	6.89	1643		
	11/19/2019	0.26	40	36	2-3	NW	5			0.76	1143	6.77	1744		
	11/20/2019	0.1	38	35	7-9	N	20	6.25	0634	0.69	1247				
	11/21/2019	0.12	48	31	7-9	N	20	6.48	0736	0.48	1354				
	11/22/2019	0	50	33	10-14	SW-W	31	6.8	0838	0.18	1501				
	11/23/2019	0.05	44	31	6-13	W	29	7.17	0936	-0.23	1604				
	11/24/2019	0	41	30	5-23	NE-N	39	7.51	1029	-0.62	1700				
	11/25/2019	0.73	52	36	7-15	W	33	7.79	1120	-0.90	1753				
	11/26/2019	0	60	28	5-12	SW-W	24	7.9	1208	-1.01	1844				
Pre Hand Jet[4]	12/4/2019	0.21	35	24	5-7	W	12	5.83	0642	1.26	1254				
	12/5/2019	0	41	25	7-12	W	25	5.86	0734	1.24	1352				
	12/6/2019	0	30	24	3-9	W-S	21	5.99	0826	1.10	1450				
	12/7/2019	0.06	30	17	7-8	NW	15	6.18	0914	0.87	1543				
	12/8/2019	0	33	12	7-10	SW	24	6.41	0959	0.60	1629				
Hand Jet	12/9/2019	0	52	34	7-14	SSW	40	6.6	1039	0.30	1711				
	12/10/2019	0.54	56	37	10-12	SW	32	6.8	1117	0.05	1751				
	12/11/2019	0.27	36	24	3-6	W	8	7.05	1155	-0.18	1831				
	12/12/2019	0	30	22	5-9	W	16			0.44	0633	7.21	1234		
	12/13/2019	0	46	20	8-13	S	22			0.34	0715	7.33	1315		
	12/14/2019	1.97	55	47	2-10	SE-SW	21			0.28	0758	7.40	1358		
Weather Hazard - No Work	12/15/2019	1.01	52	30	18-21	W	43			0.28	0844	7.40	1444		
	12/16/2019	0	32	25	9-13	W	23			0.30	0934	7.28	1534		
Hand Jet	12/17/2019	0	32	25	1-9	NW-NE	16			0.34	1029	7.10	1629		
	12/18/2019	0.26	34	20	5-8	NW-W	15			0.37	1129	6.89	1750		

Appendix G
Turbidity Profiles

Turbidity Profile Station
Figures



0 500 1,000 2,000 Feet

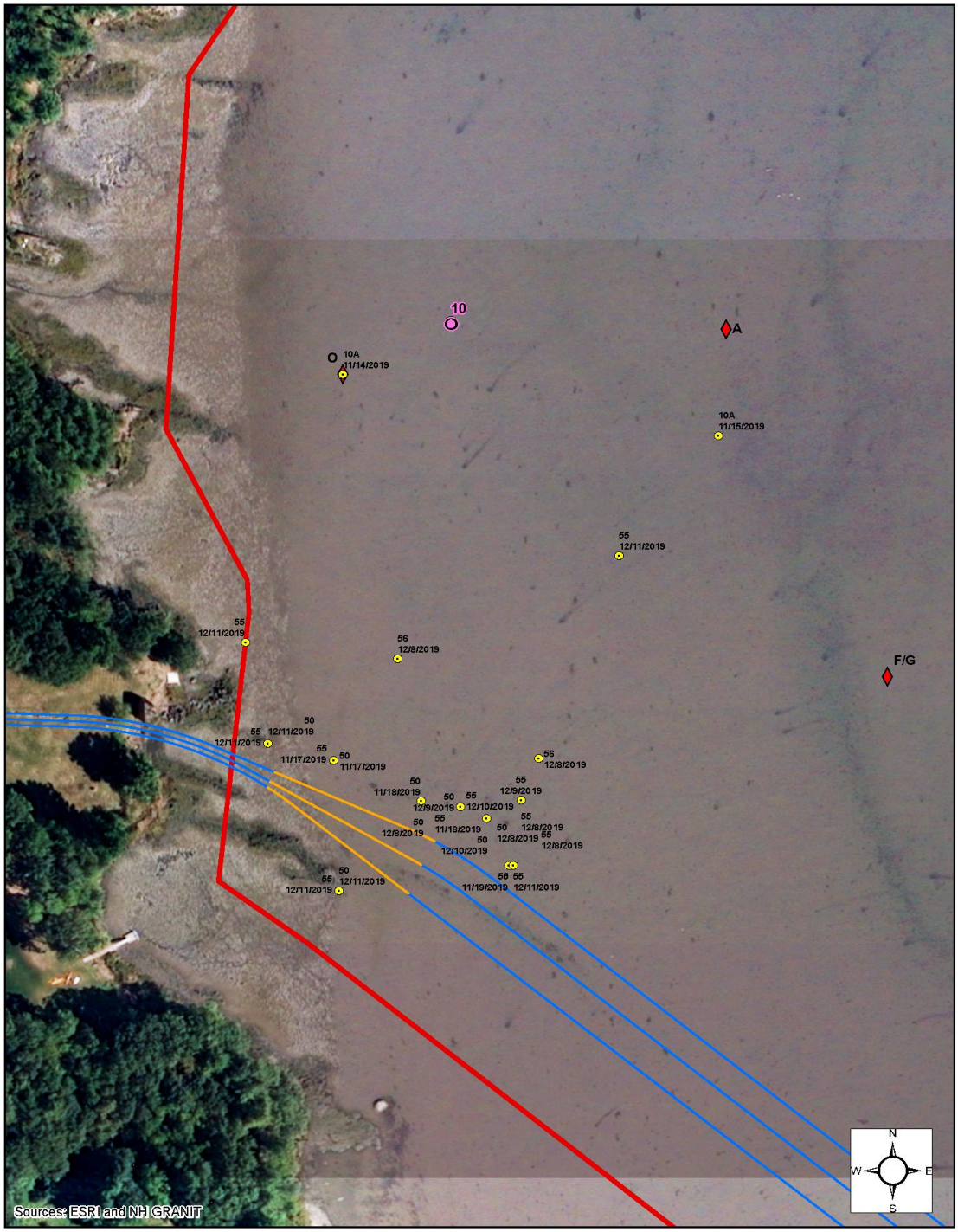
- Near-Field Station
- Boundary Stations
- Fixed Instrument
- Reference Stations
- Hand Jet Turbidity Profile
- Jet Plow Turbidity Profile
- Cable Route
- Hand Jet No Turbidity Barrier
- Hand Jet With Turbidity Barrier
- Jet Plow Trial
- Maximum Plume 7 & 13 Hour Models Combined
- Aquaculture Leases

Seacoast Reliability Project

Turbidity Profile Stations
Submarine Cable Installation
Little Bay, NH

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Document Path: J:\Projects\PSNH_F107\MXD\SRP_WQ_LocTurbidityPlumesDailyLoc_030420.mxd



- Near-Field Station
- Boundary Stations
- Fixed Instrument
- Reference Stations
- Hand Jet Turbidity Profile
- Jet Plow Turbidity Profile
- Cable Route
- Hand Jet No Turbidity Barrier
- Hand Jet With Turbidity Barrier
- Jet Plow Trial
- Maximum Plume 7 & 13 Hour Models Combined
- Aquaculture Leases

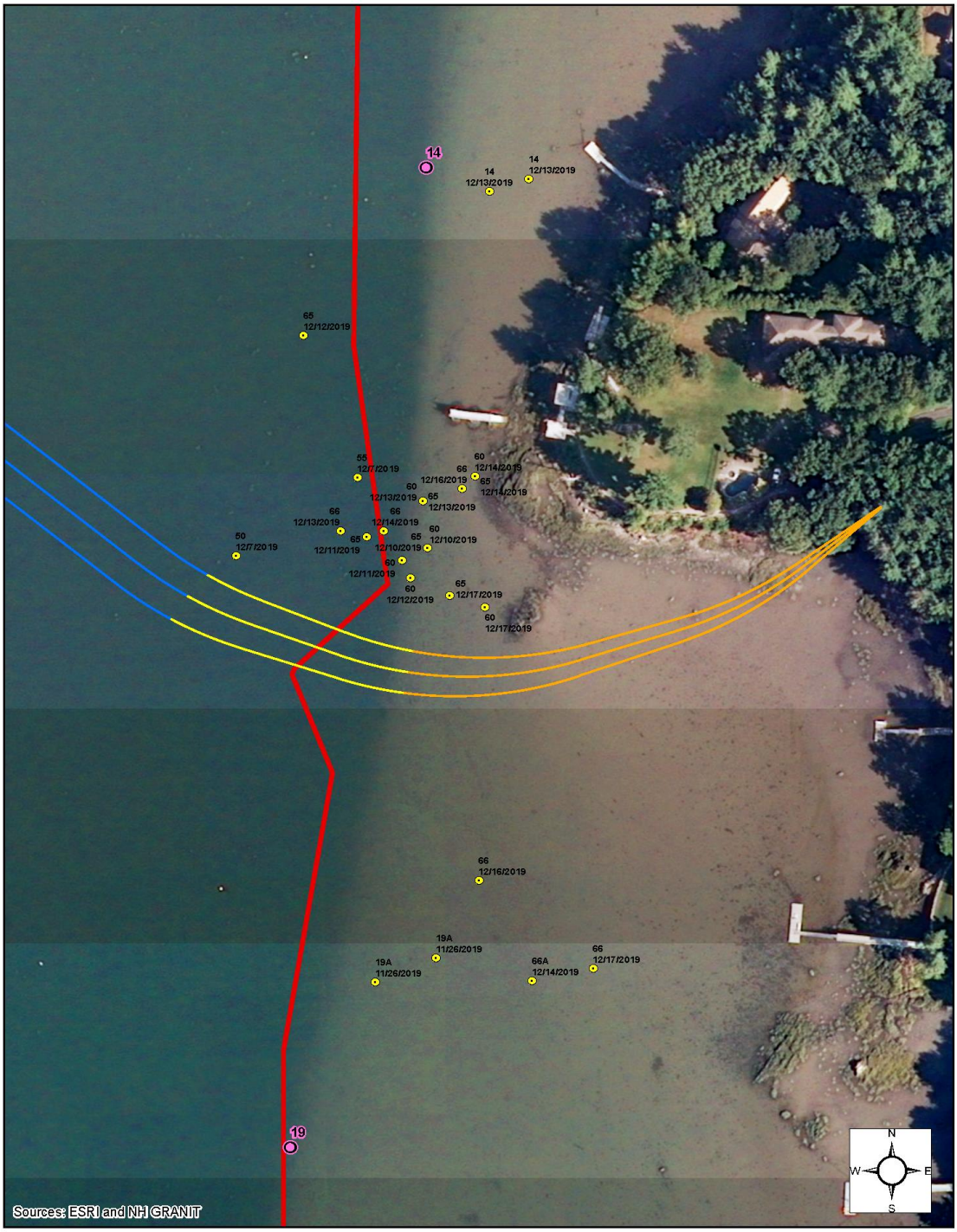
0 50 100 200 Feet

Seacoast Reliability Project

WestTurbidity Profile Stations
Submarine Cable Installation
Little Bay, NH

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Document Path: J:\Projects\PSNH_F107\MXD\SRP_WQ_LocTurbidityPlumesDailyLoc_030520west.mxd



- Near-Field Station
- Boundary Stations
- Fixed Instrument
- Reference Stations
- Hand Jet Turbidity Profile
- Jet Plow Turbidity Profile
- Cable Route
- Hand Jet No Turbidity Barrier
- Hand Jet With Turbidity Barrier
- Jet Plow Trial
- Maximum Plume 7 & 13 Hour Models Combined
- Aquaculture Leases

0 50 100 200 Feet

Seacoast Reliability Project

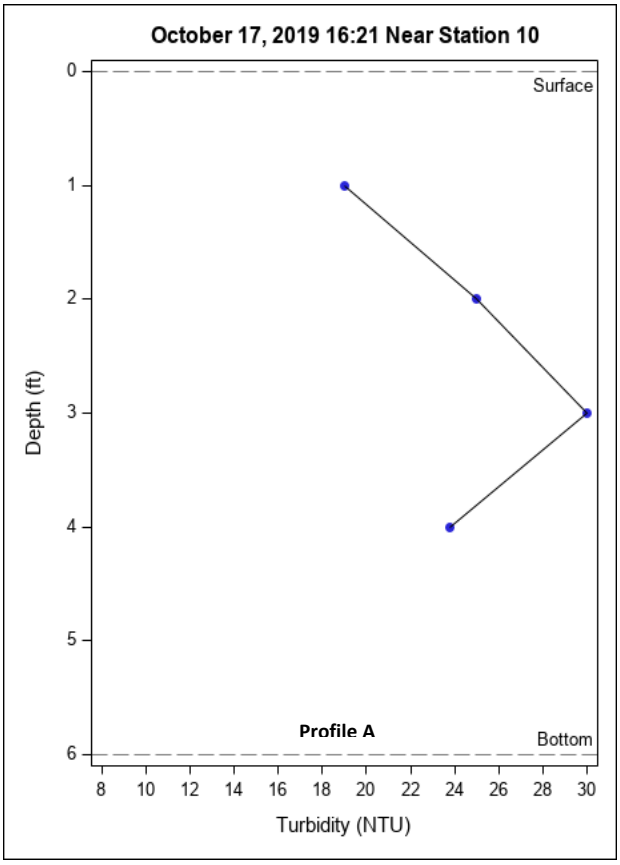
EastTurbidity Profile Stations
Submarine Cable Installation
Little Bay, NH

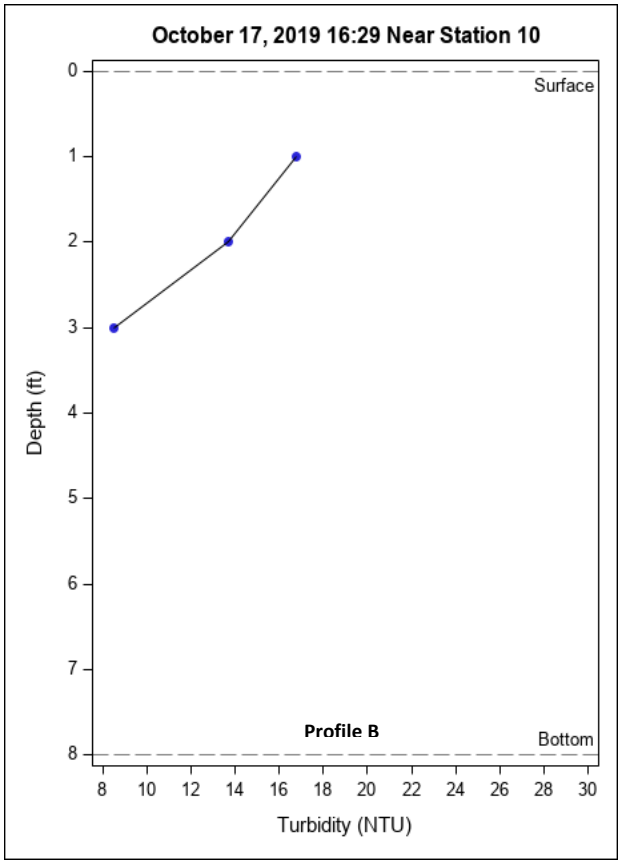
NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

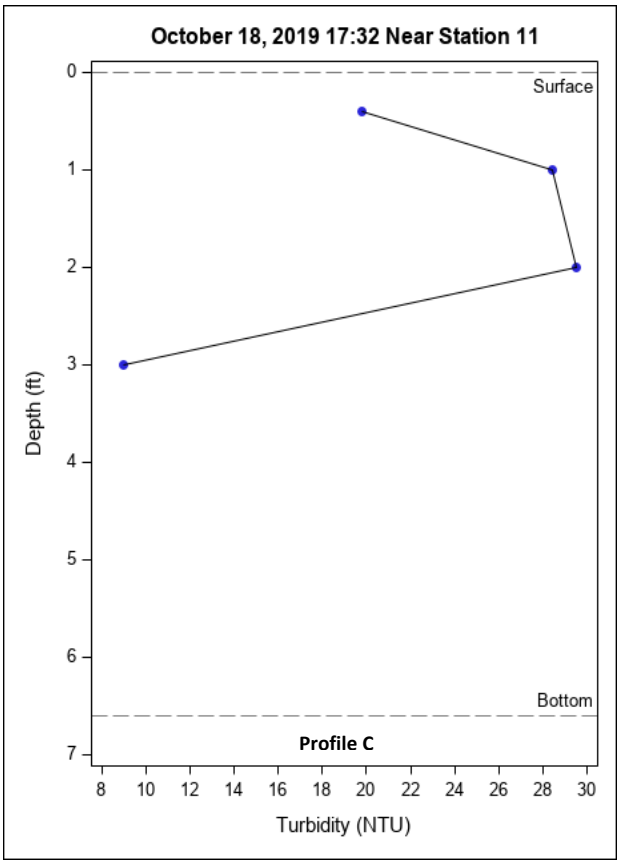
Document Path: J:\Projects\PSNH_F107\MXD\SRP_WQ_LocTurbidityPlumesDailyLoc_030520east.mxd

Cable 1

Turbidity Profiles

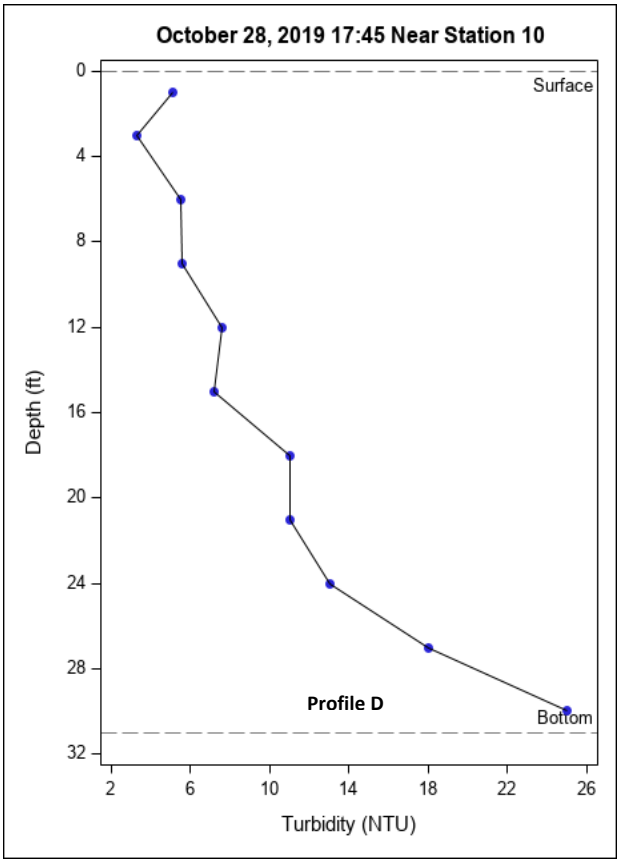

October 17, 2019 16:21 Near Station 10
Surface
Bottom
Profile A
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6
8
10
12
14
16
18
20
22
24
26
28
30

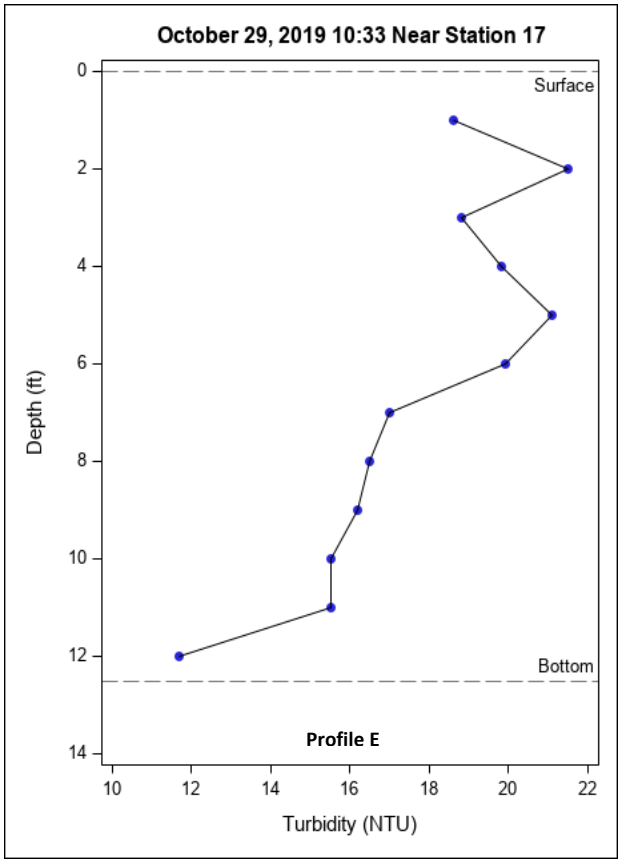

October 17, 2019 16:29 Near Station 10
Surface
Bottom
Profile B
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
10
12
14
16
18
20
22
24
26
28
30


October 18, 2019 17:32 Near Station 11
Surface
Bottom
Profile C
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
10
12
14
16
18
20
22
24
26
28
30

Cable 2

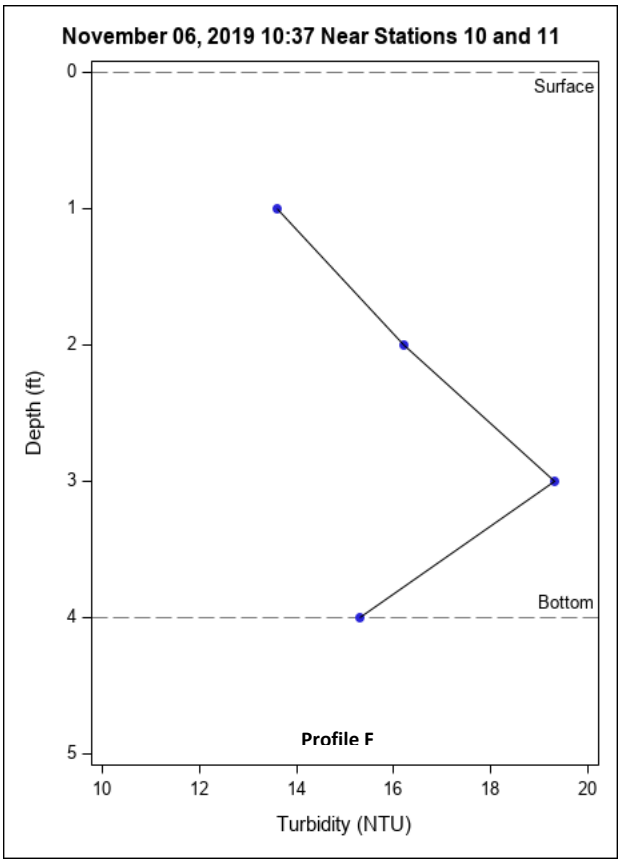
Turbidity Profiles

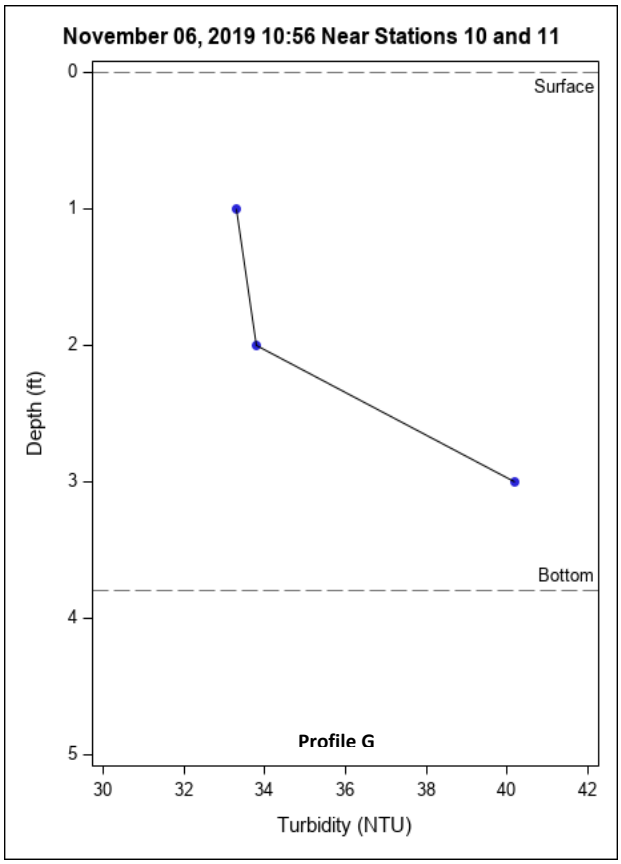

October 28, 2019 17:45 Near Station 10
Surface
Bottom
Profile D
Depth (ft)
Turbidity (NTU)
0
4
8
12
16
20
24
28
32
2
6
10
14
18
22
26

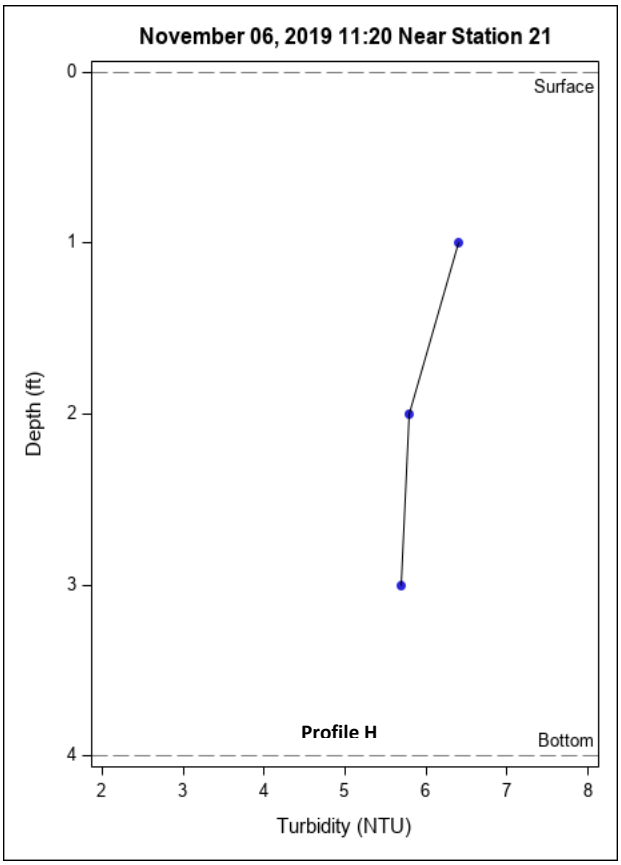

October 29, 2019 10:33 Near Station 17
Surface
Bottom
Profile E
Depth (ft)
Turbidity (NTU)
0
2
4
6
8
10
12
14
10
12
14
16
18
20
22

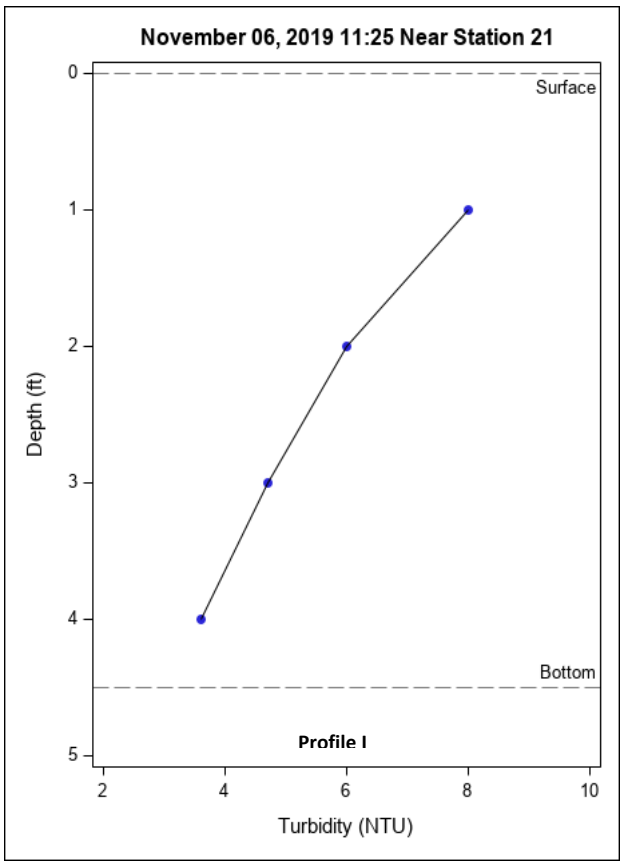
Cable 3

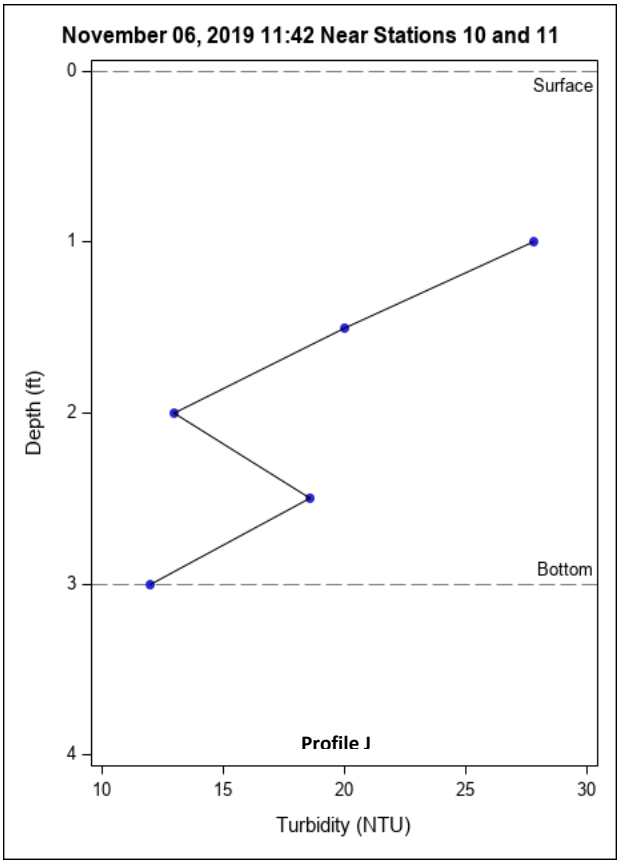
Turbidity Profiles

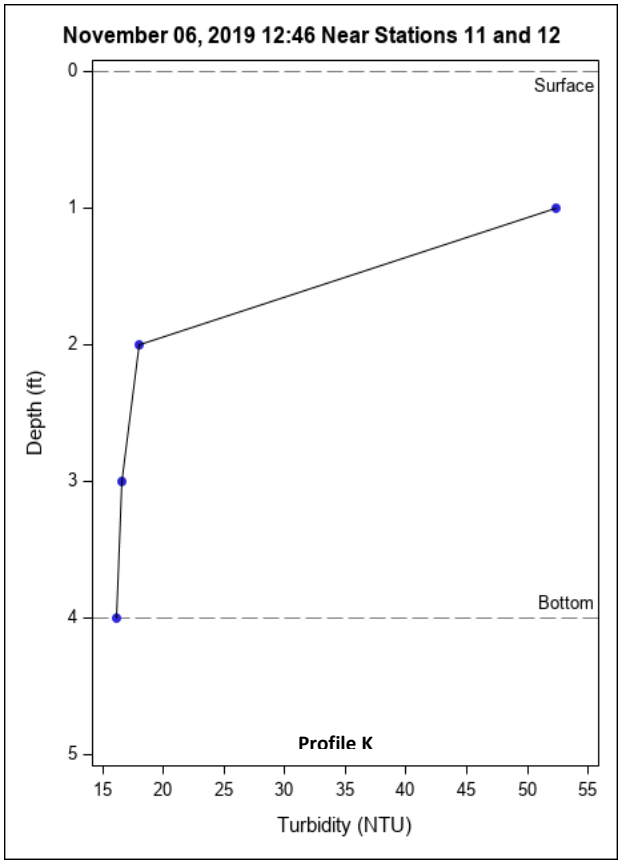

November 06, 2019 10:37 Near Stations 10 and 11
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
10
12
14
16
18
20
Turbidity (NTU)
Profile F

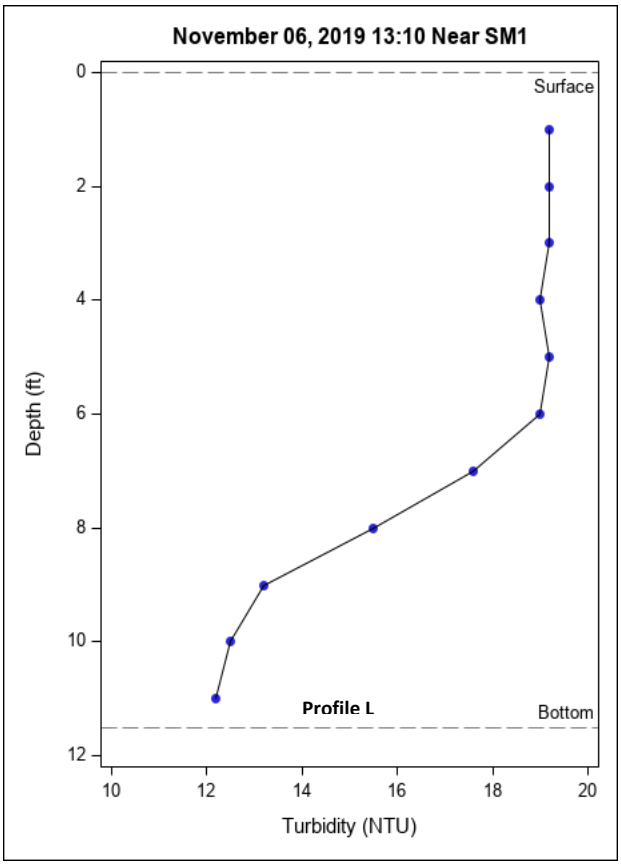

November 06, 2019 10:56 Near Stations 10 and 11
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
30
32
34
36
38
40
42
Turbidity (NTU)
Profile G

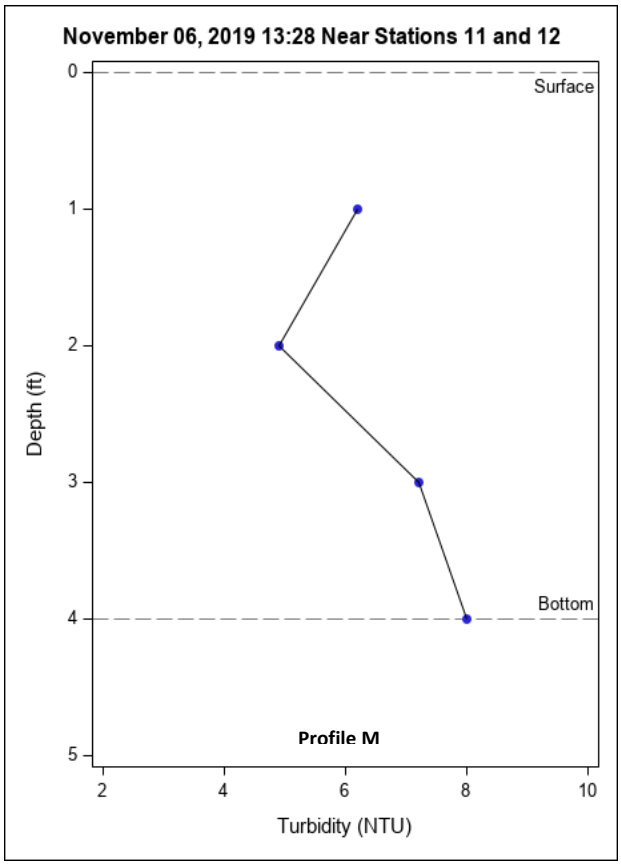

November 06, 2019 11:20 Near Station 21
Surface
Bottom
Depth (ft)
0
1
2
3
4
2
3
4
5
6
7
8
Turbidity (NTU)
Profile H


November 06, 2019 11:25 Near Station 21
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
2
4
6
8
10
Turbidity (NTU)
Profile I


November 06, 2019 11:42 Near Stations 10 and 11
Surface
Bottom
Depth (ft)
Turbidity (NTU)
Profile J

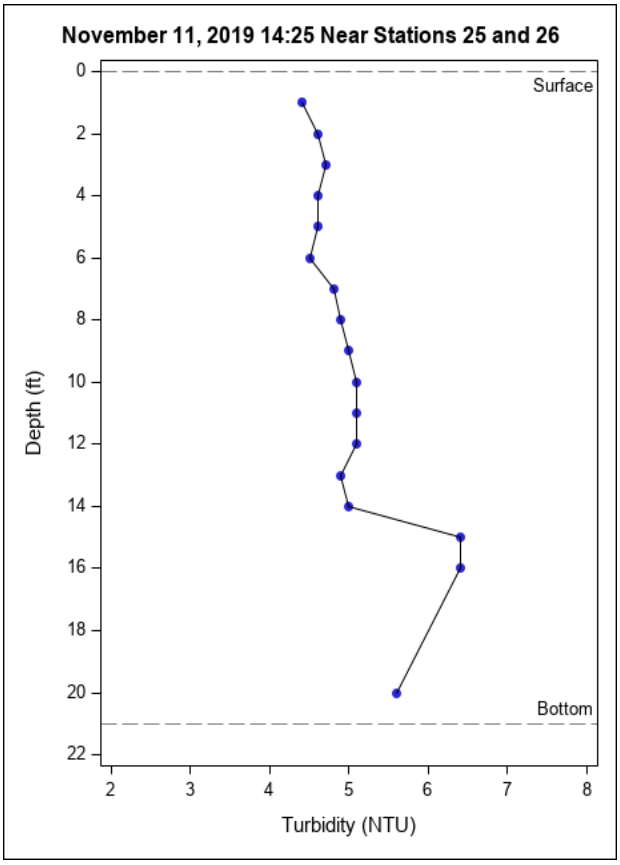

November 06, 2019 12:46 Near Stations 11 and 12
Surface
Bottom
Depth (ft)
Turbidity (NTU)
Profile K

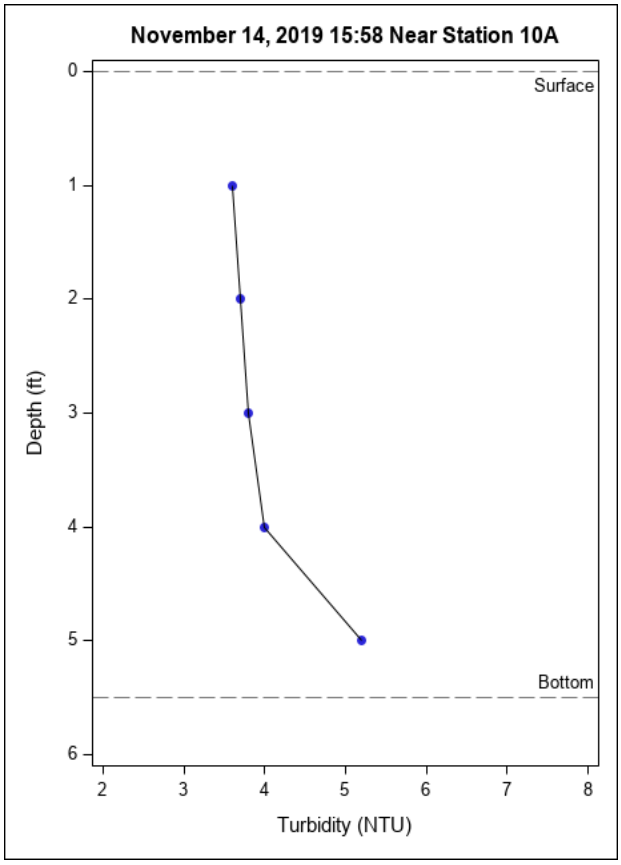

November 06, 2019 13:10 Near SM1
Surface
Bottom
Depth (ft)
Turbidity (NTU)
Profile L

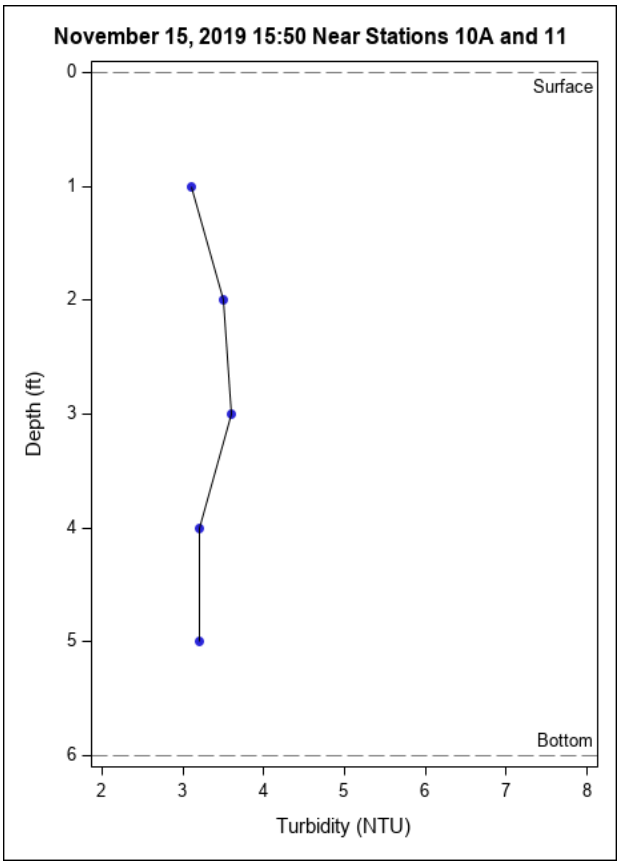

November 06, 2019 13:28 Near Stations 11 and 12
Surface
Bottom
Depth (ft)
Turbidity (NTU)
Profile M

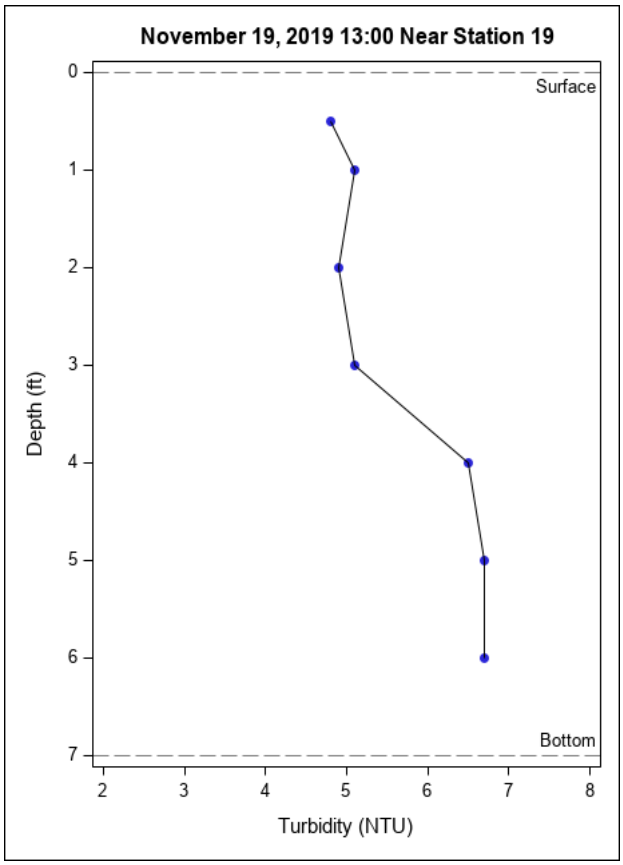
Hand Jet

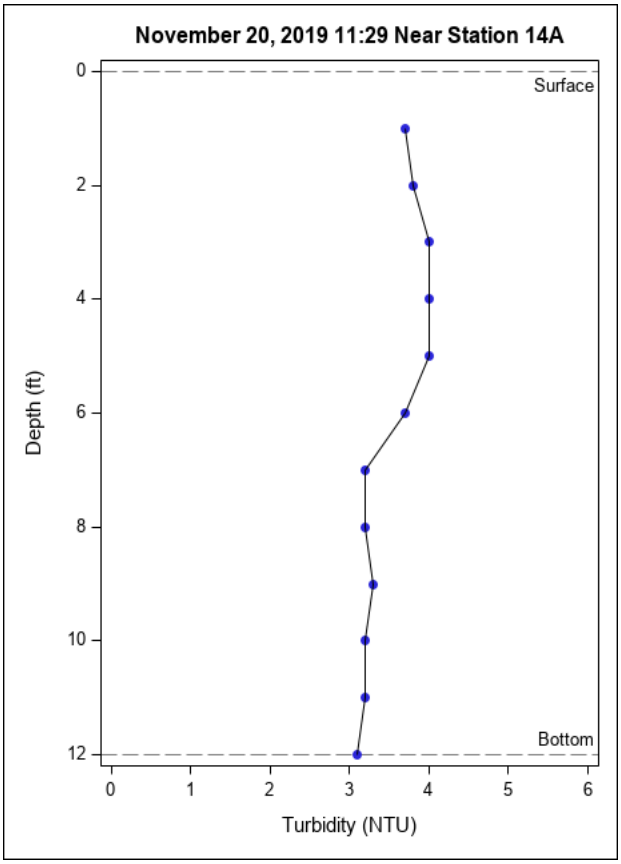
Turbidity Profiles

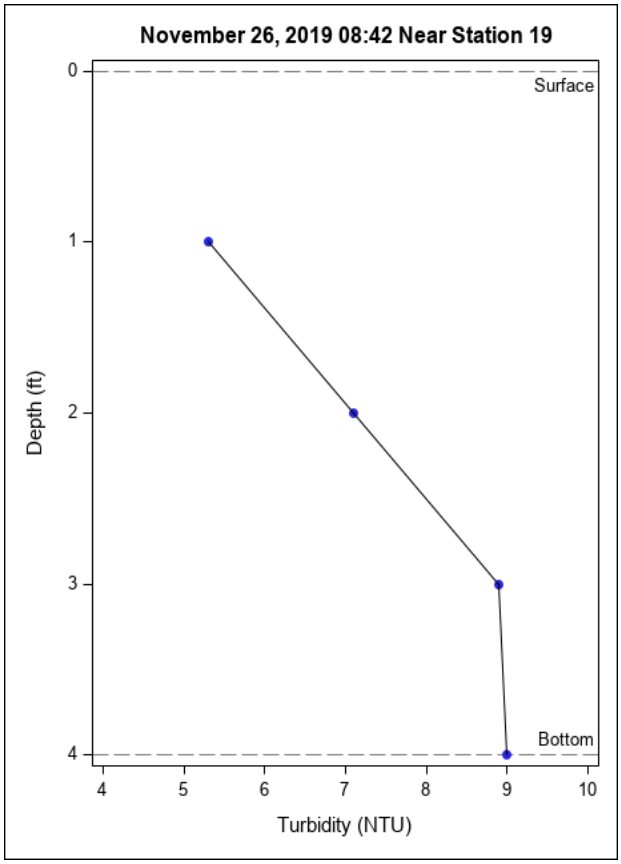

November 11, 2019 14:25 Near Stations 25 and 26
Surface
Bottom
Depth (ft)
Turbidity (NTU)

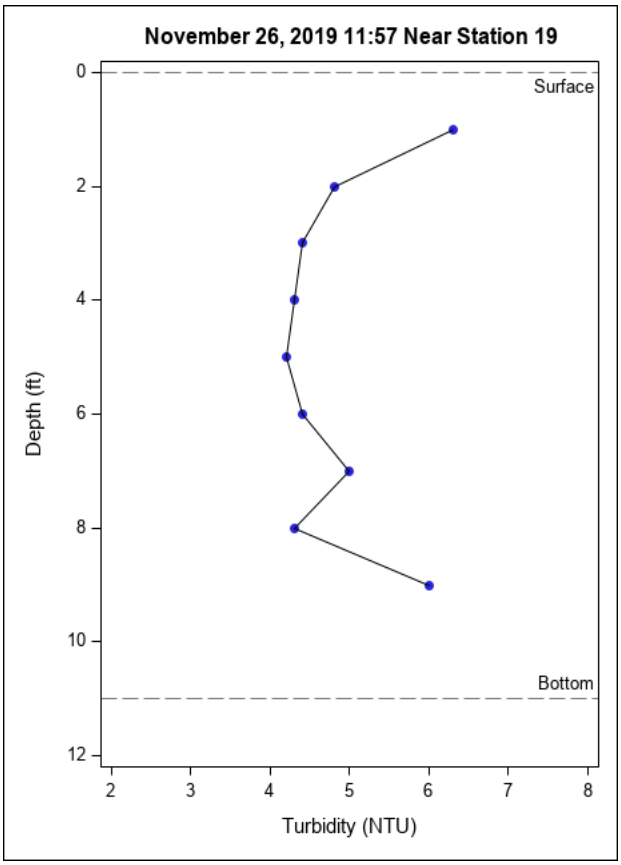

November 14, 2019 15:58 Near Station 10A
Surface
Bottom
Depth (ft)
Turbidity (NTU)

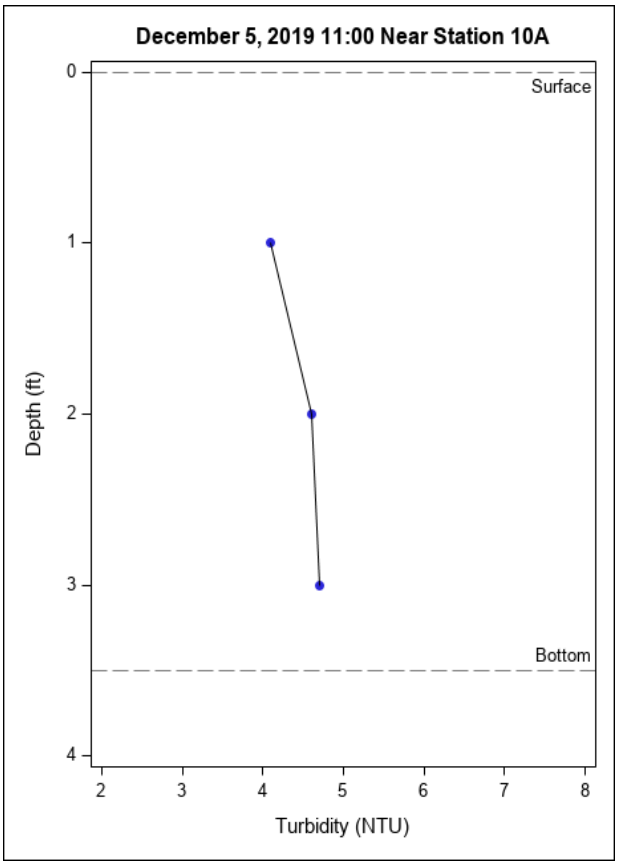

November 15, 2019 15:50 Near Stations 10A and 11
Surface
Bottom
Depth (ft)
Turbidity (NTU)

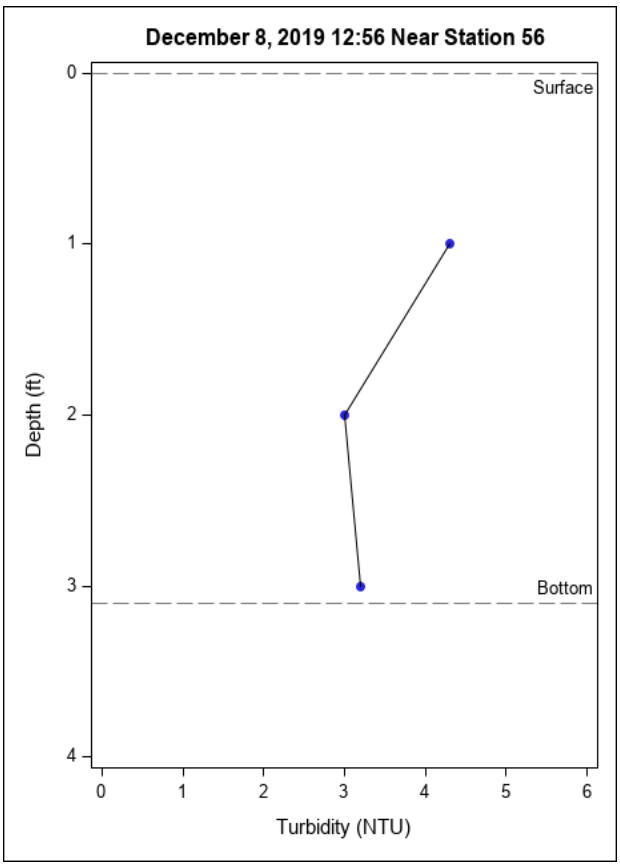

November 19, 2019 13:00 Near Station 19
Surface
Bottom
Depth (ft)
Turbidity (NTU)

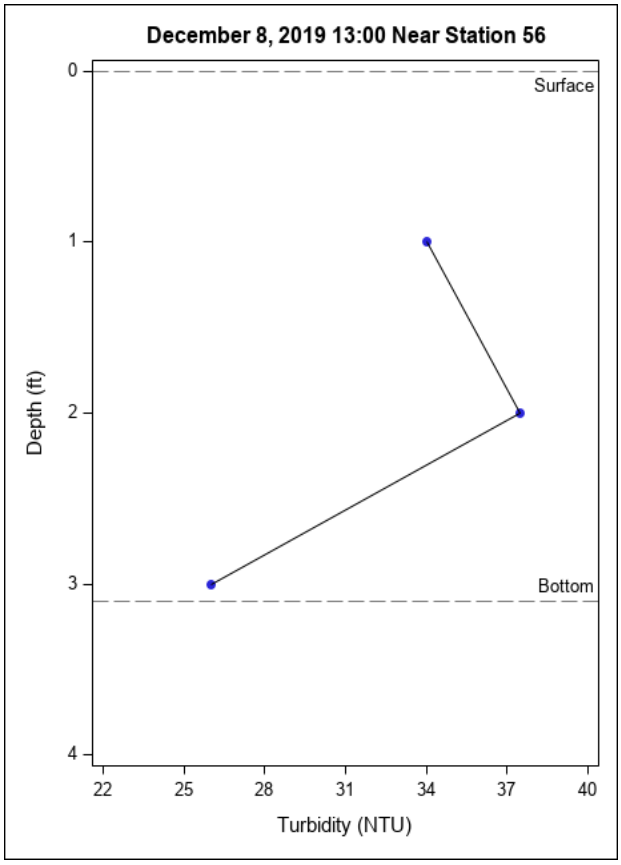

November 20, 2019 11:29 Near Station 14A
Surface
Bottom
Depth (ft)
0
2
4
6
8
10
12
0
1
2
3
4
5
6
Turbidity (NTU)

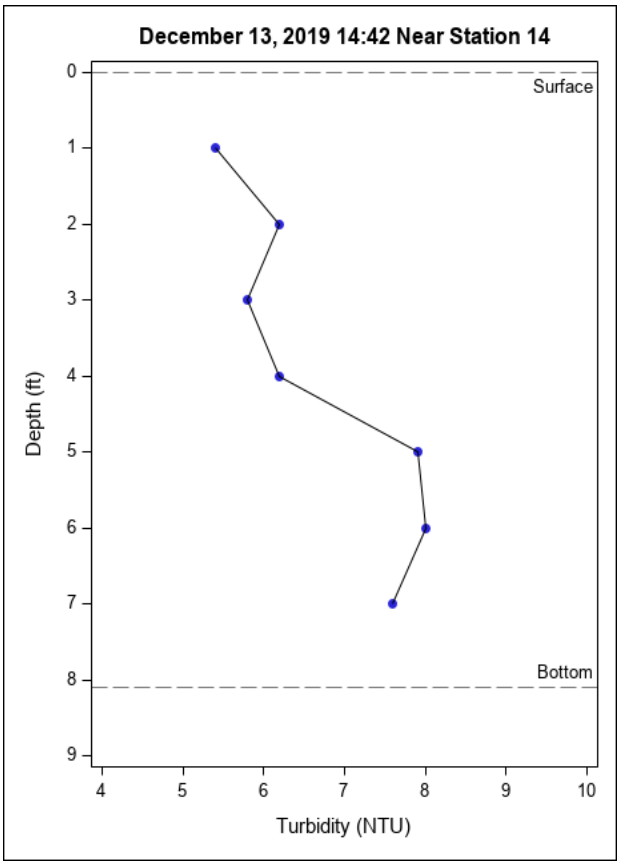

November 26, 2019 08:42 Near Station 19
Surface
Bottom
Depth (ft)
0
1
2
3
4
4
5
6
7
8
9
10
Turbidity (NTU)

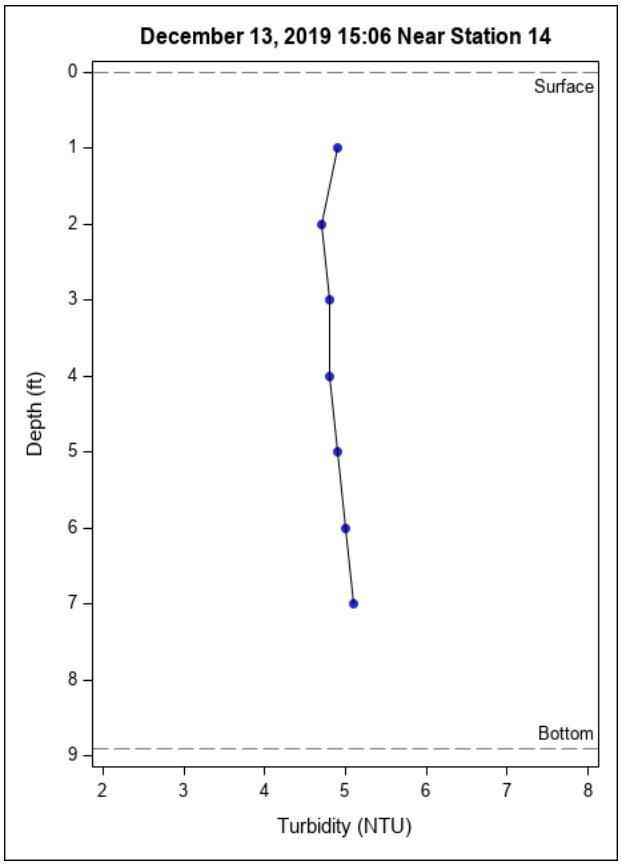

November 26, 2019 11:57 Near Station 19
Surface
Bottom
Depth (ft)
0
2
4
6
8
10
12
2
3
4
5
6
7
8
Turbidity (NTU)

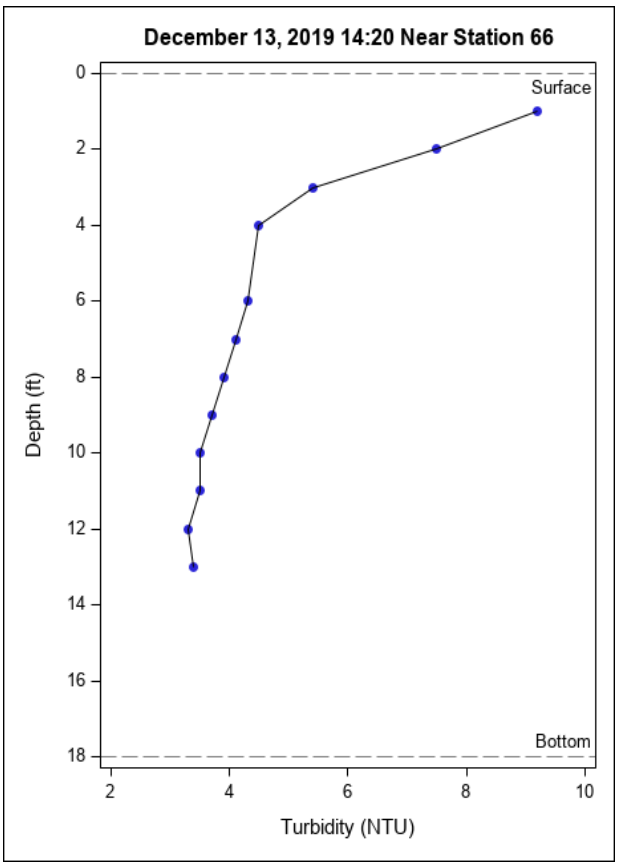

December 5, 2019 11:00 Near Station 10A
Surface
Bottom
Depth (ft)
0
1
2
3
4
2
3
4
5
6
7
8
Turbidity (NTU)

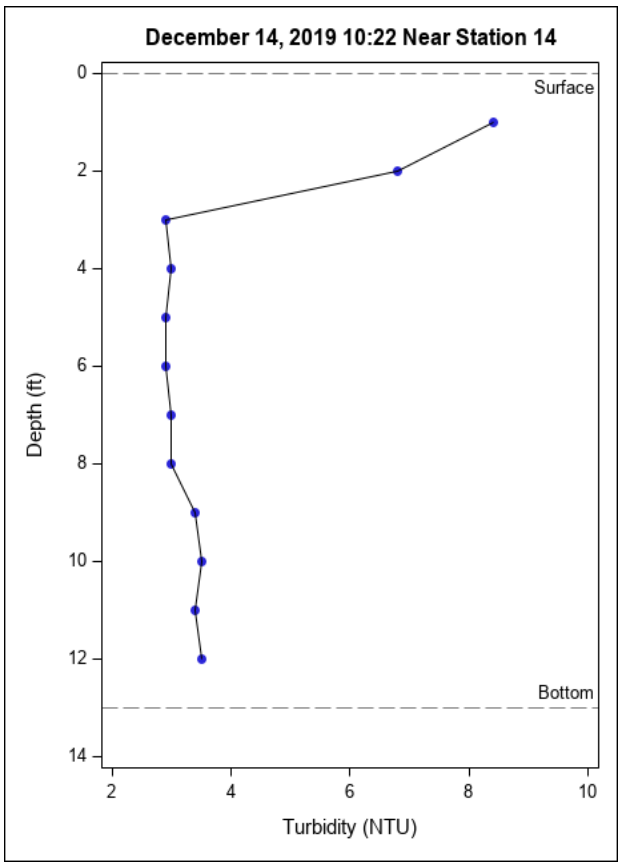

December 8, 2019 12:56 Near Station 56
Surface
Bottom
Depth (ft)
0
1
2
3
4
0
1
2
3
4
5
6
Turbidity (NTU)

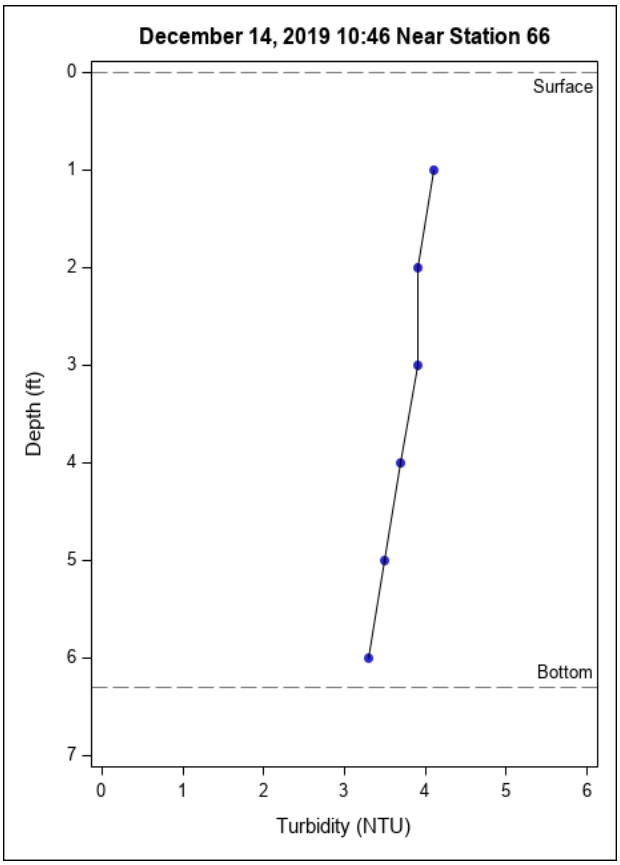

December 8, 2019 13:00 Near Station 56
Surface
Bottom
Depth (ft)
0
1
2
3
4
22
25
28
31
34
37
40
Turbidity (NTU)

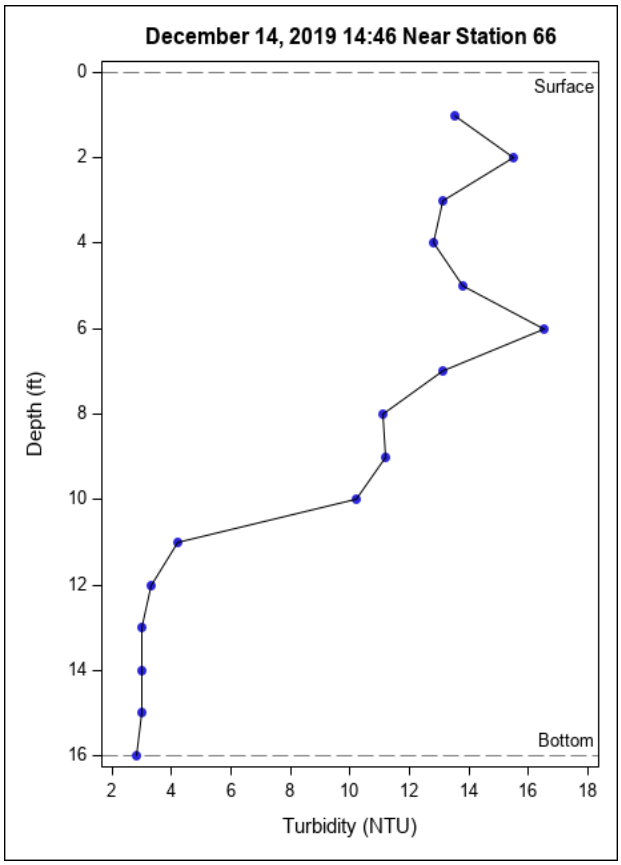

December 13, 2019 14:42 Near Station 14
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
6
7
8
9
4
5
6
7
8
9
10
Turbidity (NTU)

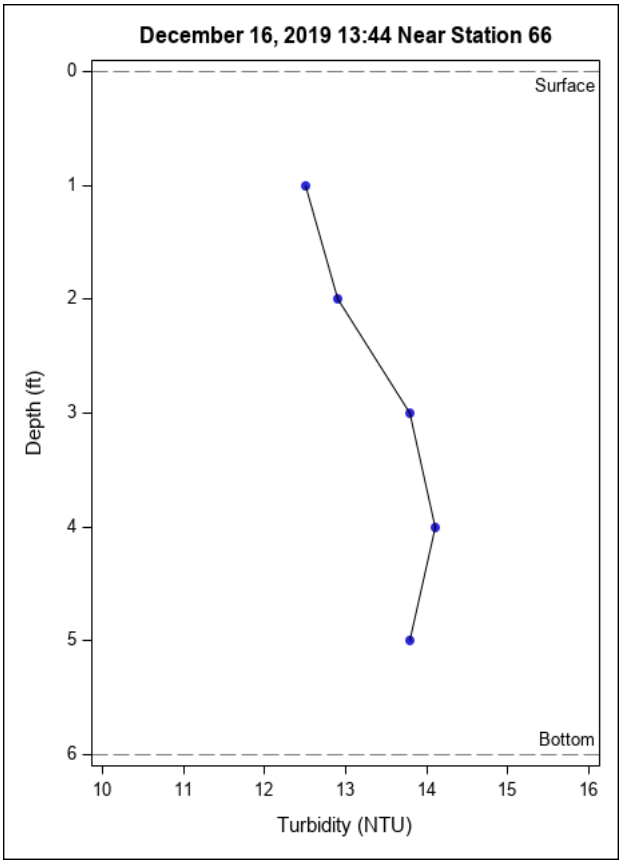

December 13, 2019 15:06 Near Station 14
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
6
7
8
9
2
3
4
5
6
7
8
Turbidity (NTU)

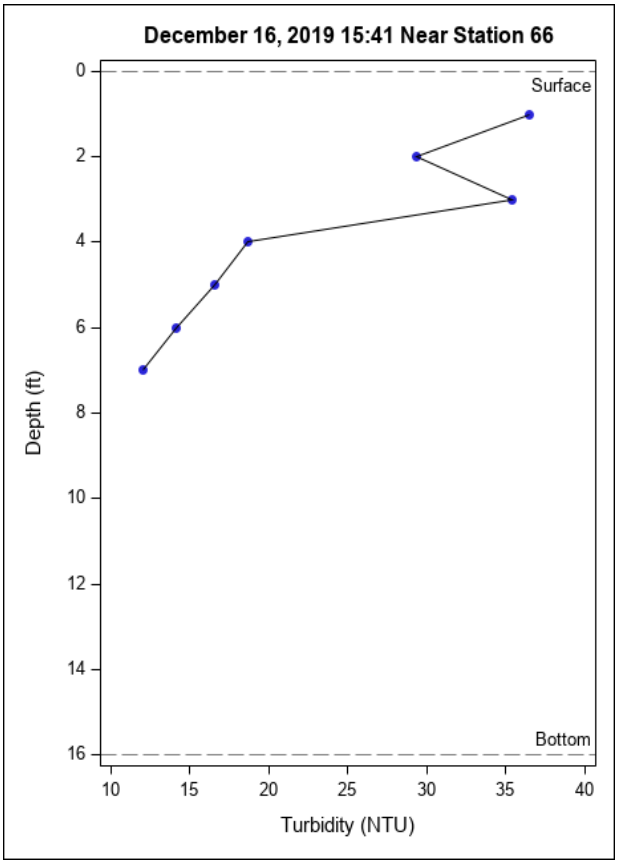

December 13, 2019 14:20 Near Station 66
Surface
Bottom
Depth (ft)
Turbidity (NTU)

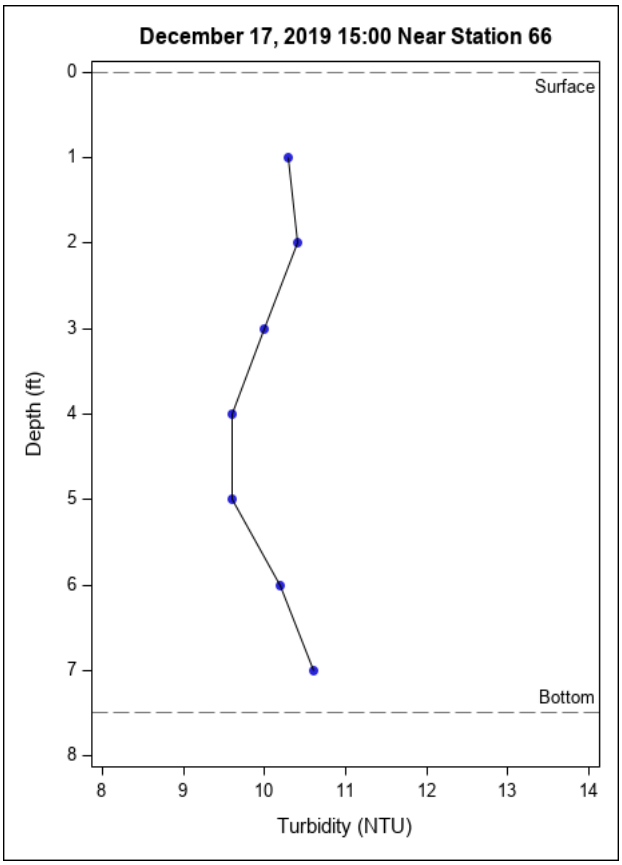

December 14, 2019 10:22 Near Station 14
Surface
Bottom
Depth (ft)
Turbidity (NTU)


December 14, 2019 10:46 Near Station 66
Surface
Bottom
Depth (ft)
Turbidity (NTU)


December 14, 2019 14:46 Near Station 66
Surface
Bottom
Depth (ft)
Turbidity (NTU)


December 16, 2019 13:44 Near Station 66
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
6
10
11
12
13
14
15
16
Turbidity (NTU)

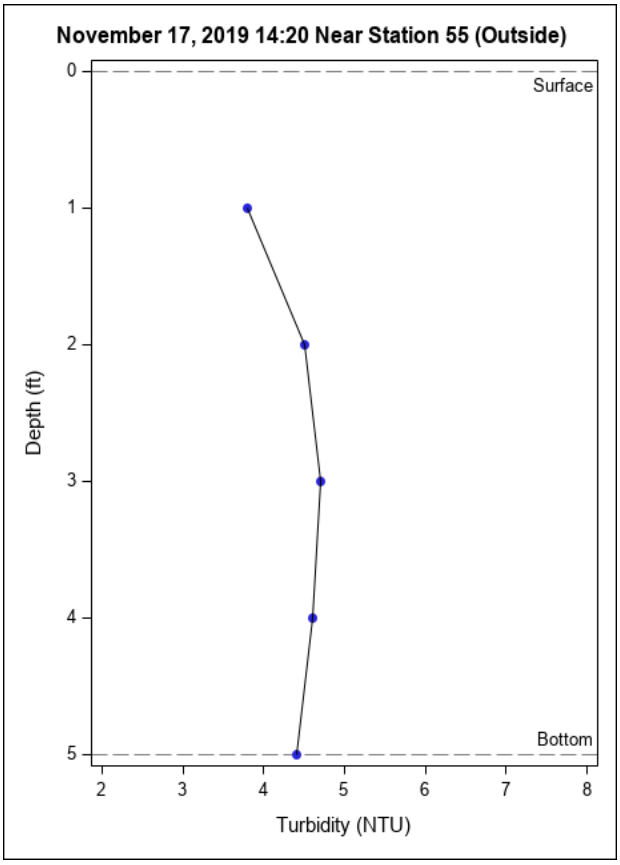

December 16, 2019 15:41 Near Station 66
Surface
Bottom
Depth (ft)
0
2
4
6
8
10
12
14
16
10
15
20
25
30
35
40
Turbidity (NTU)

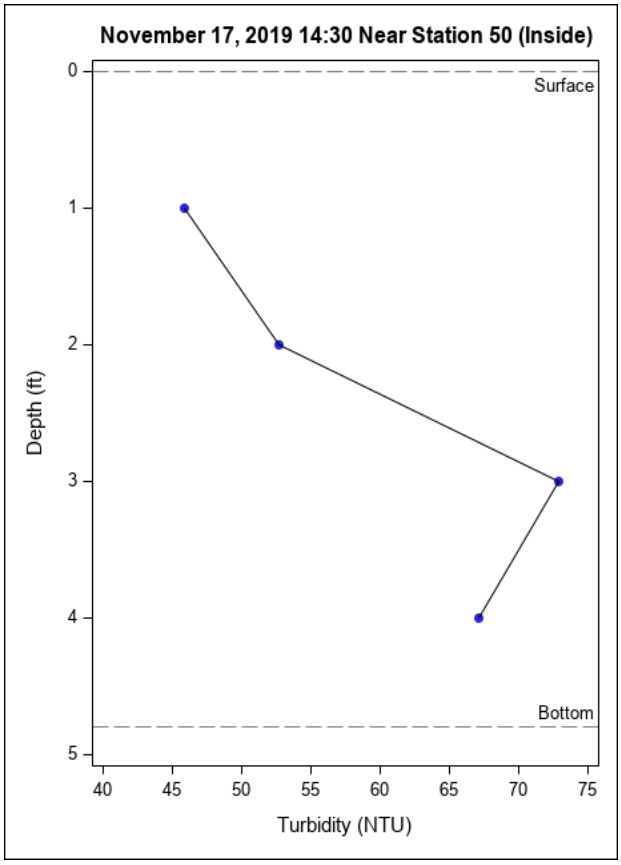

December 17, 2019 15:00 Near Station 66
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
6
7
8
8
9
10
11
12
13
14
Turbidity (NTU)

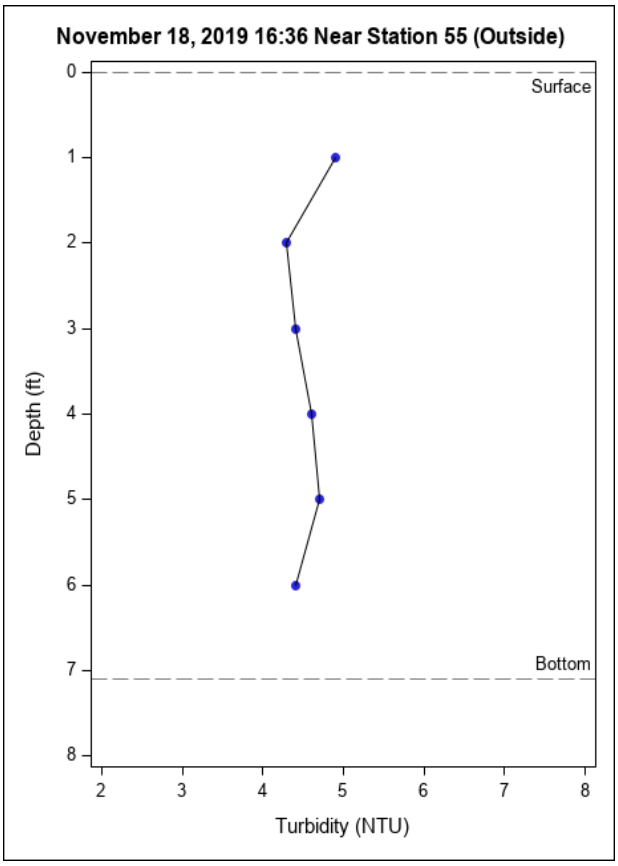
Hand Jet

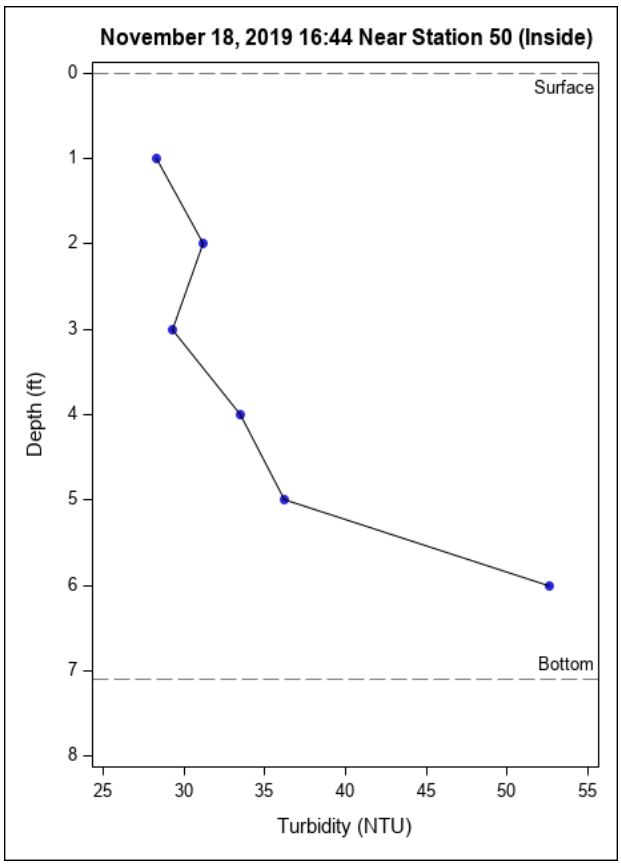
Turbidity Curtain Profiles

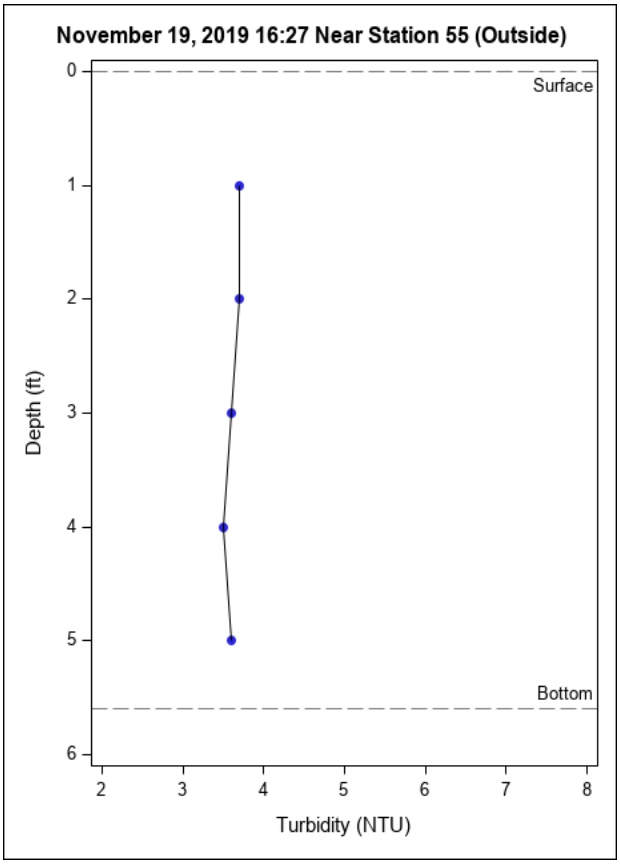
West Shore

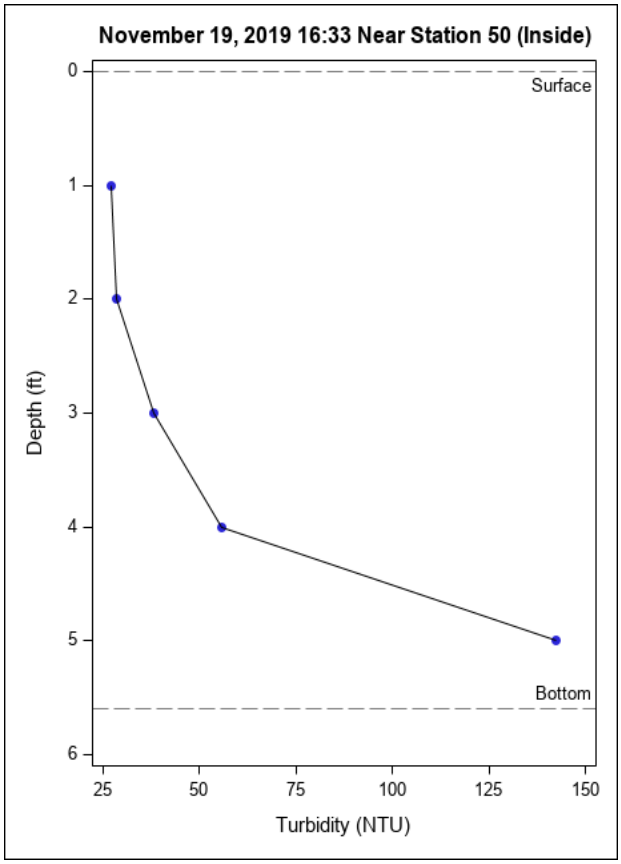

November 17, 2019 14:20 Near Station 55 (Outside)
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
2
3
4
5
6
7
8
Turbidity (NTU)

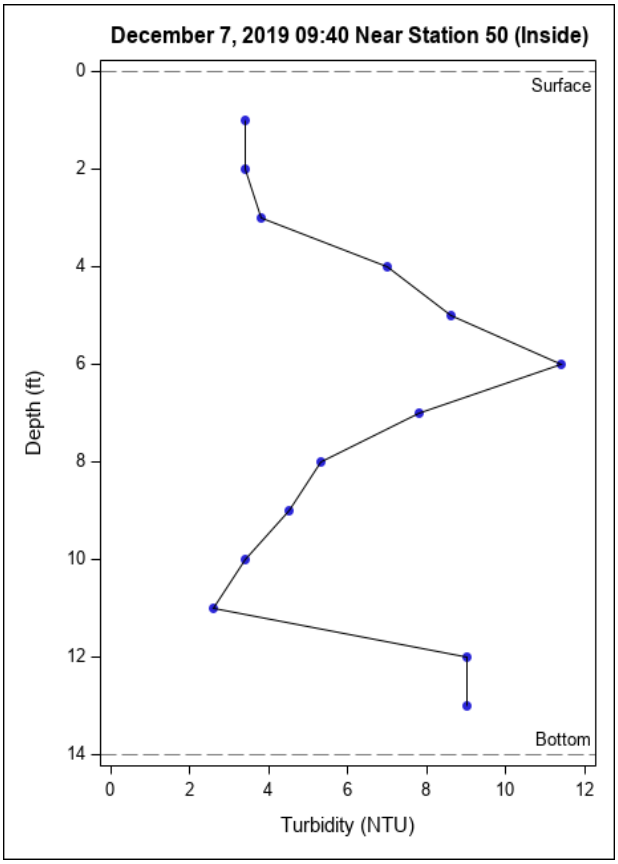

November 17, 2019 14:30 Near Station 50 (Inside)
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
40
45
50
55
60
65
70
75
Turbidity (NTU)

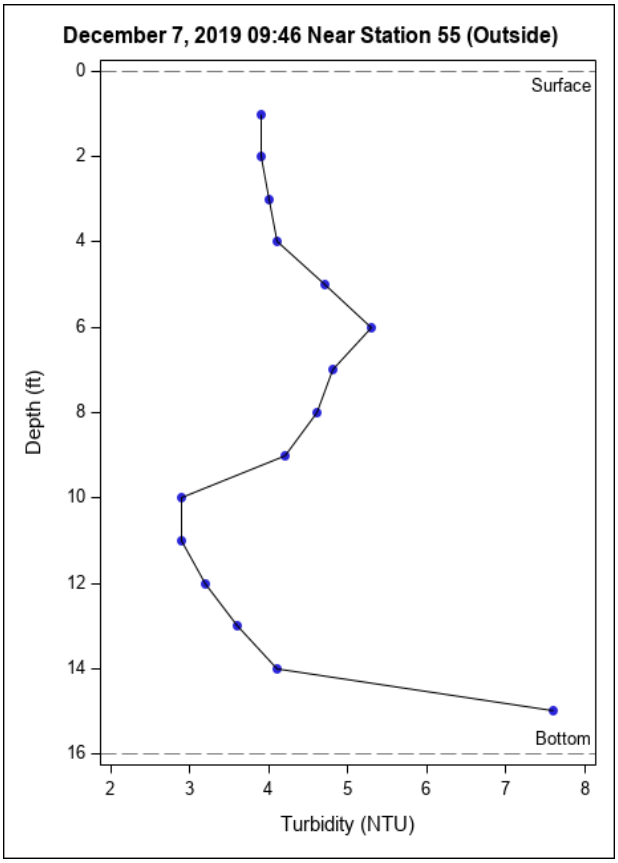

November 18, 2019 16:36 Near Station 55 (Outside)
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
6
7
8
2
3
4
5
6
7
8
Turbidity (NTU)

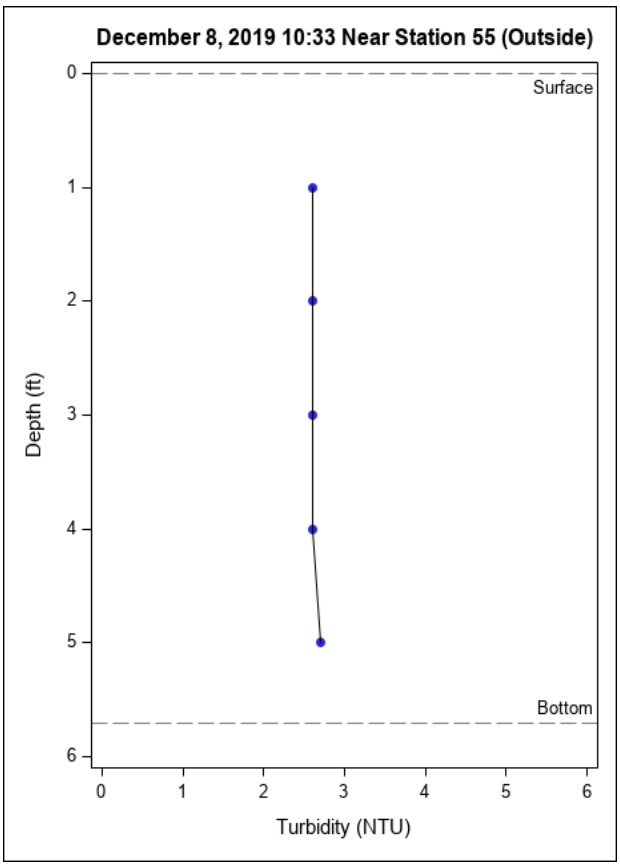

November 18, 2019 16:44 Near Station 50 (Inside)
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
6
7
8
25
30
35
40
45
50
55
Turbidity (NTU)

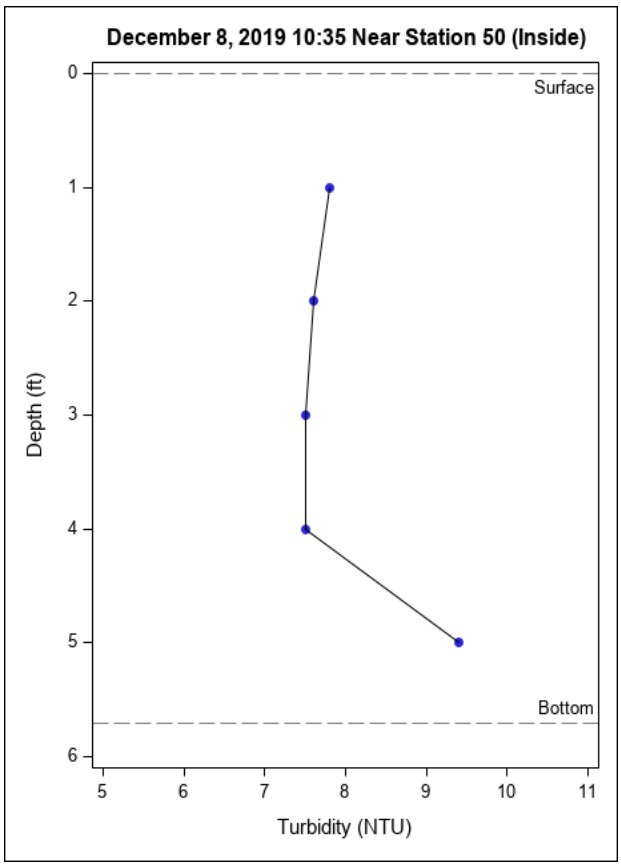

November 19, 2019 16:27 Near Station 55 (Outside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6
2
3
4
5
6
7
8

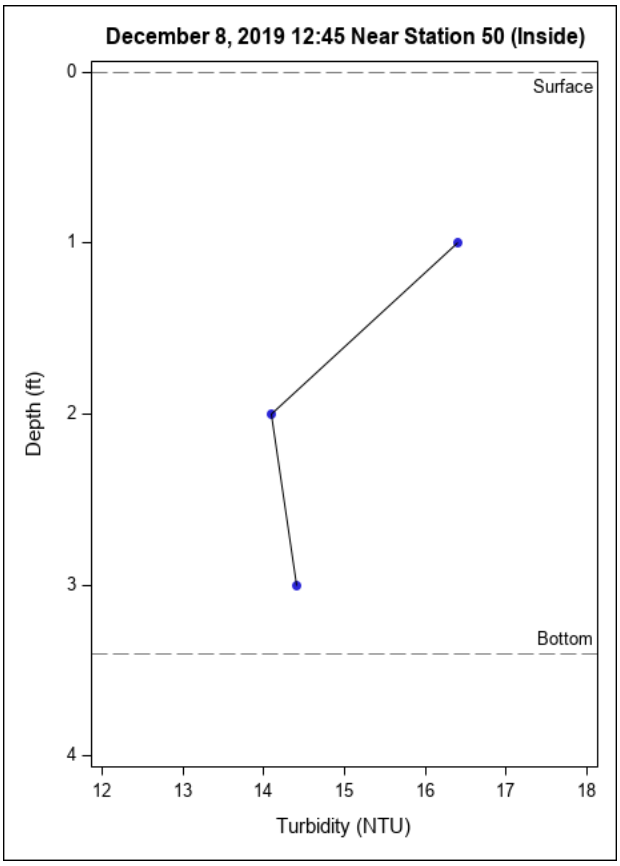

November 19, 2019 16:33 Near Station 50 (Inside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6
25
50
75
100
125
150

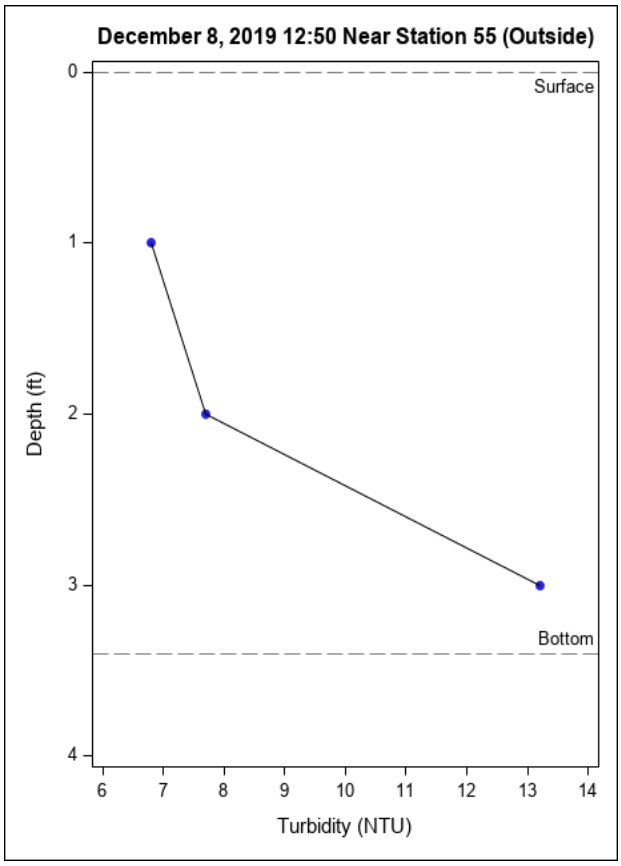

December 7, 2019 09:40 Near Station 50 (Inside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
2
4
6
8
10
12
14
0
2
4
6
8
10
12

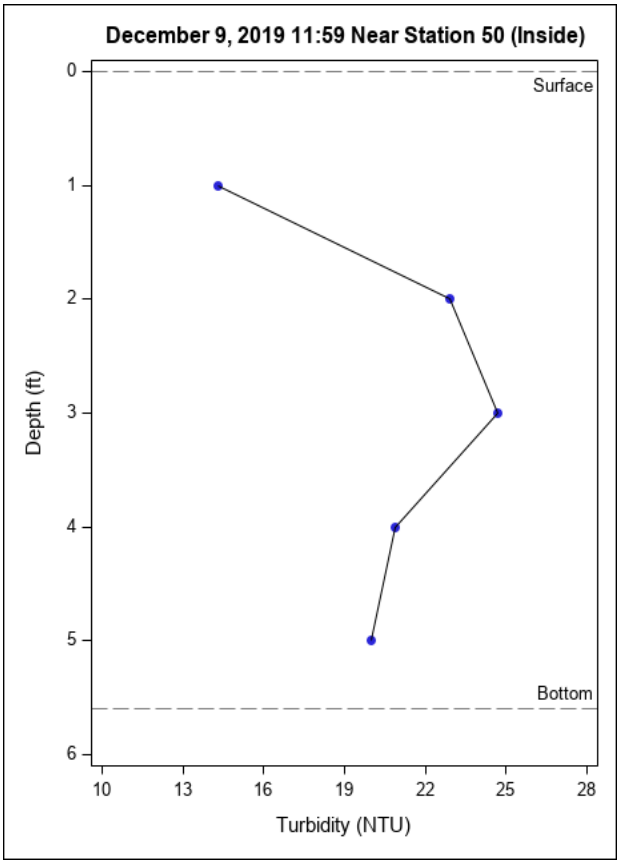

December 7, 2019 09:46 Near Station 55 (Outside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
2
4
6
8
10
12
14
16
2
3
4
5
6
7
8

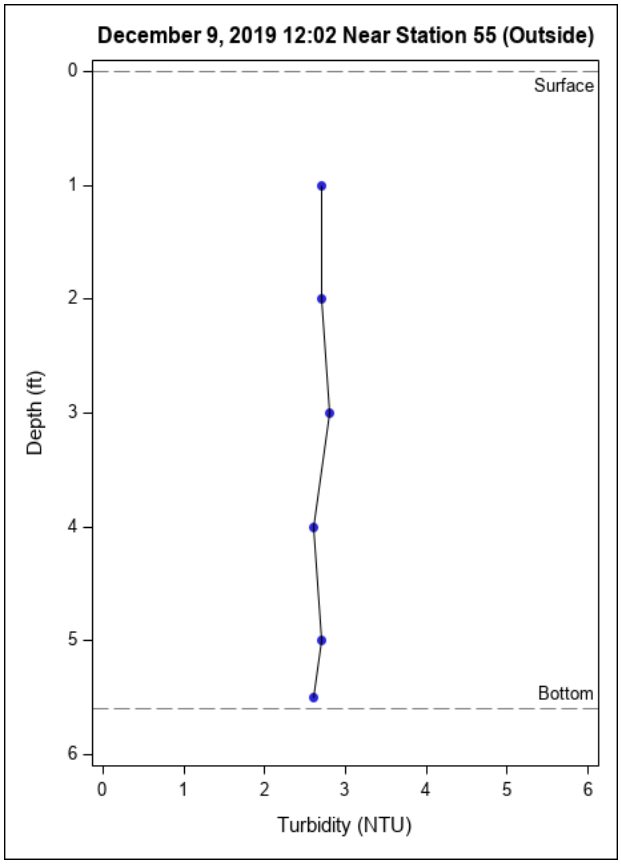

December 8, 2019 10:33 Near Station 55 (Outside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6

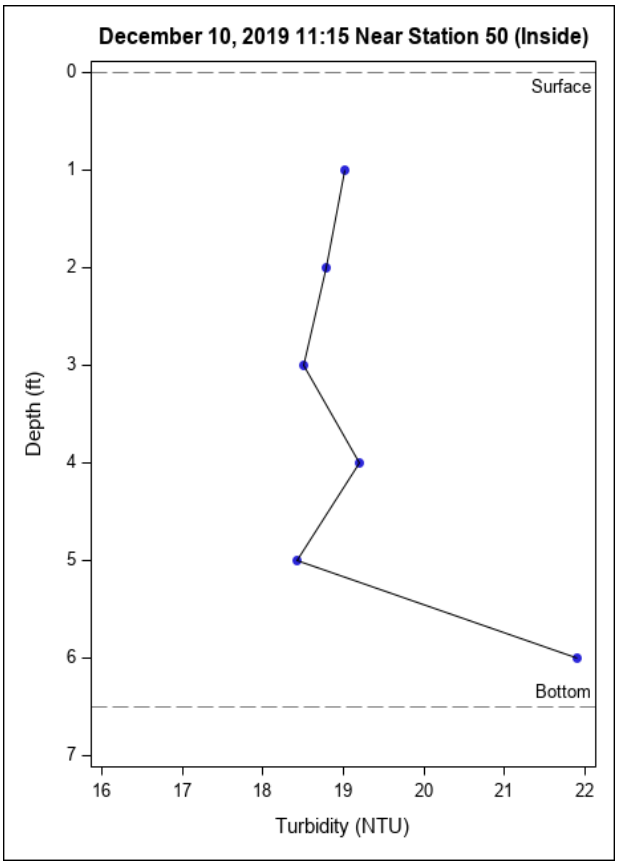

December 8, 2019 10:35 Near Station 50 (Inside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
11

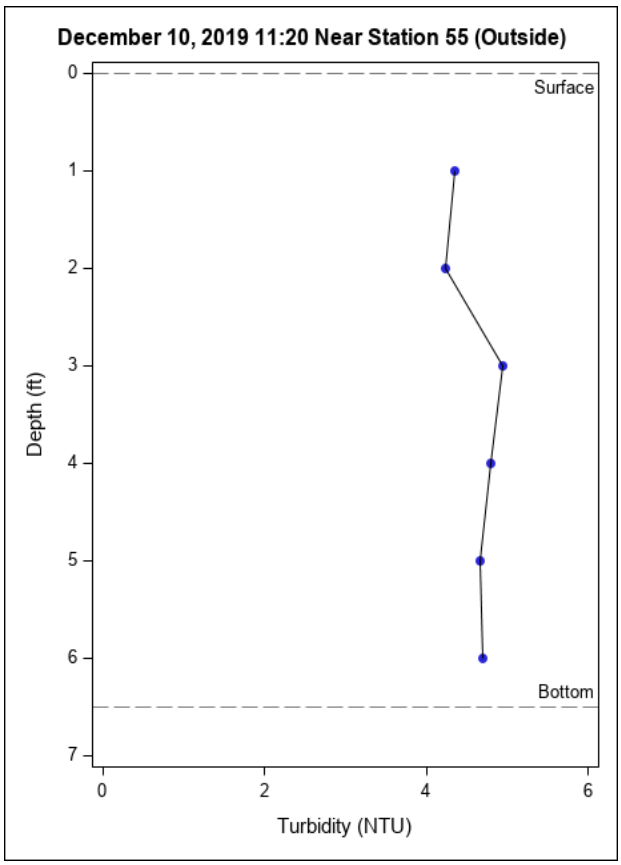

December 8, 2019 12:45 Near Station 50 (Inside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
12
13
14
15
16
17
18

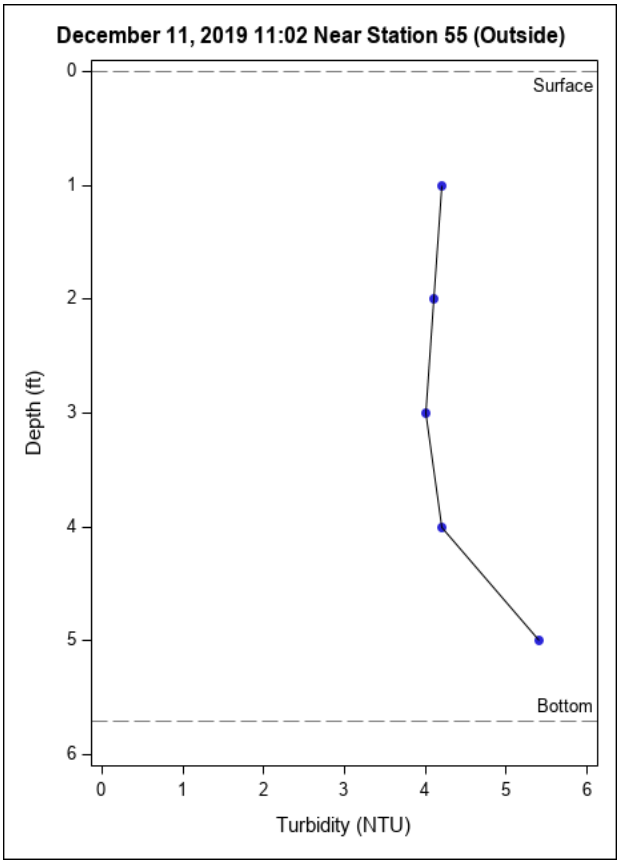

December 8, 2019 12:50 Near Station 55 (Outside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
6
7
8
9
10
11
12
13
14

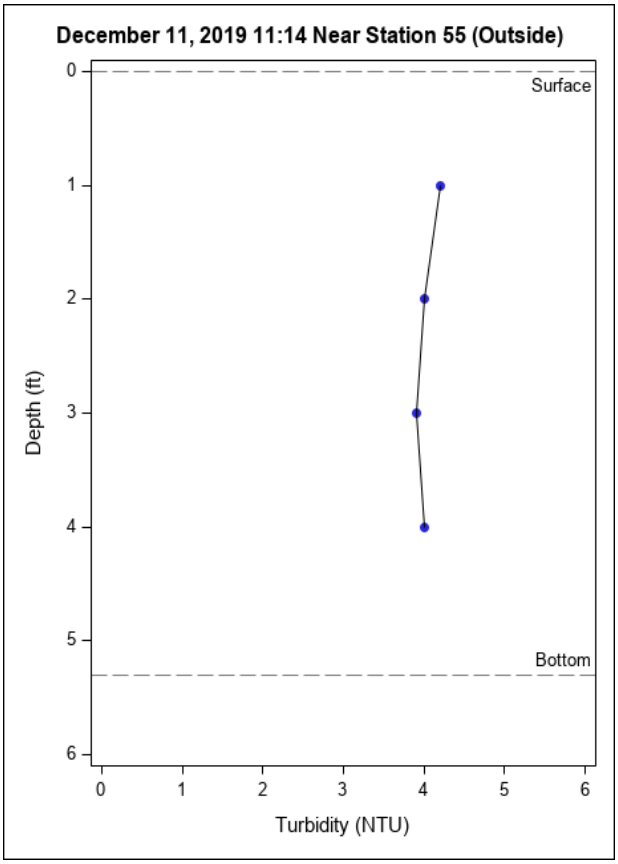

December 9, 2019 11:59 Near Station 50 (Inside)
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
6
10
13
16
19
22
25
28
Turbidity (NTU)

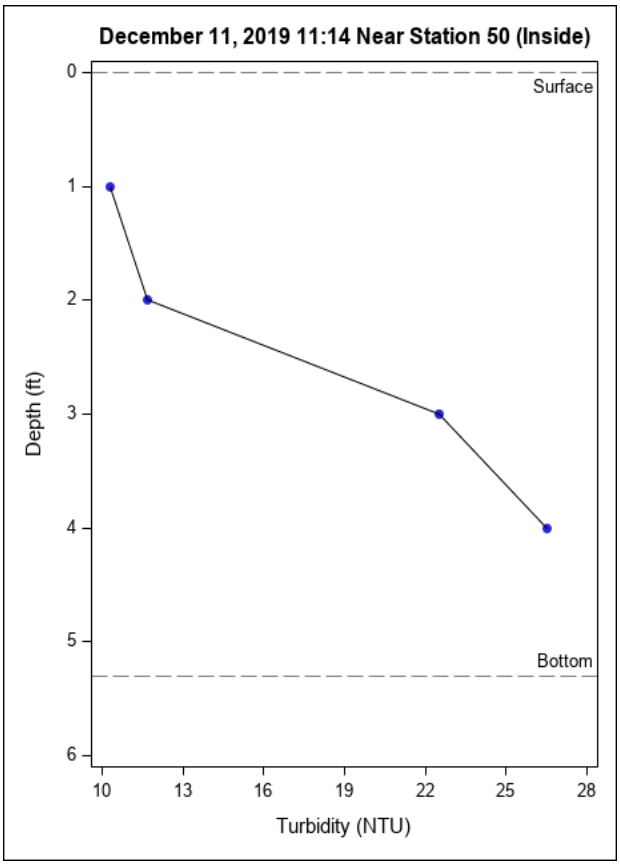

December 9, 2019 12:02 Near Station 55 (Outside)
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
6
0
1
2
3
4
5
6
Turbidity (NTU)

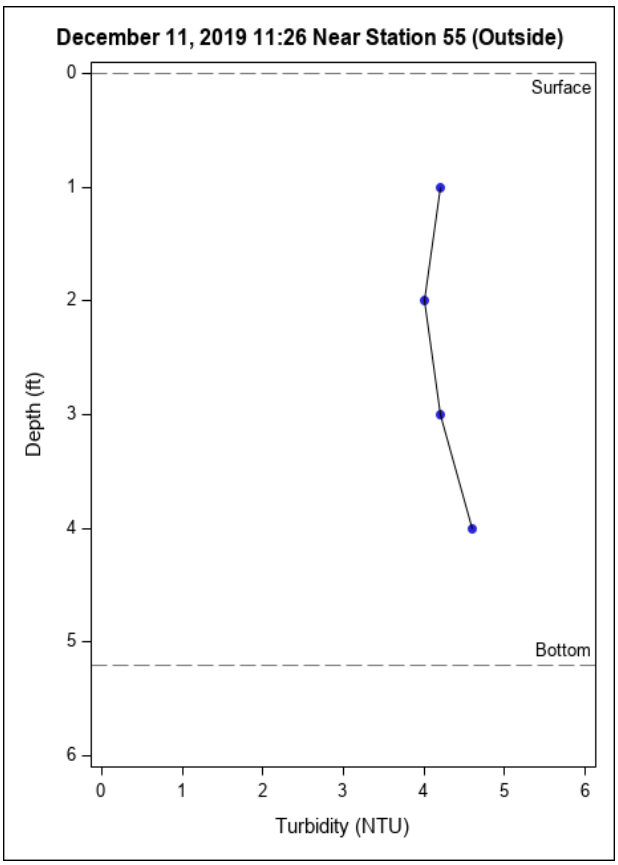

December 10, 2019 11:15 Near Station 50 (Inside)
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
6
7
16
17
18
19
20
21
22
Turbidity (NTU)

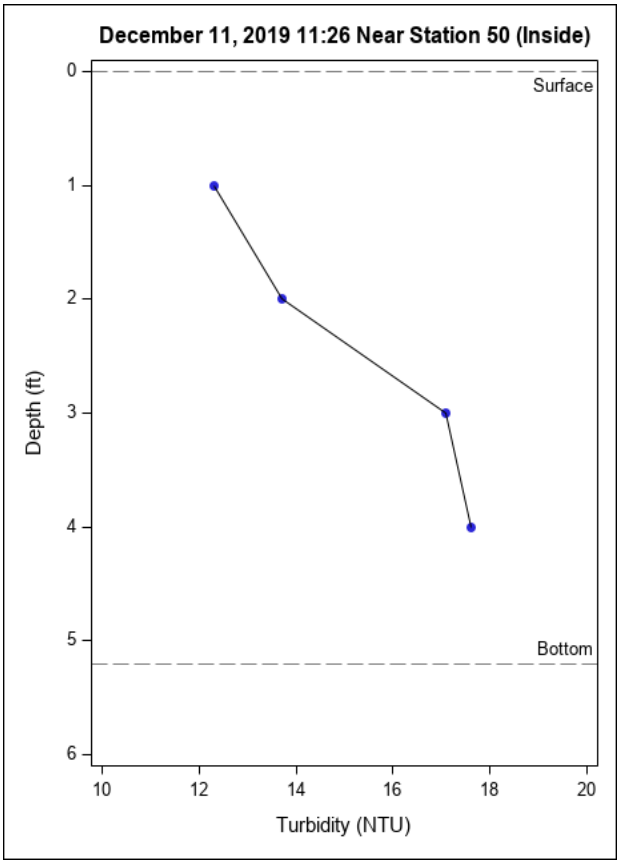

December 10, 2019 11:20 Near Station 55 (Outside)
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
6
7
0
2
4
6
Turbidity (NTU)

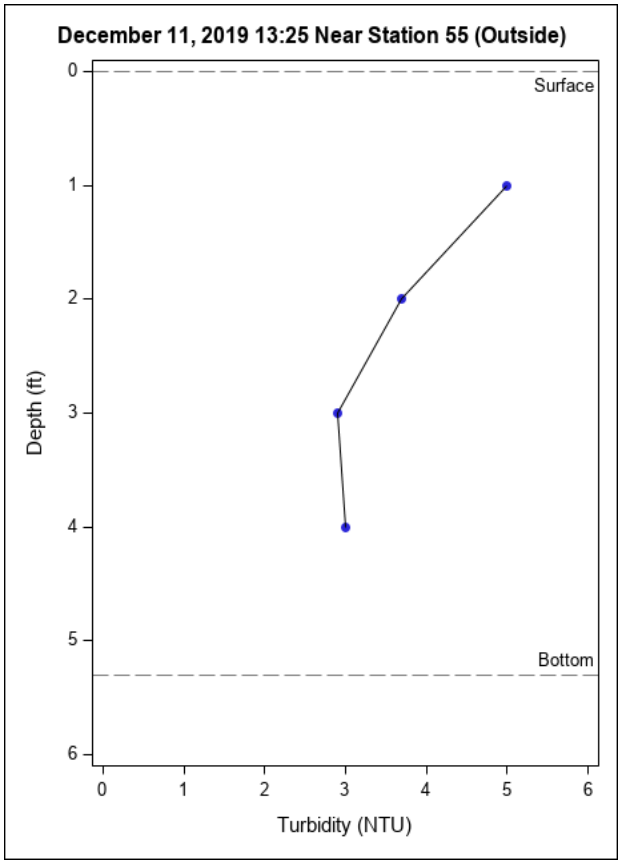

December 11, 2019 11:02 Near Station 55 (Outside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6

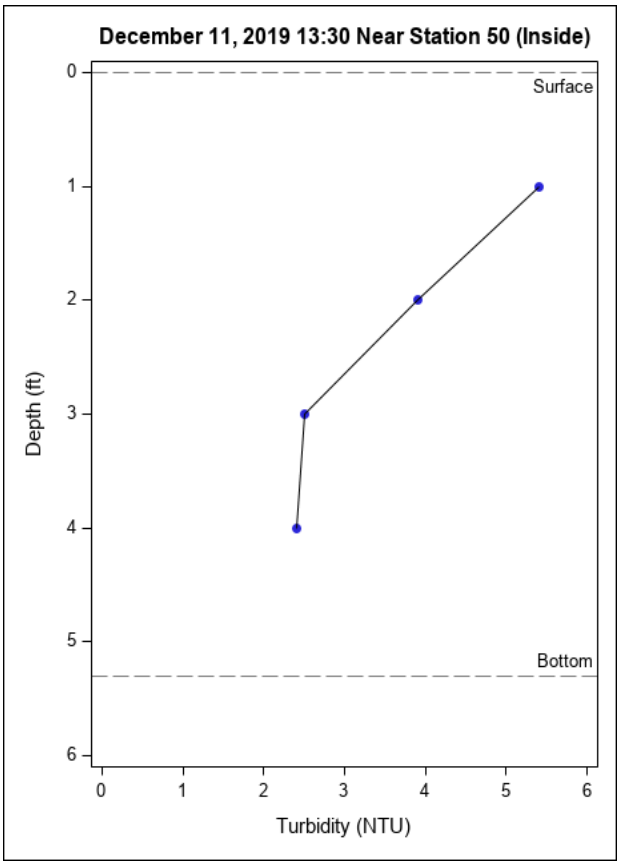

December 11, 2019 11:14 Near Station 55 (Outside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6


December 11, 2019 11:14 Near Station 50 (Inside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6
10
13
16
19
22
25
28


December 11, 2019 11:26 Near Station 55 (Outside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6


December 11, 2019 11:26 Near Station 50 (Inside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6
10
12
14
16
18
20

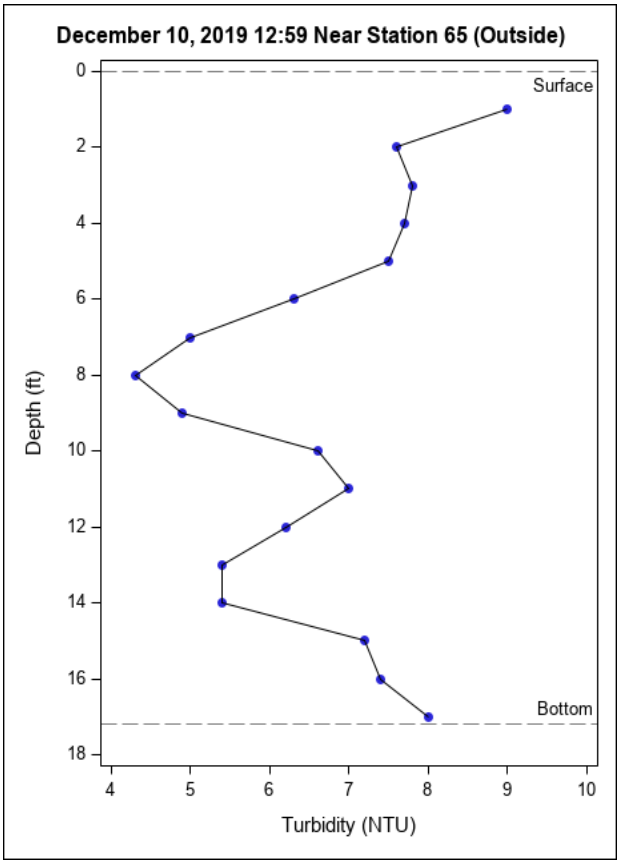

December 11, 2019 13:25 Near Station 55 (Outside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6

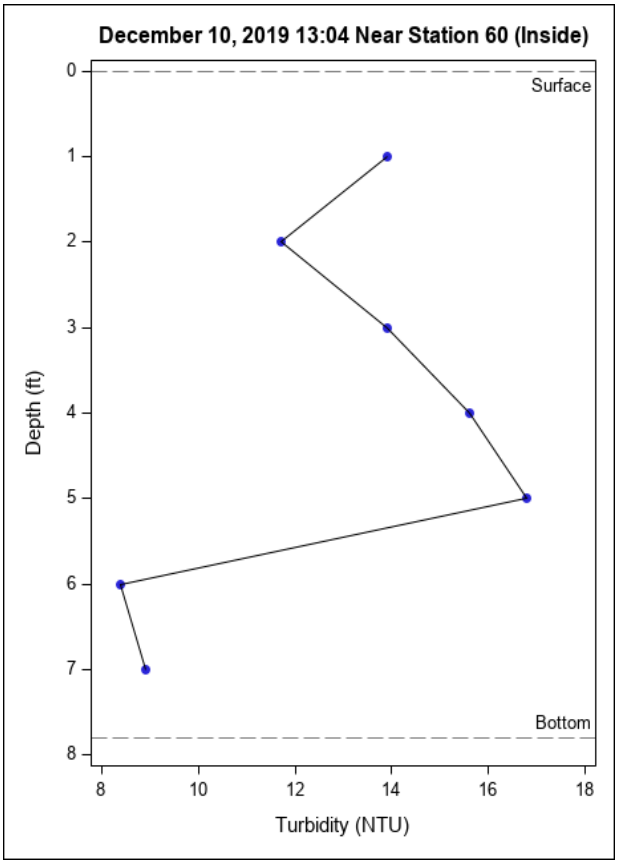

December 11, 2019 13:30 Near Station 50 (Inside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6

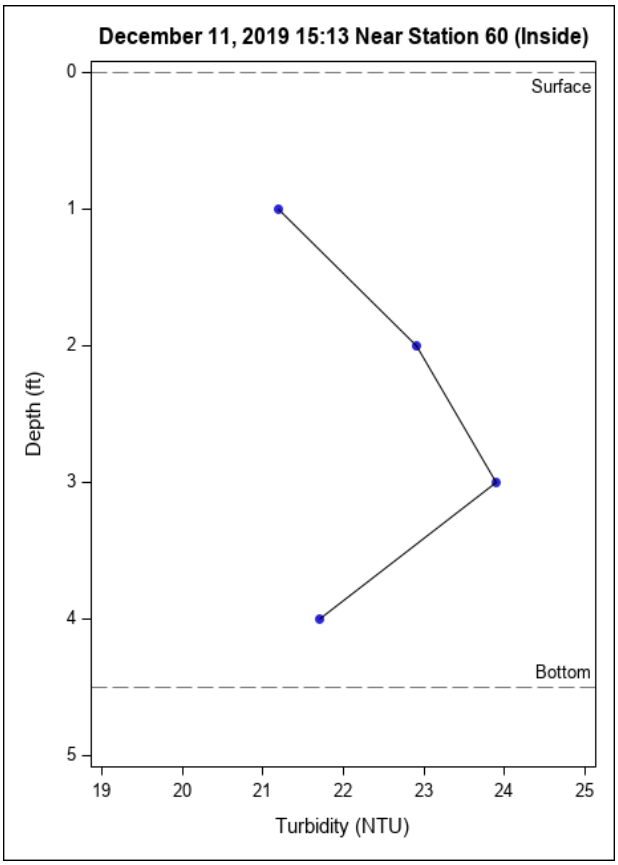
Hand Jet

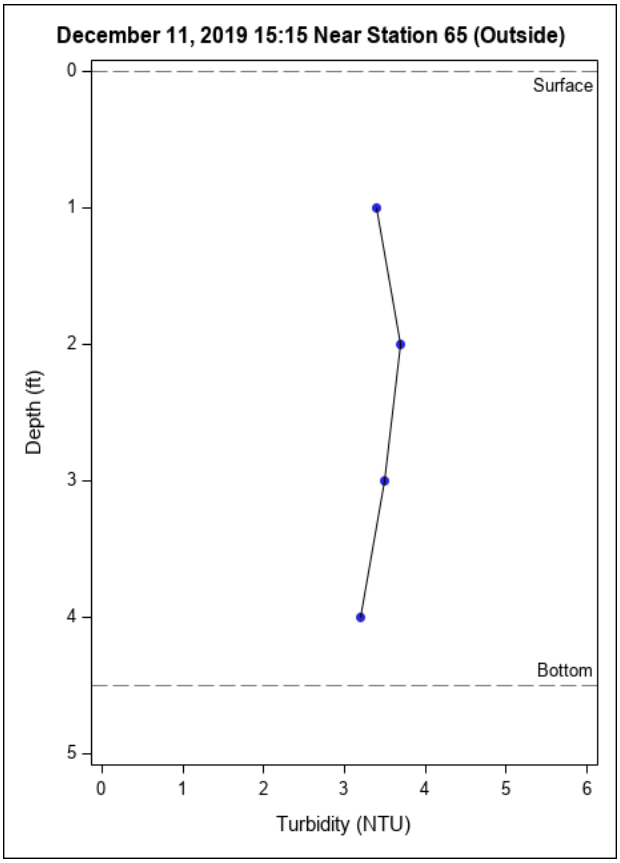
Turbidity Curtain Profiles

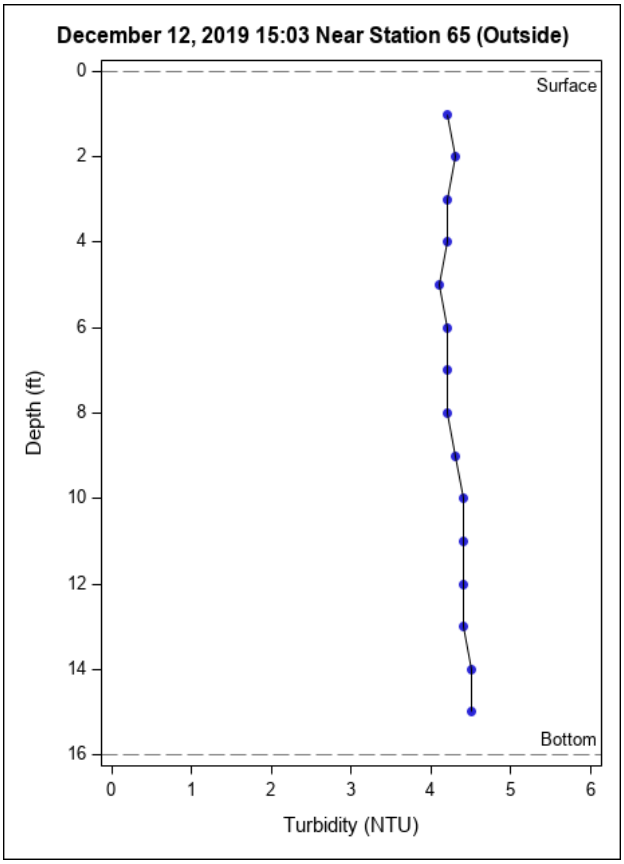
East Shore

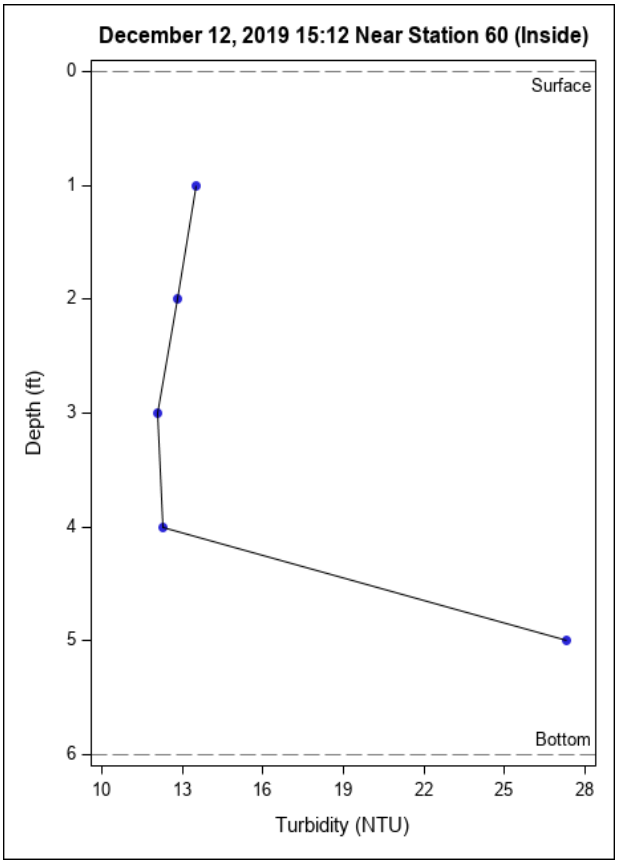

December 10, 2019 12:59 Near Station 65 (Outside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
2
4
6
8
10
12
14
16
18
4
5
6
7
8
9
10

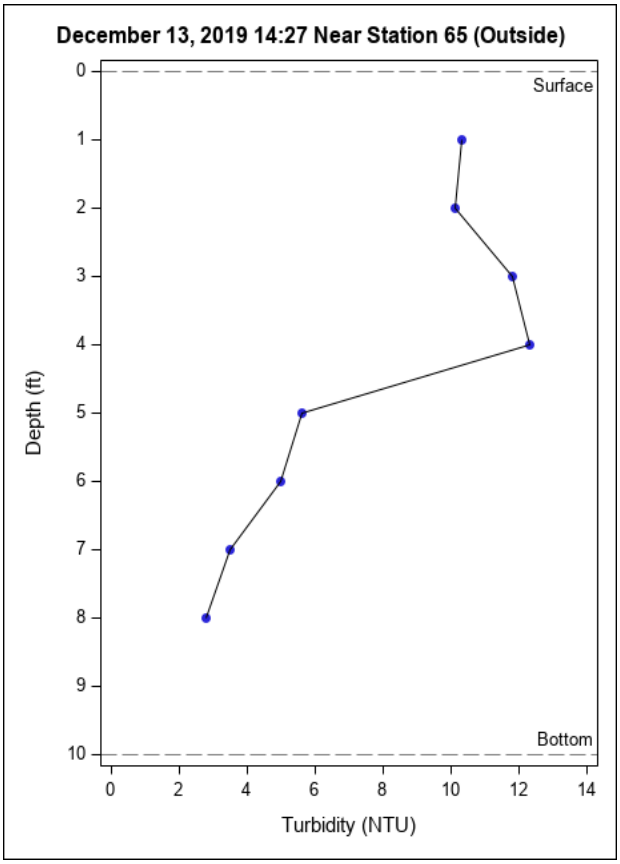

December 10, 2019 13:04 Near Station 60 (Inside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
8
10
12
14
16
18

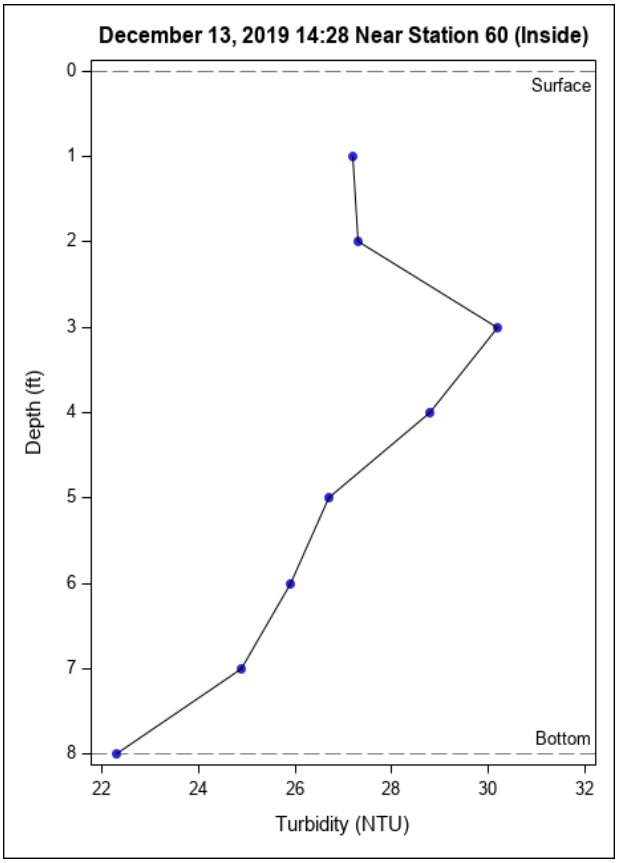

December 11, 2019 15:13 Near Station 60 (Inside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
19
20
21
22
23
24
25

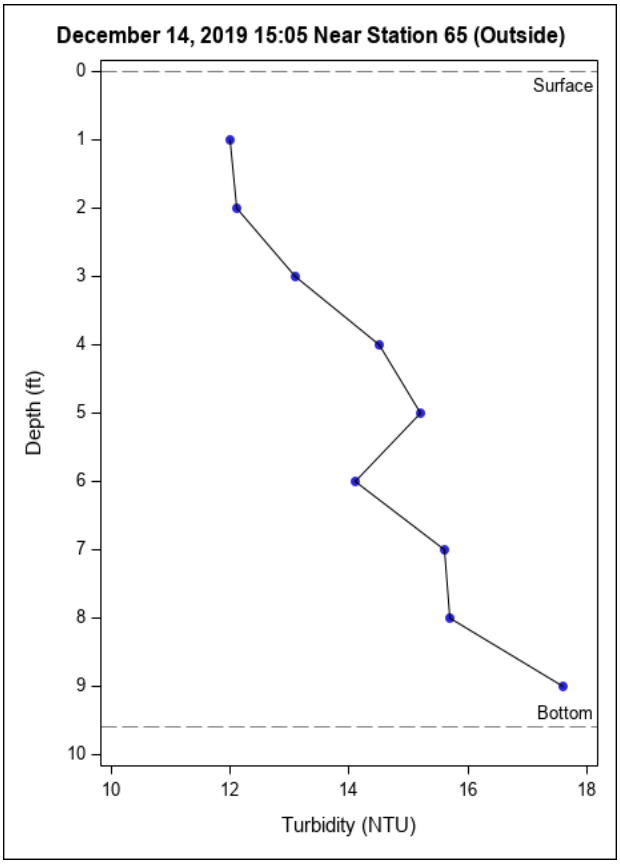

December 11, 2019 15:15 Near Station 65 (Outside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
0
1
2
3
4
5
6

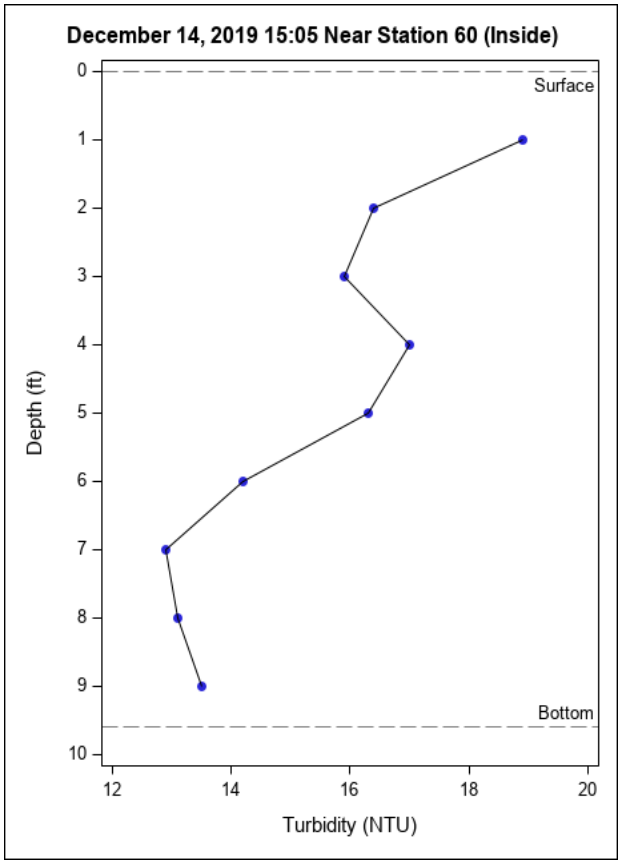

December 12, 2019 15:03 Near Station 65 (Outside)
Surface
Bottom
Depth (ft)
0
2
4
6
8
10
12
14
16
0
1
2
3
4
5
6
Turbidity (NTU)

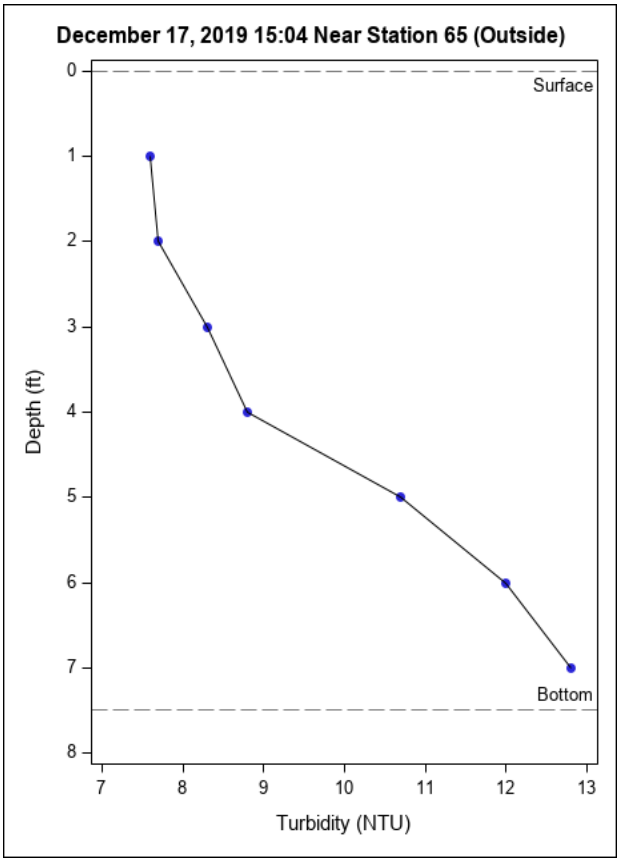

December 12, 2019 15:12 Near Station 60 (Inside)
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
6
10
13
16
19
22
25
28
Turbidity (NTU)

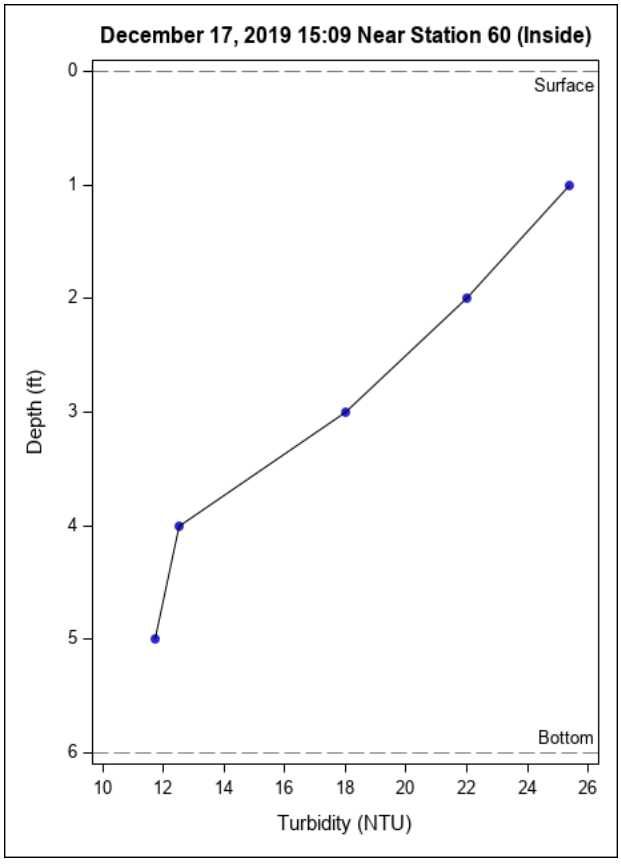

December 13, 2019 14:27 Near Station 65 (Outside)
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
6
7
8
9
10
0
2
4
6
8
10
12
14
Turbidity (NTU)


December 13, 2019 14:28 Near Station 60 (Inside)
Surface
Bottom
Depth (ft)
0
1
2
3
4
5
6
7
8
22
24
26
28
30
32
Turbidity (NTU)


December 14, 2019 15:05 Near Station 65 (Outside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
10
12
14
16
18

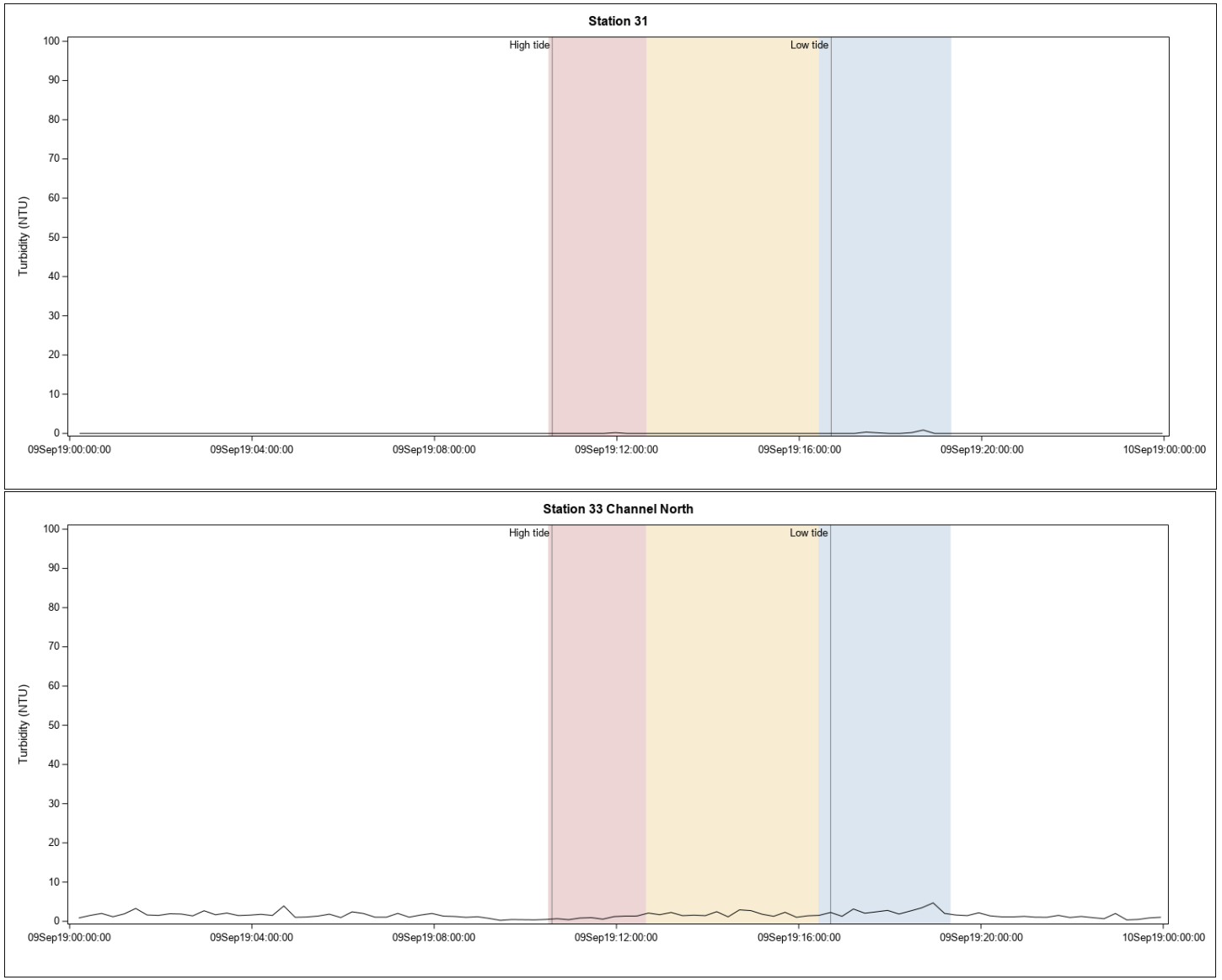

December 14, 2019 15:05 Near Station 60 (Inside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
12
14
16
18
20


December 17, 2019 15:04 Near Station 65 (Outside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
7
8
9
10
11
12
13

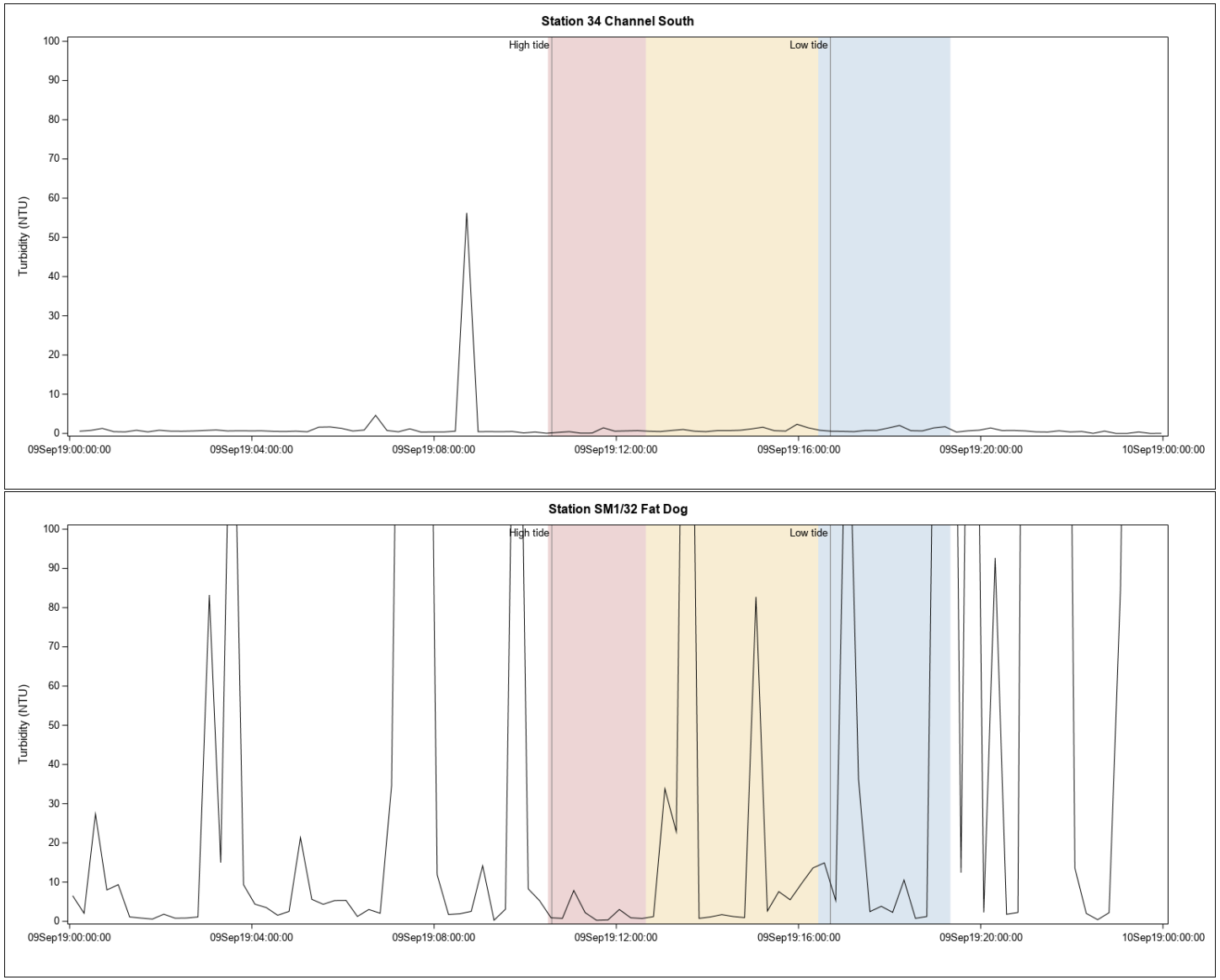

December 17, 2019 15:09 Near Station 60 (Inside)
Surface
Bottom
Depth (ft)
Turbidity (NTU)
0
1
2
3
4
5
6
10
12
14
16
18
20
22
24
26

Appendix H
Fixed Station Turbidity Plots

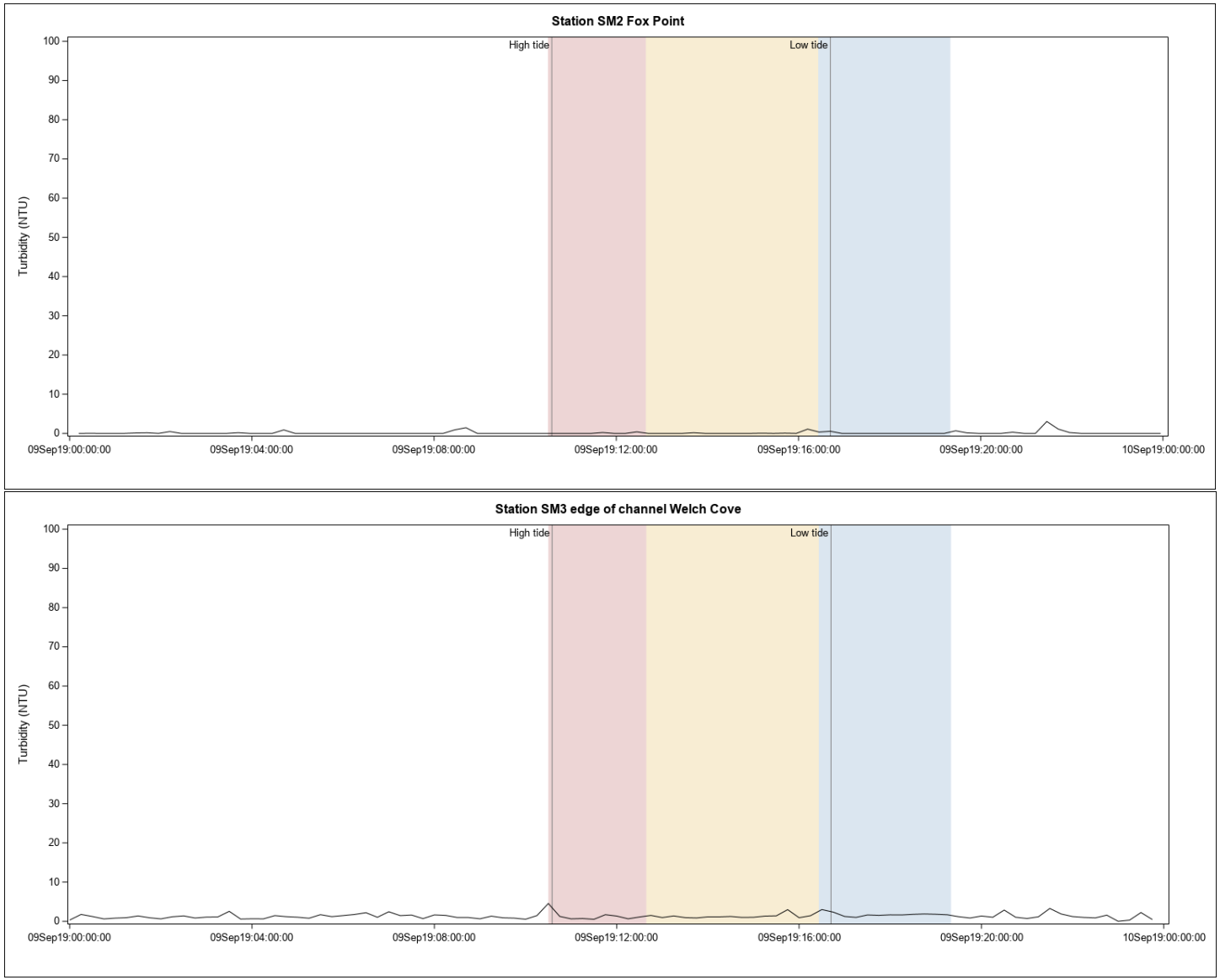
Jet Plow Trial
Fixed Station Turbidity Plots



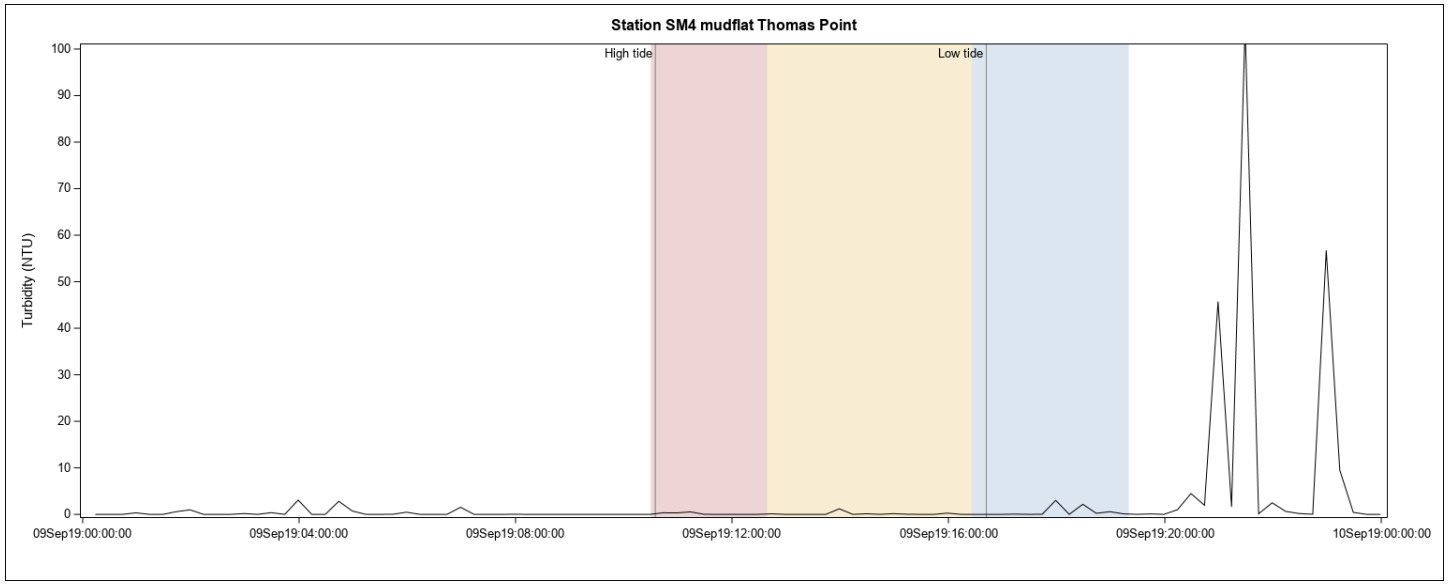
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

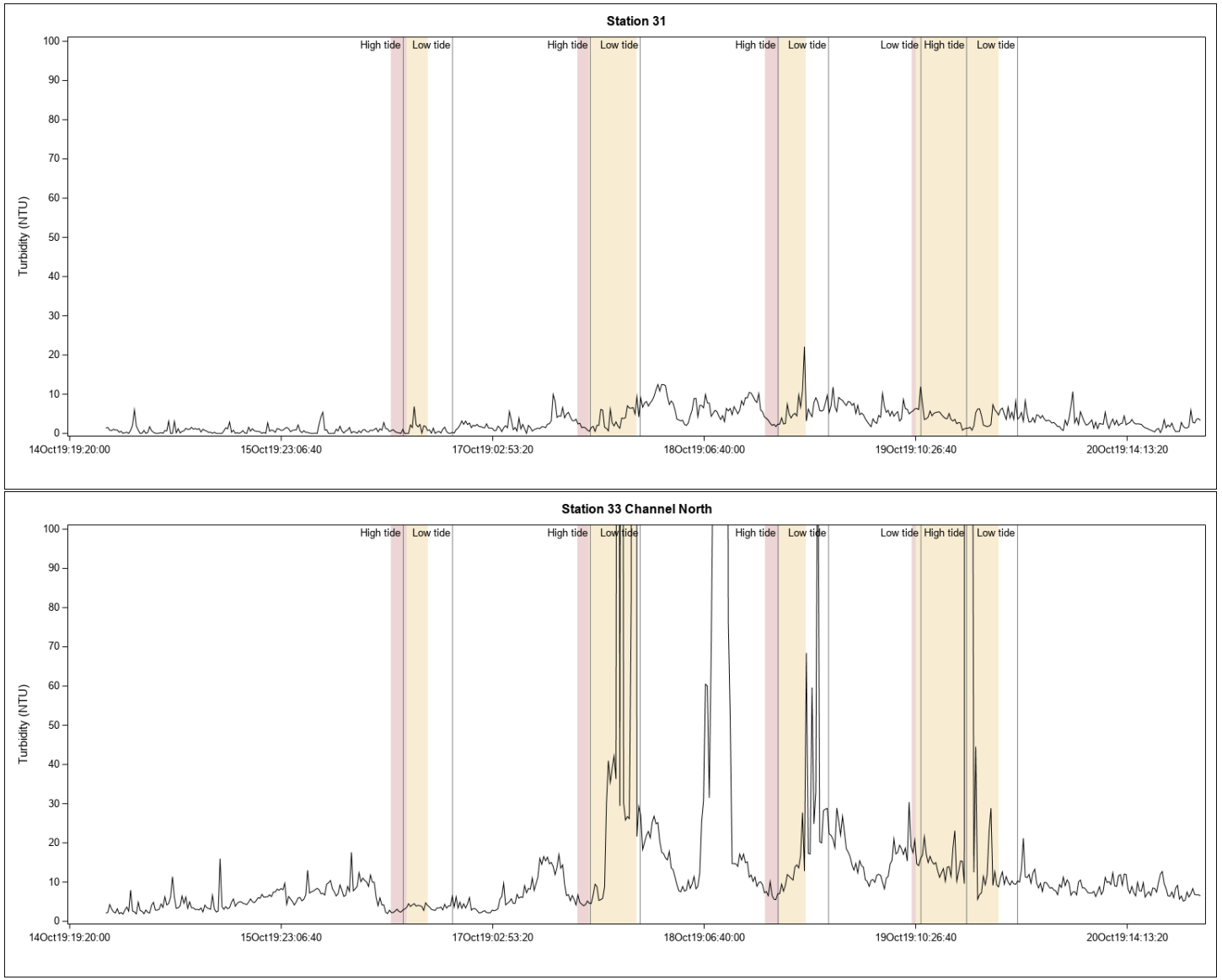


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

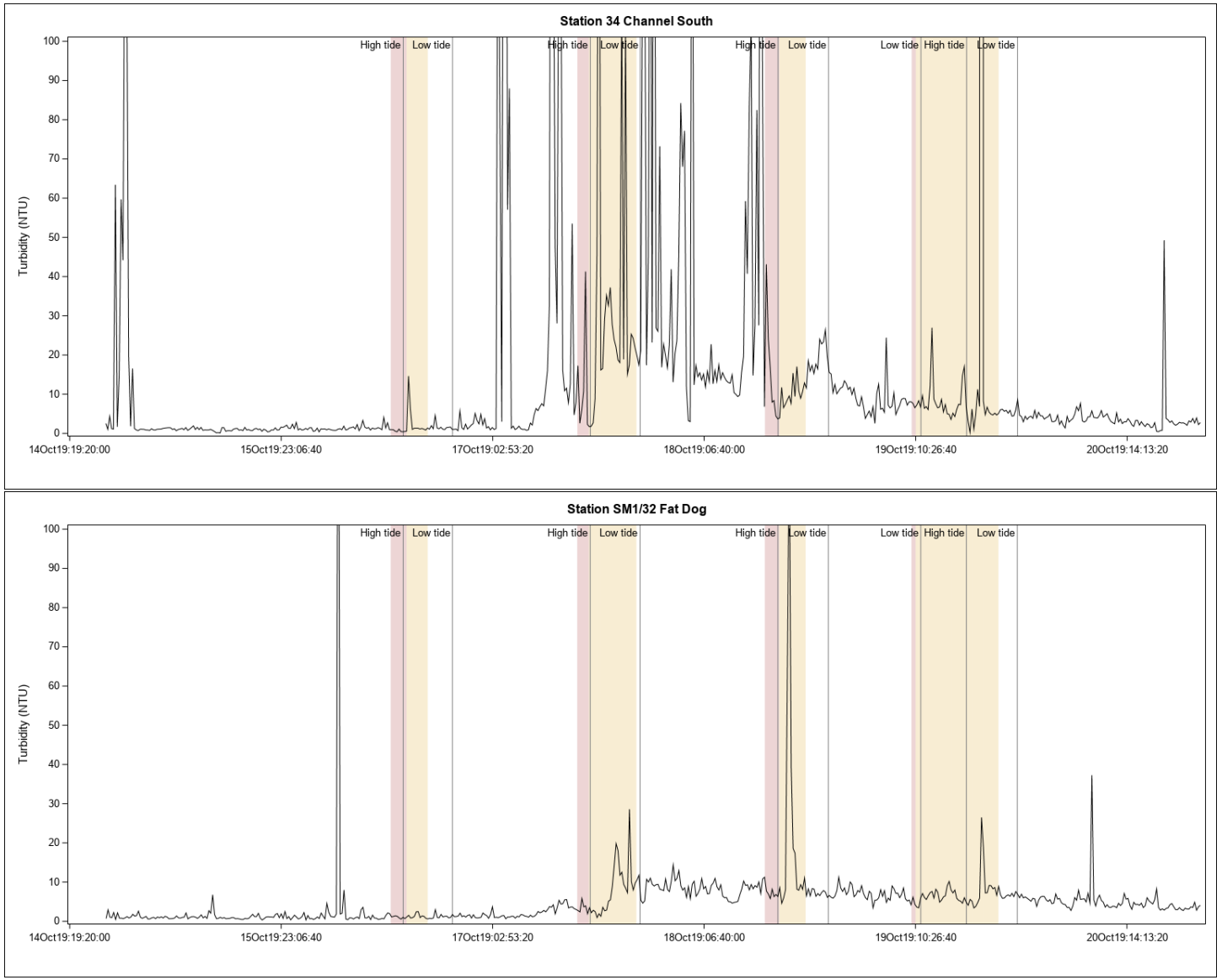


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

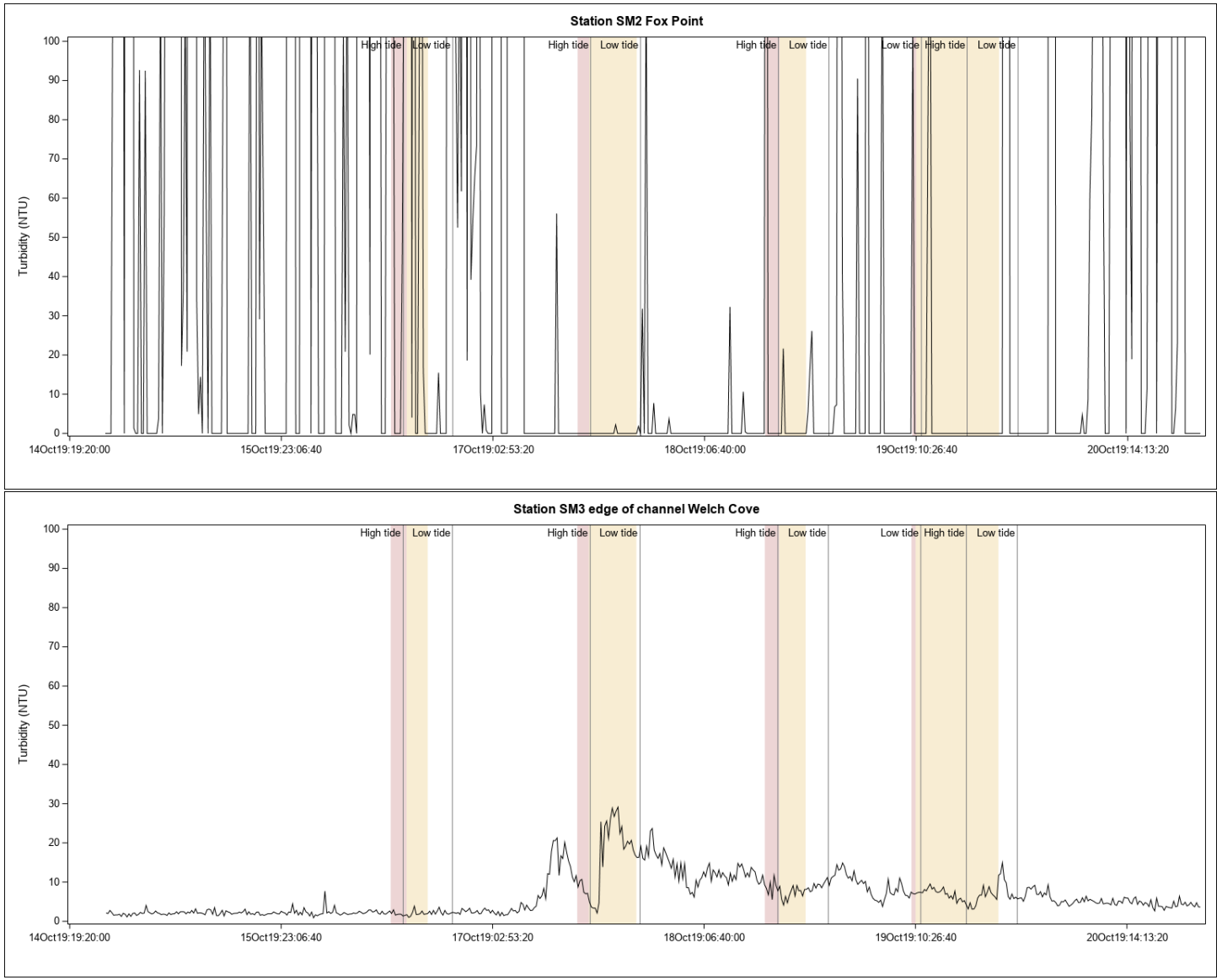
Cable 1
Fixed Station Turbidity Plots



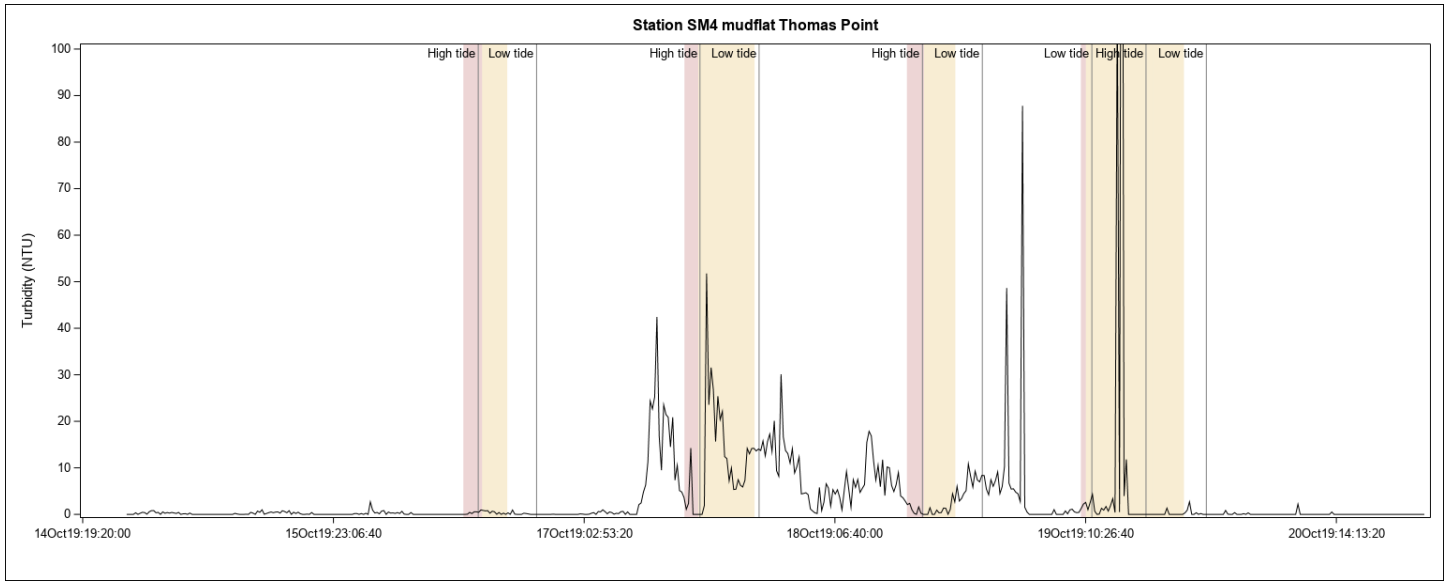
Pink shading indicates water quality monitoring prior to jet plowing and tan shading indicates active jet plowing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing and tan shading indicates active jet plowing. Vertical lines indicate high and low slack tides.



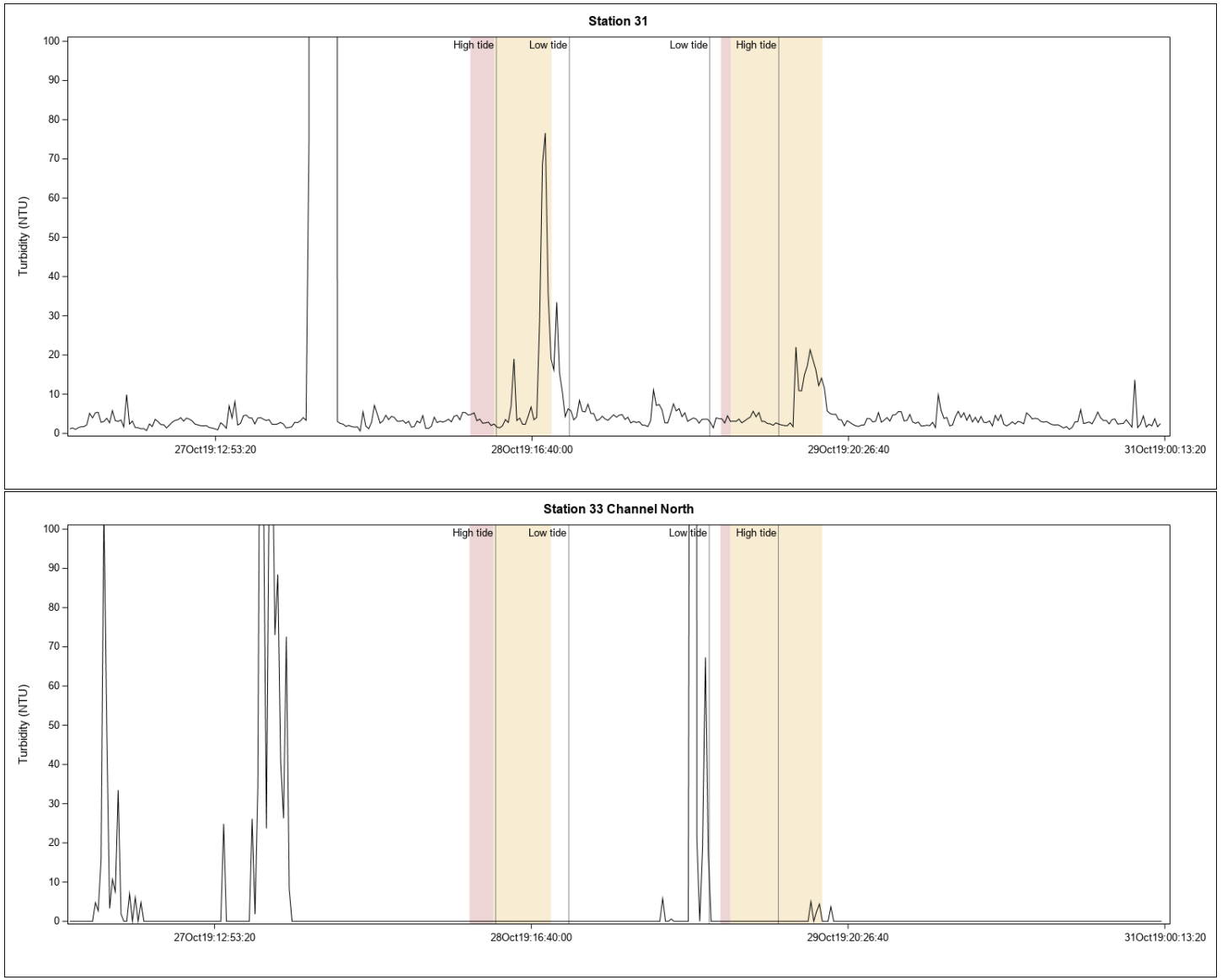
Pink shading indicates water quality monitoring prior to jet plowing and tan shading indicates active jet plowing. Vertical lines indicate high and low slack tides.



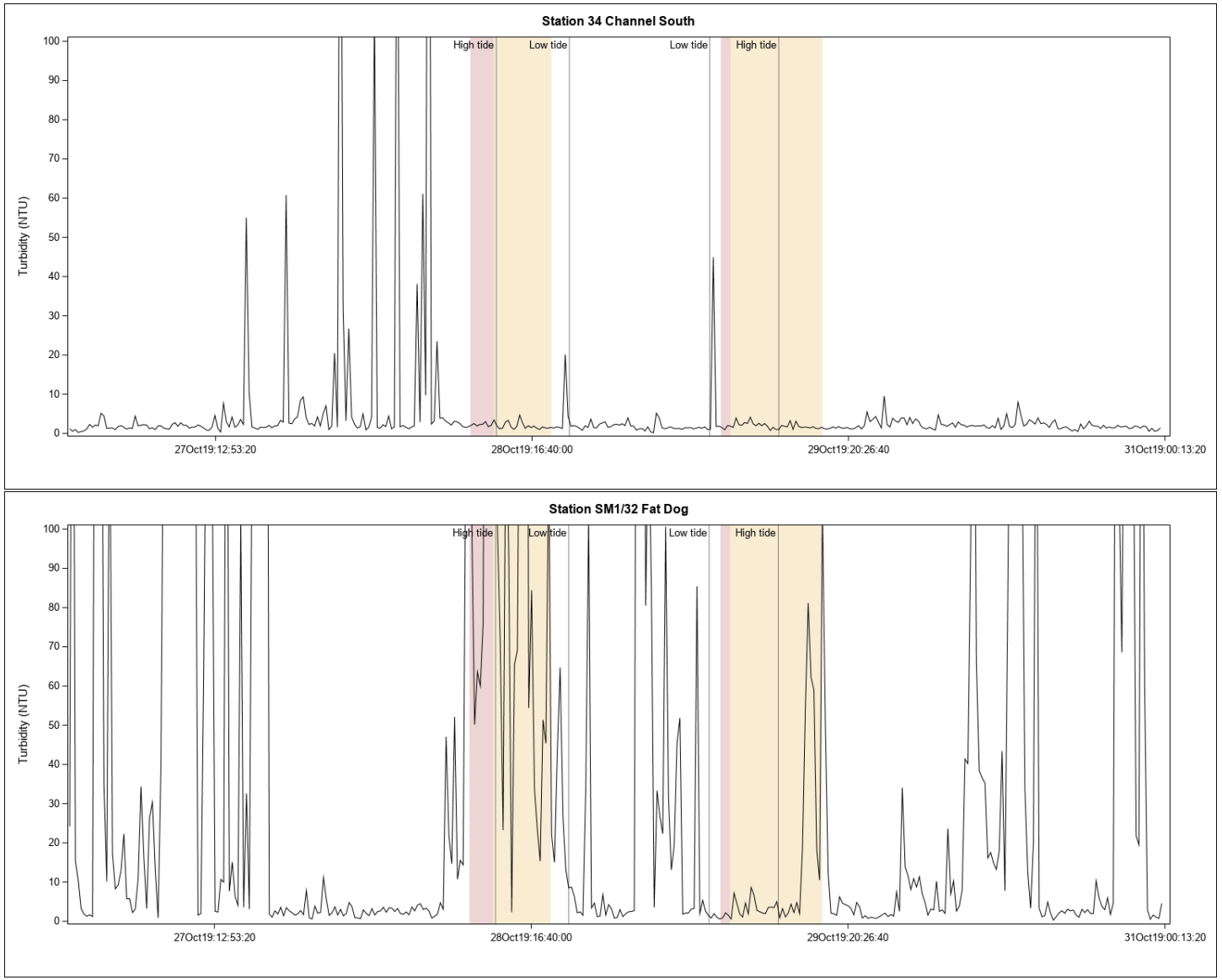
Pink shading indicates water quality monitoring prior to jet plowing and tan shading indicates active jet plowing. Vertical lines indicate high and low slack tides.

Cable 2

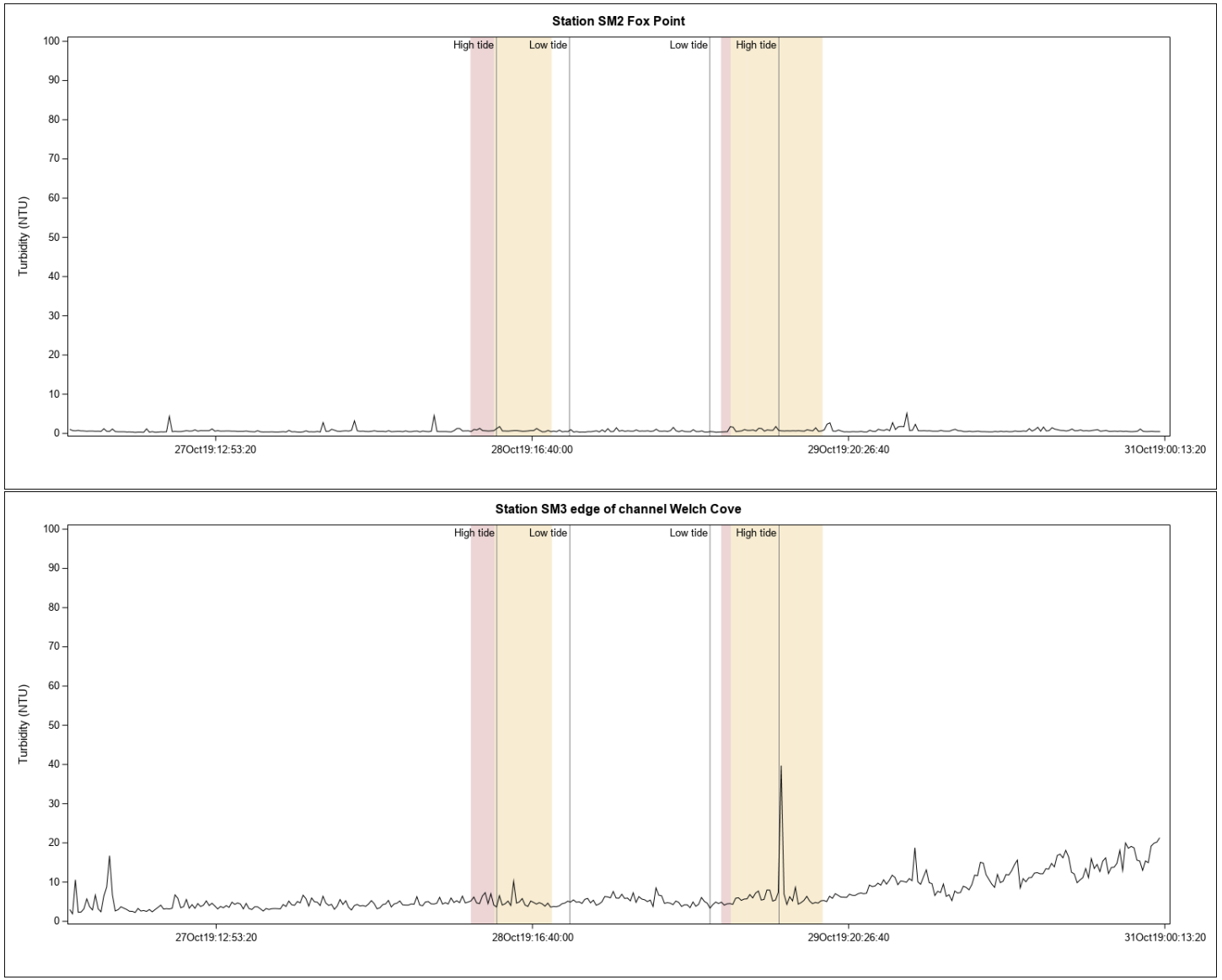
Fixed Station Turbidity Plots



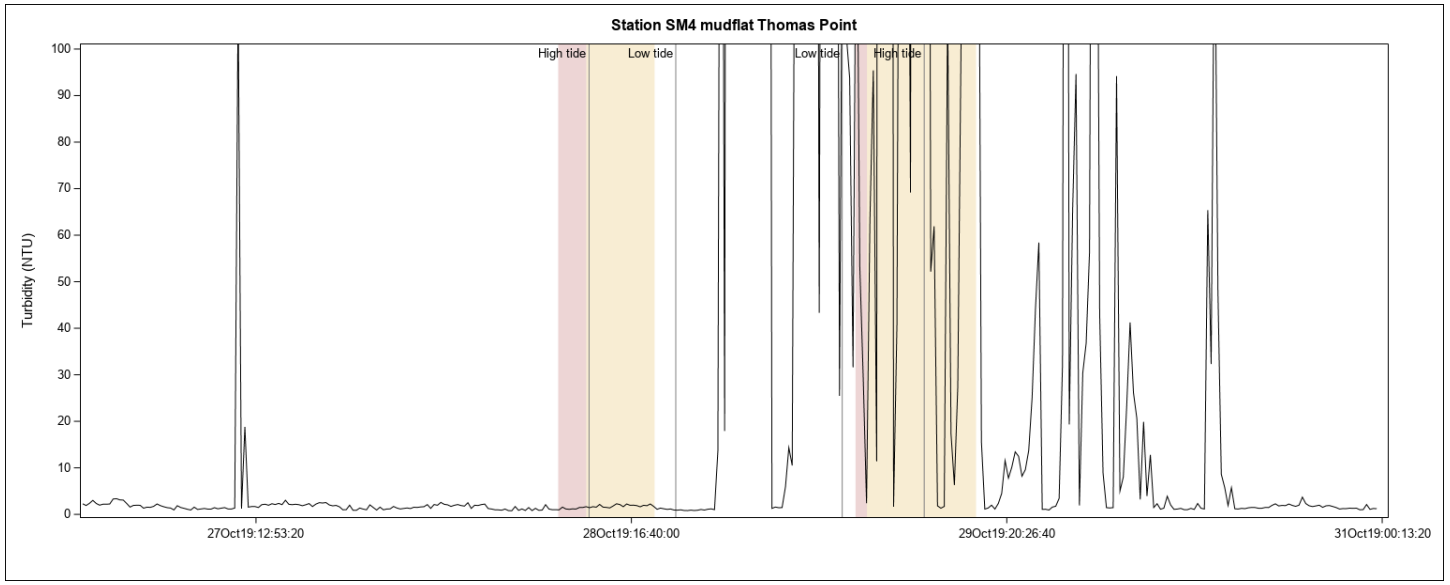
Pink shading indicates water quality monitoring prior to jet plowing and tan shading indicates active jet plowing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing and tan shading indicates active jet plowing. Vertical lines indicate high and low slack tides.

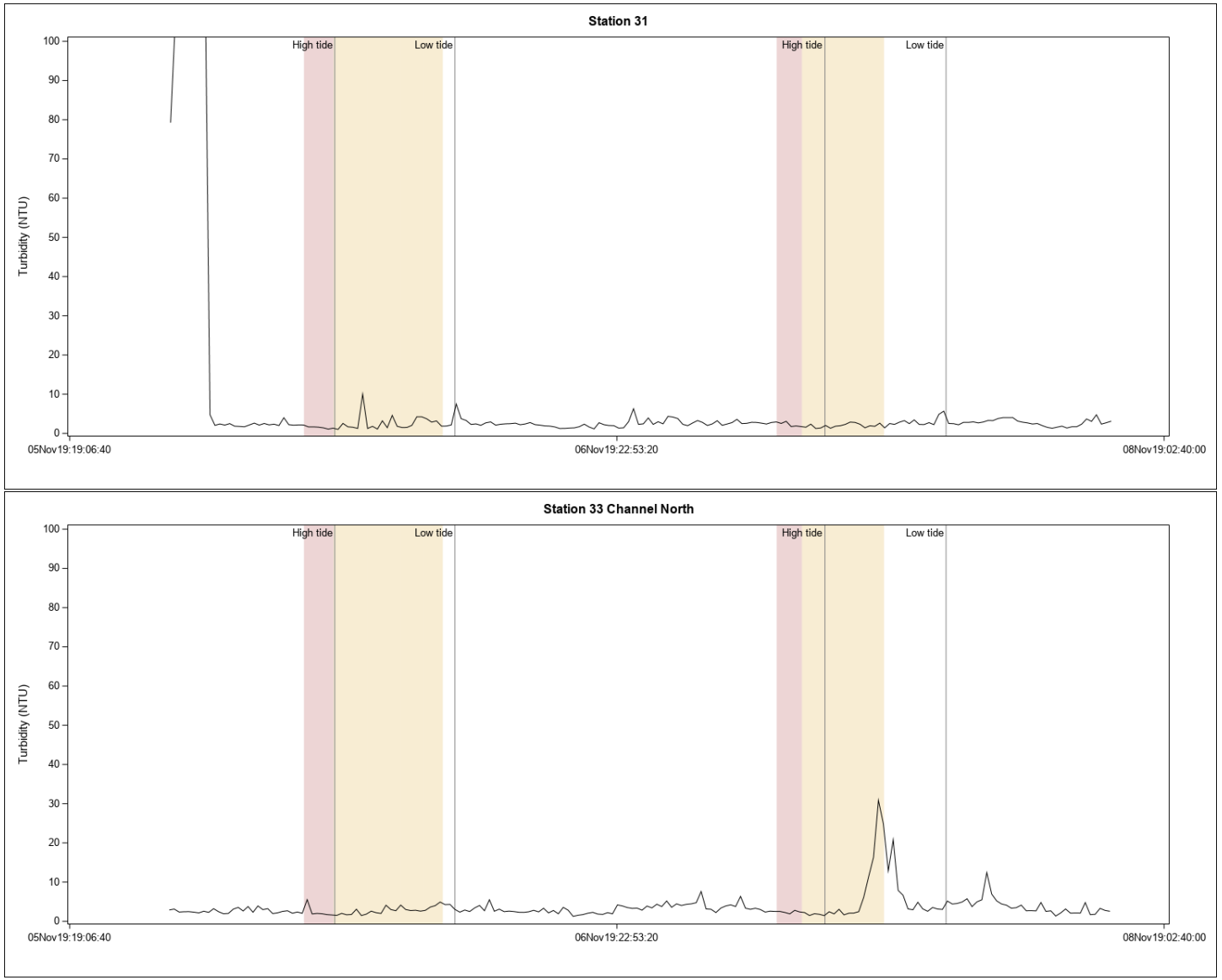


Pink shading indicates water quality monitoring prior to jet plowing and tan shading indicates active jet plowing. Vertical lines indicate high and low slack tides.

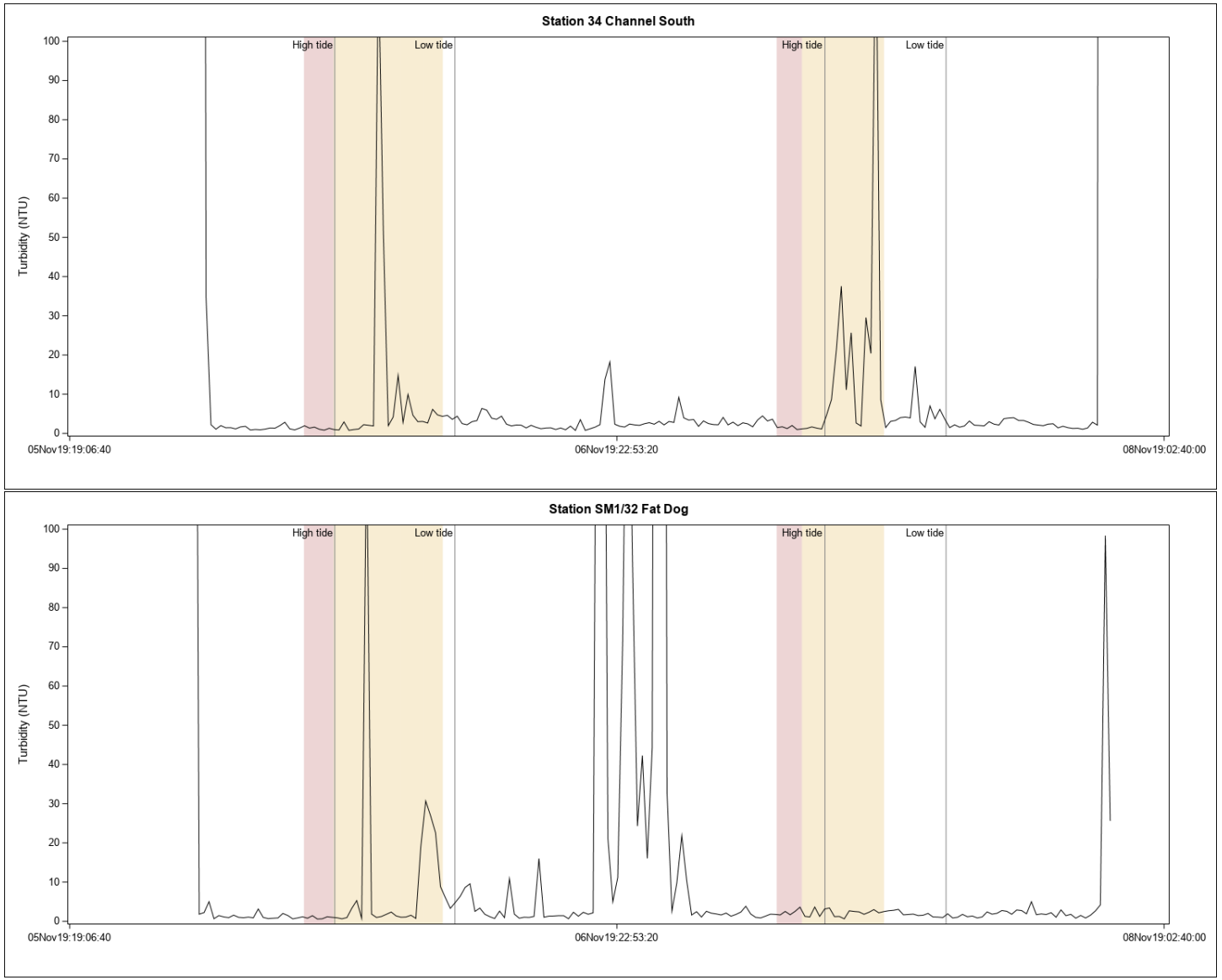


Pink shading indicates water quality monitoring prior to jet plowing and tan shading indicates active jet plowing. Vertical lines indicate high and low slack tides.

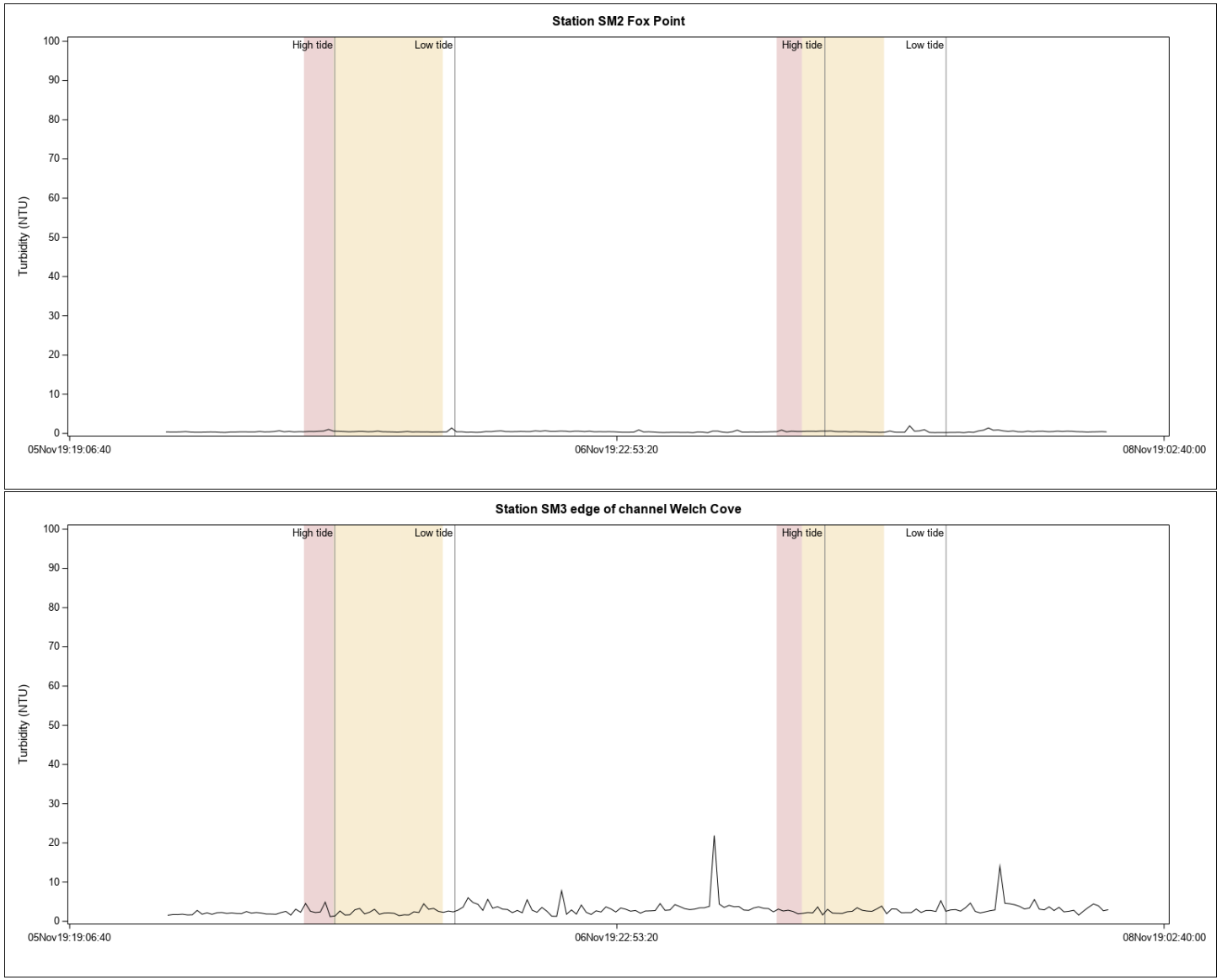
Cable 3
Fixed Station Turbidity Plots



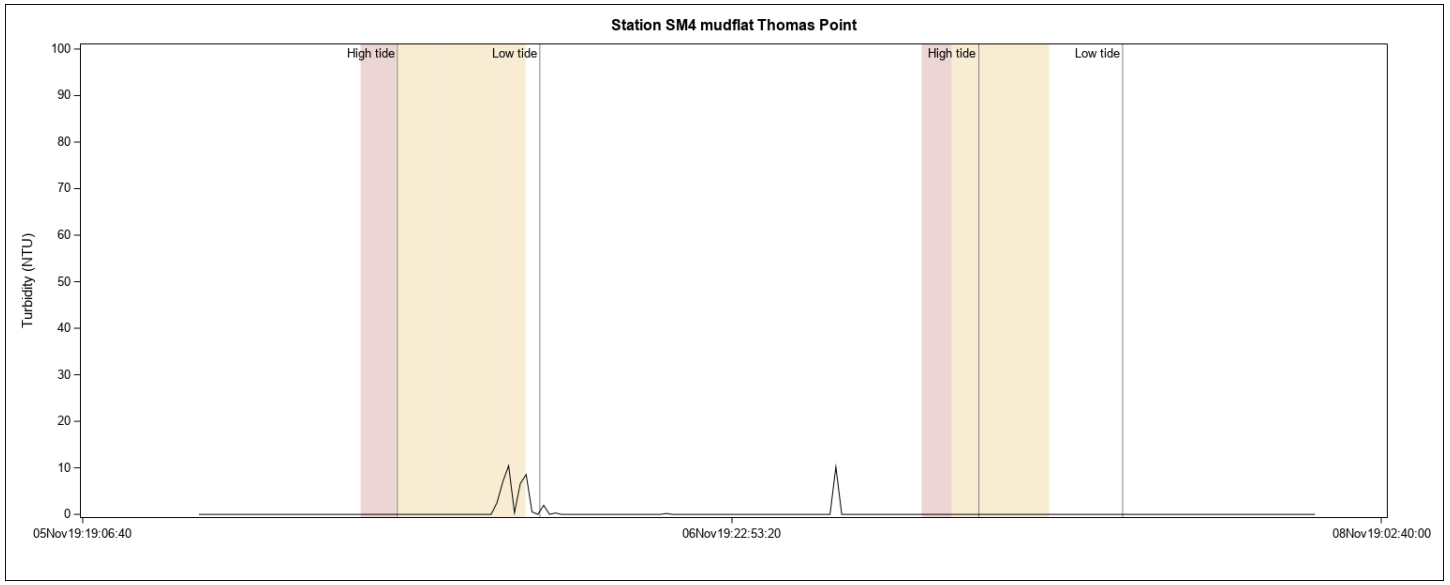
Pink shading indicates water quality monitoring prior to jet plowing and tan shading indicates active jet plowing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing and tan shading indicates active jet plowing. Vertical lines indicate high and low slack tides.



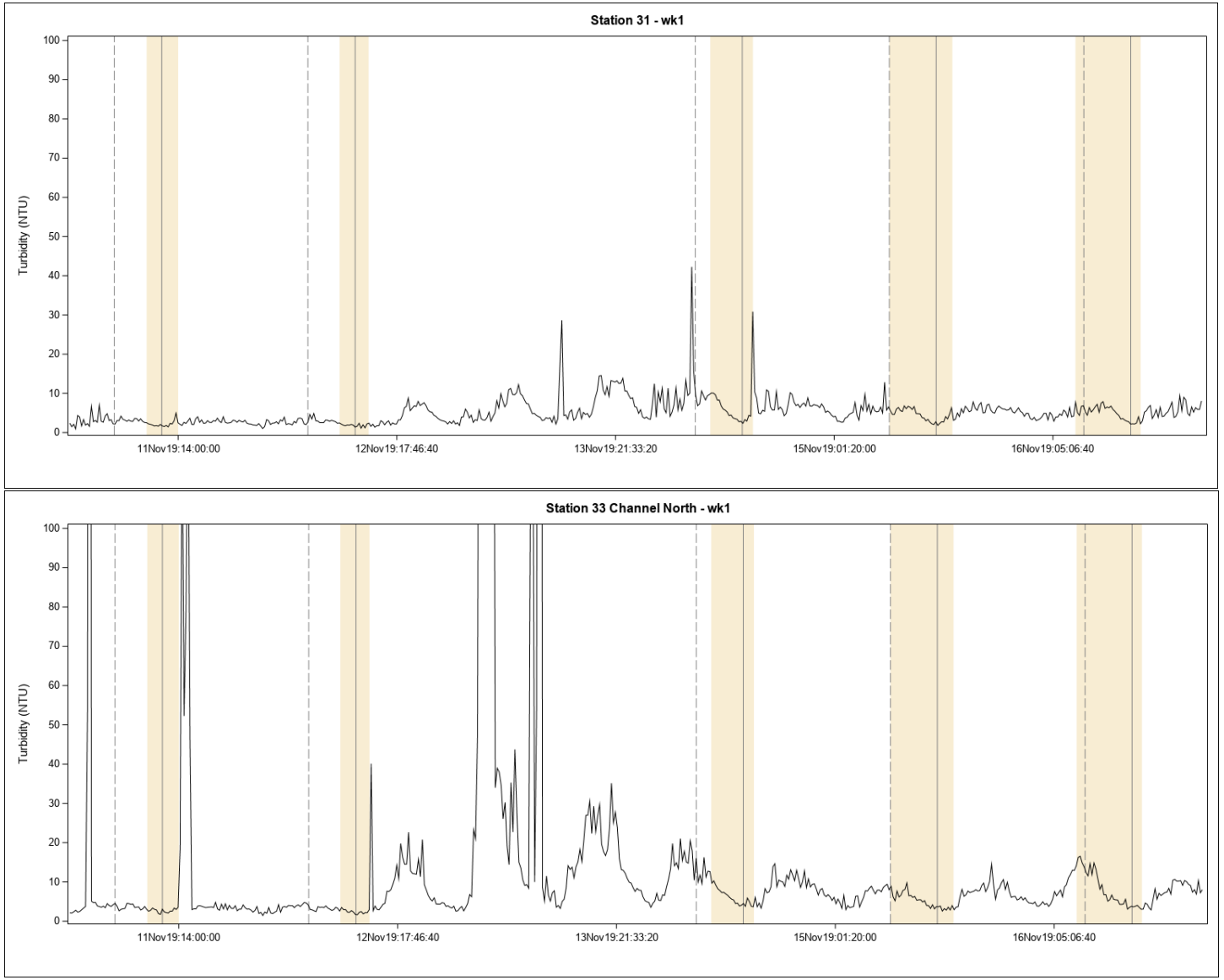
Pink shading indicates water quality monitoring prior to jet plowing and tan shading indicates active jet plowing. Vertical lines indicate high and low slack tides.



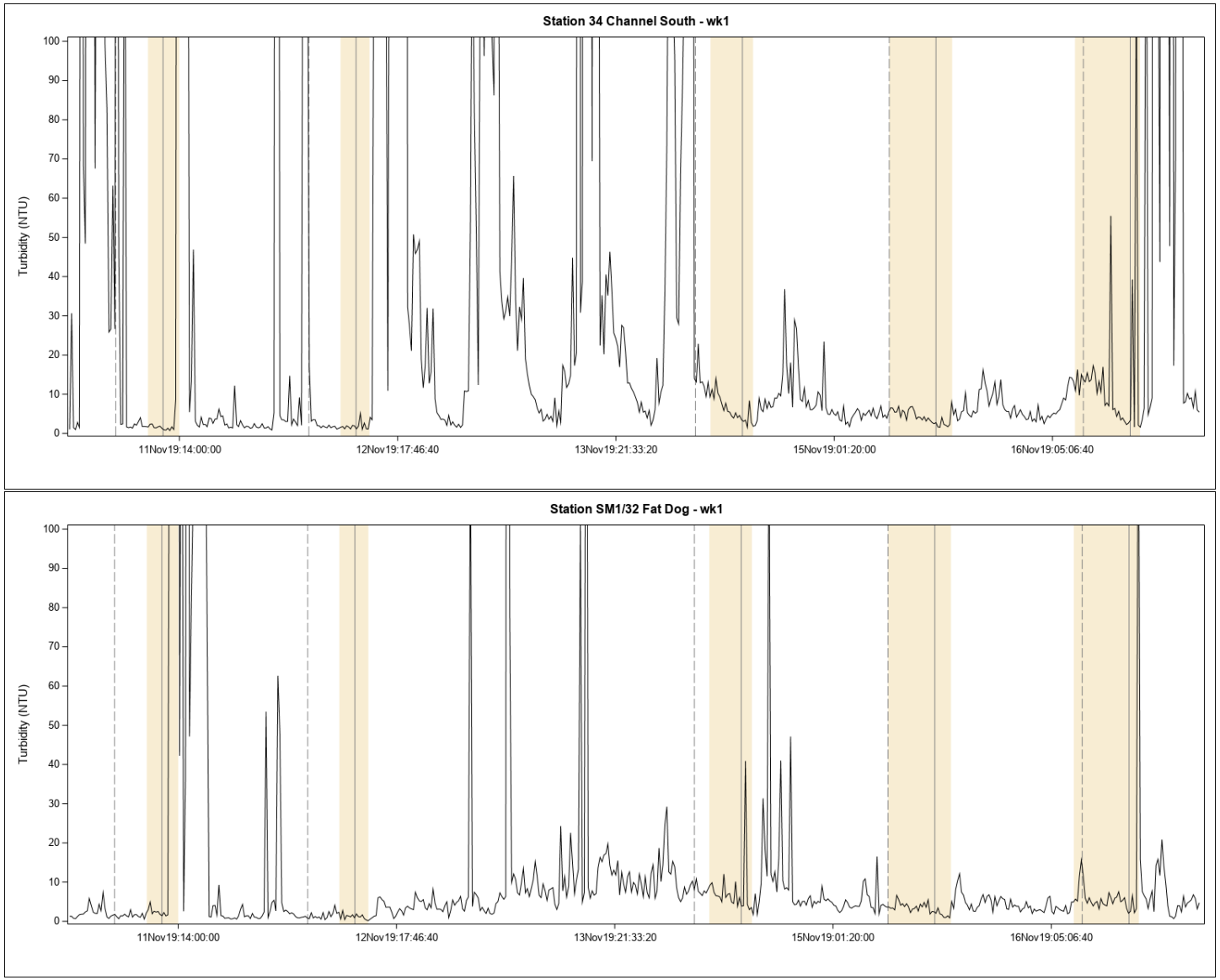
Pink shading indicates water quality monitoring prior to jet plowing and tan shading indicates active jet plowing. Vertical lines indicate high and low slack tides.

Hand Jet
Fixed Station Turbidity Plots

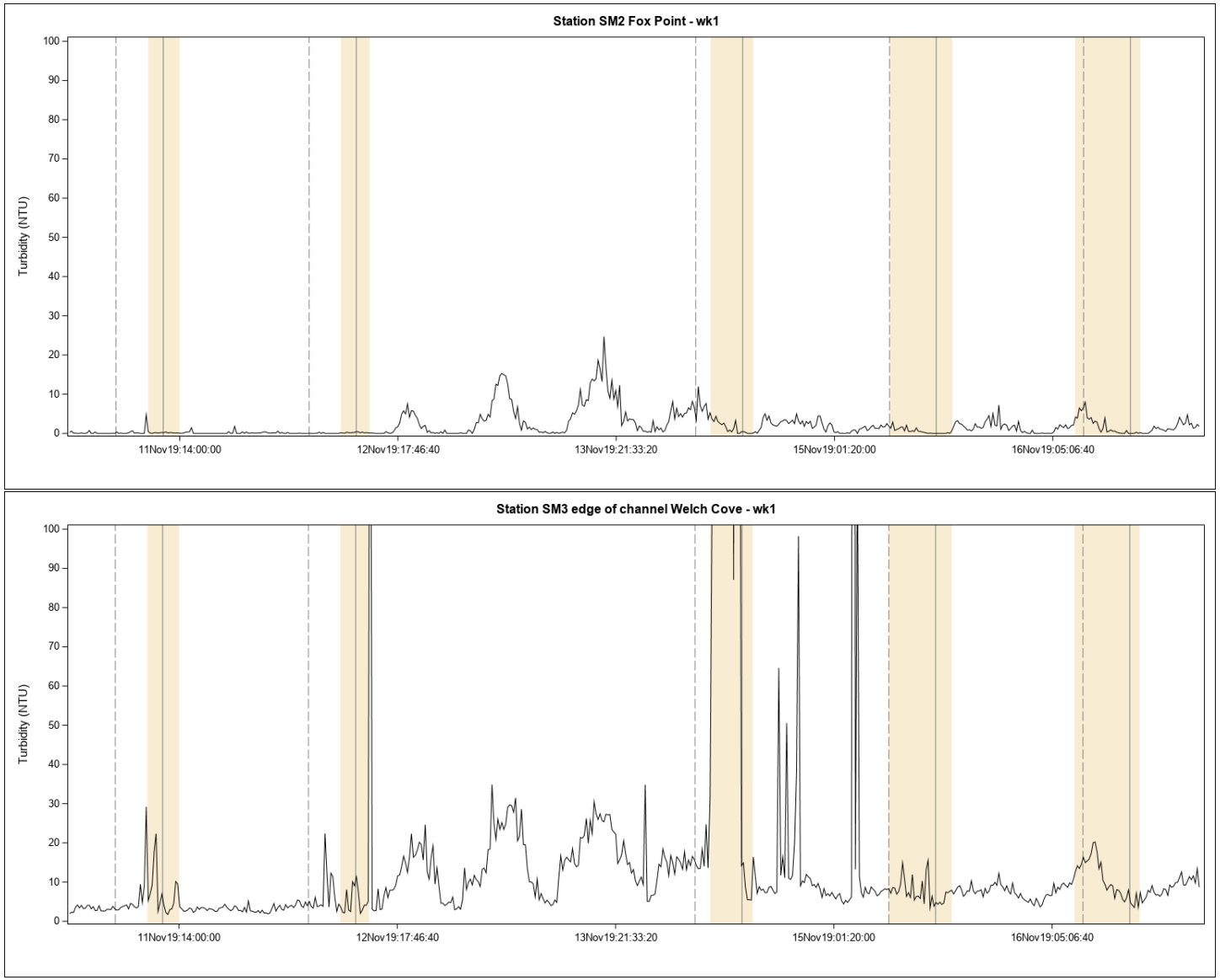
Week 1



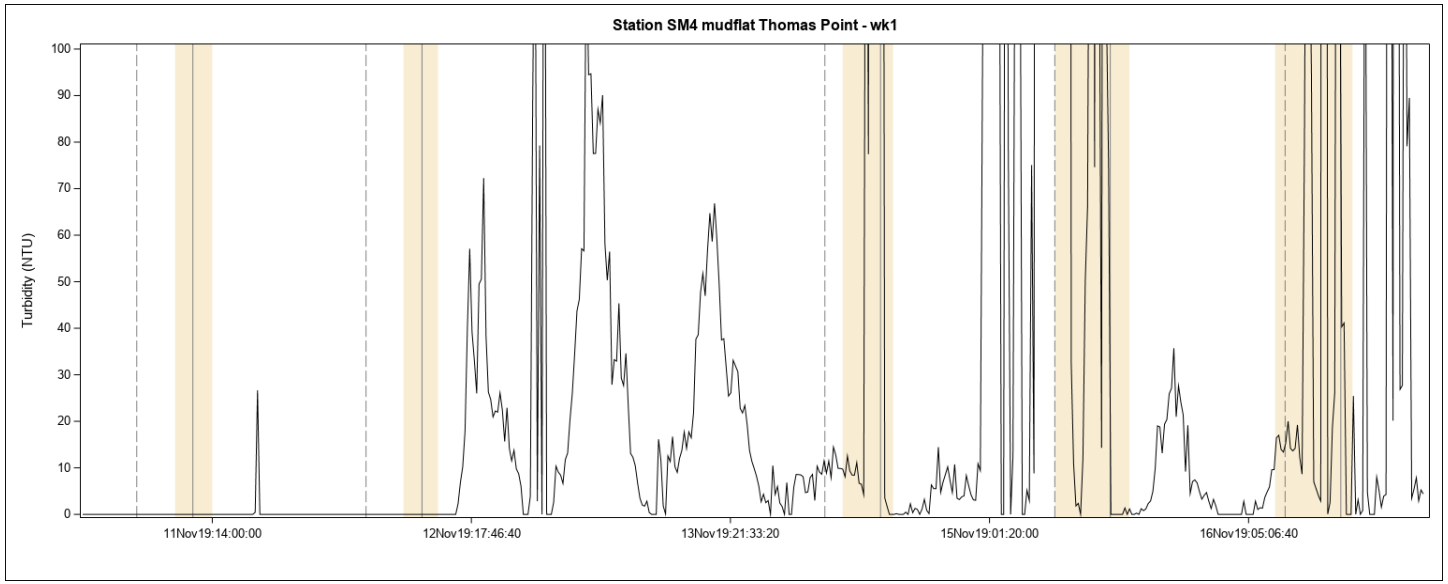
Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.



Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.



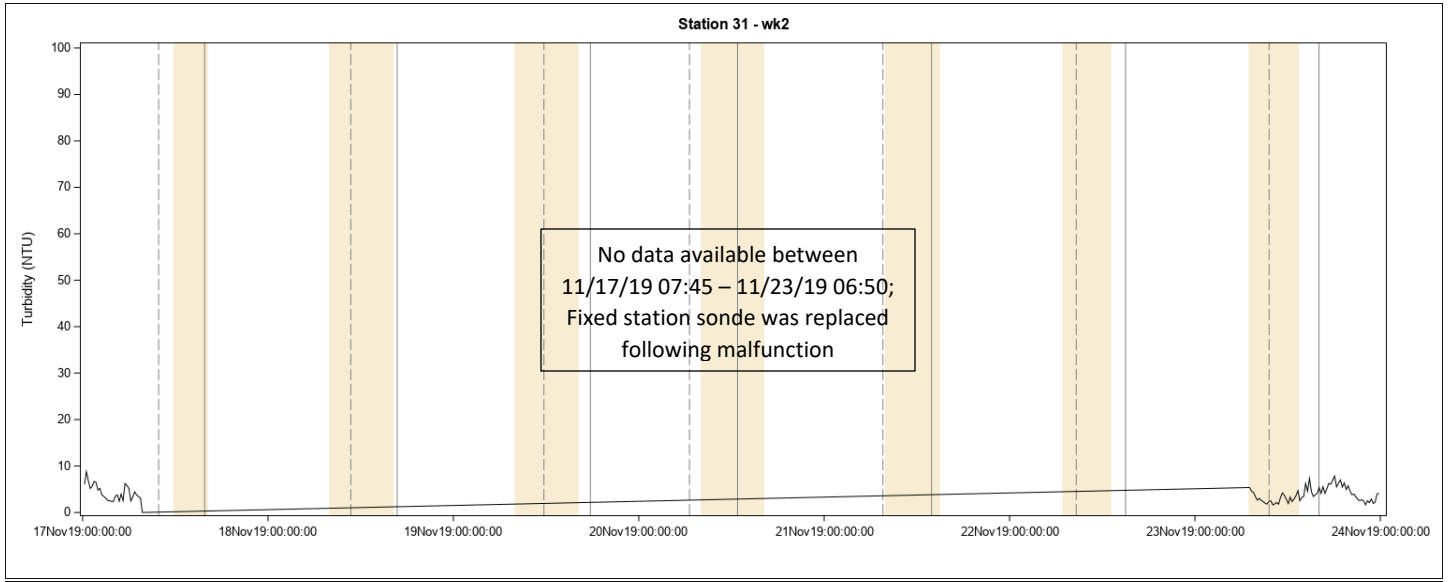
Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.

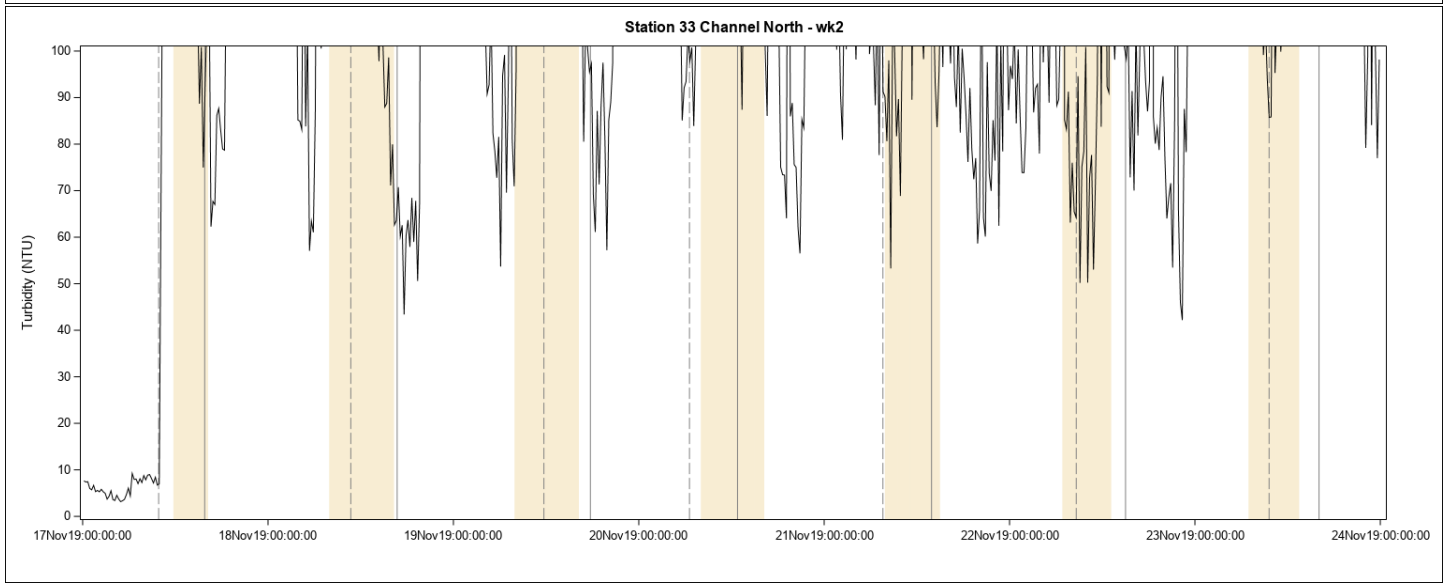


Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.

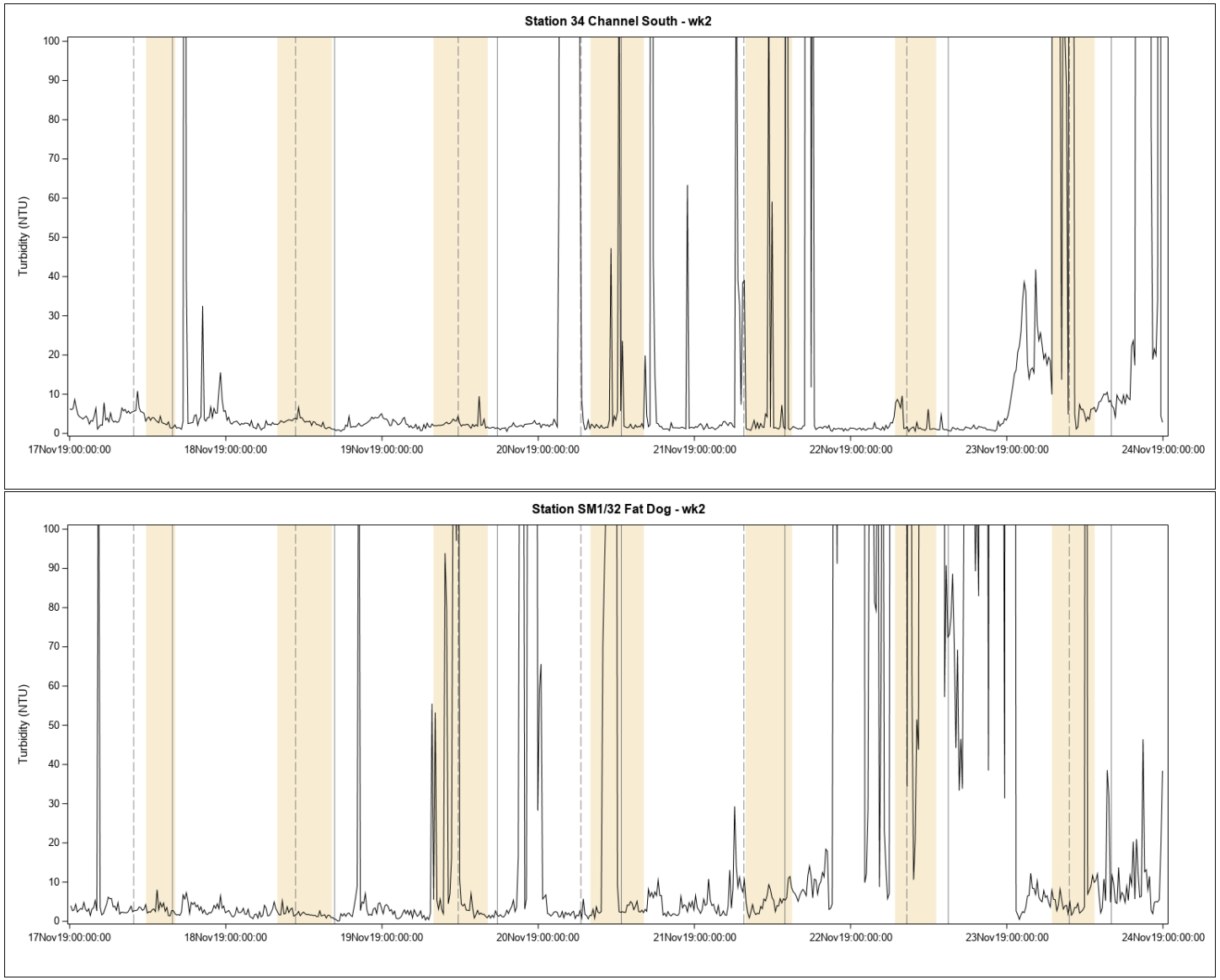
Hand Jet
Fixed Station Turbidity Plots

Week 2

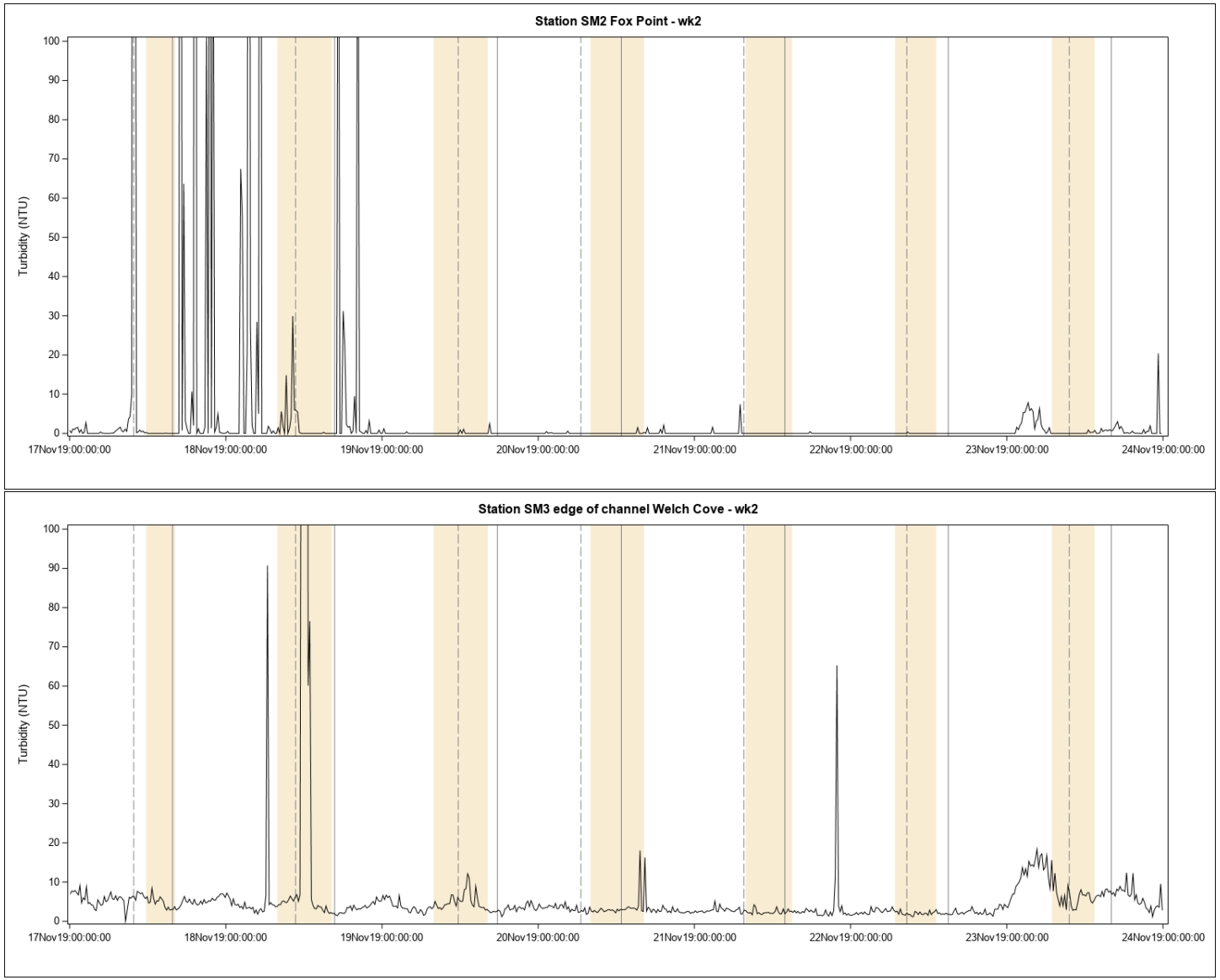




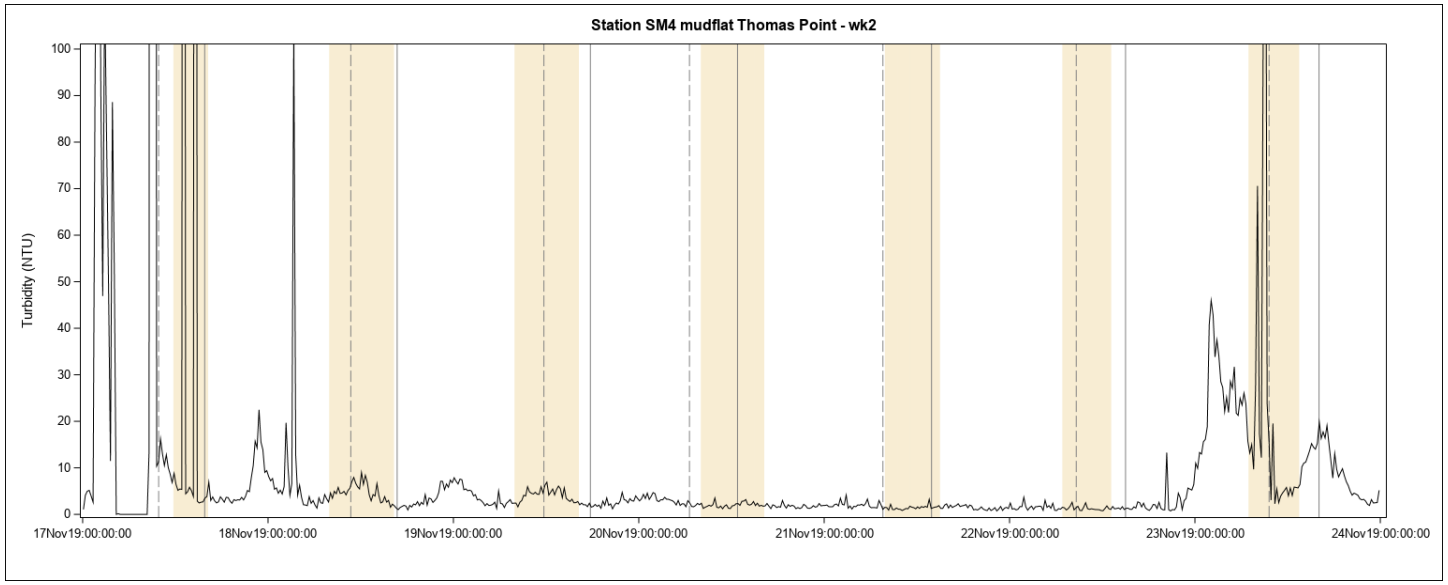
Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.



Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.



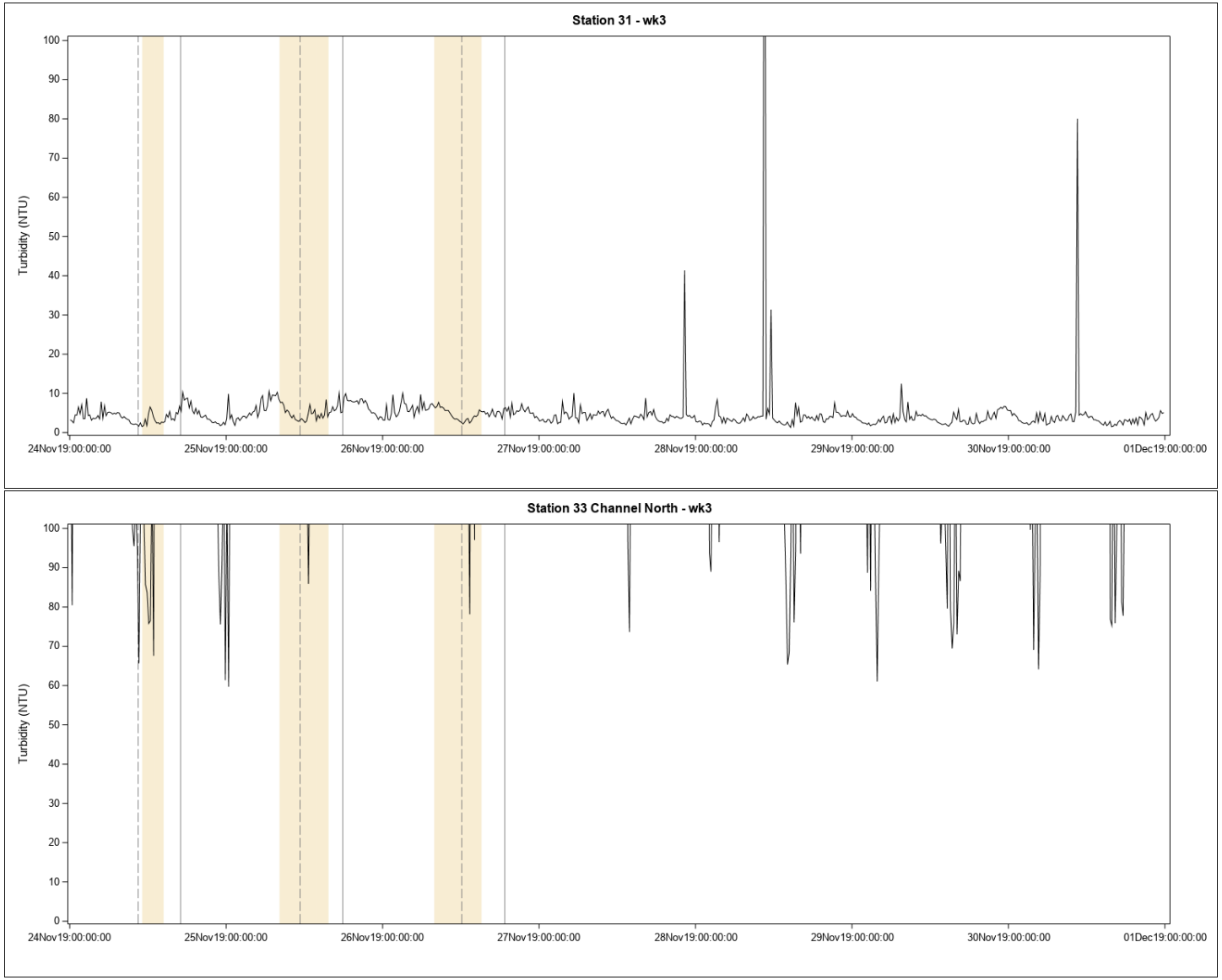
Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.



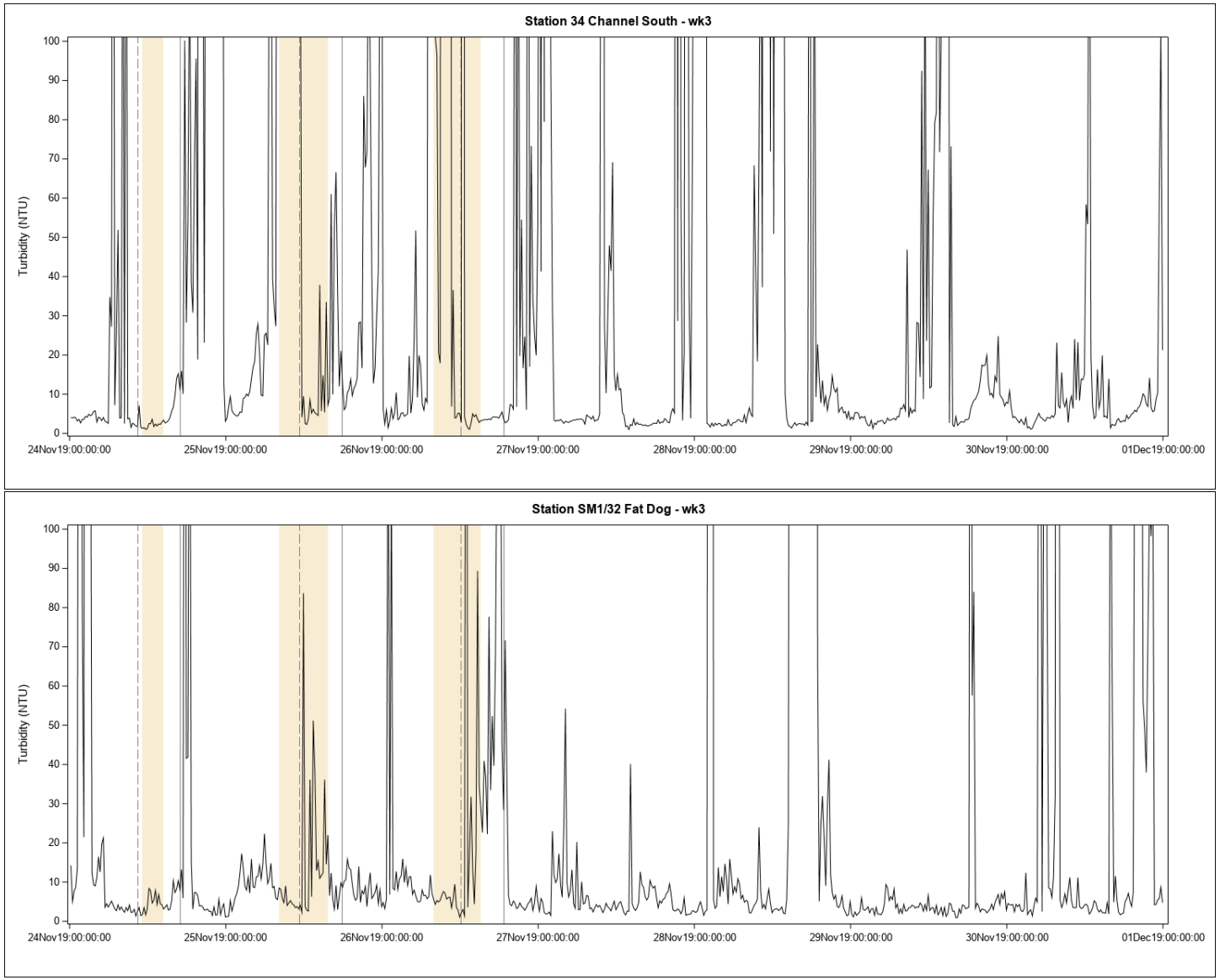
Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.

Hand Jet
Fixed Station Turbidity Plots

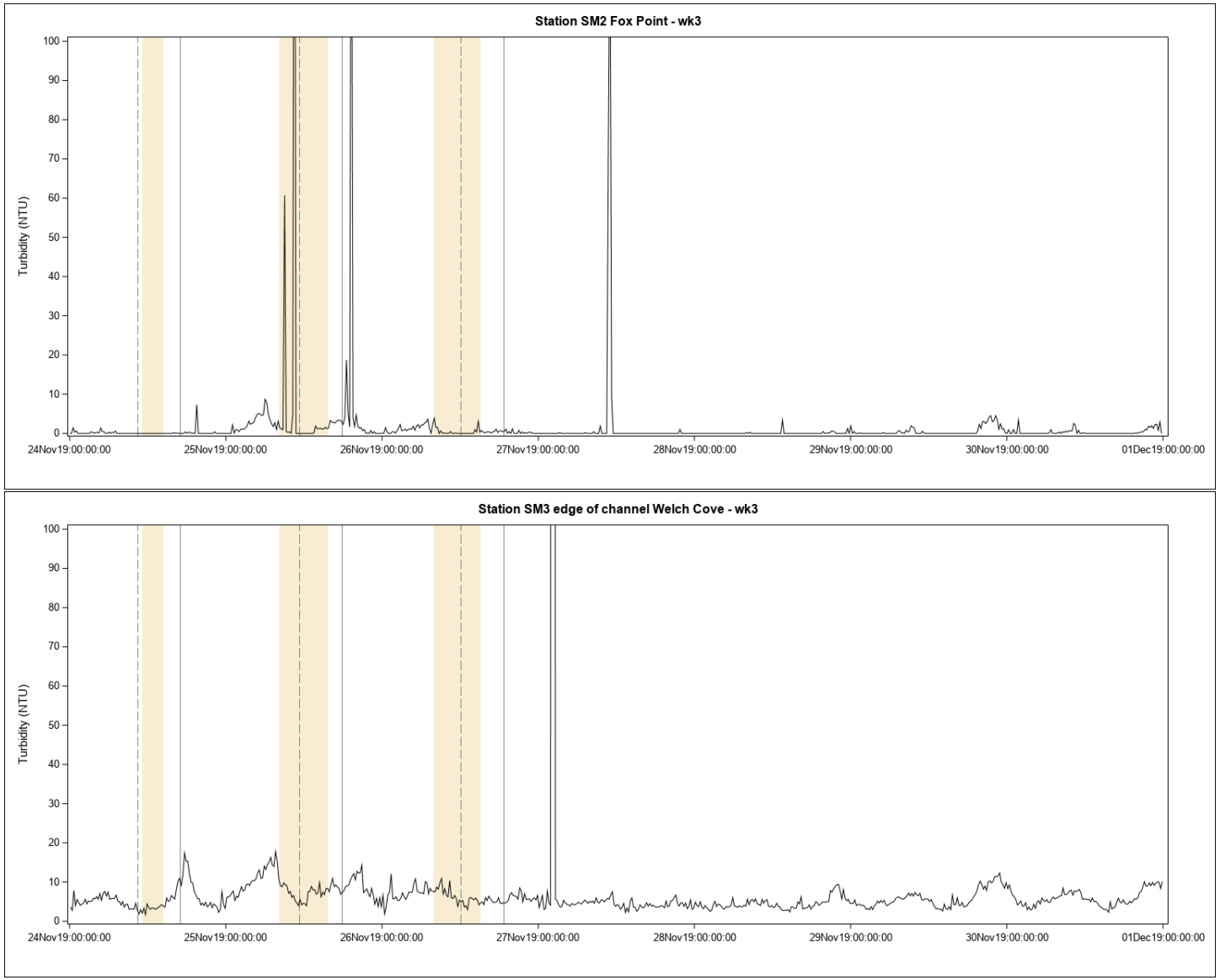
Week 3



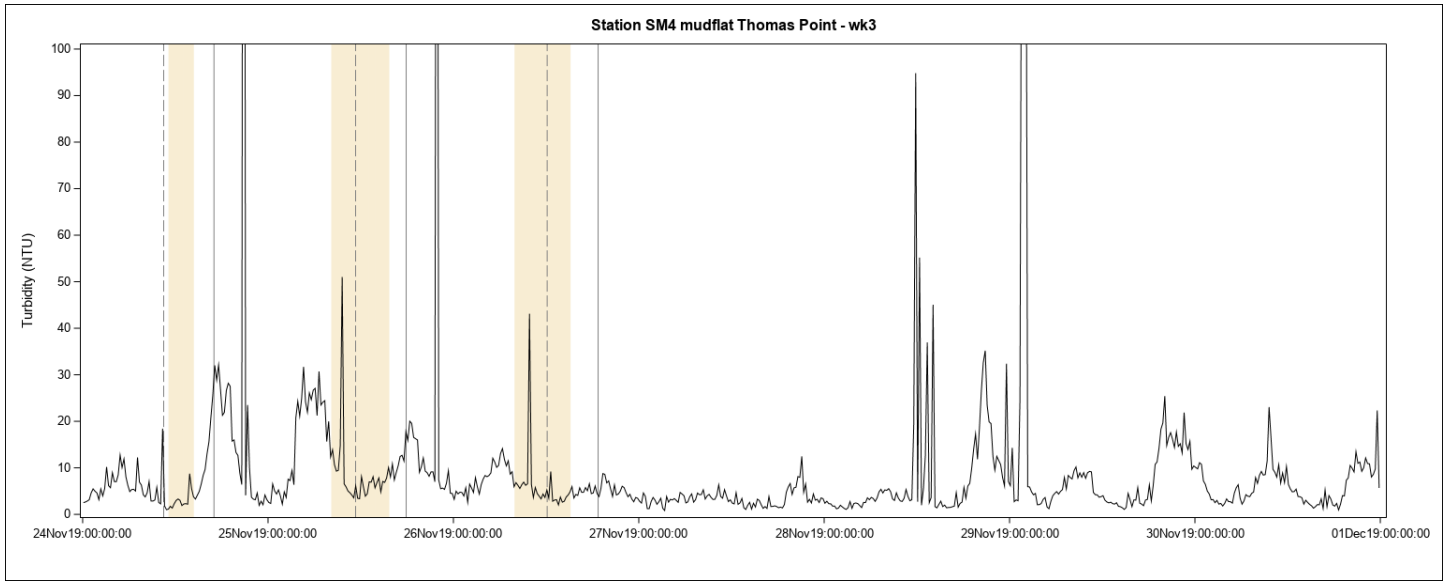
Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.



Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.



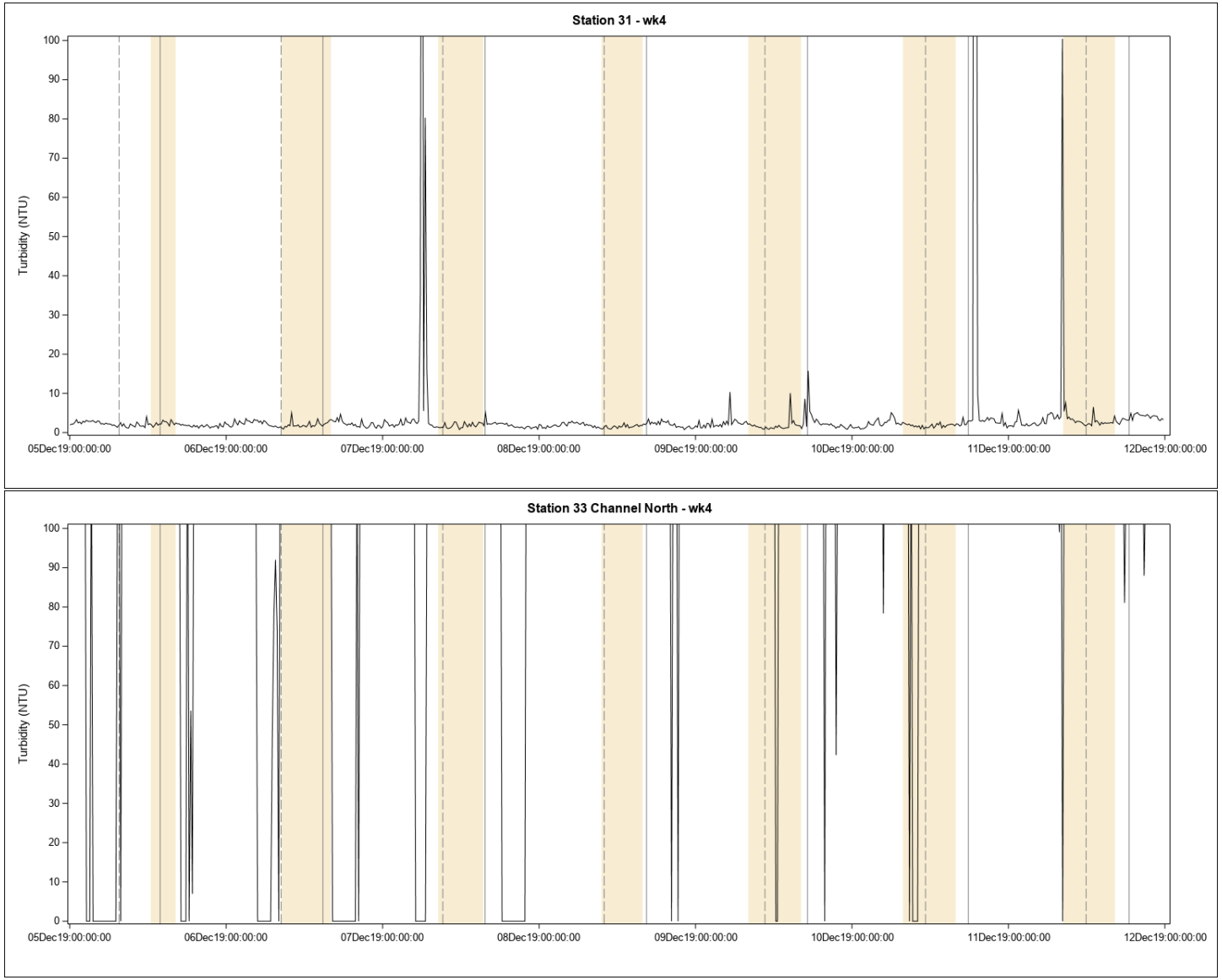
Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.



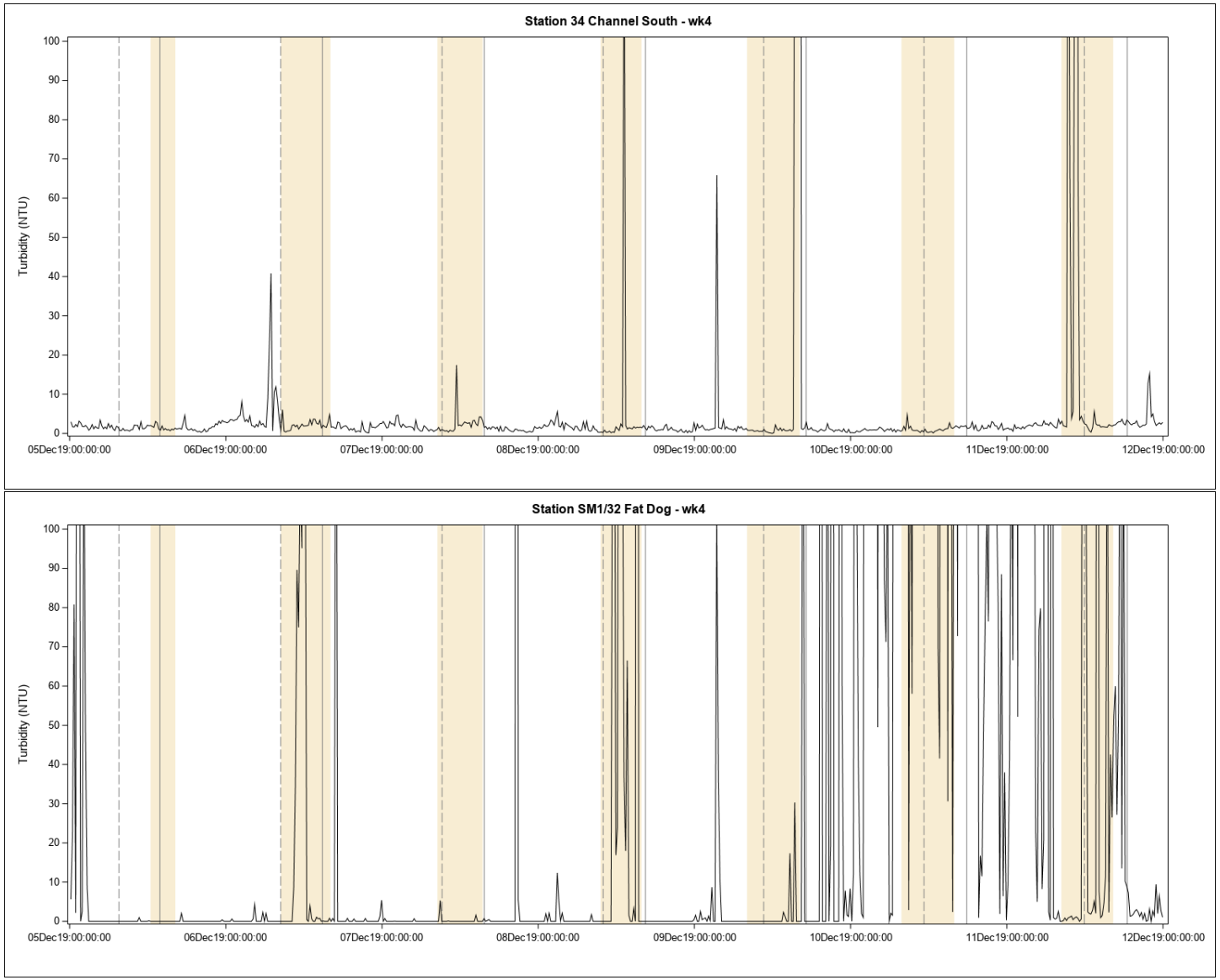
Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.

Hand Jet
Fixed Station Turbidity Plots

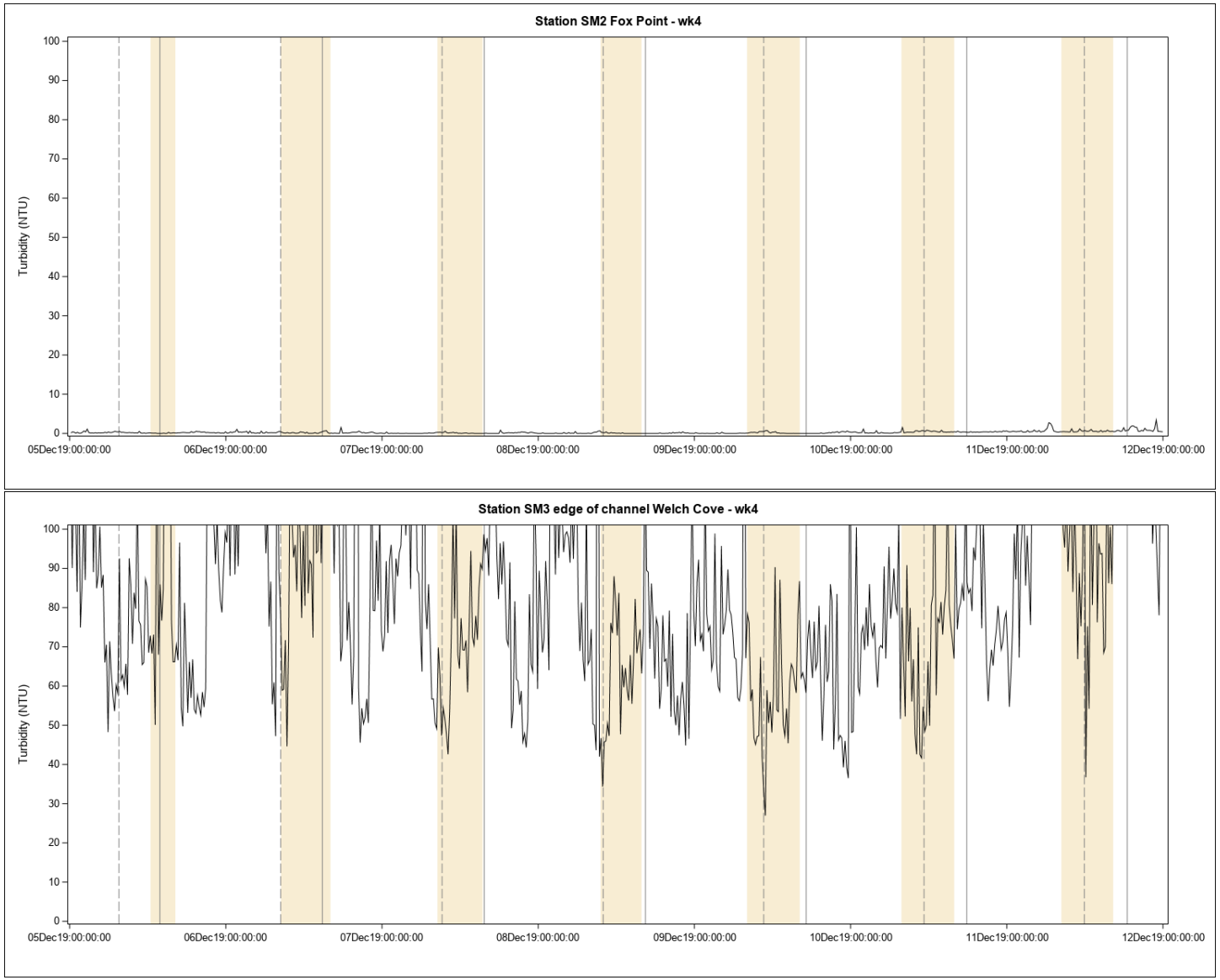
Week 4



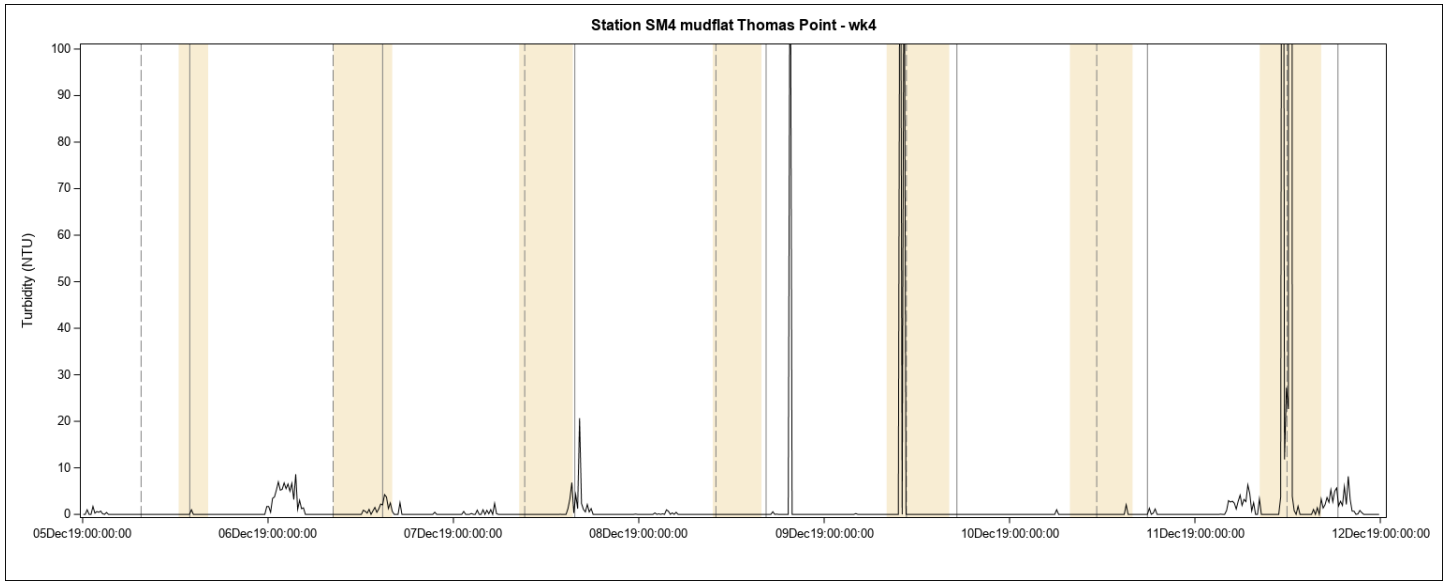
Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.



Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.



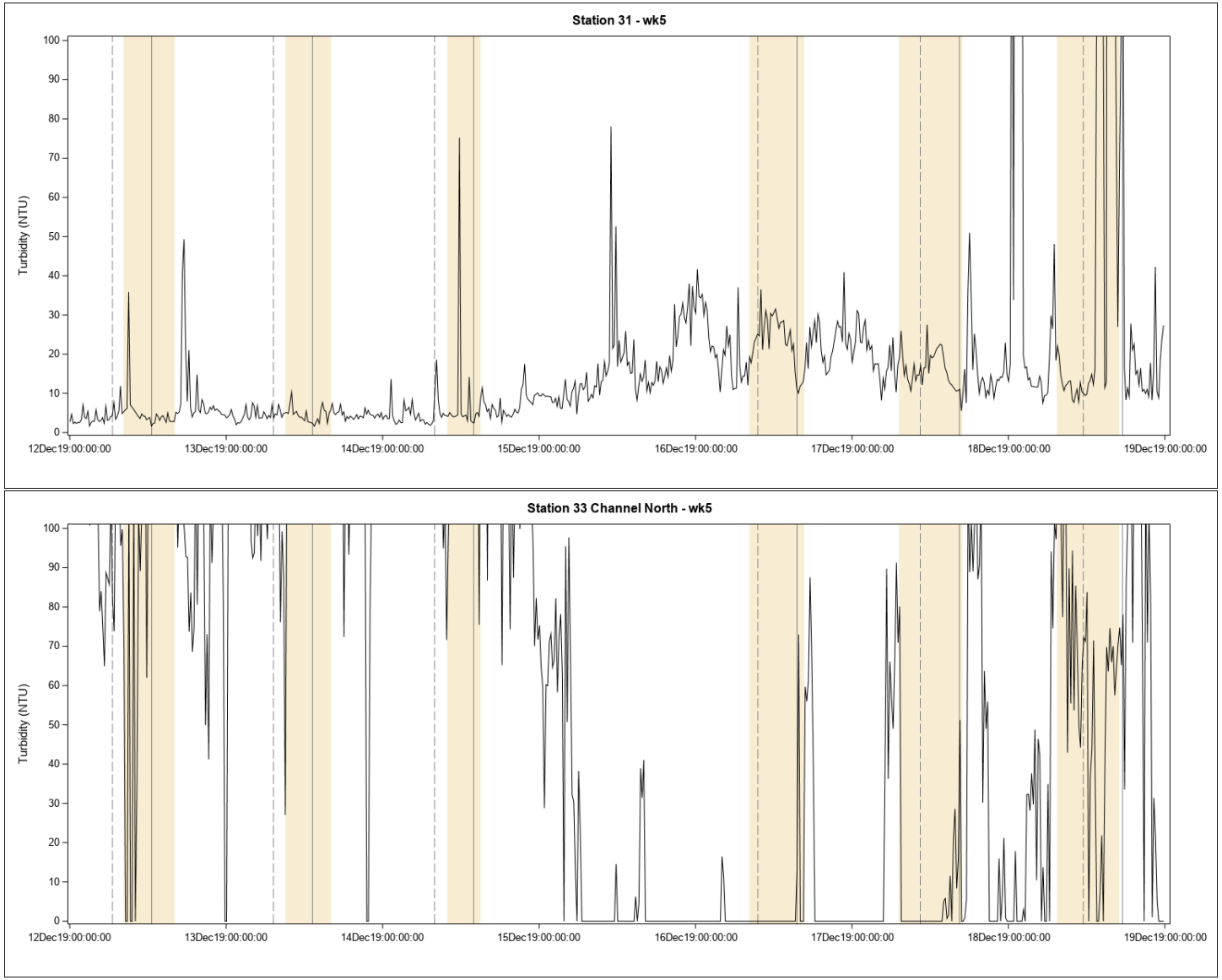
Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.



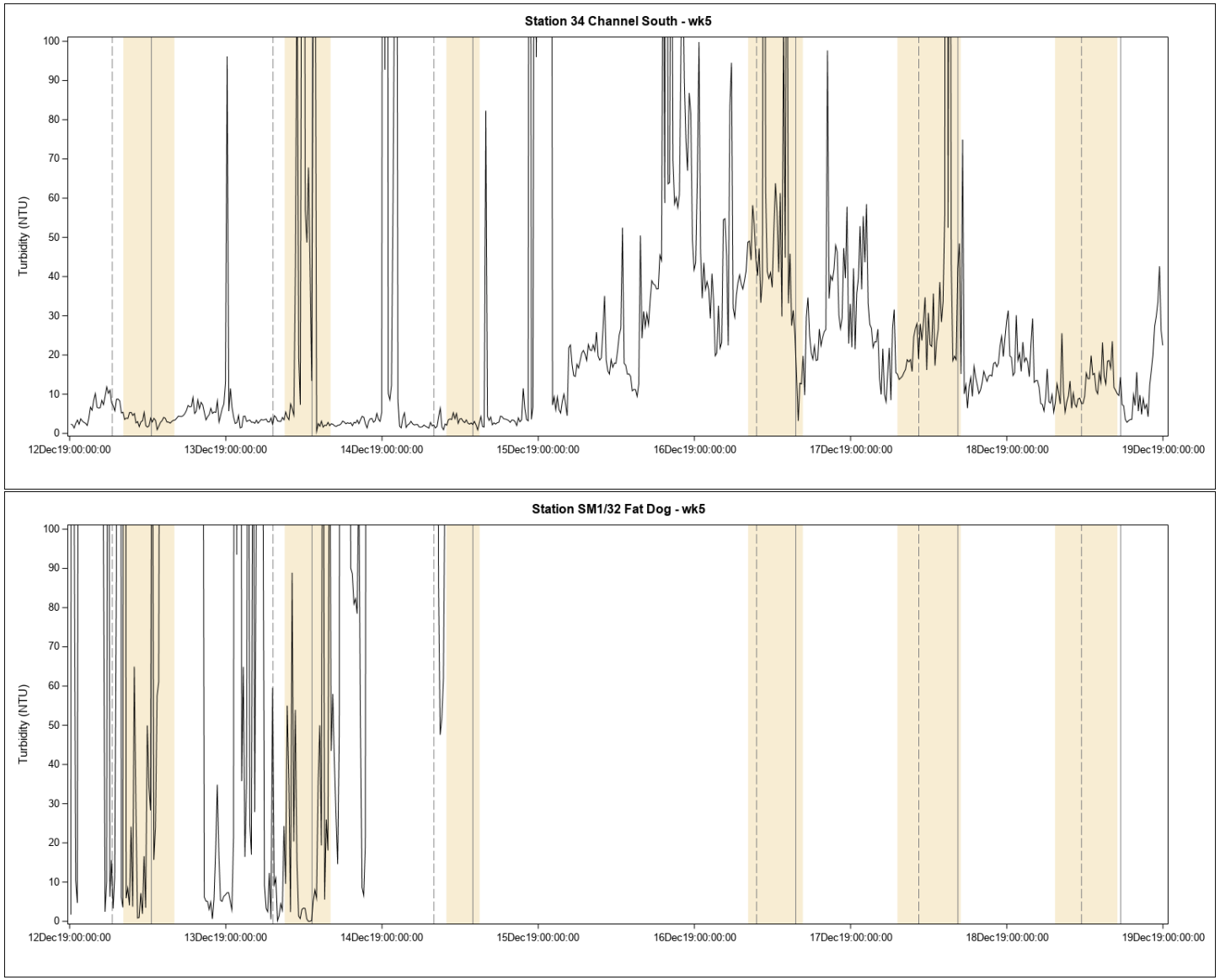
Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.

Hand Jet
Fixed Station Turbidity Plots

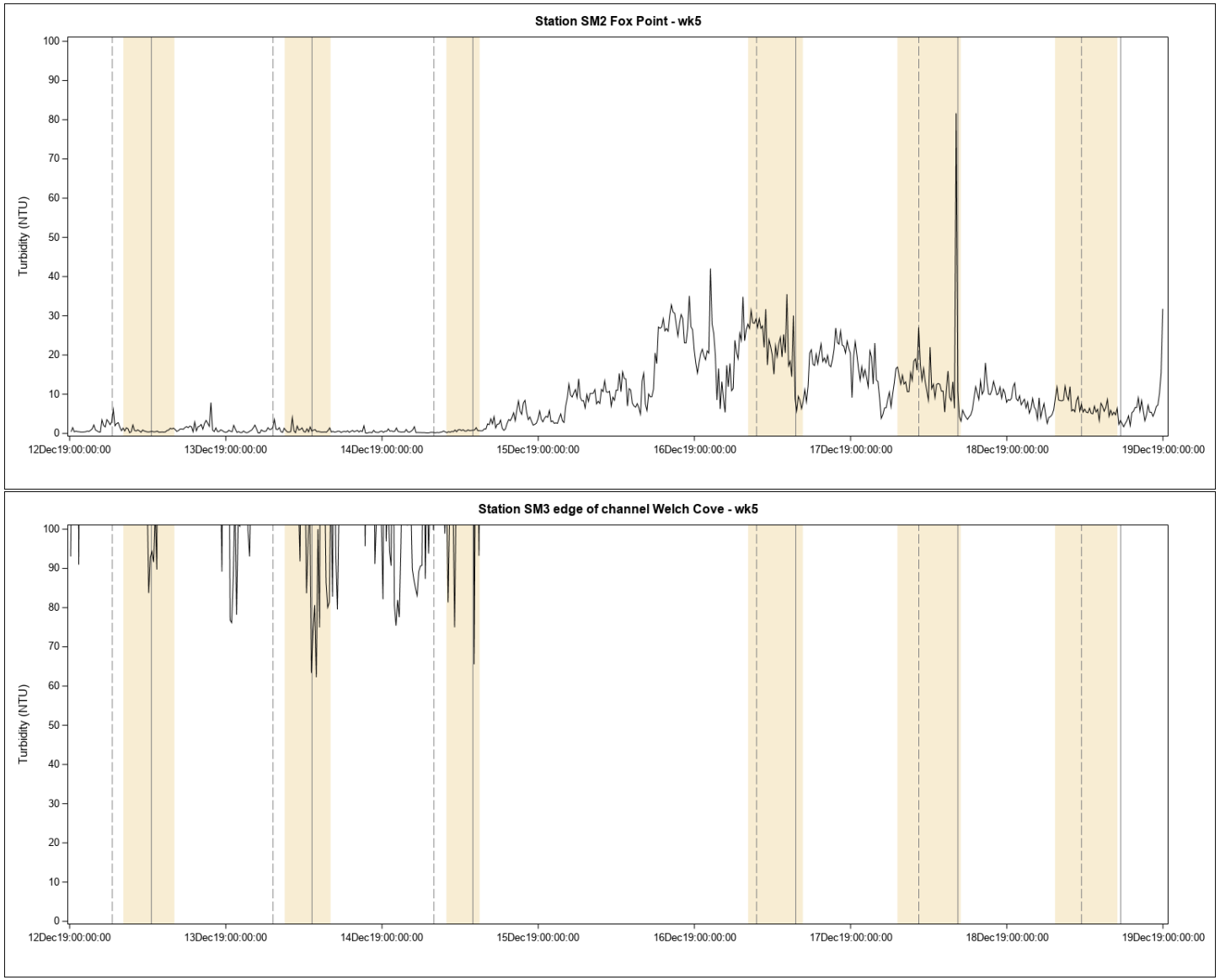
Week 5



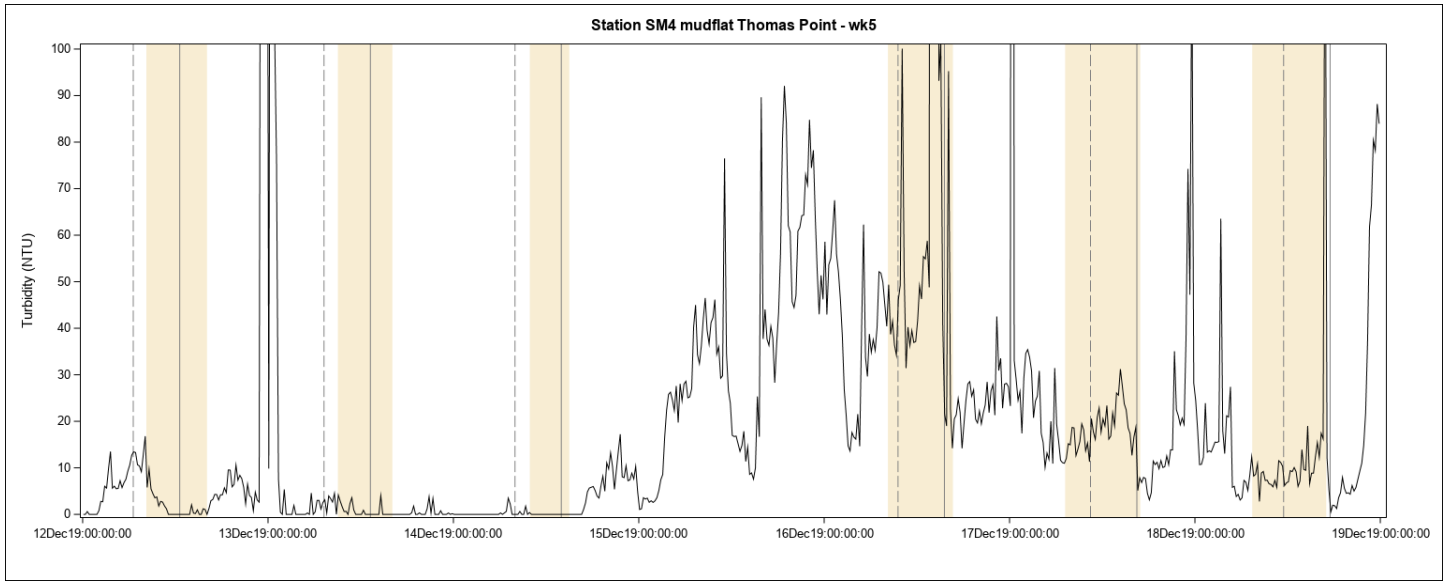
Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.



Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.



Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.



Tan shading indicates active cable installation. Vertical lines indicate high and low slack tides.

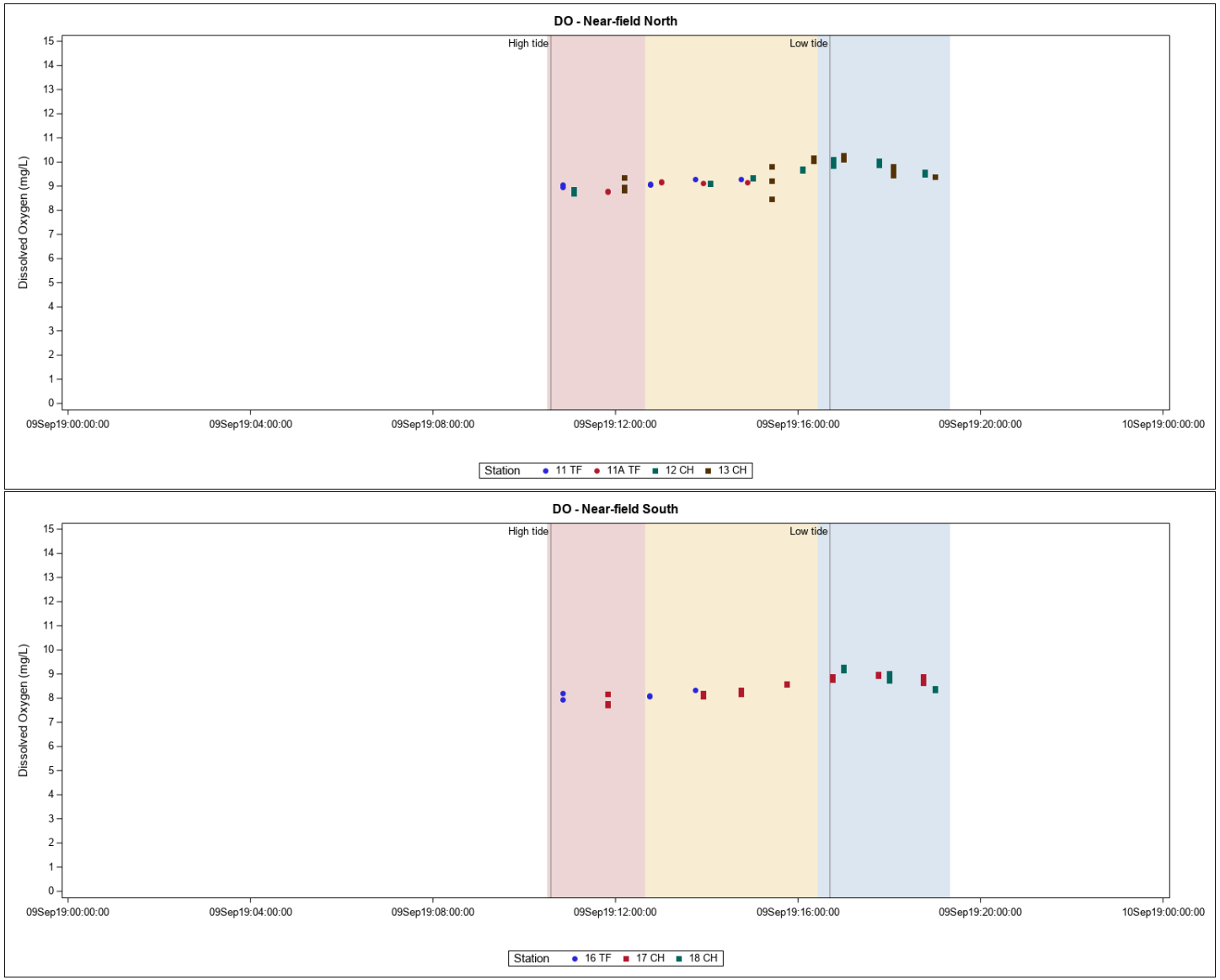
Appendix I
Other Boat-Based Plots and Tables (Dissolved Oxygen, Temperature, Salinity and pH)

Jet Plow Trial

Dissolved Oxygen

DO (mg/L)		09 SEP 2019											
		Before Start of Jet Plow											
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	7.46	7.46	7.36	7.36	7.19	7.19	7.25	7.47	7.27	7.55	7.09	7.44
	23	7.19	7.19			7.19	7.19	7.17	7.17			7.23	7.34
	24	7.18	7.18	6.99	6.99	6.97	6.97	7.17	7.97	7.33	8.05	7.32	7.96
	25	7.42	7.42	7.26	7.26	7.08	7.08	7.15	8.07	7.51	8.18	7.5	8.18
Boundary South	27							8.72	9.15	8.68	9.13	8.53	8.94
	28							8.46	9.36	8.61	9.01	8.49	8.81
	29							8.59	9.05	8.34	8.87	8.36	8.78
Nearfield North	11	9.07	9.07			8.97	8.97	9.06	9.06			9.09	9.28
	11A	8.79	8.79			8.78	8.78	9.15	9.15			9.13	9.18
	12	8.85	8.85	8.79	8.79	8.71	8.71	9.14	10.1	9.12	10.05	9.08	9.99
	13	9.36	9.36	8.96	8.96	8.82	8.82	9.39	10.12	9.21	10.26	8.48	10.16
Nearfield South	16	8.2	8.2			7.94	7.94	8.11	8.11			8.06	8.34
	17	8.19	8.19	7.79	7.79	7.73	7.73	8.22	8.99	8.1	9.01	8.07	8.94
	18							8.34	9.28	8.38	9.25	8.39	9.16
Reference Stations	41	7.89	7.89	7.51	7.51	7.48	7.48	8.24	8.24	7.95	7.95	7.56	7.56
	42	7.91	7.91	7.95	7.95	7.98	7.98	8.25	8.25			8.31	8.31
	43	8.23	8.23	8.22	8.22	8.15	8.15	8.7	8.7	8.21	8.21	8.06	8.06

Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



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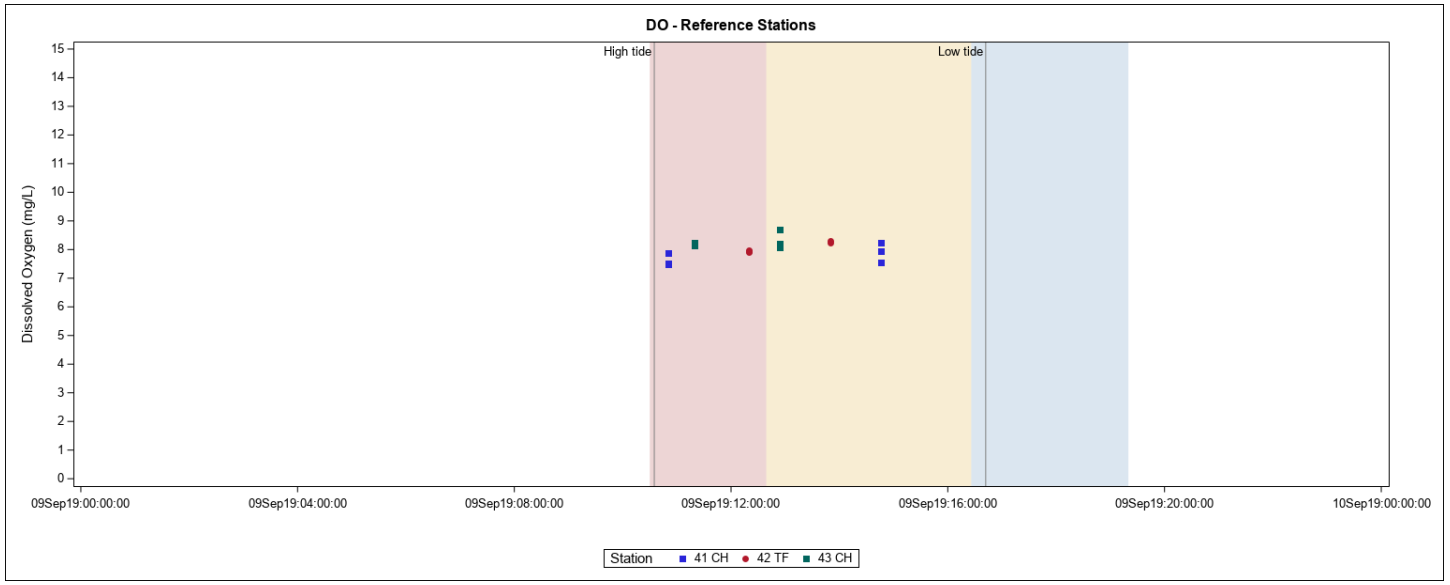
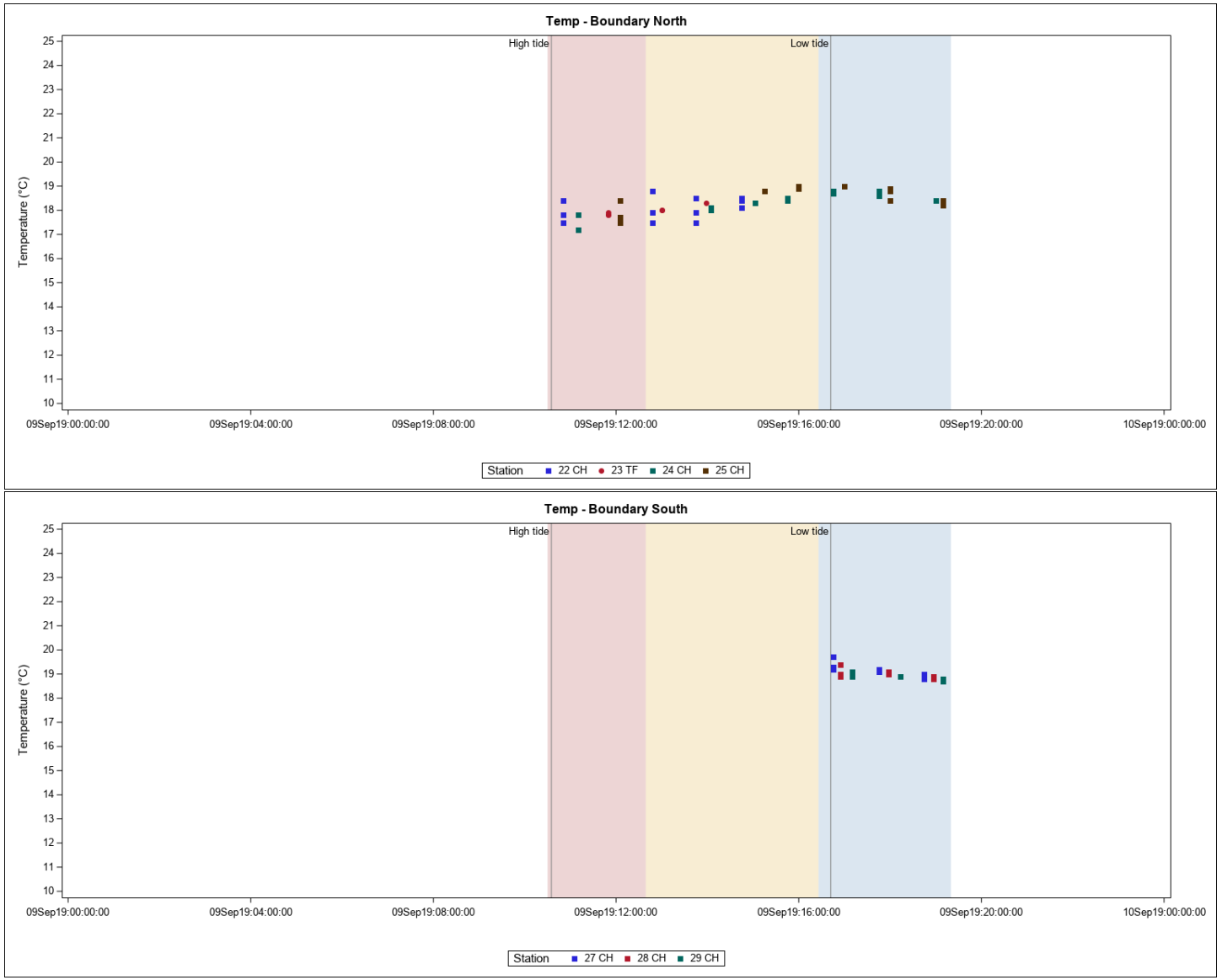


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

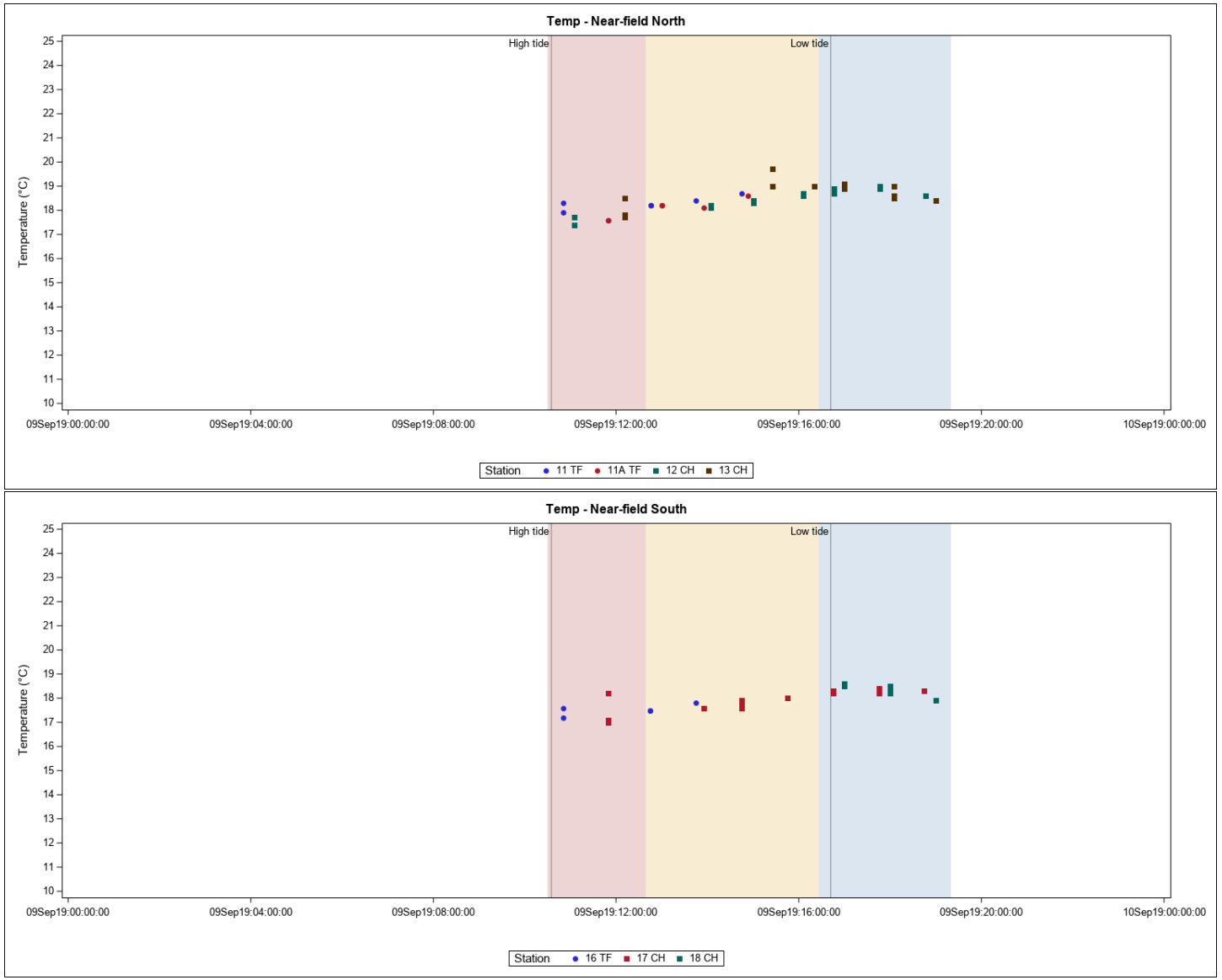
Jet Plow Trial

Temperature

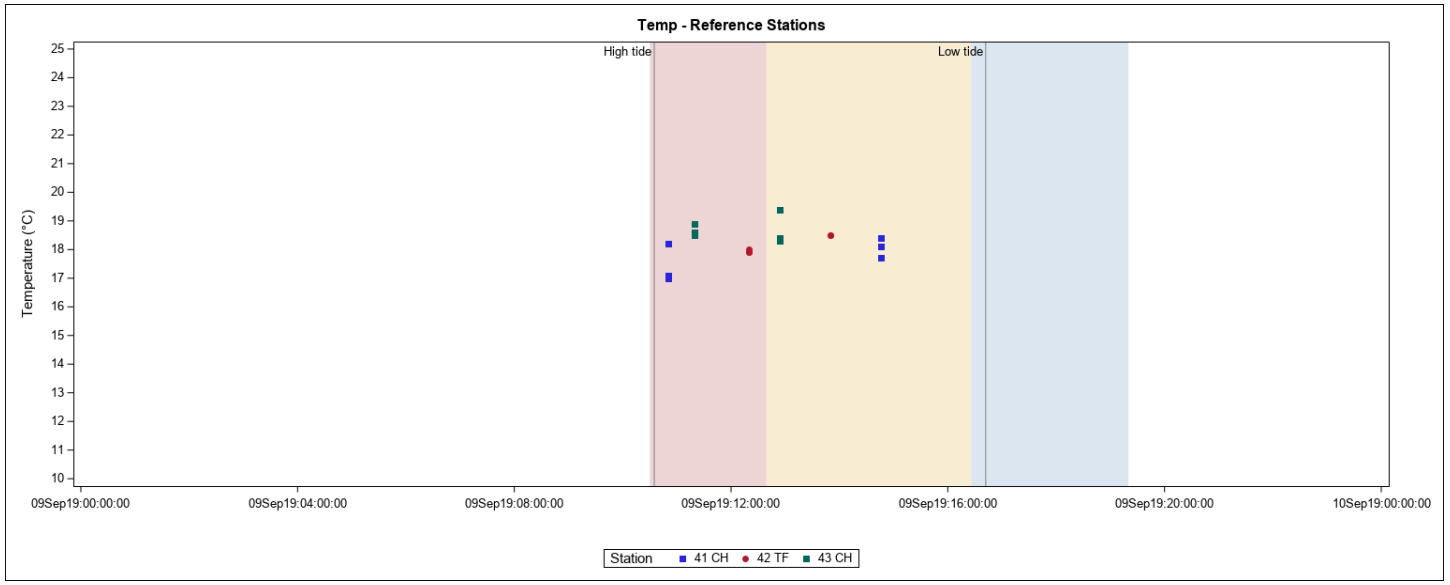
Temperature (°C)		09 SEP 2019											
		Before Start of Jet Plow											
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	18.4	18.4	17.8	17.8	17.5	17.5	18.5	18.8	17.9	18.4	17.5	18.1
	23	17.9	17.9			17.8	17.8	18	18			18	18.3
	24	17.8	17.8	17.2	17.2	17.2	17.2	18.1	18.8	18	18.8	18	18.7
	25	18.4	18.4	17.7	17.7	17.5	17.5	18.2	19	18.4	19	18.3	19
Boundary South	27							19	19.7	18.9	19.3	18.8	19.2
	28							18.9	19.4	18.8	19	18.8	19
	29							18.8	19.1	18.7	19	18.7	18.9
Nearfield North	11	18.3	18.3			17.9	17.9	18.2	18.2			18.2	18.7
	11A	17.6	17.6			17.6	17.6	18.2	18.2			18.1	18.6
	12	17.7	17.7	17.4	17.4	17.4	17.4	18.2	19	18.1	18.9	18.1	18.9
	13	18.5	18.5	17.8	17.8	17.7	17.7	18.4	19.7	18.4	19.1	18.4	19
Nearfield South	16	17.6	17.6			17.2	17.2	17.5	17.5			17.5	17.8
	17	18.2	18.2	17.1	17.1	17	17	17.6	18.4	17.6	18.4	17.6	18.3
	18							17.9	18.6	17.9	18.6	17.9	18.5
Reference Stations	41	18.2	18.2	17.1	17.1	17	17	18.4	18.4	18.1	18.1	17.7	17.7
	42	18	18	17.9	17.9	17.9	17.9	18.5	18.5			18.5	18.5
	43	18.9	18.9	18.6	18.6	18.5	18.5	19.4	19.4	18.4	18.4	18.3	18.3



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

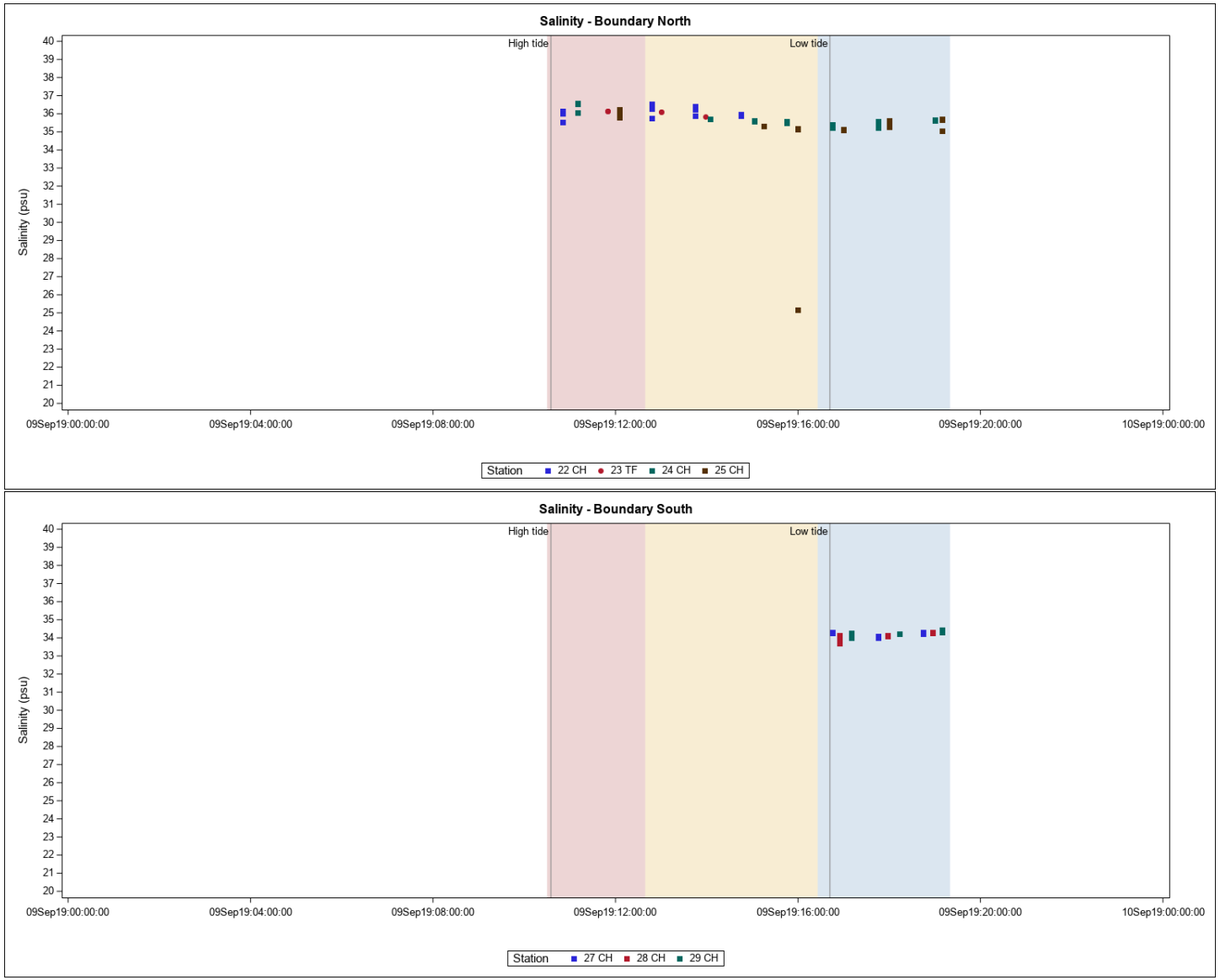


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Jet Plow Trial

Salinity

Salinity (psu)		09 SEP 2019											
		Before Start of Jet Plow											
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	35.5	35.5	36	36	36.2	36.2	35.8	36	36	36.3	35.9	36.5
	23	36.2	36.2			36.2	36.2	36.1	36.1			35.9	36.1
	24	36.1	36.1	36.6	36.6	36.6	36.6	35.2	35.7	35.3	35.7	35.4	35.7
	25	35.8	35.8	36	36	36.2	36.2	35.1	35.3	25.2	35.7	35.1	35.7
Boundary South	27							34	34.3	34	34.3	34.1	34.3
	28							33.7	34.3	34	34.3	34.1	34.3
	29							34	34.3	34.2	34.5	34.2	34.5
Nearfield North	11	32	32			32.2	32.2	32.1	32.1			31.9	32.1
	11A	32.4	32.4			32.4	32.4	32	32			32	32
	12	32.3	32.3	32.5	32.5	32.6	32.6	31.4	31.9	31.5	31.9	31.6	32
	13	31.8	31.8	32.1	32.1	32.2	32.2	31.3	31.9	31.3	31.9	31.4	32
Nearfield South	16	30.9	30.9			31.1	31.1	31.1	31.1			31	31.1
	17	30.5	30.5	31.2	31.2	31.3	31.3	30.4	31	30.4	30.9	30.6	30.9
	18							30.3	30.9	30.3	30.9	30.4	30.9
Reference Stations	41	34.9	34.9	35.7	35.7	36	36	34.6	34.6	34.7	34.7	35	35
	42	35	35	35.2	35.2	35.2	35.2	34.7	34.7			34.7	34.7
	43	34.3	34.3	34.4	34.4	34.4	34.4	33.8	33.8	34.6	34.6	34.7	34.7



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

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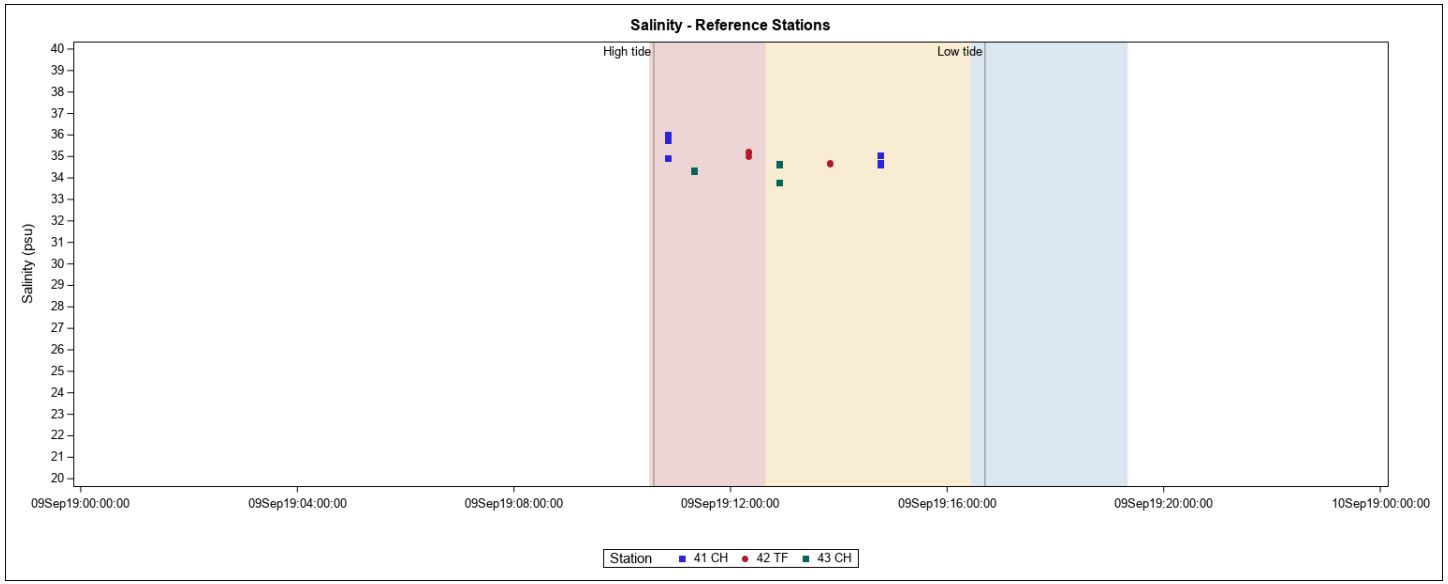


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 1

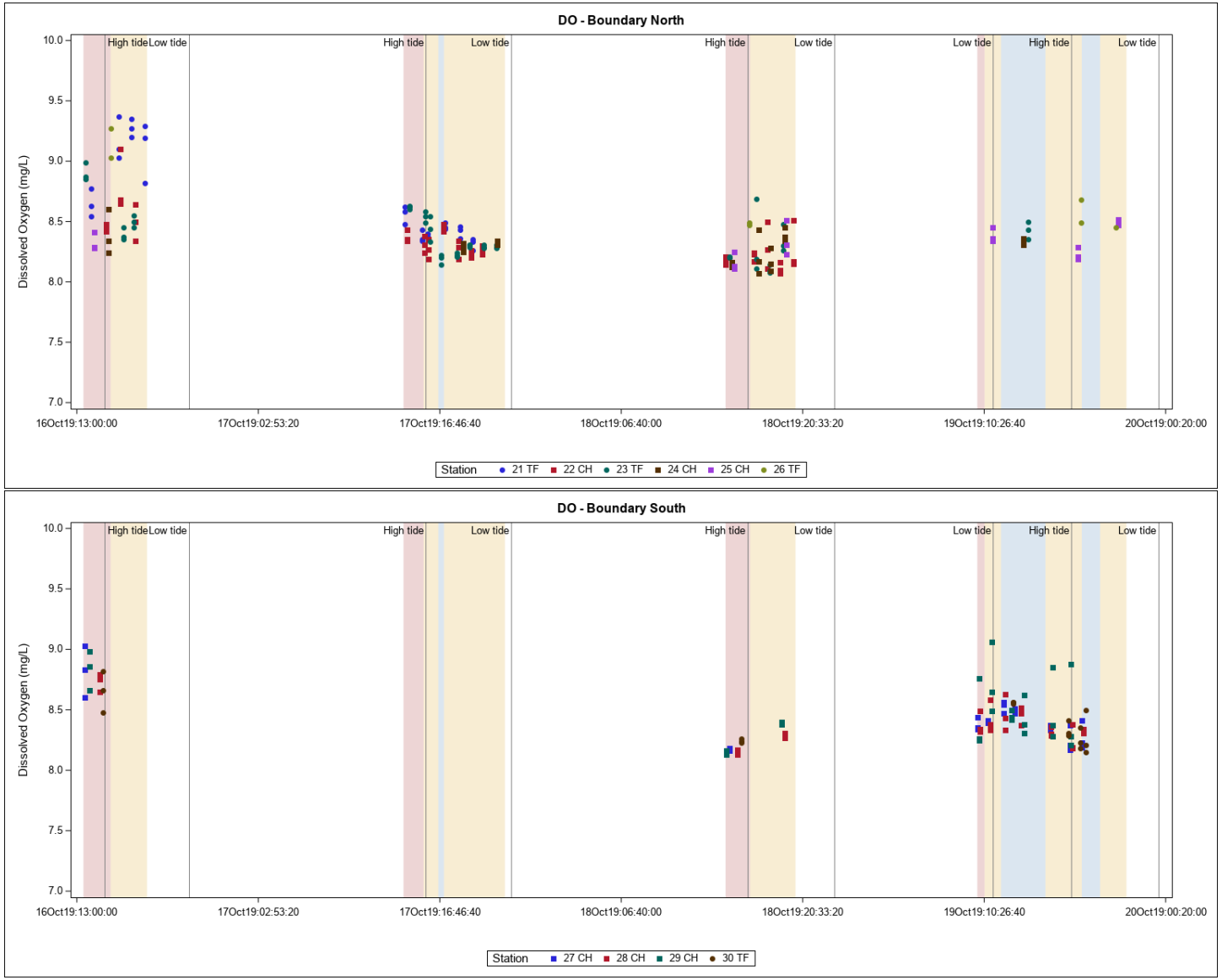
Dissolved Oxygen

DO (mg/L)		16 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	8.77	8.77	8.63	8.63	8.54	8.54	9.29	9.37	9.1	9.27	8.82	9.2
	22	8.48	8.48	8.46	8.46	8.42	8.42	8.64	9.1	8.5	8.68	8.34	8.65
	23	8.99	8.99	8.87	8.87	8.85	8.85	8.45	8.55	8.37	8.5	8.35	8.45
	24	8.6	8.6	8.34	8.34	8.24	8.24						
	25	8.41	8.41	8.29	8.29	8.28	8.28						
	26							9.27	9.27			9.03	9.03
Boundary South	27	9.03	9.03	8.83	8.83	8.6	8.6						
	28	8.79	8.79	8.75	8.75	8.65	8.65						
	29	8.98	8.98	8.86	8.86	8.66	8.66						
	30	8.82	8.82	8.66	8.66	8.48	8.48						
Nearfield North	10	9.5	9.5			9.48	9.48	9.08	9.17	9.04	9.04	9.05	9.28
	11	8.74	8.74	8.71	8.71	8.68	8.68	8.63	8.82			8.61	8.79
	12	8.8	8.8	8.73	8.73	8.72	8.72						
	13	8.93	8.93	8.48	8.48	8.38	8.38						
	14	9.18	9.18	8.93	8.93	8.77	8.77						
Nearfield South	15	9.5	9.5			9.51	9.51	9.52	9.65			9.59	9.77
	16	9.42	9.42			9.43	9.43	8.8	9.09	8.72	8.72	8.69	9
	17	8.78	8.78	8.68	8.68	8.63	8.63						
	18	8.83	8.83	8.73	8.73	8.71	8.71						
	19	8.95	8.95	8.9	8.9	8.78	8.78						
Reference Stations	41	8.39	8.39	8.36	8.36	8.26	8.26						
	42	8.43	8.43			8.37	8.37						
	43	9.06	9.06	9.05	9.05	8.88	8.88						

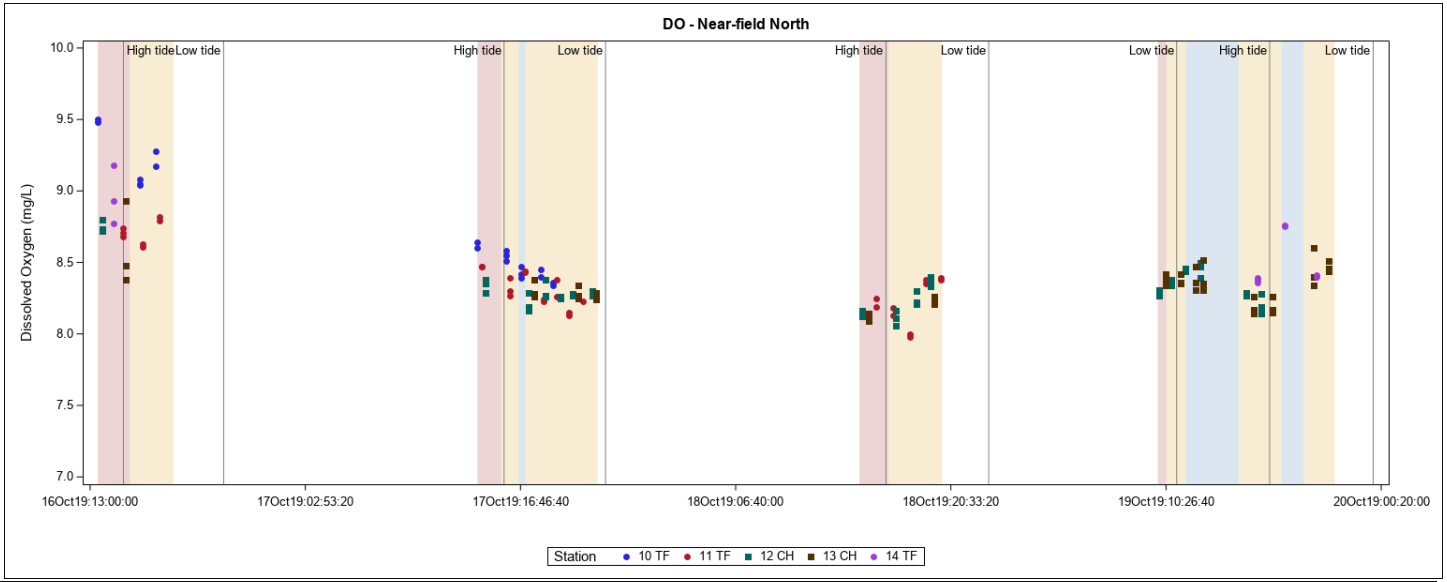
DO (mg/L)		17 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	8.43	8.62	8.34	8.58	8.35	8.48	8.35	8.49	8.33	8.45	8.26	8.44
	22	8.43	8.43	8.35	8.35	8.34	8.34	8.26	8.48	8.24	8.44	8.19	8.42
	23	8.63	8.63	8.62	8.62	8.6	8.6	8.22	8.58	8.2	8.54	8.14	8.49
	24							8.32	8.34	8.29	8.31	8.25	8.31
Boundary South	27												
	28												
	29												
	30												
Nearfield North	10	8.6	8.6			8.64	8.64	8.36	8.58	8.42	8.55	8.34	8.51
	11	8.47	8.47			8.47	8.47	8.15	8.44	8.3	8.44	8.13	8.43
	12	8.38	8.38	8.35	8.35	8.29	8.29	8.26	8.38	8.19	8.28	8.16	8.27
	13							8.29	8.38	8.26	8.28	8.24	8.26
Nearfield South	15	8.68	8.68			8.64	8.64	8.61	8.61			8.46	8.57
	16	8.58	8.58			8.55	8.55	8.42	8.52			8.14	8.41
	17							8.45	8.51	8.37	8.39	8.35	8.37
	18							8.39	8.39	8.35	8.35	8.34	8.34
Reference Stations	41							8.3	8.3	8.23	8.23	8.12	8.12
	42							8.36	8.36			8.34	8.34
	43												

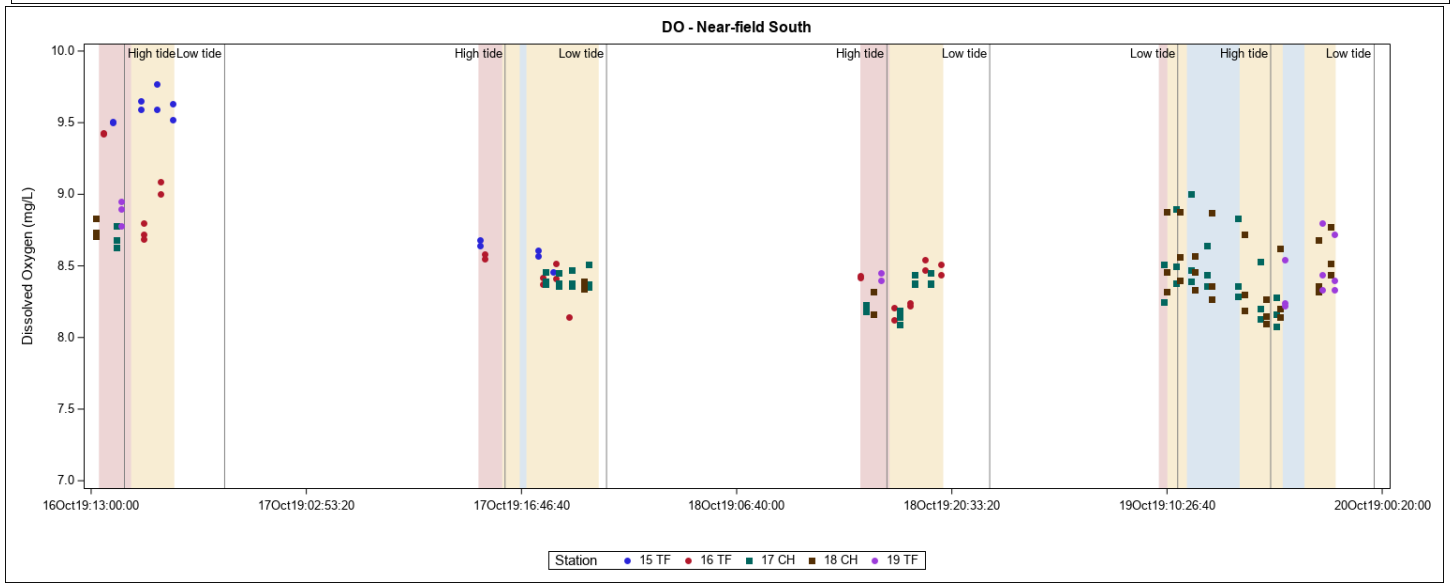
DO (mg/L)		18 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	8.21	8.21	8.17	8.17	8.14	8.14	8.16	8.51	8.1	8.27	8.07	8.17
	23	8.2	8.2	8.21	8.21	8.2	8.2	8.14	8.69	8.09	8.3	8.08	8.26
	24	8.16	8.16	8.15	8.15	8.12	8.12	8.28	8.45	8.15	8.37	8.07	8.34
	25	8.25	8.25	8.13	8.13	8.11	8.11	8.51	8.51	8.31	8.31	8.23	8.23
	26	8.49	8.49			8.47	8.47						
Boundary South	27	8.17	8.17	8.16	8.16	8.18	8.18						
	28	8.17	8.17	8.13	8.13	8.13	8.13	8.31	8.31	8.27	8.27	8.27	8.27
	29	8.16	8.16	8.13	8.13	8.13	8.13	8.4	8.4	8.38	8.38	8.38	8.38
	30	8.26	8.26	8.24	8.24	8.23	8.23						
Nearfield North	11	8.25	8.25			8.19	8.19	7.98	8.39			8	8.38
	12	8.16	8.16	8.14	8.14	8.12	8.12	8.16	8.4	8.11	8.36	8.06	8.33
	13	8.14	8.14	8.11	8.11	8.09	8.09	8.26	8.26	8.22	8.22	8.21	8.21
Nearfield South	16	8.42	8.42			8.43	8.43	8.21	8.54			8.12	8.47
	17	8.23	8.23	8.2	8.2	8.18	8.18	8.19	8.45	8.14	8.38	8.09	8.38
	18	8.32	8.32	8.16	8.16	8.16	8.16						
	19	8.45	8.45			8.4	8.4						
Reference Stations	41	8.11	8.11	8.08	8.08	8.04	8.04	8.24	8.24	8.21	8.21	8.16	8.16
	42	8.15	8.15	8.14	8.14	8.13	8.13						
	43	8.26	8.26	8.23	8.23	8.21	8.21						

DO (mg/L)		19 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	23							8.5	8.5	8.43	8.43	8.35	8.35
	24							8.36	8.36	8.33	8.33	8.31	8.31
	25							8.29	8.52	8.21	8.47	8.19	8.47
	26							8.68	8.68			8.45	8.49
Boundary South	27	8.44	8.44	8.34	8.34	8.35	8.35	8.37	8.54	8.21	8.49	8.17	8.56
	28	8.49	8.49	8.34	8.34	8.32	8.32	8.31	8.63	8.19	8.47	8.18	8.37
	29	8.76	8.76	8.26	8.26	8.25	8.25	8.5	9.06	8.28	8.65	8.21	8.49
	30							8.35	8.56	8.21	8.55	8.15	8.56
Nearfield North	12	8.31	8.31	8.29	8.29	8.27	8.27	8.28	8.5	8.19	8.47	8.14	8.44
	13	8.42	8.42	8.38	8.38	8.34	8.34	8.26	8.6	8.17	8.46	8.14	8.44
	14							8.36	8.76	8.38	8.38	8.39	8.75
Nearfield South	17	8.51	8.51	8.25	8.25	8.25	8.25	8.28	9	8.16	8.5	8.08	8.39
	18	8.88	8.88	8.46	8.46	8.32	8.32	8.27	8.88	8.15	8.56	8.1	8.44
	19							8.54	8.8	8.24	8.44	8.22	8.33
Reference Stations	41							8.32	8.42	8.27	8.33	8.18	8.26
	42							8.35	8.41			8.35	8.37
	43	8.56	8.56	8.47	8.47	8.46	8.46	8.41	8.56	8.37	8.44	8.36	8.37



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.





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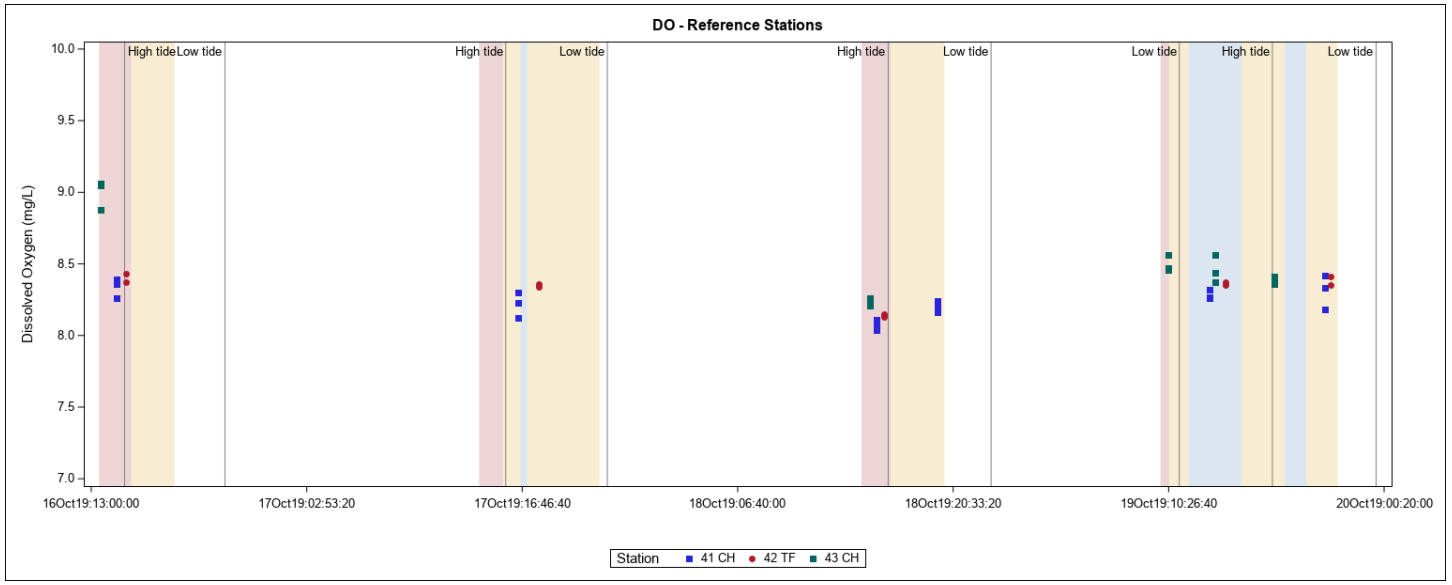


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 1

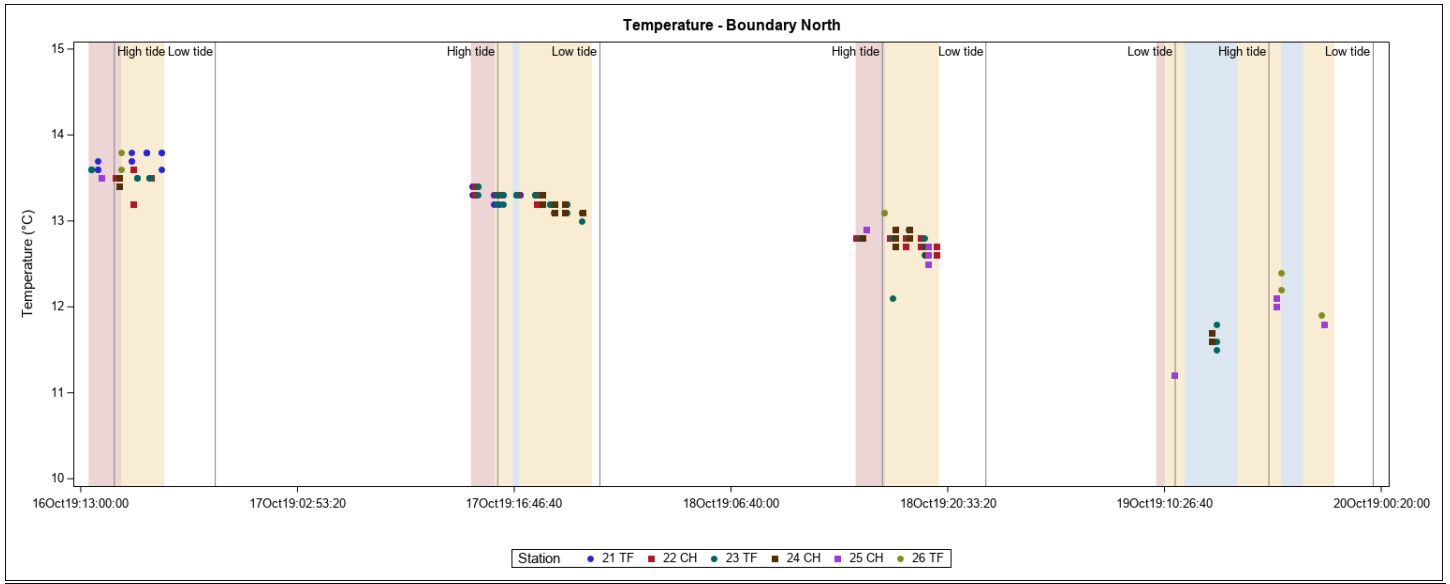
Temperature

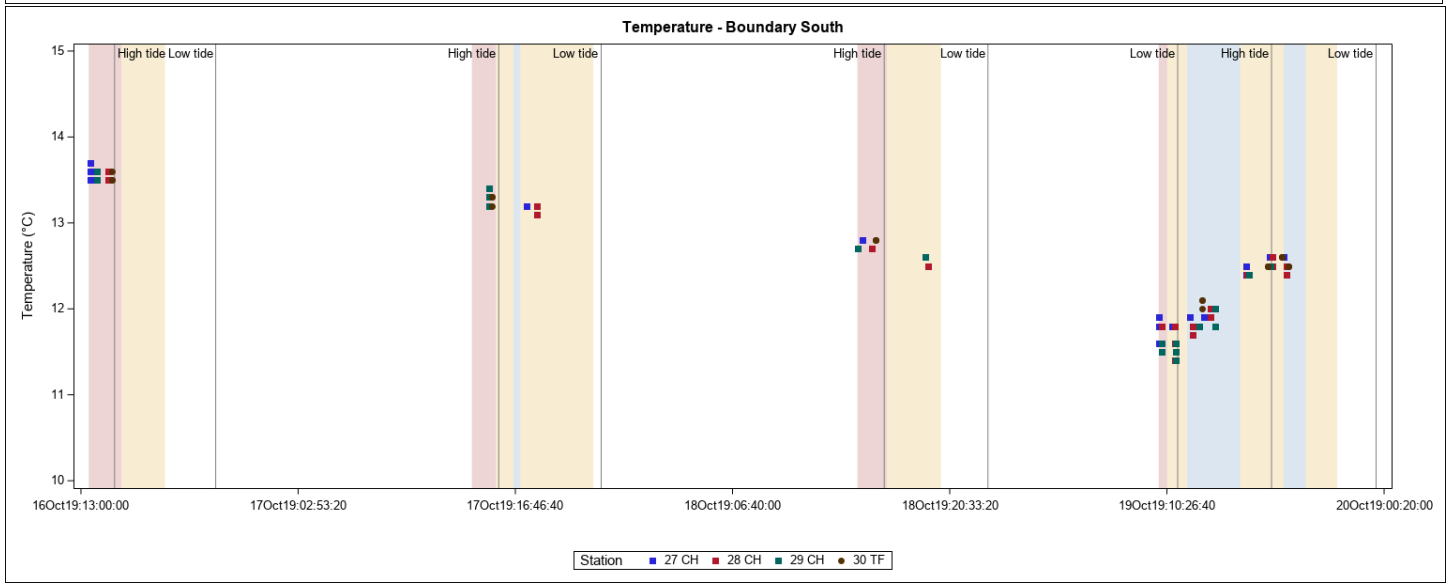
Temperature (°C)		16 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	13.7	13.7	13.6	13.6	13.6	13.6	13.8	13.8	13.7	13.8	13.6	13.8
	22	13.5	13.5	13.5	13.5	13.5	13.5	13.2	13.5	13.5	13.6	13.5	13.6
	23	13.6	13.6	13.6	13.6	13.6	13.6	13.5	13.5	13.5	13.5	13.5	13.5
	24	13.5	13.5	13.5	13.5	13.4	13.4						
	25	13.5	13.5	13.5	13.5	13.5	13.5						
	26							13.6	13.6			13.8	13.8
Boundary South	27	13.7	13.7	13.6	13.6	13.5	13.5						
	28	13.6	13.6	13.5	13.5	13.5	13.5						
	29	13.6	13.6	13.5	13.5	13.5	13.5						
	30	13.6	13.6	13.5	13.5	13.5	13.5						
Nearfield North	10	14	14			14	14	13.6	13.6	13.6	13.6	13.6	13.7
	11	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5			13.5	13.5
	12	13.5	13.5	13.5	13.5	13.5	13.5						
	13	13.5	13.5	13.4	13.4	13.4	13.4						
	14	13.7	13.7	13.6	13.6	13.6	13.6						
Nearfield South	15	13.3	13.3			13.3	13.3	13.3	13.4			13.3	13.4
	16	13.2	13.2			13.2	13.2	13	13	13	13	13	13
	17	13	13	13	13	13	13						
	18	13	13	13	13	13	13						
	19	13.1	13.1	13.1	13.1	13.1	13.1						
Reference Stations	41	13.5	13.5	13.4	13.4	13.4	13.4						
	42	13.4	13.4			13.4	13.4						
	43	13.5	13.5	13.5	13.5	13.5	13.5						

Temperature (°C)		17 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	13.2	13.3	13.3	13.4	13.3	13.4	13.1	13.3	13.2	13.3	13.2	13.3
	22	13.3	13.3	13.4	13.4	13.4	13.4	13.2	13.3	13.2	13.3	13.1	13.3
	23	13.3	13.3	13.4	13.4	13.4	13.4	13	13.3	13.1	13.3	13.1	13.3
	24							13.1	13.2	13.1	13.3	13.1	13.3
Boundary South	27							13.2	13.2	13.2	13.2	13.2	13.2
	28							13.1	13.1	13.2	13.2	13.2	13.2
	29	13.2	13.2	13.4	13.4	13.3	13.3						
	30	13.2	13.2	13.3	13.3	13.3	13.3						
Nearfield North	10	13.1	13.1			13.2	13.2	13	13.2	13.2	13.3	13.1	13.3
	11	13.3	13.3			13.4	13.4	13	13.2	13.2	13.3	12.9	13.3
	12	13.3	13.3	13.4	13.4	13.4	13.4	13	13.2	13	13.3	13	13.3
	13							12.8	13.2	12.8	13.2	12.8	13
Nearfield South	15	13.2	13.2			13.3	13.3	12.7	13.2			12.6	13.3
	16	13.3	13.3			13.3	13.3	12.6	13.2			12.6	13.3
	17	13.4	13.4			13.4	13.4	12.5	12.7	12.5	12.7	12.6	12.7
	18	13.3	13.3	13.3	13.3	13.3	13.3	12.4	12.4	12.4	12.4	12.4	12.4
Reference Stations	41							13.3	13.3	13.3	13.3	13.3	13.3
	42							13.1	13.1			13.2	13.2
	43							12.9	12.9	13.2	13.2	13.2	13.2

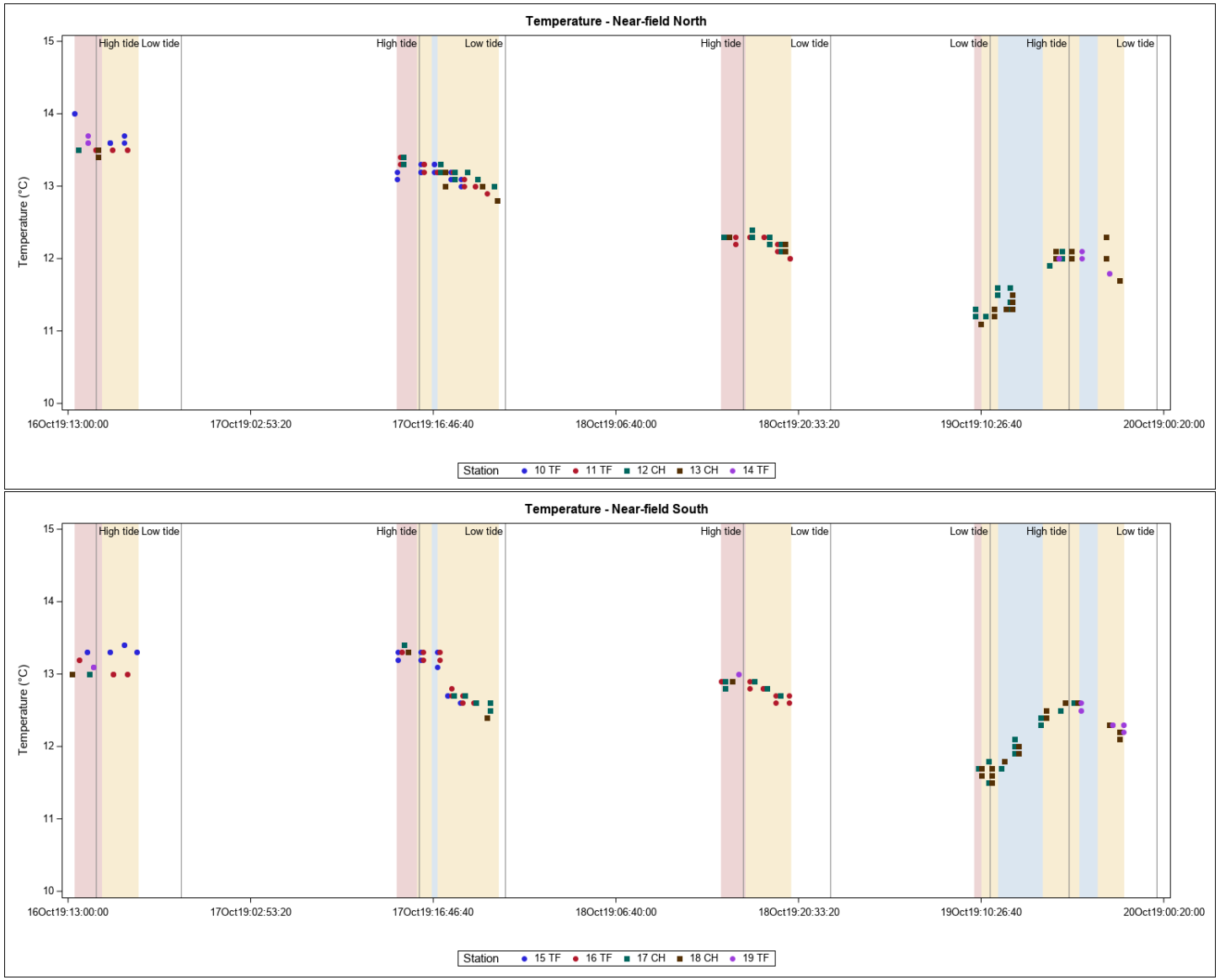
Temperature (°C)		18 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	12.8	12.8	12.8	12.8	12.8	12.8	12.6	12.8	12.7	12.8	12.7	12.8
	23	12.8	12.8	12.8	12.8	12.8	12.8	12.1	12.8	12.7	12.8	12.8	12.9
	24	12.8	12.8	12.8	12.8	12.8	12.8	12.6	12.8	12.6	12.8	12.7	12.9
	25	12.9	12.9	12.9	12.9	12.9	12.9	12.5	12.5	12.6	12.6	12.7	12.7
	26	13.1	13.1			13.1	13.1						
Boundary South	27	12.8	12.8	12.8	12.8	12.8	12.8						
	28	12.7	12.7	12.7	12.7	12.7	12.7	12.5	12.5	12.5	12.5	12.5	12.5
	29	12.7	12.7	12.7	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.6	12.6
	30	12.8	12.8	12.8	12.8	12.8	12.8						
Nearfield North	11	12.2	12.2			12.3	12.3	12	12.3			12	12.3
	12	12.3	12.3	12.3	12.3	12.3	12.3	12.1	12.3	12.1	12.4	12.2	12.4
	13	12.3	12.3	12.3	12.3	12.3	12.3	12.1	12.1	12.2	12.2	12.2	12.2
Nearfield South	16	12.9	12.9			12.9	12.9	12.6	12.8			12.7	12.9
	17	12.8	12.8	12.9	12.9	12.9	12.9	12.7	12.9	12.7	12.9	12.7	12.9
	18	12.9	12.9	12.9	12.9	12.9	12.9						
	19	13	13			13	13						
Reference Stations	41	12.9	12.9	12.9	12.9	12.9	12.9	12.7	12.7	12.7	12.7	12.7	12.7
	42	12.9	12.9	12.9	12.9	12.9	12.9						
	43	12.7	12.7	12.6	12.6	12.7	12.7						

Temperature (°C)		19 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	23							11.8	11.8	11.6	11.6	11.5	11.5
	24							11.7	11.7	11.6	11.6	11.6	11.6
	25							11.2	12	11.2	12.1	11.2	12.1
	26							12.4	12.4			11.9	12.2
Boundary South	27	11.9	11.9	11.8	11.8	11.6	11.6	11.8	12.6	11.8	12.6	11.8	12.6
	28	11.6	11.6	11.6	11.6	11.8	11.8	11.4	12.6	11.6	12.5	11.7	12.5
	29	11.5	11.5	11.6	11.6	11.6	11.6	11.4	12.5	11.5	12.5	11.6	12.5
	30							12.1	12.6	12	12.6	12.1	12.6
Nearfield North	12	11.2	11.2	11.2	11.2	11.3	11.3	11.2	12	11.2	12	11.2	12.1
	13	11.1	11.1	11.1	11.1	11.1	11.1	11.3	12	11.2	12.3	11.2	12.3
	14							11.8	12	12	12	11.8	12.1
Nearfield South	17	11.7	11.7	11.7	11.7	11.7	11.7	11.5	12.6	11.7	12.6	11.7	12.6
	18	11.6	11.6	11.6	11.6	11.7	11.7	11.5	12.6	11.6	12.6	11.7	12.6
	19							12.2	12.6	12.3	12.5	12.3	12.5
Reference Stations	41							11.7	12.3	11.7	12.4	11.7	12.6
	42							11.9	12.4			11.9	12.5
	43	11.8	11.8	11.6	11.6	11.7	11.7	12	12.4	11.9	12.4	11.9	12.4

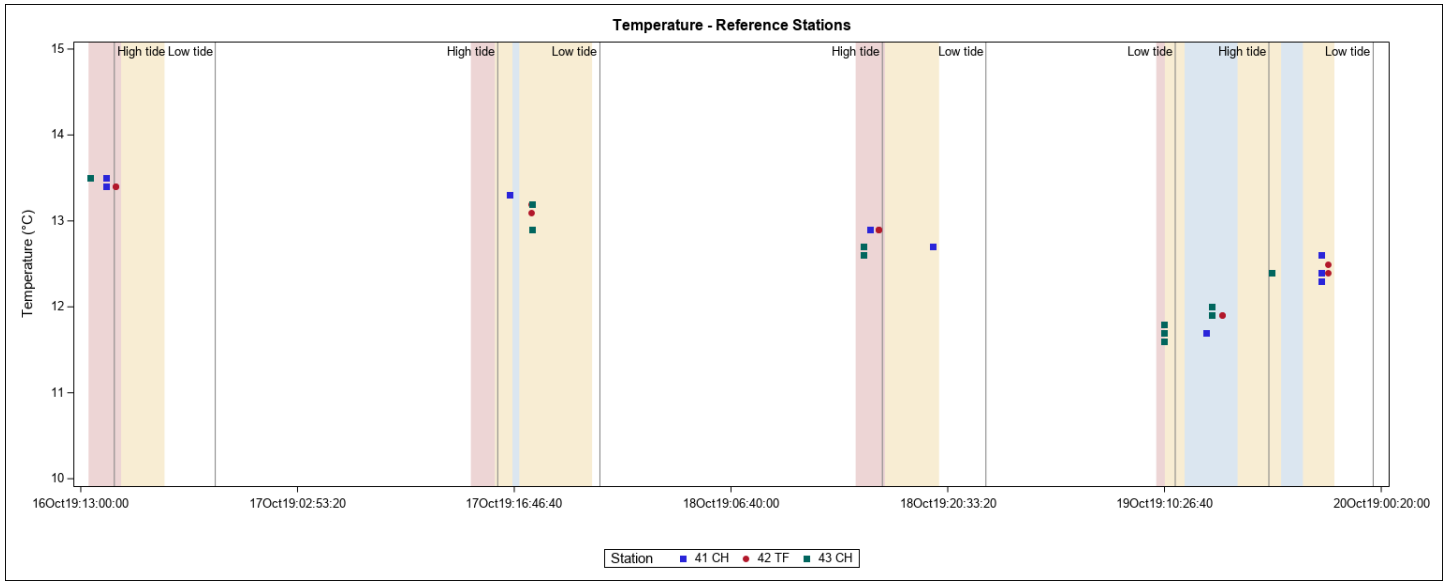




Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 1

Salinity

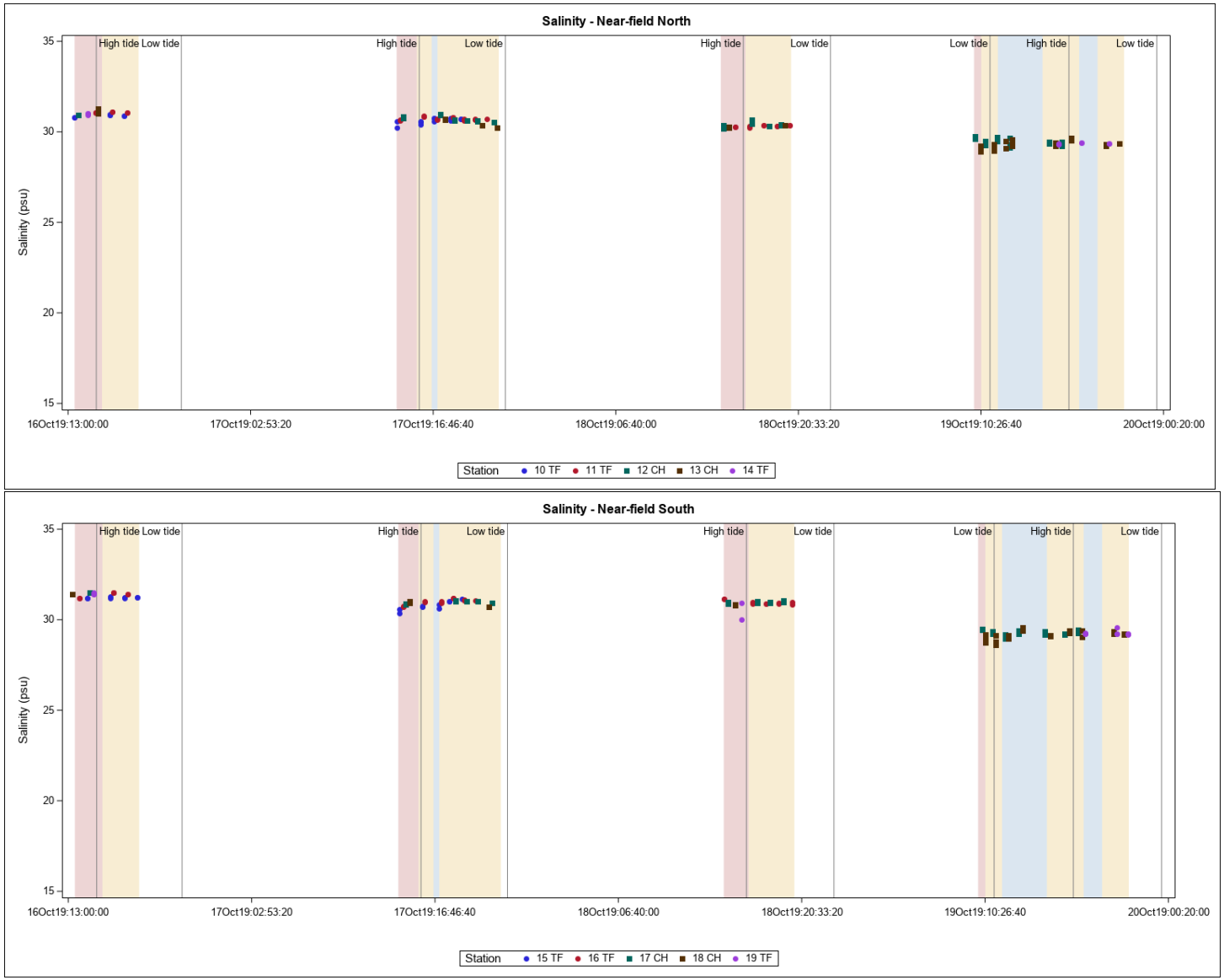
Salinity (psu)		16 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	31.4	31.4	31.4	31.4	31.4	31.4	31.2	31.2	31.2	31.2	31.2	31.3
	22	31.5	31.5	31.5	31.5	31.5	31.5	31.4	31.4	31.4	31.5	31.4	31.5
	23	31.2	31.2	31.2	31.2	31.2	31.2	31.4	31.5	31.4	31.5	31.4	31.5
	24	31.4	31.4	31.6	31.6	31.6	31.6						
	25	31.6	31.6	31.6	31.6	31.6	31.6						
	26							31.2	31.2			31.3	31.3
Boundary South	27	31.1	31.1	31.1	31.1	31.2	31.2						
	28	31.2	31.2	31.2	31.2	31.2	31.2						
	29	31	31	31.1	31.1	31.1	31.1						
	30	31.2	31.2	31.3	31.3	31.3	31.3						
Nearfield North	10	30.8	30.8			30.8	30.8	30.9	31	31	31	30.9	31
	11	31	31	31	31	31.1	31.1	31.1	31.1			31.1	31.1
	12	30.9	30.9	30.9	30.9	30.9	30.9						
	13	31	31	31.3	31.3	31.3	31.3						
	14	30.9	30.9	31	31	31	31						
Nearfield South	15	31.2	31.2			31.2	31.2	31.2	31.2			31.2	31.3
	16	31.2	31.2			31.2	31.2	31.4	31.5	31.5	31.5	31.4	31.5
	17	31.5	31.5	31.5	31.5	31.5	31.5						
	18	31.4	31.4	31.4	31.4	31.4	31.4						
	19	31.4	31.4	31.4	31.4	31.5	31.5						
Reference Stations	41	31.6	31.6	31.7	31.7	31.7	31.7						
	42	31.5	31.5			31.5	31.5						
	43	30.9	30.9	31	31	31	31						

Salinity (psu)		17 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	30.9	30.9	31	31.2	31	31.1	30.9	31.1	30.9	31.1	31	31.2
	22	31.1	31.1	31.1	31.1	31.1	31.1	30.9	31.2	31	31.2	31.1	31.3
	23	30.9	30.9	30.9	30.9	30.9	30.9	30.9	31.3	30.9	31.6	30.9	31.4
	24							30.8	30.9	30.8	31	30.8	31.1
Boundary South	27							30.9	30.9	30.9	30.9	30.9	30.9
	28							30.7	30.7	30.9	30.9	30.8	30.8
	29	30.8	30.8	31	31	31	31						
	30	30.9	30.9	30.9	30.9	31	31						
Nearfield North	10	30.2	30.2			30.6	30.6	30.4	30.7	30.6	30.8	30.6	30.8
	11	30.6	30.6			30.7	30.7	30.6	30.9	30.7	30.9	30.7	30.9
	12	30.8	30.8	30.8	30.8	30.8	30.8	30.5	30.9	30.5	31	30.5	31
	13							30.2	30.7	30.2	30.7	30.2	30.7
Nearfield South	15	30.4	30.4			30.6	30.6	30.6	31			30.7	31.2
	16	30.8	30.8			30.7	30.7	30.9	31.2			31	31.2
	17	30.9	30.9			30.9	30.9	30.9	31	30.9	31	30.9	31
	18	31	31	31	31	31	31	30.7	30.7	30.7	30.7	30.7	30.7
Reference Stations	41							31.3	31.3	31.3	31.3	31.4	31.4
	42							31.1	31.1			31.1	31.1
	43							30.5	30.5	30.9	30.9	30.9	30.9

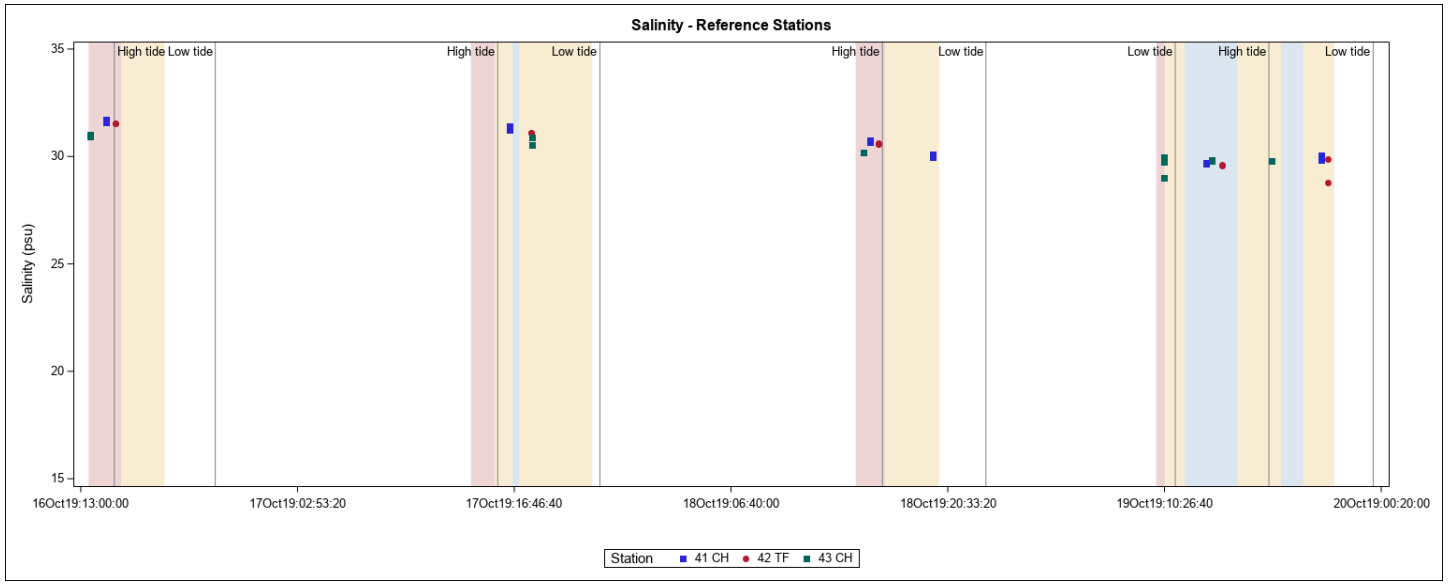
Salinity (psu)		18 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	30.2	30.2	30.2	30.2	30.2	30.2	30.1	30.3	30.2	30.4	30.3	30.5
	23	30.4	30.4	30.3	30.3	30.3	30.3	30.1	30.6	30.2	30.5	30.2	30.5
	24	30	30	30	30	30	30	30.2	30.5	30.3	30.5	30.3	30.7
	25	20.2	20.2	30.3	30.3	30.2	30.2	30.1	30.1	30.2	30.2	30.2	30.2
	26	30.2	30.2			30.2	30.2						
Boundary South	27	29.9	29.9	30	30	30.1	30.1						
	28	29.9	29.9	30	30	30	30	29.9	29.9	30	30	30.1	30.1
	29	30	30	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1
	30	29.9	29.9	29.9	29.9	29.9	29.9						
Nearfield North	11	30.3	30.3			30.3	30.3	30.2	30.4			30.3	30.4
	12	30.2	30.2	30.4	30.4	30.2	30.2	30.3	30.5	30.3	30.5	30.3	30.7
	13	30.2	30.2	30.2	30.2	30.3	30.3	30.4	30.4	30.4	30.4	30.4	30.4
Nearfield South	16	31.2	31.2			31.2	31.2	30.8	30.9			30.9	31
	17	31	31	30.9	30.9	30.9	30.9	30.9	31	30.9	31.1	31	31.1
	18	30.8	30.8	30.8	30.8	30.9	30.9						
	19	31	31			30	30						
Reference Stations	41	30.7	30.7	30.8	30.8	30.8	30.8	30	30	30	30	30.1	30.1
	42	30.6	30.6	30.6	30.6	30.6	30.6						
	43	30.2	30.2	30.2	30.2	30.2	30.2						

Salinity (psu)		19 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	23							29.6	29.6	29.7	29.7	29.7	29.7
	24							29.7	29.7	29.7	29.7	29.7	29.7
	25							28.9	29.6	29.2	29.7	29.3	29.7
	26							29.3	29.3			29.3	29.3
Boundary South	27	29.9	29.9	30.1	30.1	30.1	30.1	29.5	30	29.5	30	29.5	30
	28	28.4	28.4	30.1	30.1	30.1	30.1	28.3	30	29.7	30	29.8	30.1
	29	29.2	29.2	29.4	29.4	29.4	29.4	28	29.4	28.6	29.4	29.1	29.4
	30							29.2	29.8	29.2	29.9	29.2	29.9
Nearfield North	12	29.6	29.6	29.7	29.7	29.7	29.7	29.1	29.5	29.3	29.5	29.4	29.7
	13	28.9	28.9	29.1	29.1	29.2	29.2	29	29.5	29.2	29.7	29.2	29.7
	14							29.3	29.4	29.3	29.3	29.4	29.4
Nearfield South	17	29.5	29.5	29.5	29.5	29.5	29.5	29	29.3	29.1	29.3	29.2	29.5
	18	28.8	28.8	28.9	28.9	29.2	29.2	28.6	29.6	28.8	29.4	29.1	29.5
	19							29.2	29.6	29.2	29.2	29.2	29.3
Reference Stations	41							29.7	29.8	29.7	29.9	29.7	30.1
	42							28.8	29.6			29.6	29.9
	43	29	29	29.8	29.8	30	30	29.8	29.8	29.8	29.8	29.8	29.8

Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 1

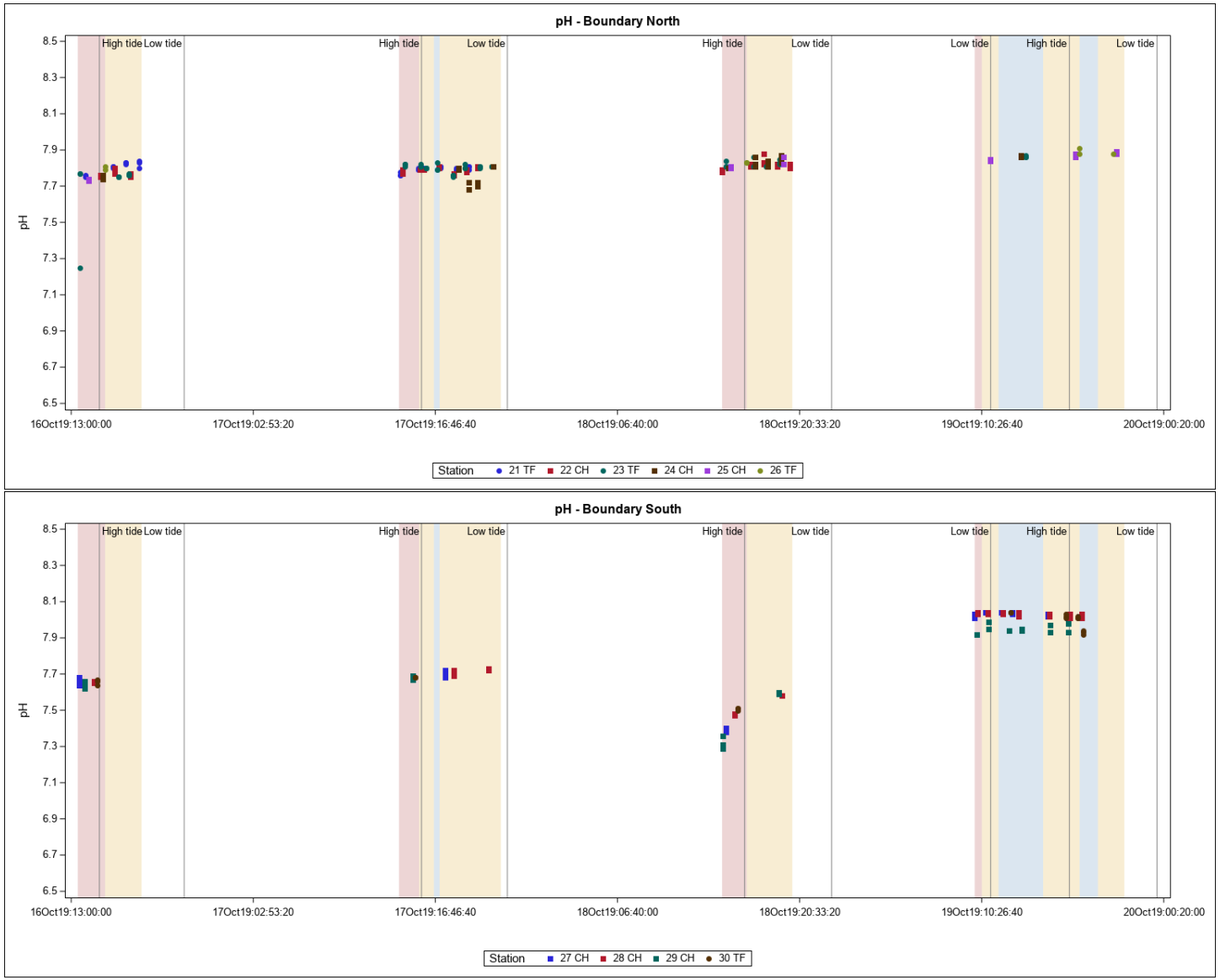
pH

pH		16 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	7.76	7.76	7.75	7.75	7.75	7.75	7.81	7.84	7.81	7.83	7.8	7.82
	22	7.76	7.76	7.75	7.75	7.75	7.75	7.77	7.8	7.76	7.77	7.75	7.77
	23	7.25	7.25	7.77	7.77	7.77	7.77	7.75	7.77	7.75	7.76	7.75	7.76
	24	7.76	7.76	7.74	7.74	7.74	7.74						
	25	7.74	7.74	7.73	7.73	7.74	7.74						
	26							7.81	7.81			7.79	7.79
Boundary South	27	7.68	7.68	7.65	7.65	7.64	7.64						
	28	7.66	7.66	7.65	7.65	7.65	7.65						
	29	7.62	7.62	7.66	7.66	7.64	7.64						
	30	7.67	7.67	7.66	7.66	7.64	7.64						
Nearfield North	10	7.53	7.53			7.52	7.52	7.55	7.58	7.55	7.55	7.55	7.58
	11	7.52	7.52	7.52	7.52	7.51	7.51	7.53	7.57			7.52	7.54
	12	7.48	7.48	7.48	7.48	7.48	7.48						
	13	7.55	7.55	7.51	7.51	7.5	7.5						
	14	7.55	7.55	7.53	7.53	7.52	7.52						
Nearfield South	15	7.71	7.71			7.71	7.71	7.75	7.77			7.73	7.76
	16	7.69	7.69			7.68	7.68	7.66	7.71	7.65	7.65	7.65	7.69
	17	7.64	7.64	7.63	7.63	7.63	7.63						
	18	7.61	7.61	7.61	7.61	7.61	7.61						
	19	7.65	7.65	7.65	7.65	7.64	7.64						
Reference Stations	41	7.75	7.75	7.74	7.74	7.74	7.74						
	42	7.65	7.65			7.64	7.64						
	43	7.62	7.62	7.65	7.65	7.65	7.65						

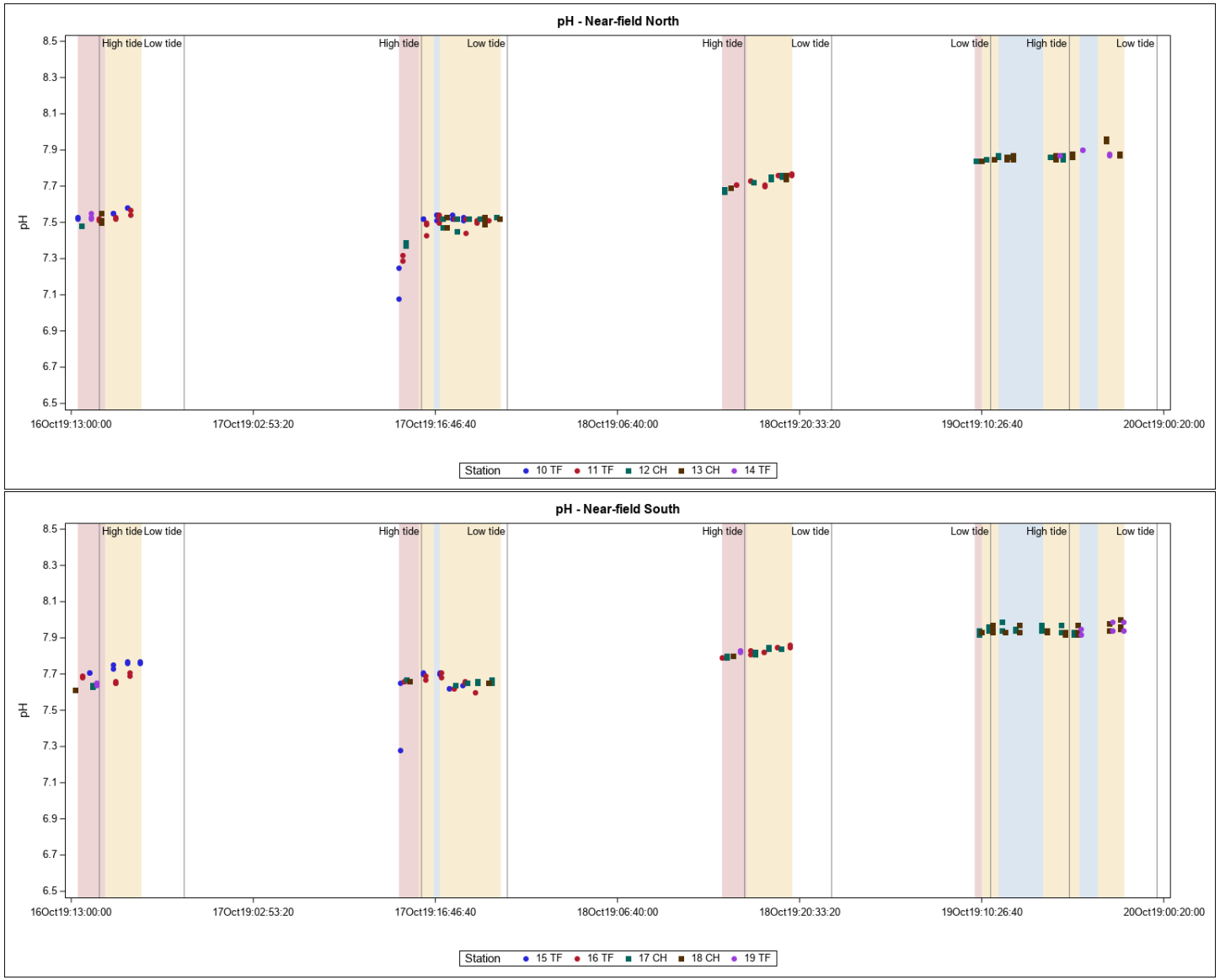
pH		17 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	7.76	7.8	7.76	7.79	7.78	7.79	7.79	7.81	7.8	7.81	7.79	7.8
	22	7.77	7.77	7.79	7.79	7.77	7.77	7.76	7.81	7.77	7.8	7.77	7.81
	23	7.81	7.81	7.82	7.82	7.82	7.82	7.75	7.83	7.76	7.81	7.76	7.82
	24							7.68	7.81	7.72	7.81	7.72	7.81
Boundary South	27							7.68	7.68	7.71	7.71	7.72	7.72
	28							7.69	7.72	7.72	7.73	7.72	7.72
	29	7.69	7.69	7.68	7.68	7.67	7.67						
	30	7.68	7.68	7.68	7.68	7.68	7.68						
Nearfield North	10	7.08	7.08			7.25	7.25	7.51	7.52	7.52	7.54	7.52	7.54
	11	7.29	7.29			7.32	7.32	7.43	7.52	7.49	7.53	7.5	7.54
	12	7.37	7.37	7.39	7.39	7.39	7.39	7.45	7.53	7.52	7.53	7.52	7.53
	13							7.47	7.52	7.52	7.53	7.52	7.53
Nearfield South	15	7.28	7.28			7.65	7.65	7.62	7.7			7.62	7.71
	16	7.66	7.66			7.66	7.66	7.62	7.68			7.6	7.71
	17	7.67	7.67			7.67	7.67	7.64	7.67	7.64	7.66	7.64	7.65
	18	7.66	7.66	7.66	7.66	7.66	7.66	7.65	7.65	7.65	7.65	7.65	7.65
Reference Stations	41							7.81	7.81	7.79	7.79	7.78	7.78
	42							7.73	7.73			7.74	7.74
	43							7.67	7.71	7.71	7.73	7.72	7.73

pH		18 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	7.78	7.78	7.79	7.79	7.79	7.79	7.8	7.88	7.81	7.83	7.81	7.82
	23	7.84	7.84	7.81	7.81	7.81	7.81	7.81	7.86	7.81	7.83	7.81	7.82
	24	7.8	7.8	7.8	7.8	7.8	7.8	7.84	7.87	7.81	7.84	7.81	7.83
	25	7.81	7.81	7.8	7.8	7.8	7.8	7.86	7.86	7.82	7.82	7.82	7.82
	26	7.83	7.83			7.83	7.83						
Boundary South	27	7.4	7.4	7.39	7.39	7.38	7.38						
	28	7.47	7.47	7.47	7.47	7.48	7.48	7.58	7.58	7.58	7.58	7.58	7.58
	29	7.29	7.29	7.31	7.31	7.36	7.36	7.6	7.6	7.59	7.59	7.59	7.59
	30	7.5	7.5	7.51	7.51	7.51	7.51						
Nearfield North	11	7.71	7.71			7.71	7.71	7.7	7.77			7.71	7.76
	12	7.67	7.67	7.68	7.68	7.68	7.68	7.72	7.76	7.72	7.75	7.72	7.75
	13	7.69	7.69	7.69	7.69	7.69	7.69	7.76	7.76	7.75	7.75	7.74	7.74
Nearfield South	16	7.79	7.79			7.79	7.79	7.82	7.86			7.81	7.85
	17	7.8	7.8	7.79	7.79	7.79	7.79	7.82	7.85	7.81	7.84	7.81	7.84
	18	7.8	7.8	7.8	7.8	7.8	7.8						
	19	7.83	7.83			7.82	7.82						
Reference Stations	41	7.81	7.81	7.81	7.81	7.81	7.81	7.62	7.62	7.6	7.6	7.59	7.59
	42	7.81	7.81	7.81	7.81	7.81	7.81						
	43	7.42	7.42	7.42	7.42	7.42	7.42						

pH		19 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	23							7.87	7.87	7.86	7.86	7.86	7.86
	24							7.87	7.87	7.86	7.86	7.86	7.86
	25							7.85	7.89	7.84	7.88	7.84	7.88
	26							7.91	7.91			7.88	7.88
Boundary South	27	8.01	8.01	8.02	8.02	8.03	8.03	8.02	8.04	8.01	8.04	8.01	8.04
	28	8.03	8.03	8.03	8.03	8.04	8.04	8.01	8.04	8.01	8.04	8.01	8.04
	29	7.92	7.92	7.92	7.92	7.92	7.92	7.94	7.99	7.93	7.95	7.93	7.95
	30							7.94	8.04	7.93	8.04	7.92	8.04
Nearfield North	12	7.84	7.84	7.84	7.84	7.84	7.84	7.85	7.87	7.85	7.86	7.85	7.87
	13	7.84	7.84	7.84	7.84	7.84	7.84	7.85	7.96	7.85	7.95	7.85	7.95
	14							7.87	7.9	7.87	7.87	7.87	7.9
Nearfield South	17	7.92	7.92	7.94	7.94	7.93	7.93	7.93	7.99	7.92	7.95	7.92	7.94
	18	7.93	7.93	7.93	7.93	7.93	7.93	7.93	8	7.92	7.96	7.92	7.95
	19							7.95	7.99	7.92	7.94	7.92	7.94
Reference Stations	41							7.86	8.03	7.86	8.04	7.85	8.03
	42							7.86	8.03			7.87	8.04
	43	8.06	8.06	8.05	8.05	8.06	8.06	8.03	8.05	8.02	8.03	8.02	8.02



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



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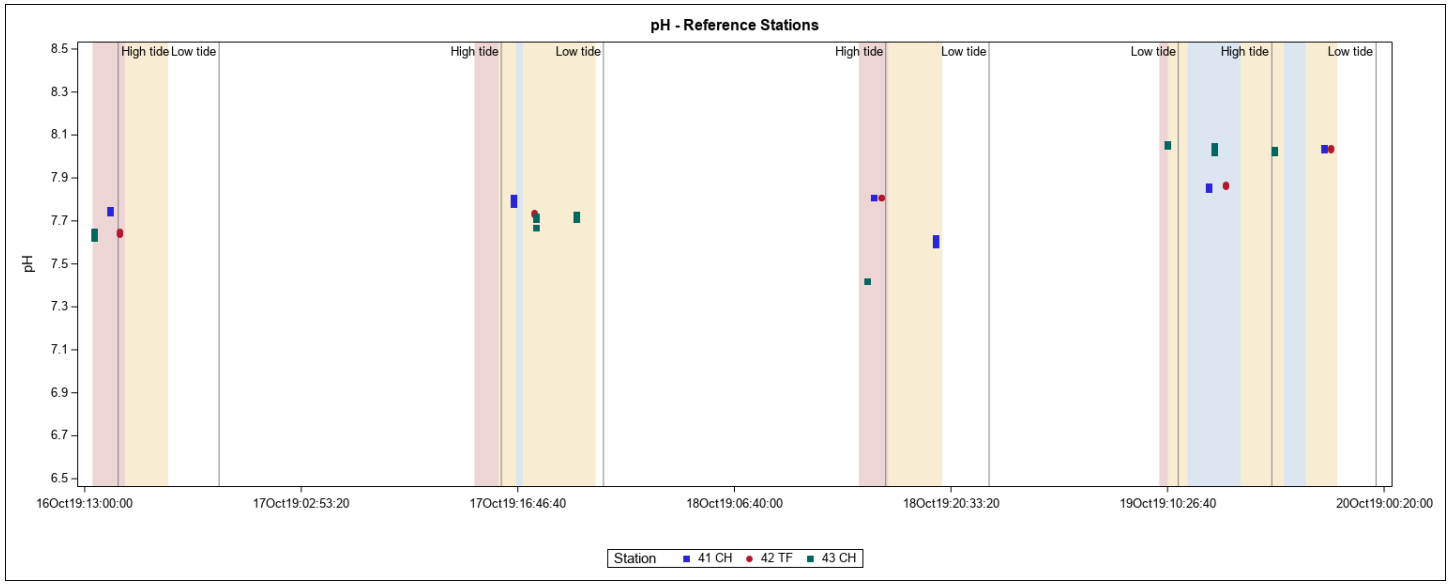


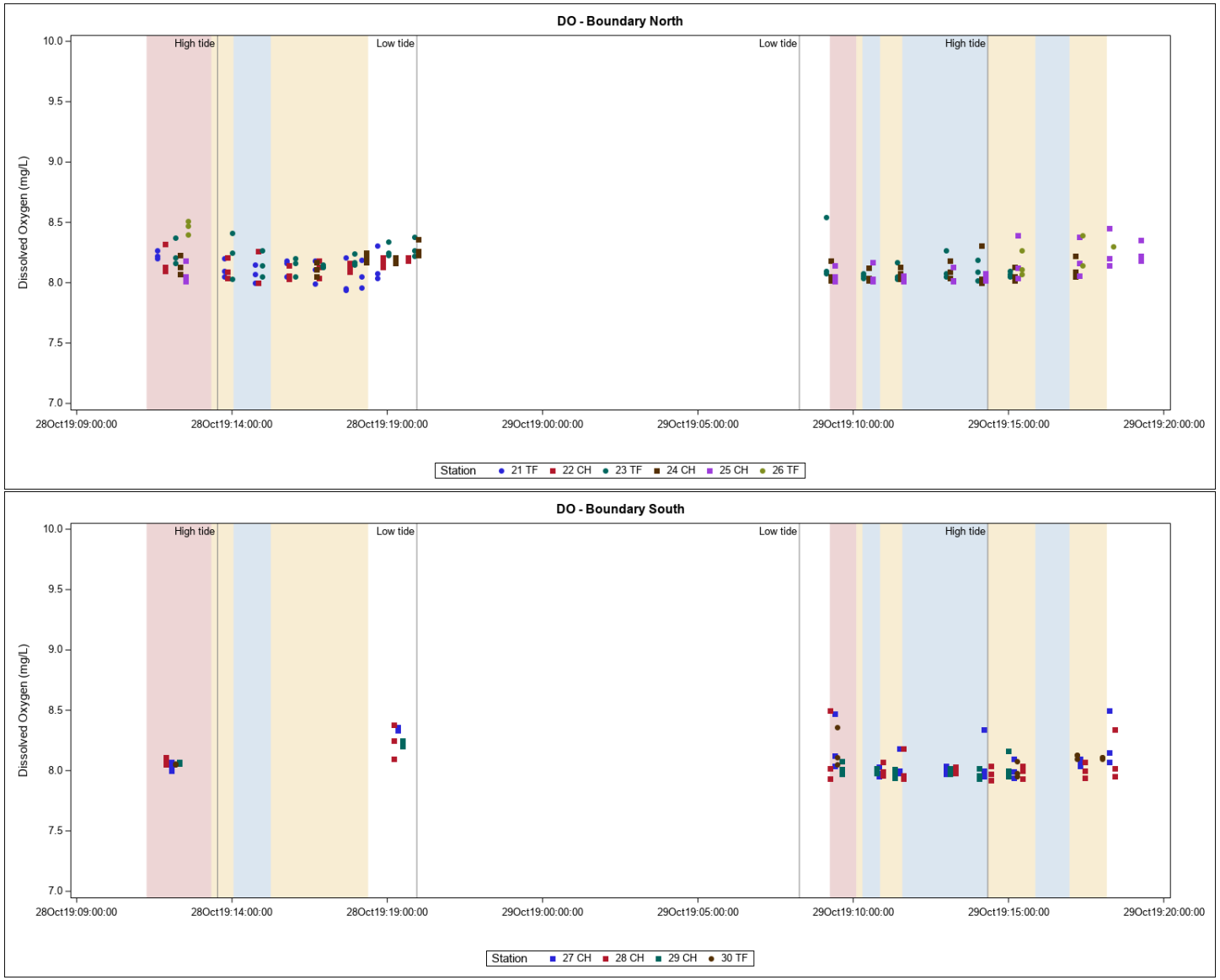
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 2

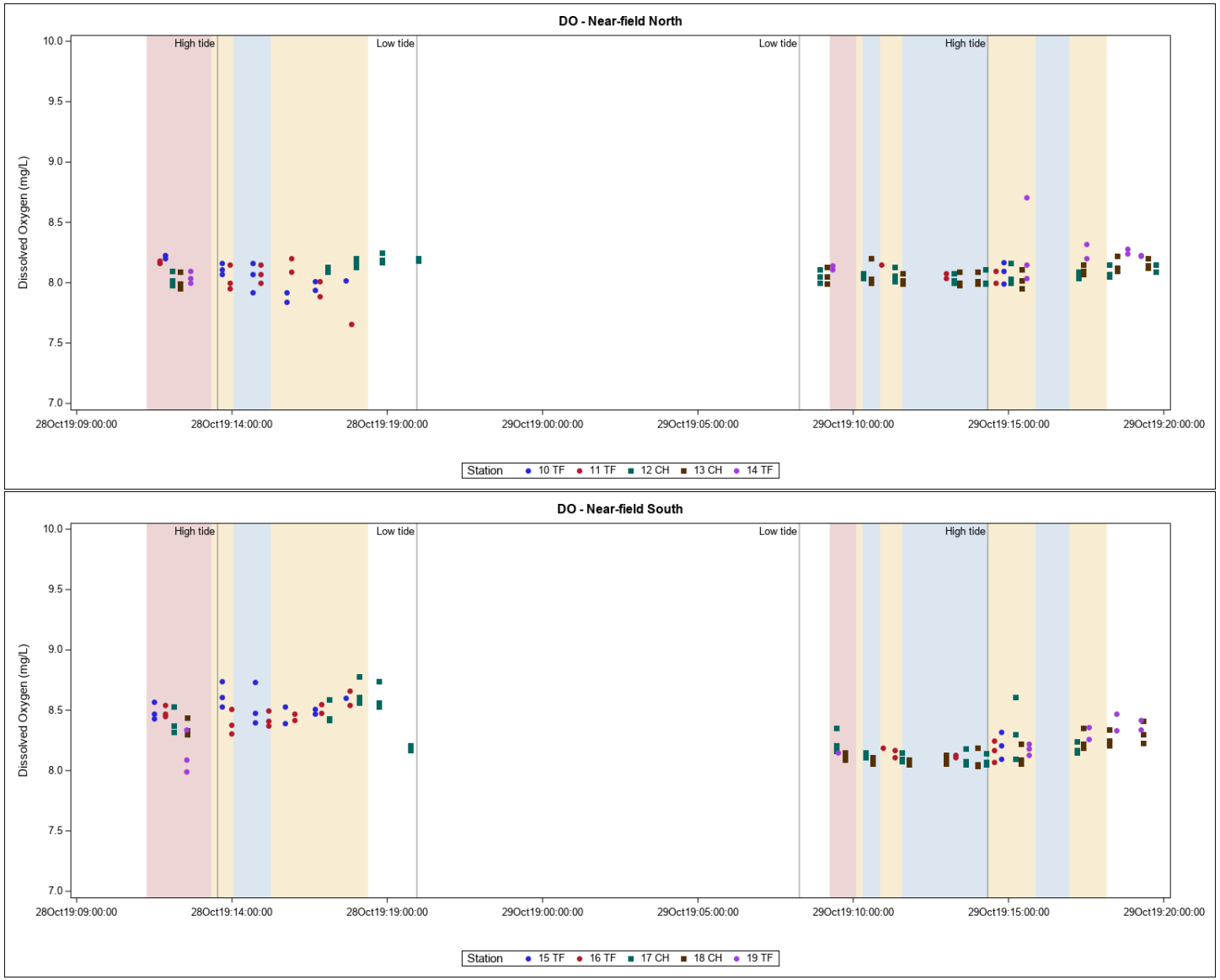
Dissolved Oxygen

DO (mg/L)		28 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	8.27	8.27	8.22	8.22	8.2	8.2	8.15	8.31	7.95	8.16	7.94	8.05
	22	8.32	8.32	8.13	8.13	8.1	8.1	8.14	8.26	8	8.19	8	8.18
	23	8.37	8.37	8.21	8.21	8.16	8.16	8.15	8.41	8.13	8.25	8.03	8.27
	24	8.23	8.23	8.13	8.13	8.07	8.07	8.17	8.36	8.11	8.26	8.05	8.23
	25	8.18	8.18	8.05	8.05	8.01	8.01						
	26	8.51	8.51	8.47	8.47	8.4	8.4						
Boundary South	27	8.07	8.07	8.03	8.03	8	8	8.36	8.36	8.36	8.36	8.33	8.33
	28	8.11	8.11	8.07	8.07	8.05	8.05	8.38	8.38	8.25	8.25	8.1	8.1
	29	8.07	8.07	8.06	8.06	8.06	8.06	8.25	8.25	8.23	8.23	8.2	8.2
	30	8.06	8.06	8.05	8.05	8.05	8.05						
Nearfield North	10	8.23	8.23			8.2	8.2	7.92	8.16	8.07	8.11	7.84	8.07
	11	8.18	8.18			8.16	8.16	7.66	8.2	8	8.07	7.89	8.09
	12	8.1	8.1	8.02	8.02	7.98	7.98	8.13	8.25	8.1	8.19	8.09	8.18
	13	8.09	8.09	7.99	7.99	7.95	7.95						
	14	8.1	8.1	8.04	8.04	8	8						
Nearfield South	15	8.57	8.57	8.47	8.47	8.43	8.43	8.51	8.74	8.48	8.61	8.39	8.53
	16	8.54	8.54	8.47	8.47	8.45	8.45	8.47	8.66	8.38	8.41	8.31	8.54
	17	8.53	8.53	8.37	8.37	8.32	8.32	8.21	8.78	8.18	8.61	8.17	8.56
	18	8.44	8.44	8.33	8.33	8.3	8.3						
	19	8.34	8.34	8.09	8.09	7.99	7.99						
Reference Stations	41	8.25	8.25	8.07	8.07	8.03	8.03	8.38	8.38	8.32	8.32	8.19	8.19
	42	7.99	7.99	7.98	7.98	7.96	7.96	8.24	8.24			8.25	8.25
	43	8.22	8.22	8.17	8.17	8.16	8.16	8.48	8.48	8.32	8.32	8.3	8.3

DO (mg/L)		29 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	23	8.54	8.54	8.1	8.1	8.08	8.08	8.08	8.27	8.05	8.09	8.02	8.05
	24	8.18	8.18	8.05	8.05	8.02	8.02	8.12	8.31	8.03	8.09	8	8.05
	25	8.14	8.14	8.05	8.05	8.01	8.01	8.06	8.45	8.02	8.22	8.01	8.18
	26							8.27	8.39	8.11	8.11	8.07	8.3
Boundary South	27	8.47	8.47	8.12	8.12	8.04	8.04	8.03	8.5	7.98	8.15	7.94	8.07
	28	8.5	8.5	8.02	8.02	7.93	7.93	8.03	8.34	7.96	8.02	7.92	7.98
	29	8.08	8.08	8.01	8.01	7.97	7.97	8.01	8.16	7.96	8	7.93	7.98
	30	8.36	8.36	8.11	8.11	8.05	8.05	8.08	8.13	7.98	8.13	7.95	8.1
Nearfield North	10							8.17	8.17	8.1	8.1	7.99	7.99
	11							8.08	8.15			8	8.04
	12	8.11	8.11	8.05	8.05	8	8	8.08	8.16	8	8.09	7.99	8.09
	13	8.13	8.13	8.05	8.05	7.99	7.99	8.08	8.22	8	8.14	7.95	8.12
	14	8.14	8.14			8.11	8.11	8.23	8.71	8.15	8.15	8.04	8.24
Nearfield South	15							8.32	8.32	8.21	8.21	8.1	8.1
	16							8.13	8.25	8.17	8.17	8.07	8.19
	17	8.35	8.35	8.21	8.21	8.16	8.16	8.14	8.3	8.07	8.61	8.05	8.15
	18	8.15	8.15	8.12	8.12	8.09	8.09	8.09	8.41	8.05	8.3	8.04	8.23
	19	8.15	8.15					8.22	8.47	8.18	8.18	8.13	8.34
Reference Stations	41	8.08	8.08	8.04	8.04	8.02	8.02	8.17	8.19	8.04	8.12	8	8.08
	42							8.17	8.17	8.05	8.05	8.03	8.03
	43	8.2	8.2	8.07	8.07	7.99	7.99	7.99	8.14	7.97	8.08	7.96	8.03



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



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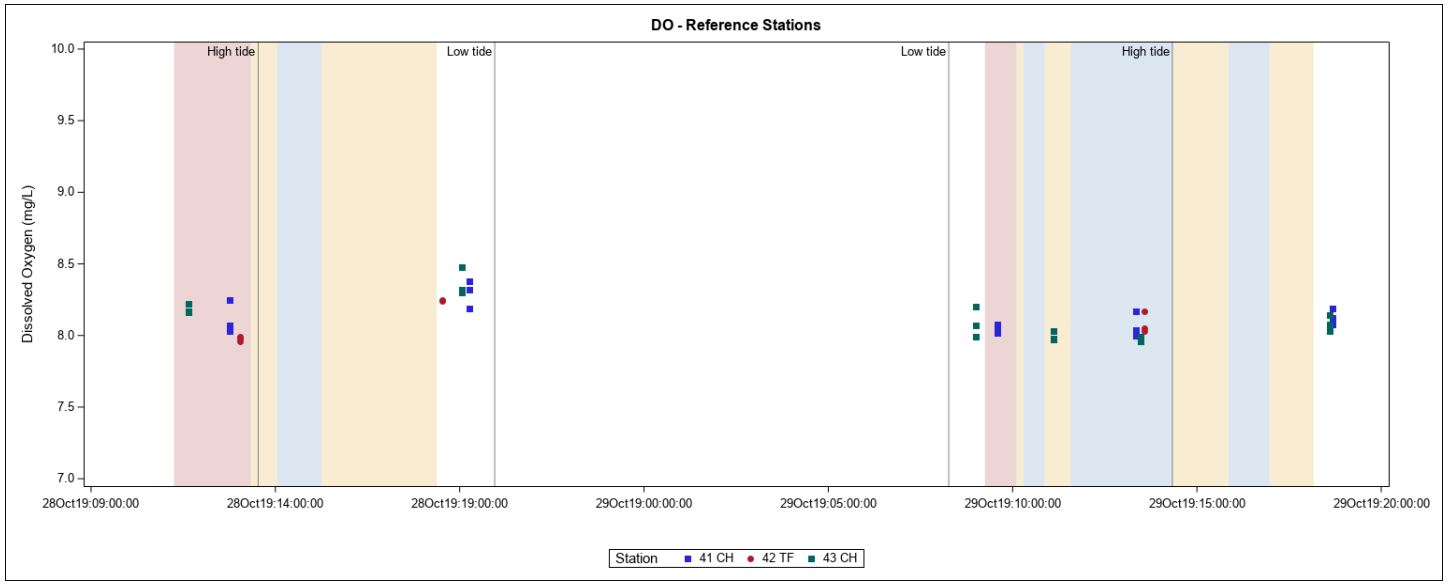


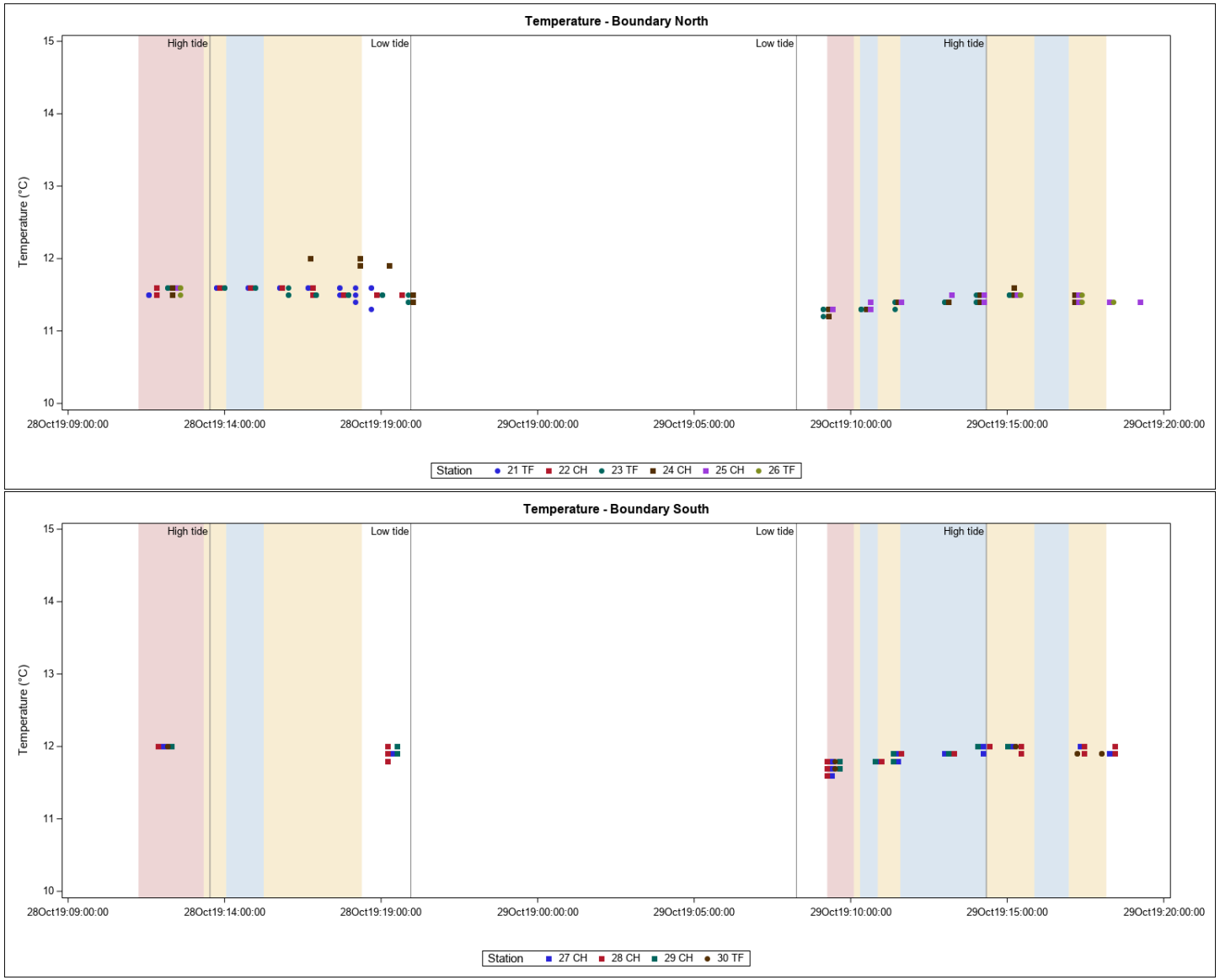
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 2

Temperature

Temperature (°C)		28 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	11.5	11.5	11.5	11.5	11.5	11.5	11.3	11.6	11.5	11.6	11.6	11.6
	22	11.6	11.6	11.5	11.5	11.5	11.5	11.5	11.6	11.5	11.6	11.5	11.6
	23	11.6	11.6	11.6	11.6	11.6	11.6	11.4	11.6	11.5	11.6	11.4	11.6
	24	11.6	11.6	11.5	11.5	11.5	11.5	11.4	12	11.5	12	11.5	12
	25	11.6	11.6	11.6	11.6	11.6	11.6						
	26	11.5	11.5	11.6	11.6	11.6	11.6						
Boundary South	27	12	12	12	12	12	12	11.9	11.9	11.9	11.9	11.9	11.9
	28	12	12	12	12	12	12	11.8	11.8	11.9	11.9	12	12
	29	12	12	12	12	12	12	11.9	11.9	12	12	12	12
	30	12	12	12	12	12	12						
Nearfield North	10	12	12			12	12	12	12.1	12.1	12.1	12	12.1
	11	12	12			12	12	12	12.1	12.1	12.1	12	12.1
	12	12	12	12	12	12	12	11.9	12	11.9	12	11.9	12
	13	12	12	12	12	12	12						
	14	12	12	12	12	12	12						
Nearfield South	15	12.2	12.2	12.1	12.1	12.1	12.1	12	12.2	12.2	12.2	12.1	12.2
	16	12.1	12.1	12.1	12.1	12.1	12.1	12	12.2	12.1	12.1	12	12.1
	17	12.1	12.1	12.1	12.1	12.1	12.1	11.9	12.1	11.9	12.1	11.9	12.1
	18	12.1	12.1	12.1	12.1	12.1	12.1						
	19	12.1	12.1	12.1	12.1	12.1	12.1						
Reference Stations	41	11.6	11.6	11.6	11.6	11.6	11.6	11.4	11.4	11.4	11.4	11.5	11.5
	42	12.1	12.1	12.1	12.1	12.1	12.1	12	12			12	12
	43	11.9	11.9	11.9	11.9	11.9	11.9	11.7	11.7	11.9	11.9	11.9	11.9

Temperature (°C)		29 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	23	11.2	11.2	11.3	11.3	11.3	11.3	11.3	11.5	11.3	11.5	11.3	11.5
	24	11.2	11.2	11.3	11.3	11.3	11.3	11.3	11.5	11.3	11.5	11.3	11.6
	25	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.5	11.4	11.5	11.4	11.5
	26							11.4	11.5	11.5	11.5	11.4	11.5
Boundary South	27	11.6	11.6	11.7	11.7	11.8	11.8	11.8	12	11.8	12	11.8	12
	28	11.6	11.6	11.7	11.7	11.8	11.8	11.8	12	11.8	12	11.8	12
	29	11.7	11.7	11.7	11.7	11.8	11.8	11.8	12	11.8	12	11.8	12
	30	11.7	11.7	11.7	11.7	11.8	11.8	11.9	12	11.9	12	11.9	12
Nearfield North	10							12	12	12	12	11.9	11.9
	11							11.8	11.9			11.9	12
	12	11.7	11.7	11.7	11.7	11.8	11.8	11.8	12	11.8	12	11.8	12
	13	11.7	11.7	11.7	11.7	11.8	11.8	11.8	12	11.8	12	11.8	12
	14	11.7	11.7			11.7	11.7	11.3	11.9	11.5	11.5	11.4	11.9
Nearfield South	15							12.1	12.1	12.1	12.1	12	12
	16							11.9	12	12	12	11.9	12.1
	17	11.8	11.8	11.8	11.8	11.8	11.8	11.8	12	11.8	12.1	11.8	12.1
	18	11.8	11.8	11.8	11.8	11.8	11.8	11.9	12.1	11.9	12.1	11.9	12.1
	19	11.7	11.7					11.9	12	12	12	11.9	12
Reference Stations	41	11.3	11.3	11.3	11.3	11.3	11.3	11.4	11.4	11.4	11.5	11.5	11.6
	42							11.5	11.5	11.5	11.5	11.5	11.5
	43	11.7	11.7	11.7	11.7	11.7	11.7	11.8	11.9	11.8	11.9	11.8	11.9



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

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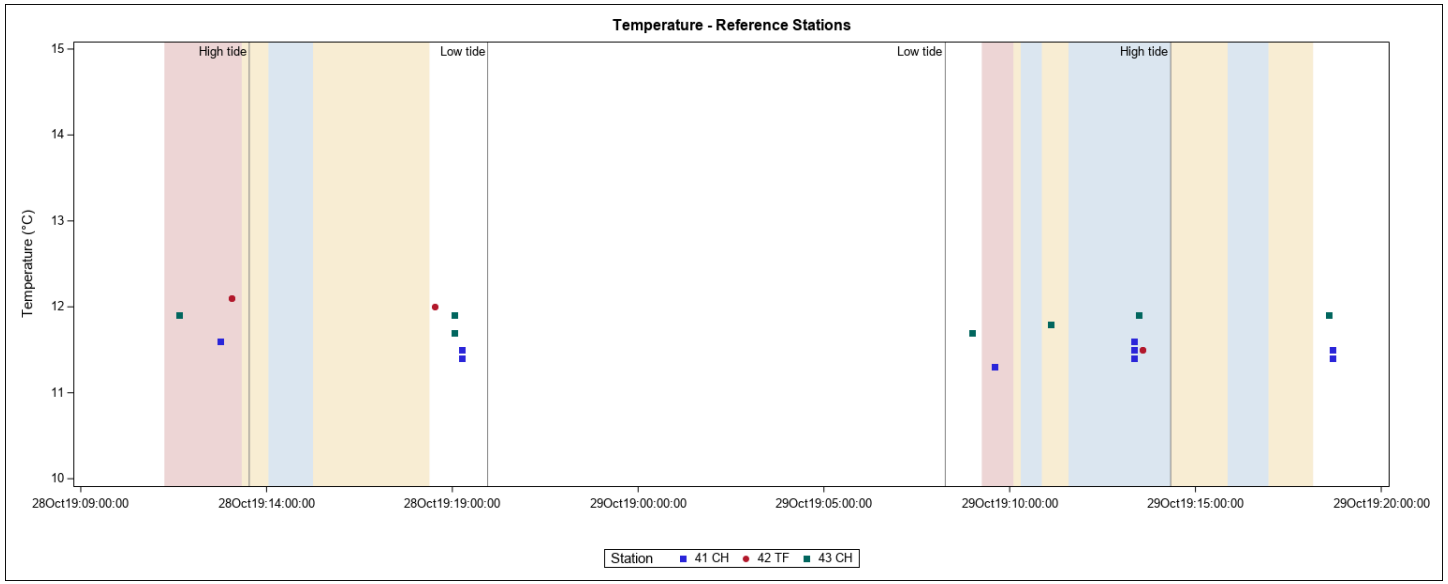


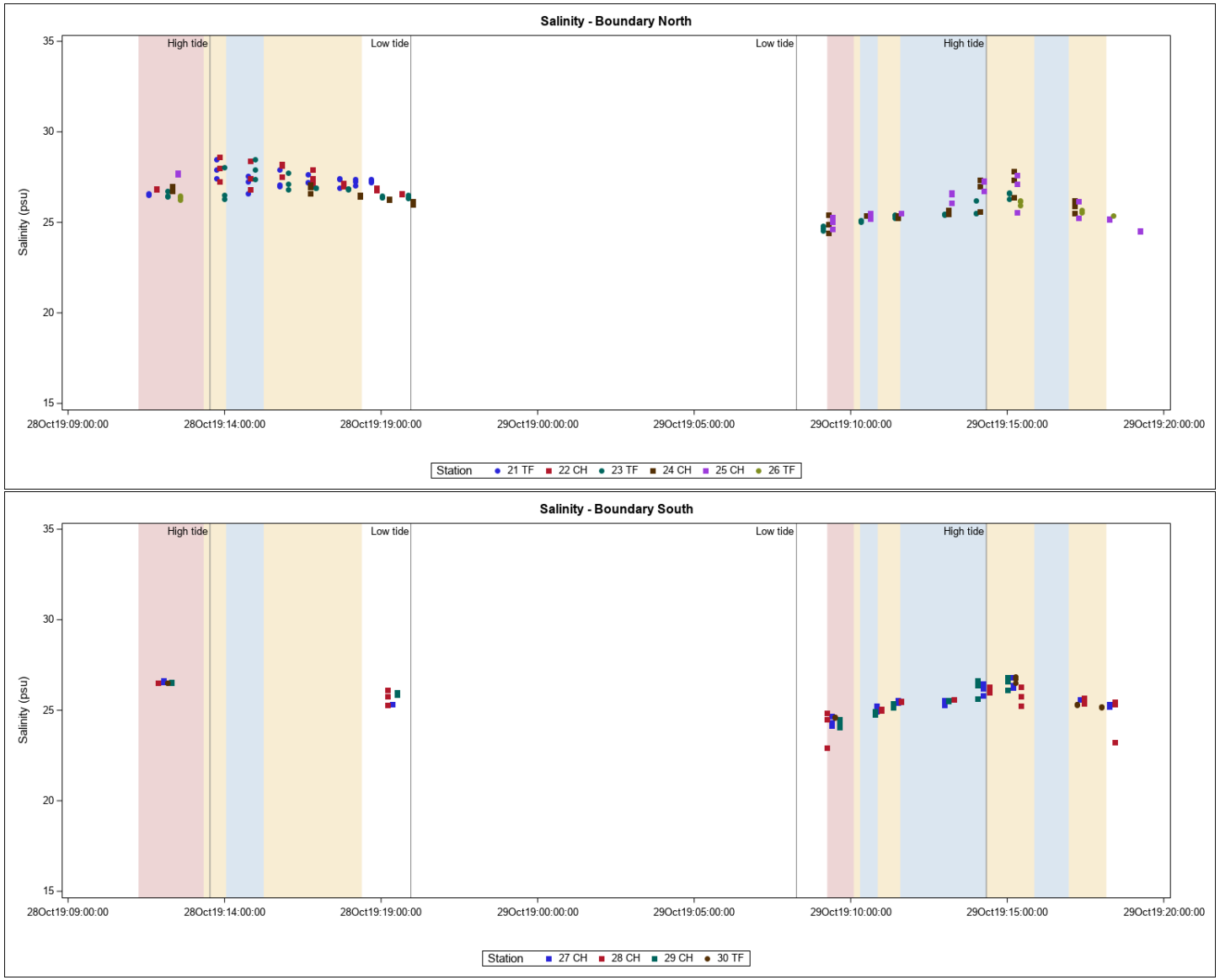
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 2

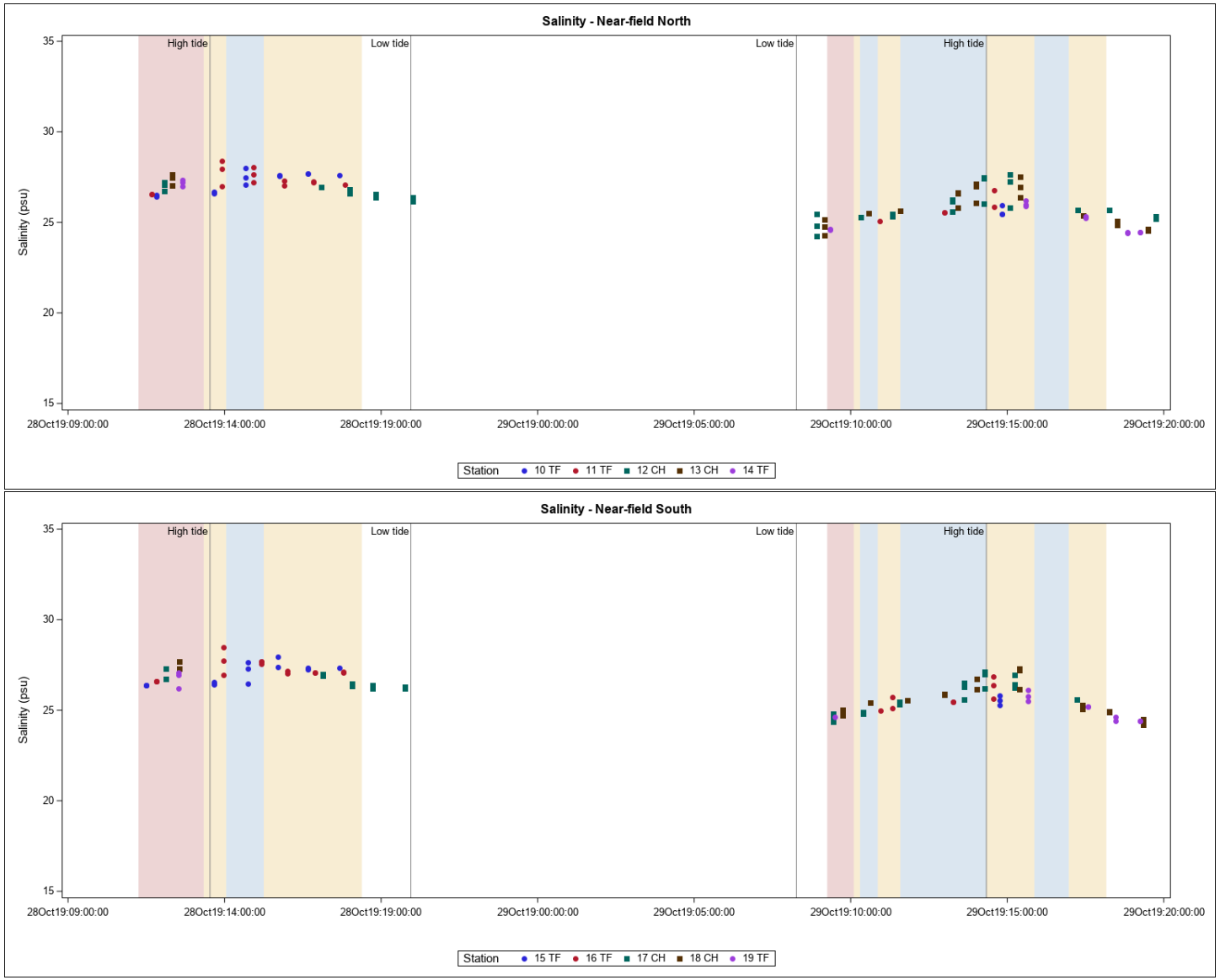
Salinity

Salinity (psu)		28 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	26.5	26.5	26.5	26.5	26.6	26.6	26.6	27.4	27.1	27.9	27.4	28.5
	22	26.8	26.8	26.8	26.8	26.9	26.9	26.6	27.5	26.6	28.2	26.6	28.6
	23	26.4	26.4	26.5	26.5	26.7	26.7	26.3	27.4	26.4	27.9	26.5	28.5
	24	26.7	26.7	26.8	26.8	27	27	26	26.6	26.1	27	26.2	27.1
	25	27.7	27.7	27.7	27.7	27.7	27.7						
	26	26.3	26.3	26.4	26.4	26.5	26.5						
Boundary South	27	26.5	26.5	26.5	26.5	26.7	26.7	25.3	25.3	25.3	25.3	25.4	25.4
	28	26.5	26.5	26.5	26.5	26.5	26.5	25.3	25.3	25.8	25.8	26.1	26.1
	29	26.5	26.5	26.5	26.5	26.5	26.5	25.8	25.8	26	26	26	26
	30	26.5	26.5	26.5	26.5	26.5	26.5						
Nearfield North	10	26.4	26.4			26.5	26.5	26.6	27.7	26.7	27.5	26.7	28
	11	26.6	26.6			26.6	26.6	27	27.3	27.7	28	27.2	28.4
	12	26.7	26.7	27.1	27.1	27.2	27.2	26.1	27	26.2	27	26.4	27
	13	27	27	27.5	27.5	27.7	27.7						
	14	27	27	27.2	27.2	27.4	27.4						
Nearfield South	15	26.4	26.4	26.4	26.4	26.4	26.4	26.5	27.4	26.4	27.3	26.6	27.9
	16	26.6	26.6	26.6	26.6	26.6	26.6	26.9	27.6	27.7	27.7	27.1	28.5
	17	26.7	26.7	27.3	27.3	27.3	27.3	26.2	26.9	26.2	27	26.3	27
	18	27.3	27.3	27.7	27.7	27.7	27.7						
	19	26.2	26.2	27	27	27.1	27.1						
Reference Stations	41	27.2	27.2	28	28	28.6	28.6	25.7	25.7	26	26	26.7	26.7
	42	28.5	28.5	28.7	28.7	28.7	28.7	26.3	26.3			26.3	26.3
	43	26.3	26.3	26.3	26.3	26.3	26.3	23.9	23.9	24.7	24.7	24.9	24.9

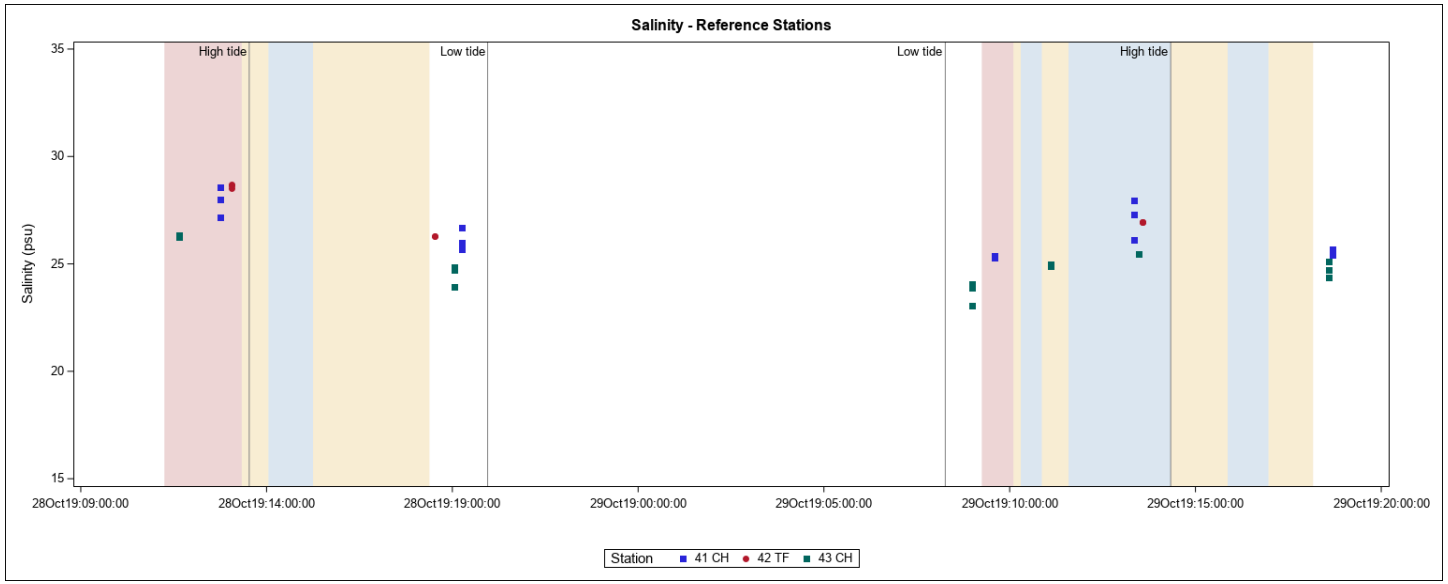
Salinity (psu)		29 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	23	24.6	24.6	24.7	24.7	24.8	24.8	25	26.3	25.1	26.6	25.1	26.6
	24	24.4	24.4	24.9	24.9	25.4	25.4	25.2	26.4	25.3	27.3	25.4	27.8
	25	24.6	24.6	25	25	25.3	25.3	24.5	26.7	24.5	27.2	24.5	27.6
	26							25.6	26	26.2	26.2	25.4	26.2
Boundary South	27	24.1	24.1	24.3	24.3	24.7	24.7	25	26.2	25	26.4	25.3	26.8
	28	22.9	22.9	24.5	24.5	24.9	24.9	23.2	26	25	26.2	25.1	26.3
	29	24	24	24.2	24.2	24.5	24.5	24.8	26.1	24.8	26.6	24.9	26.8
	30	24.6	24.6	24.6	24.6	24.6	24.6	25.2	26.5	25.2	26.8	25.2	26.9
Nearfield North	10							25.5	25.5	25.5	25.5	25.9	25.9
	11							25.1	25.9			25.6	26.8
	12	24.2	24.2	24.8	24.8	25.5	25.5	25.2	26	25.3	27.4	25.3	27.7
	13	24.3	24.3	24.8	24.8	25.2	25.2	24.6	26.4	24.6	27	24.7	27.5
	14	24.6	24.6			24.7	24.7	24.5	26	25.9	25.9	24.4	26.2
Nearfield South	15							25.3	25.3	25.6	25.6	25.8	25.8
	16							25.1	25.6	26.4	26.4	25	26.8
	17	24.4	24.4	24.6	24.6	24.8	24.8	24.8	26.3	24.9	27	24.9	27.1
	18	24.7	24.7	24.9	24.9	25	25	24.2	26.2	24.4	27.2	24.5	27.3
	19	24.6	24.6					24.4	25.5	25.8	25.8	24.4	26.1
Reference Stations	41	25.3	25.3	25.4	25.4	25.4	25.4	25.4	26.1	25.4	27.3	25.7	28
	42							26.9	26.9	27	27	27	27
	43	23	23	23.9	23.9	24.1	24.1	24.4	25.5	24.7	25.5	25	25.5



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



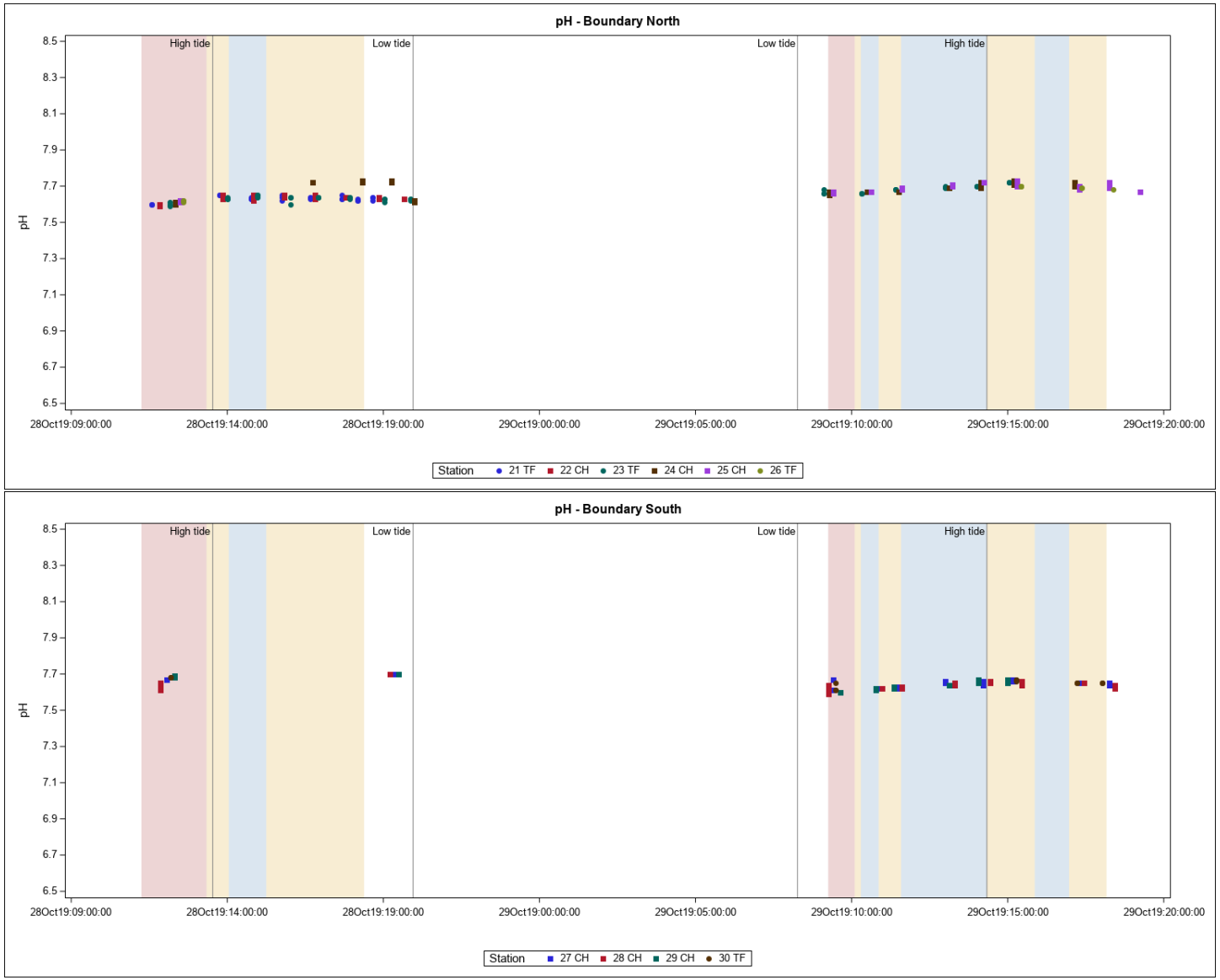
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 2

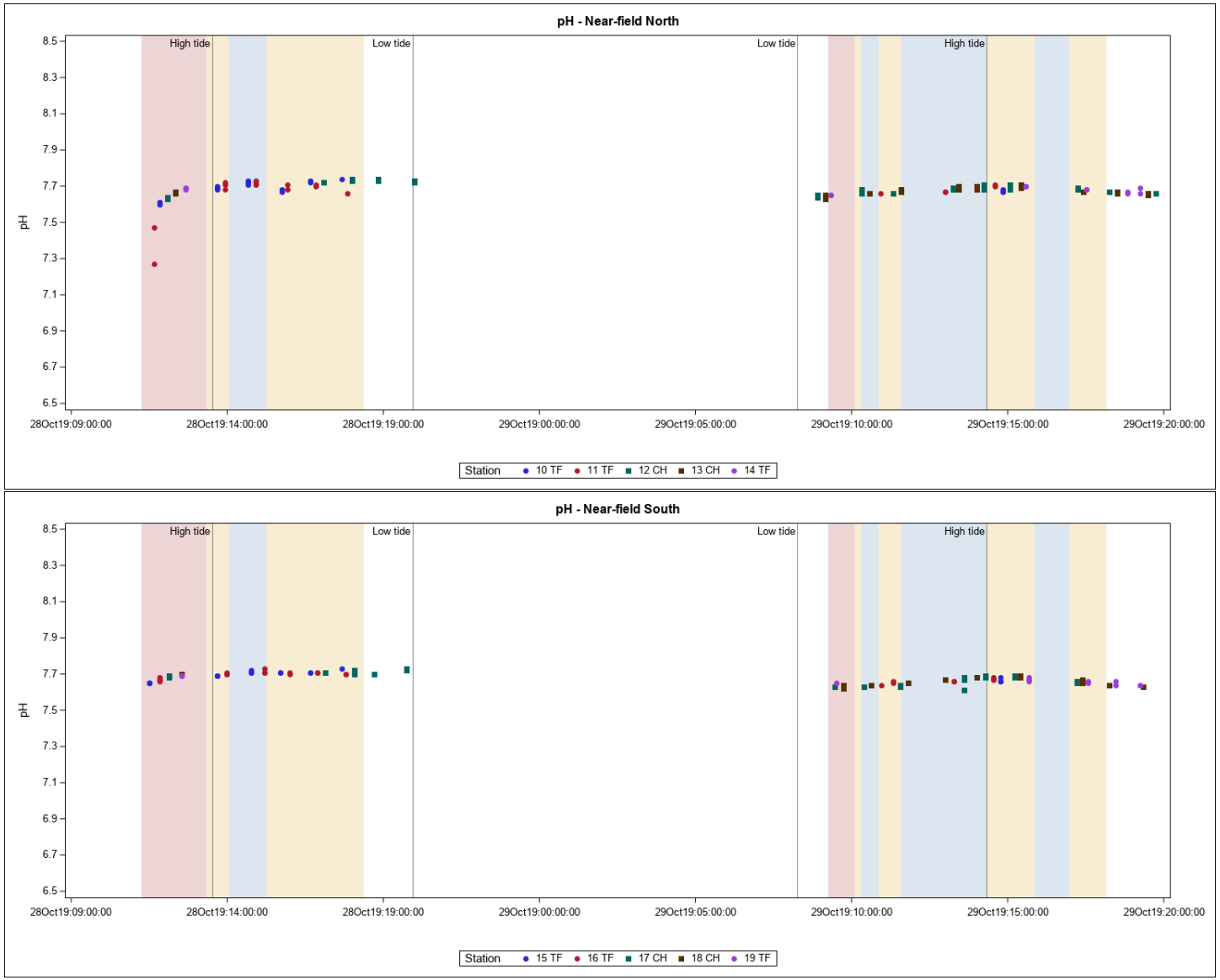
pH

pH		28 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	7.6	7.6	7.6	7.6	7.6	7.6	7.62	7.65	7.63	7.65	7.62	7.65
	22	7.59	7.59	7.6	7.6	7.6	7.6	7.62	7.64	7.63	7.65	7.63	7.65
	23	7.59	7.59	7.6	7.6	7.61	7.61	7.6	7.64	7.63	7.65	7.62	7.65
	24	7.6	7.6	7.6	7.6	7.61	7.61	7.61	7.73	7.62	7.73	7.62	7.72
	25	7.61	7.61	7.62	7.62	7.61	7.61						
	26	7.61	7.61	7.62	7.62	7.62	7.62						
Boundary South	27	7.67	7.67	7.67	7.67	7.67	7.67	7.7	7.7	7.7	7.7	7.7	7.7
	28	7.61	7.61	7.64	7.64	7.65	7.65	7.7	7.7	7.7	7.7	7.7	7.7
	29	7.69	7.69	7.68	7.68	7.68	7.68	7.7	7.7	7.7	7.7	7.7	7.7
	30	7.68	7.68	7.68	7.68	7.68	7.68						
Nearfield North	10	7.6	7.6			7.61	7.61	7.68	7.74	7.69	7.73	7.67	7.72
	11	7.27	7.27			7.47	7.47	7.66	7.71	7.71	7.72	7.7	7.73
	12	7.63	7.63	7.63	7.63	7.64	7.64	7.72	7.74	7.72	7.73	7.72	7.73
	13	7.66	7.66	7.67	7.67	7.67	7.67						
	14	7.68	7.68	7.69	7.69	7.69	7.69						
Nearfield South	15	7.65	7.65	7.65	7.65	7.65	7.65	7.69	7.73	7.69	7.71	7.69	7.71
	16	7.68	7.68	7.67	7.67	7.66	7.66	7.7	7.73	7.7	7.71	7.7	7.71
	17	7.69	7.69	7.68	7.68	7.68	7.68	7.7	7.73	7.7	7.72	7.7	7.72
	18	7.7	7.7	7.7	7.7	7.7	7.7						
	19	7.69	7.69	7.69	7.69	7.69	7.69						
Reference Stations	41	7.62	7.62	7.63	7.63	7.64	7.64	7.62	7.62	7.62	7.62	7.63	7.63
	42	7.73	7.73	7.73	7.73	7.73	7.73	7.72	7.72			7.72	7.72
	43	7.52	7.52	7.55	7.55	7.56	7.56	7.69	7.69	7.69	7.69	7.69	7.69

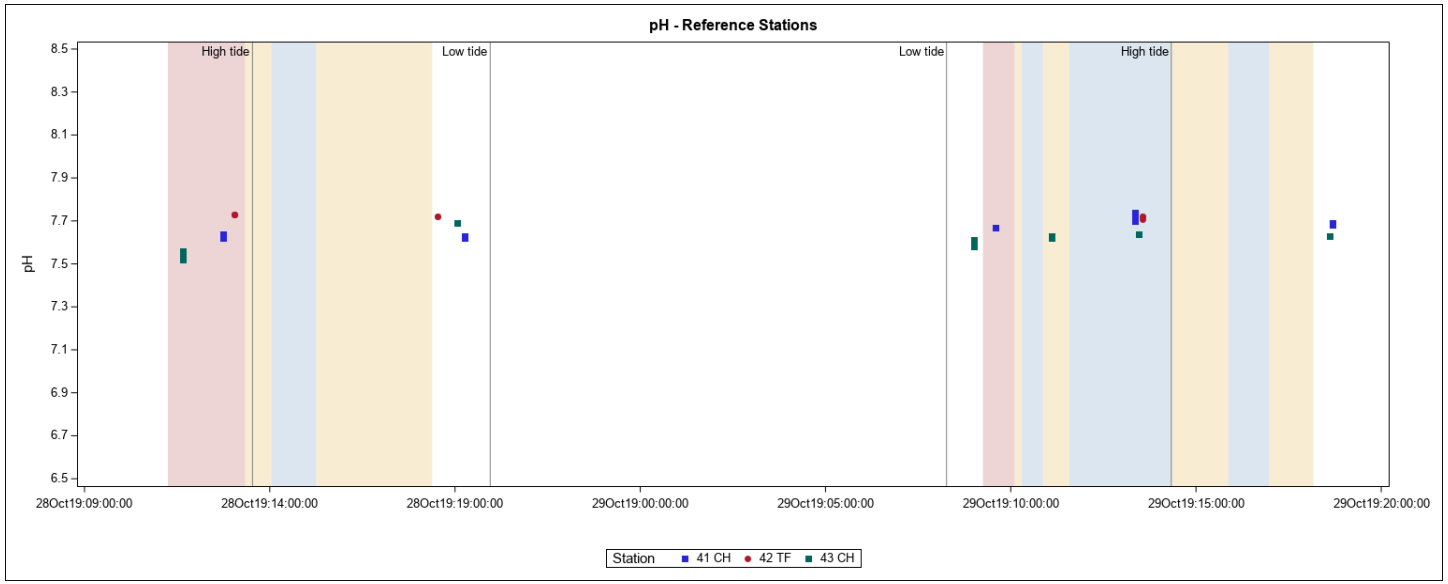
pH		29 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	23	7.68	7.68	7.66	7.66	7.66	7.66	7.66	7.72	7.66	7.72	7.66	7.72
	24	7.67	7.67	7.65	7.65	7.67	7.67	7.67	7.72	7.67	7.72	7.67	7.73
	25	7.66	7.66	7.66	7.66	7.67	7.67	7.67	7.72	7.67	7.72	7.67	7.73
	26							7.69	7.7	7.7	7.7	7.68	7.7
Boundary South	27	7.67	7.67	7.61	7.61	7.61	7.61	7.62	7.66	7.62	7.66	7.62	7.67
	28	7.64	7.64	7.59	7.59	7.61	7.61	7.62	7.65	7.62	7.66	7.62	7.66
	29	7.6	7.6	7.6	7.6	7.6	7.6	7.62	7.65	7.61	7.66	7.62	7.67
	30	7.65	7.65	7.61	7.61	7.61	7.61	7.65	7.66	7.65	7.67	7.65	7.67
Nearfield North	10							7.67	7.67	7.67	7.67	7.68	7.68
	11							7.66	7.71			7.67	7.7
	12	7.64	7.64	7.64	7.64	7.65	7.65	7.66	7.69	7.66	7.7	7.66	7.71
	13	7.64	7.64	7.63	7.63	7.65	7.65	7.66	7.69	7.65	7.7	7.65	7.71
	14	7.65	7.65			7.65	7.65	7.67	7.7	7.7	7.7	7.66	7.7
Nearfield South	15							7.68	7.68	7.66	7.66	7.66	7.66
	16							7.66	7.67	7.67	7.67	7.64	7.68
	17	7.63	7.63	7.63	7.63	7.63	7.63	7.63	7.69	7.63	7.69	7.61	7.69
	18	7.62	7.62	7.63	7.63	7.64	7.64	7.63	7.68	7.63	7.69	7.63	7.69
	19	7.65	7.65					7.64	7.68	7.66	7.66	7.64	7.67
Reference Stations	41	7.67	7.67	7.67	7.67	7.67	7.67	7.68	7.7	7.68	7.71	7.69	7.74
	42							7.71	7.71	7.72	7.72	7.72	7.72
	43	7.61	7.61	7.58	7.58	7.59	7.59	7.63	7.64	7.62	7.64	7.62	7.64



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



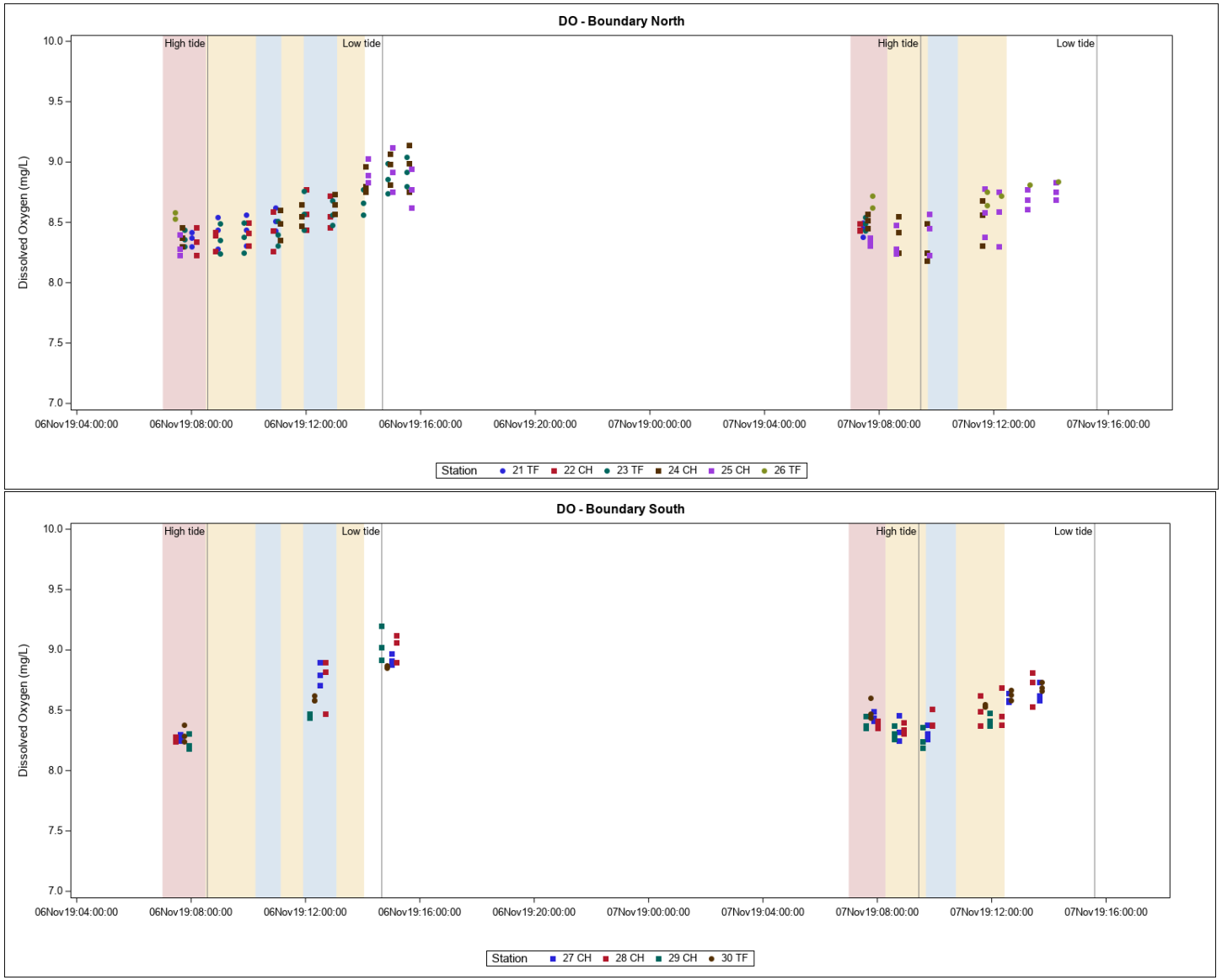
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 3

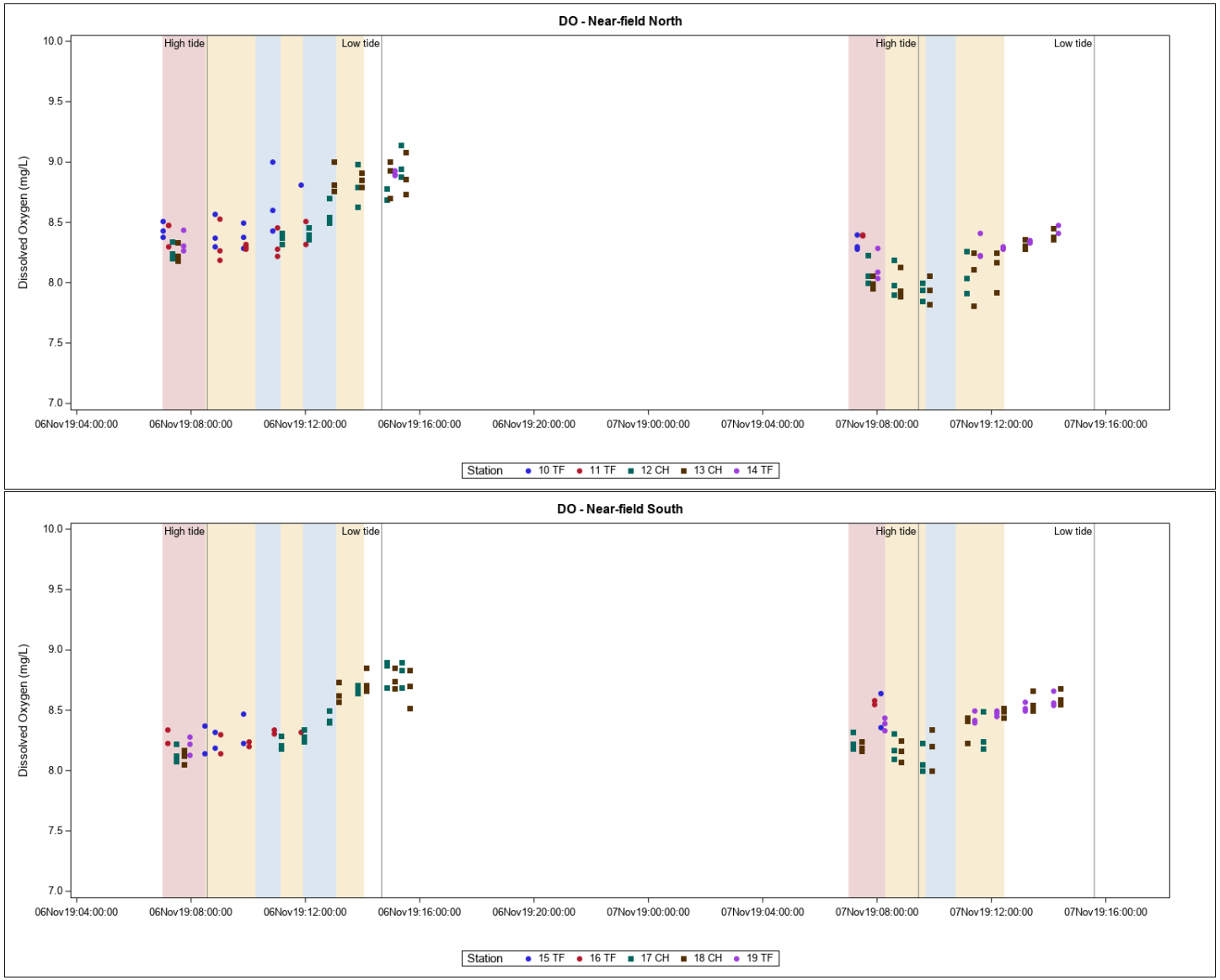
Dissolved Oxygen

DO (mg/L)		06 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	8.42	8.42	8.37	8.37	8.3	8.3	8.54	8.62	8.44	8.51	8.28	8.43
	22	8.46	8.46	8.34	8.34	8.23	8.23	8.42	8.77	8.39	8.57	8.26	8.46
	23	8.44	8.44	8.3	8.3	8.36	8.36	8.49	9.04	8.35	8.92	8.24	8.8
	24	8.46	8.46	8.37	8.37	8.3	8.3	8.6	9.14	8.49	8.99	8.35	8.81
	25	8.4	8.4	8.28	8.28	8.23	8.23	8.94	9.12	8.77	8.92	8.62	8.83
	26	8.58	8.58			8.53	8.53						
Boundary South	27	8.3	8.3	8.26	8.26	8.25	8.25	8.9	8.97	8.79	8.91	8.71	8.88
	28	8.28	8.28	8.27	8.27	8.24	8.24	8.9	9.12	8.82	9.06	8.47	8.9
	29	8.31	8.31	8.21	8.21	8.18	8.18	8.47	9.2	8.45	9.02	8.44	8.92
	30	8.38	8.38	8.29	8.29	8.24	8.24	8.62	8.86	8.58	8.85	8.58	8.87
Nearfield North	10	8.51	8.51	8.43	8.43	8.38	8.38	8.5	9	8.37	8.6	8.29	8.81
	11	8.48	8.48	8.48	8.48	8.3	8.3	8.32	8.53	8.27	8.3	8.19	8.32
	12	8.34	8.34	8.24	8.24	8.2	8.2	8.41	9.14	8.37	8.94	8.32	8.88
	13	8.33	8.33	8.22	8.22	8.18	8.18	8.91	9.08	8.81	8.93	8.7	8.79
	14	8.44	8.44	8.31	8.31	8.27	8.27	8.9	8.9	8.89	8.89	8.93	8.93
Nearfield South	15	8.37	8.37			8.14	8.14	8.32	8.47			8.19	8.23
	16	8.34	8.34			8.23	8.23	8.24	8.34			8.14	8.32
	17	8.22	8.22	8.12	8.12	8.08	8.08	8.29	8.9	8.21	8.87	8.18	8.69
	18	8.17	8.17	8.12	8.12	8.05	8.05	8.73	8.85	8.62	8.74	8.52	8.68
	19	8.28	8.28	8.22	8.22	8.13	8.13						
Reference Stations	41	8.32	8.32	8.25	8.25	8.19	8.19	8.92	9.15	8.66	8.85	8.4	8.69
	42	8.32	8.32			8.26	8.26	9.06	9.06				
	43	8.3	8.3	8.28	8.28	8.22	8.22	8.95	9.09	8.92	9.07	8.87	8.93

DO (mg/L)		07 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	8.5	8.5	8.45	8.45	8.38	8.38						
	22	8.49	8.49	8.44	8.44	8.43	8.43						
	23	8.54	8.54	8.49	8.49	8.43	8.43						
	24	8.57	8.57	8.52	8.52	8.45	8.45	8.49	8.68	8.25	8.56	8.18	8.31
	25	8.37	8.37	8.34	8.34	8.31	8.31	8.48	8.83	8.28	8.75	8.23	8.69
	26	8.72	8.72			8.62	8.62	8.75	8.75			8.64	8.84
Boundary South	27	8.49	8.49	8.44	8.44	8.41	8.41	8.38	8.73	8.31	8.62	8.25	8.58
	28	8.41	8.41	8.38	8.38	8.35	8.35	8.4	8.81	8.34	8.73	8.31	8.53
	29	8.45	8.45	8.37	8.37	8.35	8.35	8.36	8.48	8.24	8.41	8.19	8.37
	30	8.6	8.6	8.47	8.47	8.44	8.44	8.55	8.73	8.53	8.69	8.53	8.66
Nearfield North	10	8.4	8.4	8.28	8.28	8.3	8.3						
	11	8.4	8.4	8.39	8.39	8.39	8.39						
	12	8.23	8.23	8.06	8.06	8	8	8	8.26	7.94	8.04	7.85	7.91
	13	8.06	8.06	7.99	7.99	7.95	7.95	8.06	8.45	7.93	8.38	7.81	8.36
	14	8.29	8.29	8.09	8.09	8.04	8.04	8.3	8.48	8.23	8.33	8.22	8.41
Nearfield South	15	8.64	8.64			8.36	8.36						
	16	8.58	8.58			8.55	8.55						
	17	8.32	8.32	8.22	8.22	8.18	8.18	8.23	8.49	8.05	8.24	8	8.18
	18	8.24	8.24	8.19	8.19	8.16	8.16	8.25	8.68	8.16	8.59	8	8.55
	19	8.44	8.44	8.39	8.39	8.33	8.33	8.5	8.66	8.42	8.56	8.4	8.54
Reference Stations	41	8.41	8.41	8.31	8.31	8.25	8.25	8.6	8.75	8.36	8.63	8.22	8.29
	42	8.44	8.44			8.34	8.34	8.68	8.68			8.51	8.79
	43	8.69	8.69	8.59	8.59	8.52	8.52	8.59	8.92	8.44	8.76	8.34	8.68



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



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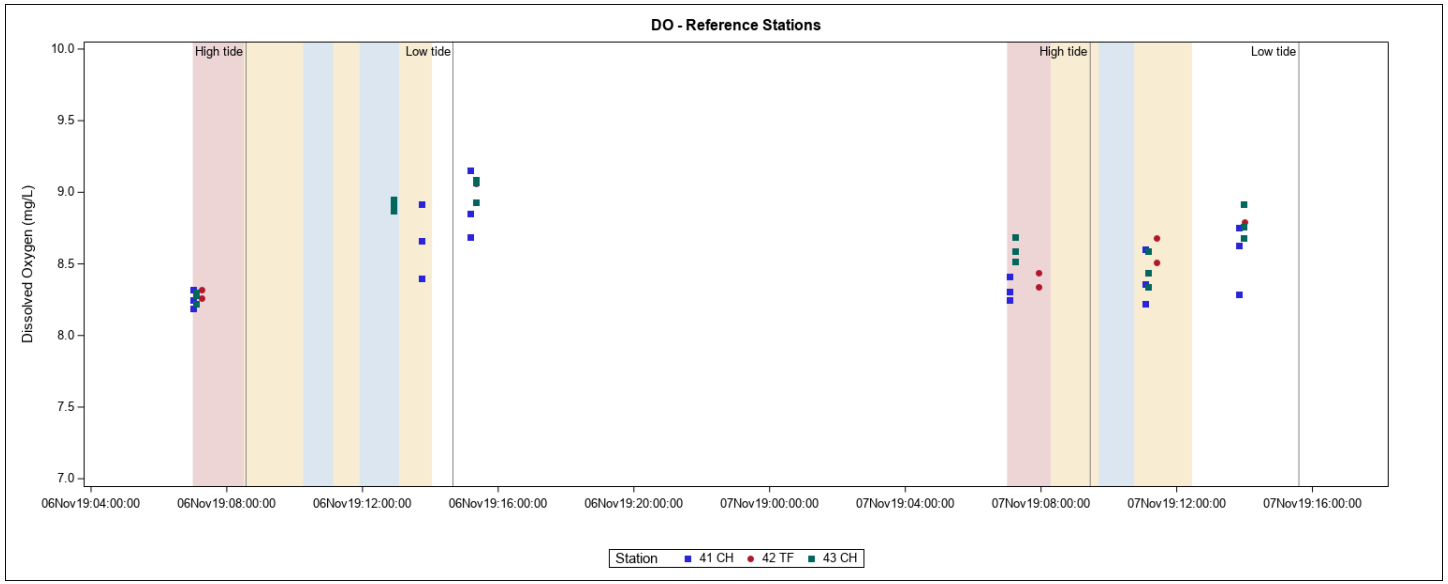


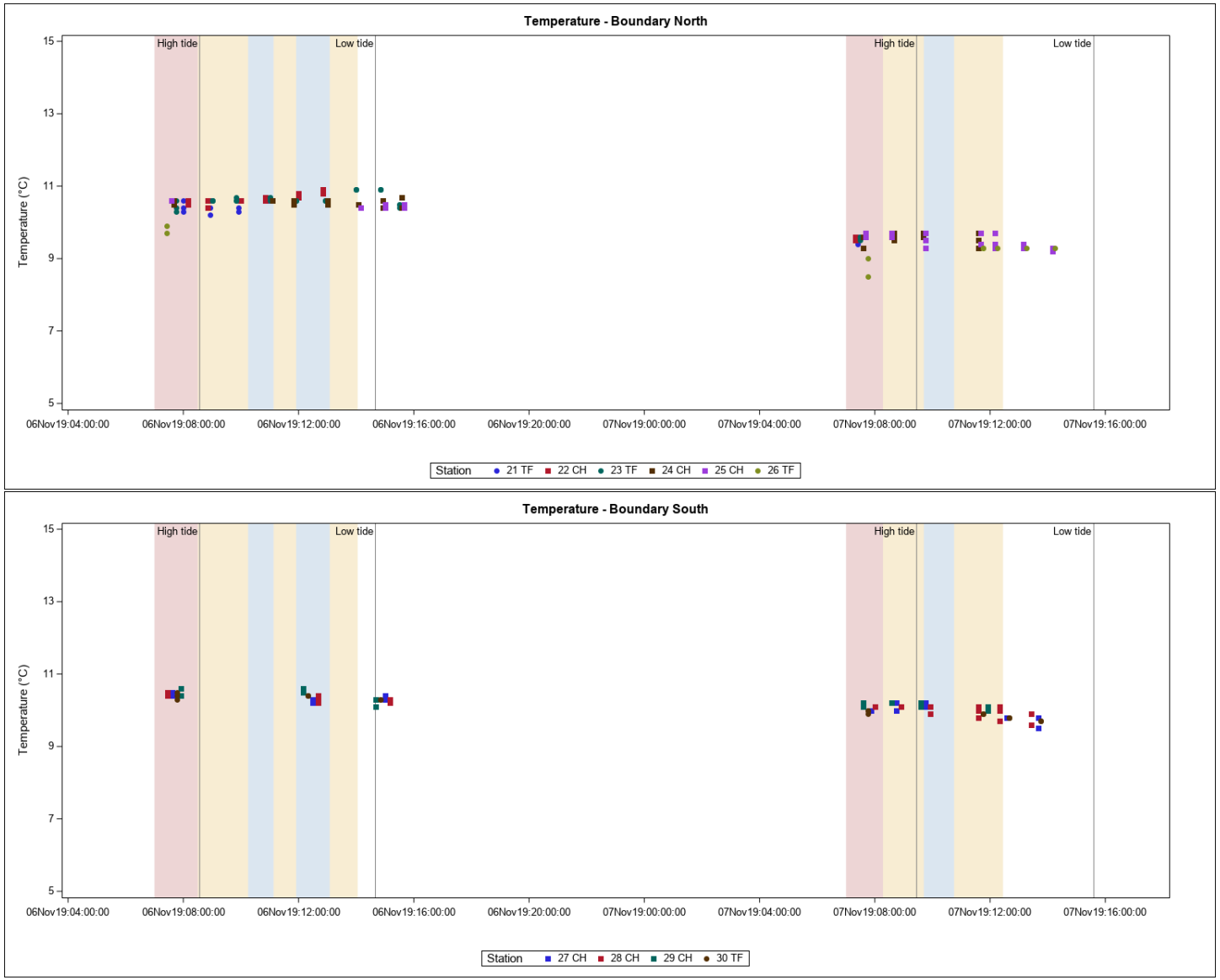
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 3

Temperature

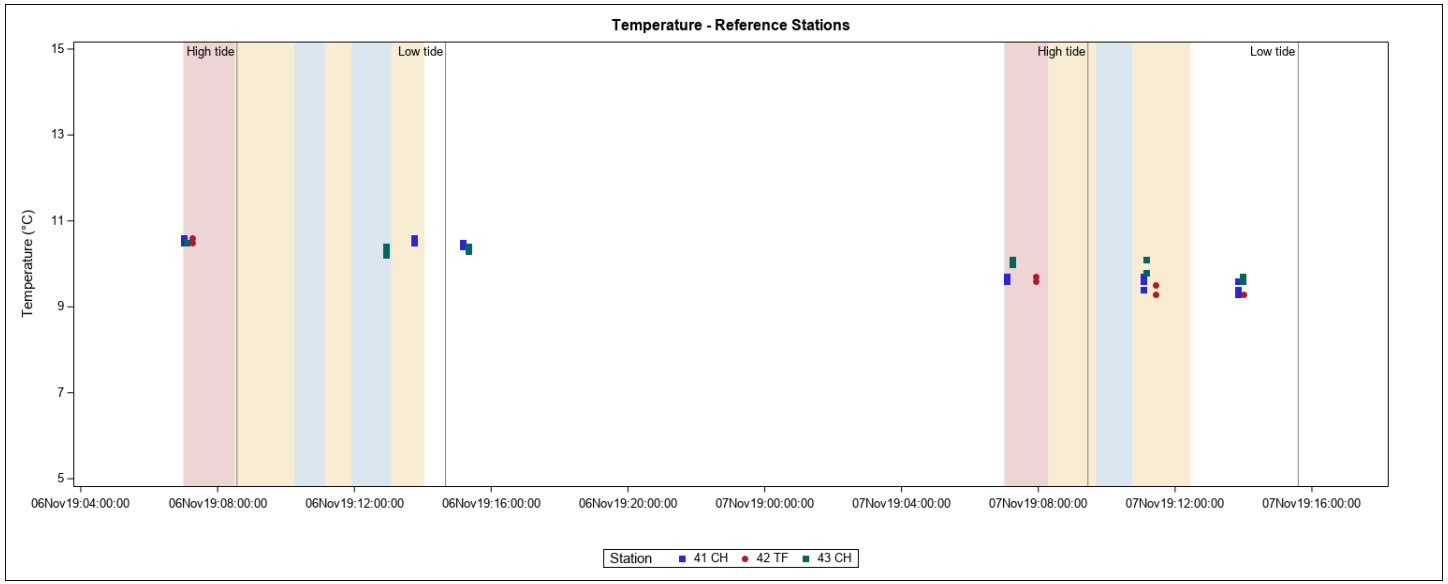
Temperature (°C)		06 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	10.3	10.3	10.4	10.4	10.6	10.6	10.2	10.6	10.4	10.6	10.6	10.6
	22	10.5	10.5	10.6	10.6	10.6	10.6	10.4	10.9	10.4	10.8	10.6	10.8
	23	10.3	10.3	10.6	10.6	10.4	10.4	10.4	10.9	10.5	10.9	10.5	10.9
	24	10.5	10.5	10.5	10.5	10.6	10.6	10.4	10.6	10.4	10.6	10.5	10.7
	25	10.6	10.6	10.6	10.6	10.6	10.6	10.4	10.4	10.4	10.5	10.4	10.5
	26	9.7	9.7			9.9	9.9						
Boundary South	27	10.4	10.4	10.5	10.5	10.5	10.5	10.2	10.3	10.2	10.3	10.3	10.4
	28	10.5	10.5	10.4	10.4	10.5	10.5	10.2	10.3	10.2	10.3	10.3	10.4
	29	10.4	10.4	10.6	10.6	10.6	10.6	10.1	10.5	10.3	10.5	10.3	10.6
	30	10.3	10.3	10.4	10.4	10.5	10.5	10.3	10.4	10.3	10.4	10.3	10.4
Nearfield North	10	9.4	9.4	9.6	9.6	9.7	9.7	9.5	9.9	9.7	10	9.7	10.2
	11	9.6	9.6	9.6	9.6	10.1	10.1	9.8	10.2	10	10.2	10.1	10.2
	12	10	10	10.1	10.1	10.1	10.1	9.8	10.1	9.9	10.1	9.9	10.1
	13	10	10	10.1	10.1	10.1	10.1	9.8	9.9	9.9	9.9	9.9	10
	14	9.4	9.4	9.8	9.8	10	10	9.9	9.9	9.9	9.9	10	10
Nearfield South	15	10.1	10.1			10.3	10.3	10.1	10.2			10.2	10.3
	16	10.2	10.2			10.3	10.3	10.3	10.6			10.4	10.6
	17	10.5	10.5	10.6	10.6	10.6	10.6	10.3	10.6	10.4	10.5	10.4	10.5
	18	10.5	10.5	10.6	10.6	10.6	10.6	10.3	10.4	10.4	10.4	10.4	10.5
	19	10.3	10.3	10.4	10.4	10.5	10.5						
Reference Stations	41	10.5	10.5	10.6	10.6	10.6	10.6	10.4	10.5	10.5	10.5	10.5	10.6
	42	10.5	10.5			10.6	10.6	10.4	10.4				
	43	10.5	10.5	10.5	10.5	10.5	10.5	10.2	10.3	10.3	10.3	10.4	10.4

Temperature (°C)		07 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	9.4	9.4	9.5	9.5	9.6	9.6						
	22	9.5	9.5	9.6	9.6	9.6	9.6						
	23	9.5	9.5	9.6	9.6	9.6	9.6						
	24	9.3	9.3	9.6	9.6	9.6	9.6	9.3	9.6	9.5	9.7	9.7	9.7
	25	9.6	9.6	9.7	9.7	9.7	9.7	9.2	9.6	9.2	9.7	9.3	9.7
	26	8.5	8.5			9	9	9.3	9.3			9.3	9.3
Boundary South	27	10	10	10	10	10	10	9.5	10.1	9.8	10.2	9.8	10.2
	28	10.1	10.1	10.1	10.1	10.1	10.1	9.6	10.1	9.6	10.1	9.9	10.1
	29	10.1	10.1	10.2	10.2	10.2	10.2	10	10.2	10.1	10.2	10.1	10.2
	30	9.9	9.9	10	10	10	10	9.7	9.9	9.7	9.9	9.7	9.9
Nearfield North	10	9.4	9.4	9.5	9.5	9.4	9.4						
	11	9.3	9.3	9.3	9.3	9.3	9.3						
	12	9.9	9.9	10.1	10.1	10.1	10.1	9.9	10.1	10.1	10.1	10.2	10.2
	13	10.1	10.1	10.1	10.1	10.1	10.1	9.6	10	9.6	10.2	9.6	10.2
	14	9.6	9.6	10	10	10.1	10.1	9.7	9.8	9.7	9.8	9.7	9.8
Nearfield South	15	9.3	9.3			9.6	9.6						
	16	9.5	9.5			9.5	9.5						
	17	10.1	10.1	10.2	10.2	10.2	10.2	10	10.1	10	10.2	10.1	10.2
	18	10.1	10.1	10.1	10.1	10.2	10.2	9.6	10.1	9.6	10.2	9.7	10.2
	19	10	10	10.1	10.1	10.1	10.1	9.7	9.8	9.7	9.8	9.7	9.9
Reference Stations	41	9.6	9.6	9.7	9.7	9.7	9.7	9.3	9.4	9.4	9.6	9.6	9.7
	42	9.6	9.6			9.7	9.7	9.3	9.3			9.3	9.5
	43	10	10	10	10	10.1	10.1	9.6	9.8	9.7	10.1	9.7	10.1



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



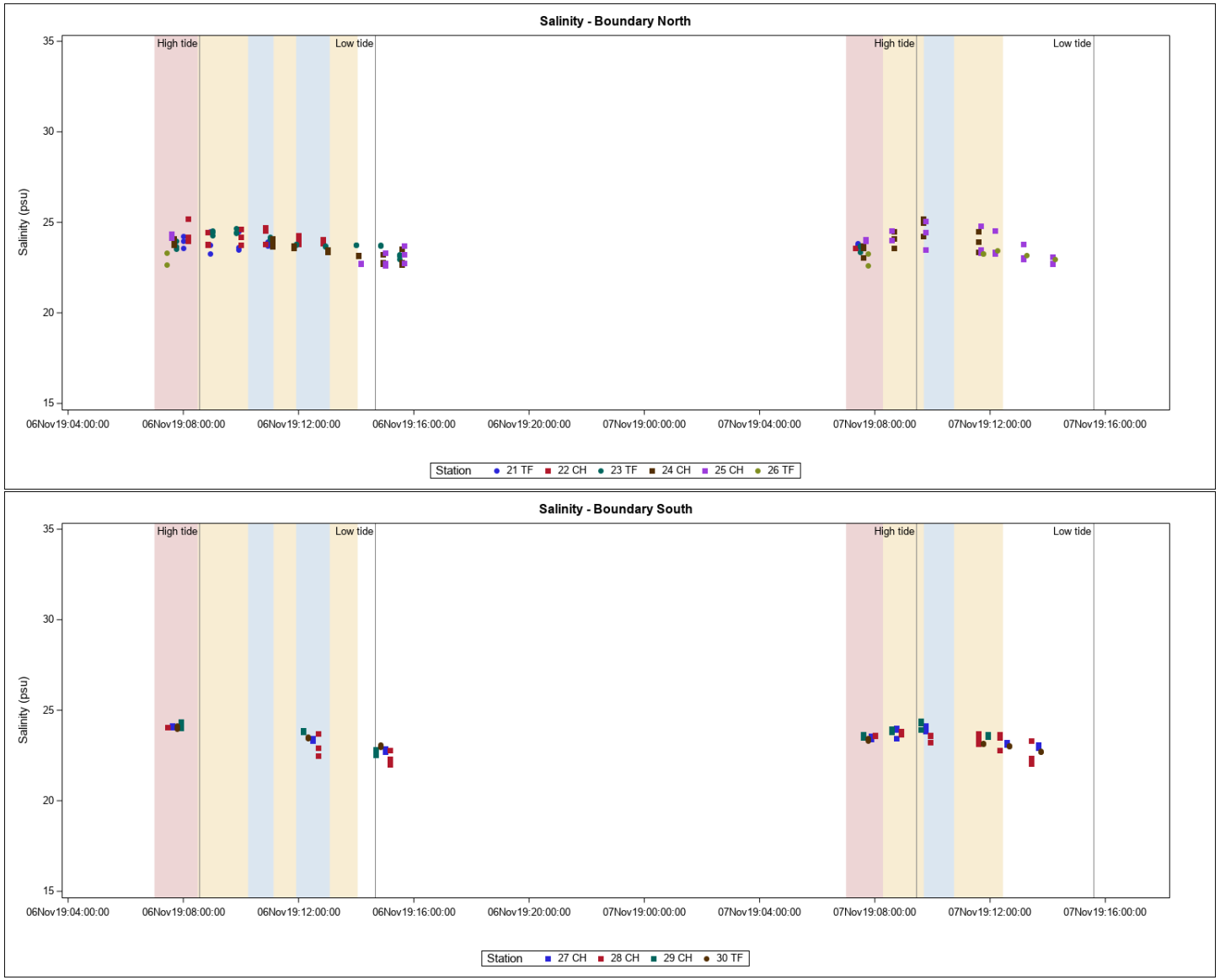
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 3

Salinity

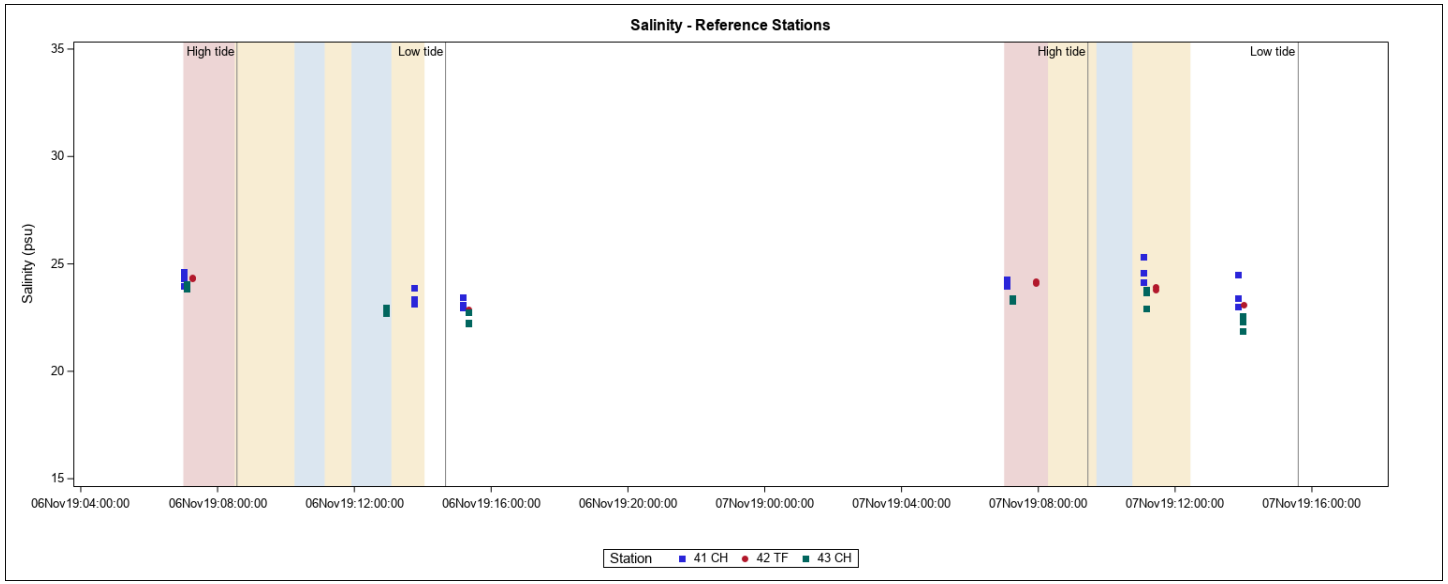
Salinity (psu)		06 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	23.6	23.6	24	24	24.2	24.2	23.3	23.7	23.6	23.9	23.9	24.5
	22	24	24	24.2	24.2	25.2	25.2	23.8	23.9	23.8	24.6	24.1	24.7
	23	23.5	23.5	24	24	23.7	23.7	23	24.4	23.2	24.5	23.2	24.7
	24	23.8	23.8	23.9	23.9	24.1	24.1	22.7	23.7	22.8	23.8	23.2	24.1
	25	24.1	24.1	24.4	24.4	24.4	24.4	22.6	22.7	22.7	23.3	22.7	23.7
	26	22.7	22.7			23.3	23.3						
Boundary South	27	24	24	24.1	24.1	24.2	24.2	22.7	23.3	22.8	23.4	22.9	23.5
	28	24.1	24.1	24	24	24.1	24.1	22	22.5	22.3	22.9	22.8	23.7
	29	24	24	24.2	24.2	24.4	24.4	22.5	23.8	22.7	23.9	22.8	23.9
	30	24	24	24	24	24.2	24.2	23	23.5	23	23.5	23.1	23.5
Nearfield North	10	23	23	23.3	23.3	23.4	23.4	23.3	23.7	23.6	23.9	23.6	24
	11	23.2	23.2	23.4	23.4	23.6	23.6	23.8	24.2	24	24.6	23.8	24.6
	12	23.8	23.8	24.3	24.3	24.3	24.3	22.7	23.8	22.9	23.9	23.1	23.9
	13	24.2	24.2	24.3	24.3	24.3	24.3	22.6	22.9	22.8	22.9	22.8	23.2
	14	23.6	23.6	23.9	23.9	24	24	22.8	22.8	22.9	22.9	23.1	23.1
Nearfield South	15	23.2	23.2			23.8	23.8	23.2	23.4			23.6	23.8
	16	23.4	23.4			23.7	23.7	23.8	24			23.7	24.2
	17	23.9	23.9	24.2	24.2	24.2	24.2	22.5	23.8	22.7	23.8	23	23.8
	18	24.2	24.2	24.2	24.2	24.3	24.3	22.5	22.6	22.8	23.1	22.8	23.2
	19	23.7	23.7	23.9	23.9	24	24						
Reference Stations	41	24	24	24.3	24.3	24.6	24.6	23	23.1	23.1	23.4	23.5	23.9
	42	24.3	24.3			24.4	24.4	22.9	22.9				
	43	23.8	23.8	23.9	23.9	24	24	22.2	22.7	22.3	22.9	22.8	23

Salinity (psu)		07 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	23.6	23.6	23.8	23.8	23.8	23.8						
	22	23.6	23.6	23.6	23.6	23.6	23.6						
	23	23.4	23.4	23.7	23.7	23.7	23.7						
	24	23.1	23.1	23.6	23.6	23.7	23.7	23.4	24.2	24	25	24.5	25.2
	25	24	24	24	24	24.1	24.1	22.7	24	22.7	24.5	23.1	25.1
	26	22.6	22.6			23.3	23.3	23.3	23.3			23	23.5
Boundary South	27	23.4	23.4	23.5	23.5	23.6	23.6	22.9	23.9	23	24	23.1	24.1
	28	23.6	23.6	23.6	23.6	23.6	23.6	22	23.7	22.4	23.8	23.3	23.8
	29	23.5	23.5	23.7	23.7	23.7	23.7	23.5	23.9	23.6	24.3	23.7	24.4
	30	23.3	23.3	23.4	23.4	23.4	23.4	22.7	23.2	22.7	23.2	22.8	23.2
Nearfield North	10	22.5	22.5	23	23	23	23						
	11	22.7	22.7	22.7	22.7	22.7	22.7						
	12	23.1	23.1	23.8	23.8	23.9	23.9	23.3	24.3	24.1	24.5	24.3	24.9
	13	23.8	23.8	24	24	24	24	22.6	24	22.6	24.5	22.6	25
	14	23	23	23.6	23.6	23.8	23.8	22.6	23.3	22.9	23.3	22.6	23.3
Nearfield South	15	22.5	22.5			22.6	22.6						
	16	22.8	22.8			23	23						
	17	23.7	23.7	23.9	23.9	23.9	23.9	23.7	24.1	23.8	24.8	23.9	24.9
	18	23.9	23.9	23.9	23.9	23.9	23.9	22.3	24	22.6	24.5	22.7	24.8
	19	23.5	23.5	23.7	23.7	23.8	23.8	22.7	23.2	22.8	23.2	22.8	23.3
Reference Stations	41	24	24	24.2	24.2	24.3	24.3	23	24.1	23.4	24.6	24.5	25.3
	42	24.1	24.1			24.2	24.2	23.8	23.8			23.1	23.9
	43	23.3	23.3	23.3	23.3	23.4	23.4	21.9	22.9	22.3	23.7	22.6	23.8



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



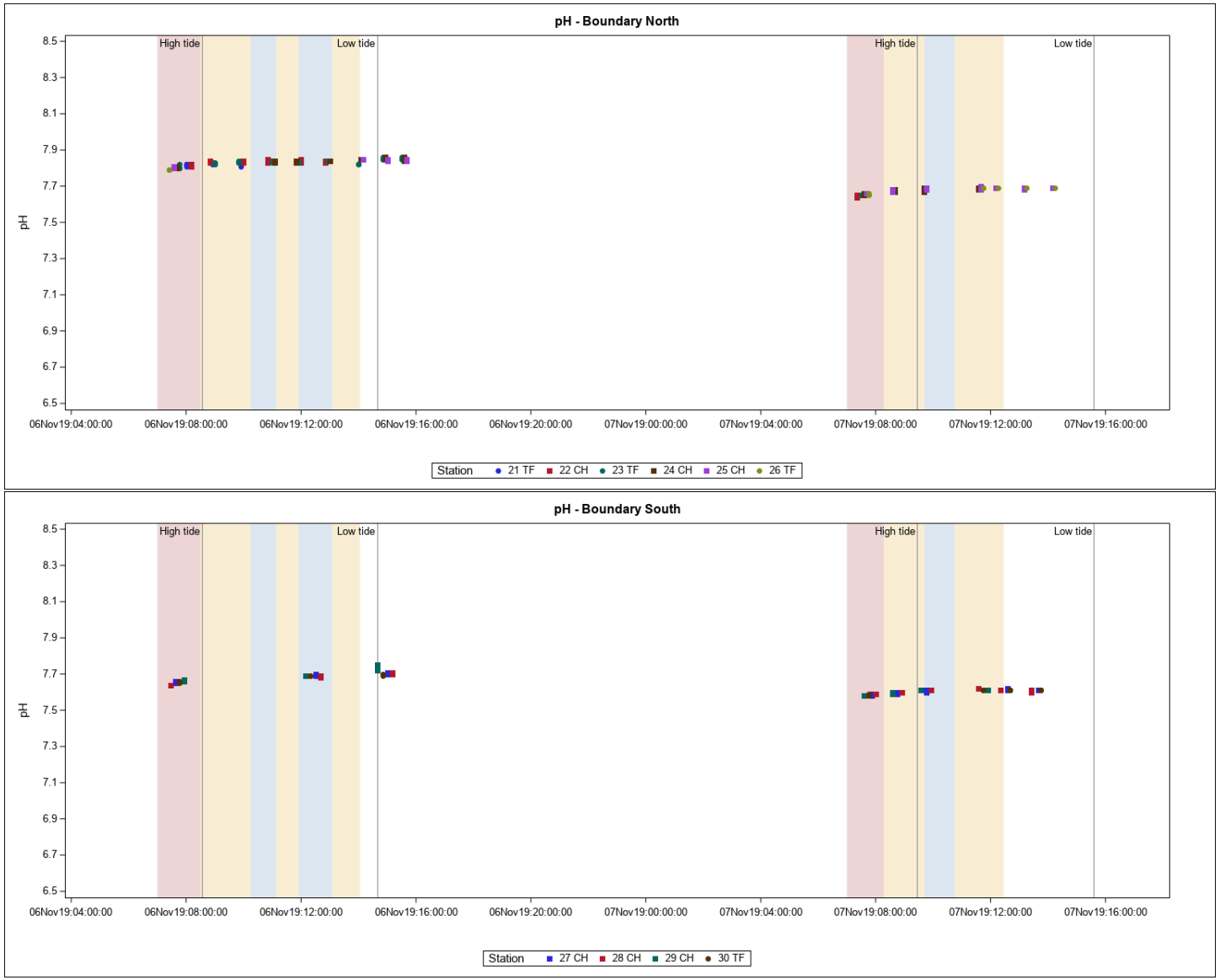
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 3

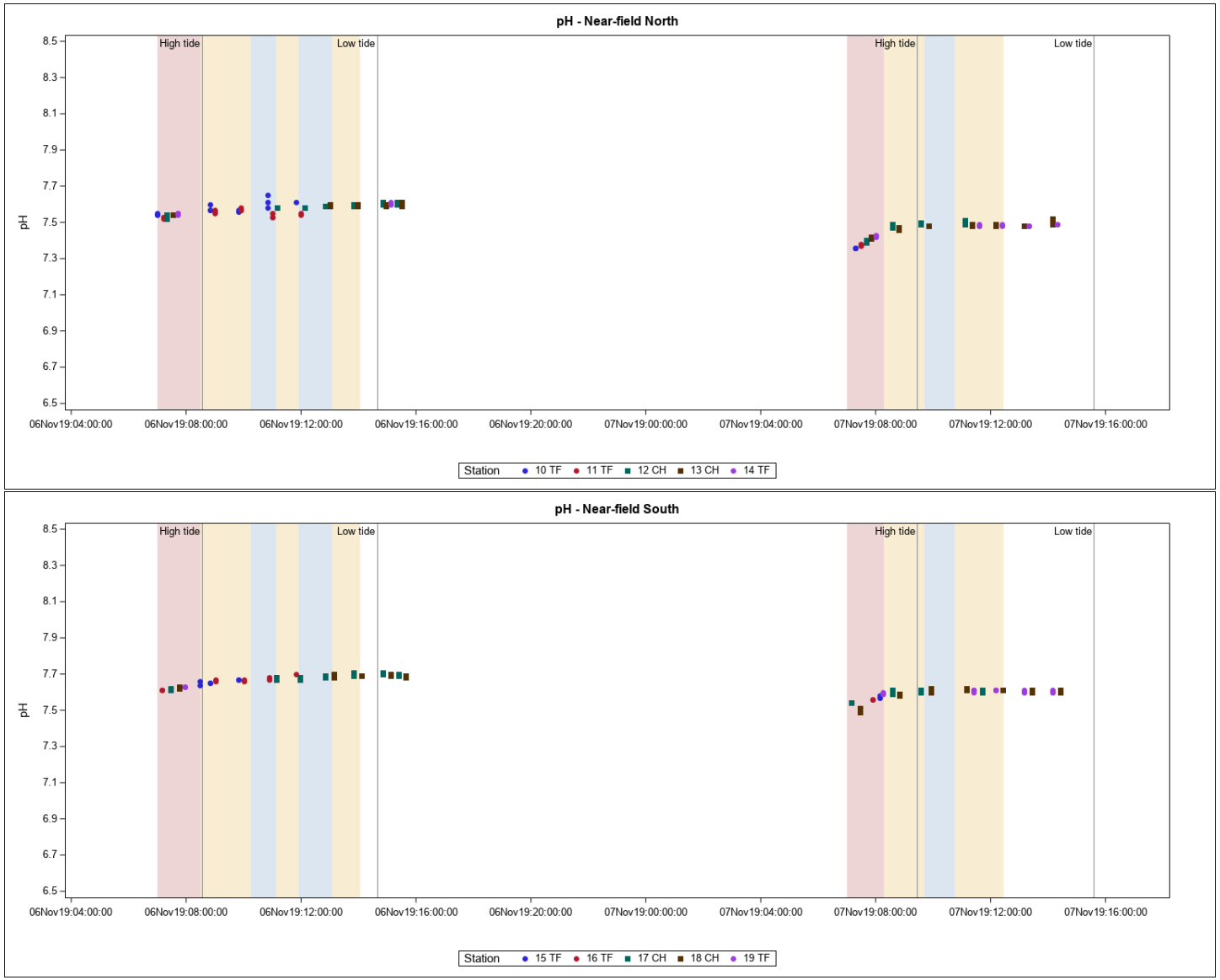
pH

pH		06 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	7.81	7.81	7.82	7.82	7.82	7.82	7.81	7.84	7.82	7.84	7.83	7.84
	22	7.81	7.81	7.82	7.82	7.82	7.82	7.83	7.83	7.83	7.84	7.84	7.85
	23	7.8	7.8	7.82	7.82	7.8	7.8	7.82	7.86	7.82	7.85	7.82	7.85
	24	7.8	7.8	7.81	7.81	7.81	7.81	7.83	7.86	7.83	7.86	7.84	7.85
	25	7.8	7.8	7.81	7.81	7.81	7.81	7.85	7.85	7.84	7.85	7.84	7.85
	26	7.79	7.79			7.79	7.79						
Boundary South	27	7.65	7.65	7.66	7.66	7.66	7.66	7.7	7.71	7.7	7.7	7.69	7.7
	28	7.64	7.64	7.64	7.64	7.64	7.64	7.69	7.71	7.69	7.7	7.68	7.7
	29	7.66	7.66	7.67	7.67	7.67	7.67	7.69	7.75	7.69	7.72	7.69	7.72
	30	7.65	7.65	7.66	7.66	7.66	7.66	7.69	7.7	7.69	7.69	7.69	7.7
Nearfield North	10	7.55	7.55	7.54	7.54	7.54	7.54	7.57	7.65	7.56	7.61	7.56	7.61
	11	7.53	7.53	7.53	7.53	7.52	7.52	7.55	7.57	7.53	7.58	7.53	7.57
	12	7.52	7.52	7.53	7.53	7.54	7.54	7.58	7.61	7.58	7.61	7.58	7.6
	13	7.54	7.54	7.54	7.54	7.54	7.54	7.6	7.61	7.59	7.6	7.59	7.59
	14	7.54	7.54	7.55	7.55	7.55	7.55	7.6	7.6	7.6	7.6	7.61	7.61
Nearfield South	15	7.66	7.66			7.64	7.64	7.65	7.67			7.65	7.67
	16	7.61	7.61			7.61	7.61	7.66	7.68			7.66	7.7
	17	7.61	7.61	7.61	7.61	7.62	7.62	7.68	7.71	7.67	7.7	7.67	7.7
	18	7.62	7.62	7.63	7.63	7.63	7.63	7.69	7.7	7.68	7.69	7.68	7.69
	19	7.63	7.63	7.63	7.63	7.63	7.63						
Reference Stations	41	7.8	7.8	7.8	7.8	7.8	7.8	7.85	7.85	7.84	7.85	7.84	7.84
	42	7.81	7.81			7.81	7.81	7.87	7.87				
	43	7.6	7.6	7.6	7.6	7.6	7.6	7.7	7.7	7.7	7.7	7.7	7.71

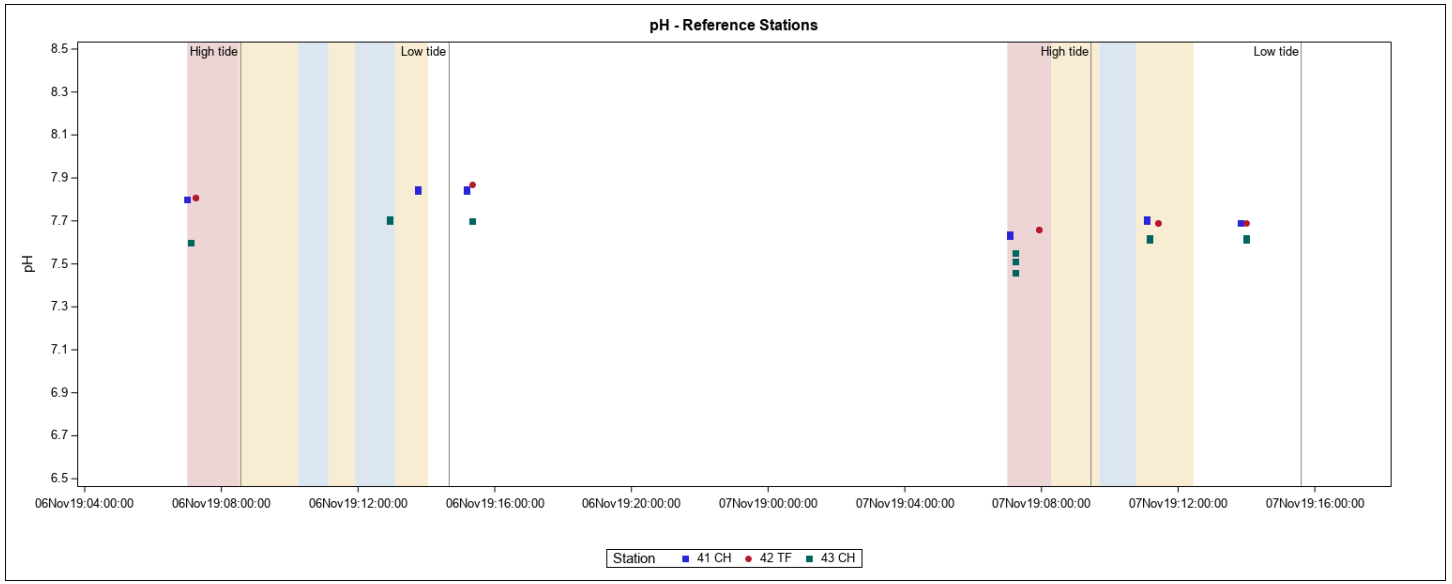
pH		07 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	7.65	7.65	7.65	7.65	7.65	7.65						
	22	7.64	7.64	7.64	7.64	7.65	7.65						
	23	7.65	7.65	7.65	7.65	7.65	7.65						
	24	7.66	7.66	7.65	7.65	7.65	7.65	7.67	7.69	7.67	7.68	7.67	7.69
	25	7.66	7.66	7.66	7.66	7.66	7.66	7.67	7.7	7.68	7.69	7.68	7.69
	26	7.66	7.66			7.65	7.65	7.69	7.69			7.69	7.69
Boundary South	27	7.58	7.58	7.59	7.59	7.59	7.59	7.59	7.61	7.59	7.62	7.6	7.61
	28	7.59	7.59	7.59	7.59	7.59	7.59	7.6	7.62	7.6	7.62	7.6	7.62
	29	7.58	7.58	7.58	7.58	7.58	7.58	7.59	7.61	7.6	7.61	7.6	7.61
	30	7.59	7.59	7.58	7.58	7.58	7.58	7.61	7.61	7.61	7.61	7.61	7.61
Nearfield North	10	7.36	7.36	7.36	7.36	7.36	7.36						
	11	7.37	7.37	7.37	7.37	7.38	7.38						
	12	7.39	7.39	7.39	7.39	7.4	7.4	7.49	7.51	7.47	7.49	7.47	7.49
	13	7.41	7.41	7.42	7.42	7.42	7.42	7.46	7.52	7.47	7.5	7.47	7.49
	14	7.42	7.42	7.43	7.43	7.43	7.43	7.48	7.49	7.48	7.49	7.48	7.49
Nearfield South	15	7.58	7.58			7.57	7.57						
	16	7.56	7.56			7.56	7.56						
	17	7.54	7.54	7.54	7.54	7.54	7.54	7.61	7.61	7.59	7.6	7.59	7.61
	18	7.49	7.49	7.5	7.5	7.51	7.51	7.58	7.62	7.59	7.61	7.59	7.61
	19	7.59	7.59	7.59	7.59	7.6	7.6	7.61	7.61	7.6	7.61	7.6	7.61
Reference Stations	41	7.63	7.63	7.64	7.64	7.64	7.64	7.69	7.71	7.69	7.7	7.69	7.7
	42	7.66	7.66			7.66	7.66	7.69	7.69			7.69	7.69
	43	7.46	7.46	7.51	7.51	7.55	7.55	7.61	7.62	7.61	7.62	7.61	7.61



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

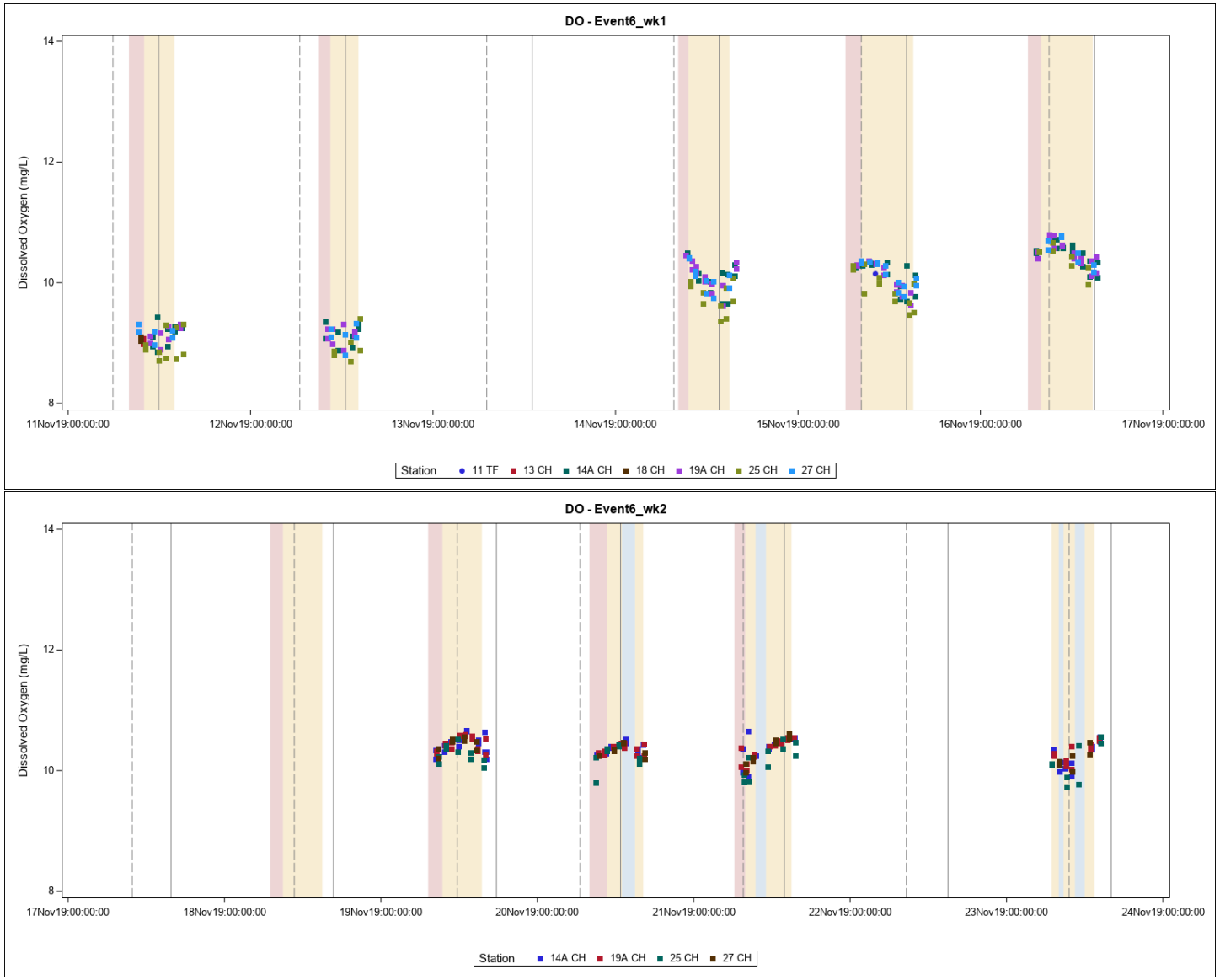


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

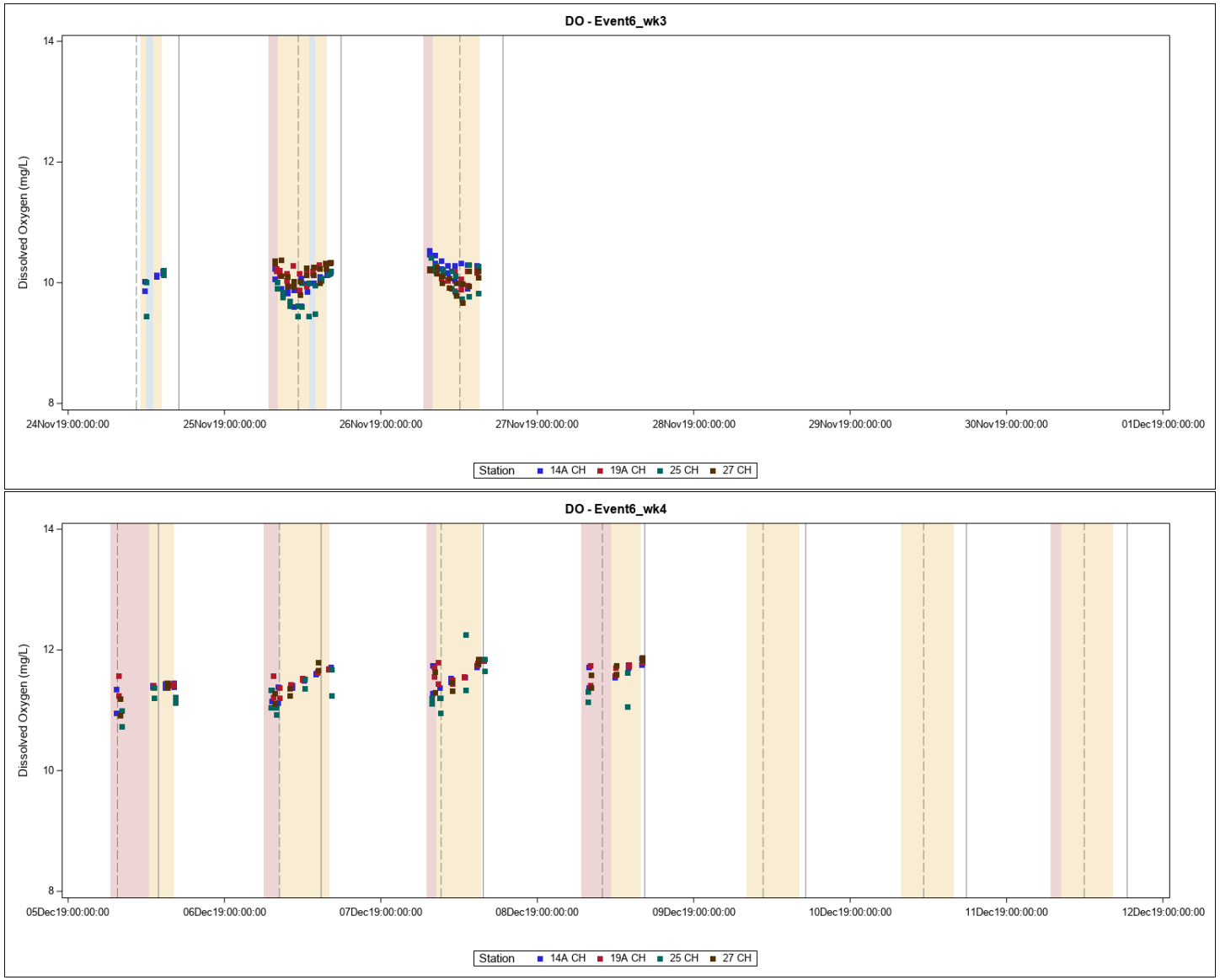
Hand Jet

Dissolved Oxygen

DO (mg/L)		11 NOV 2019 – 18 DEC 2019							
		Before Start of Jet Plow				During Jet Plowing			
		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max
Location	Station								
West Side Boundary	10A	10.12	11.81	10.07	11.74	9.96	12.8	9.67	11.96
	11			10.16	10.16				
	15	10.16	11.71	10.02	11.61	9.75	11.97	9.7	11.88
West Side Reference	21	10.05	11.7	9.92	11.7	9.84	11.76	9.45	11.71
East Side Boundary	13	9.08	9.08	8.99	8.99				
	14A	9.36	12.55	9.08	12.52	9.1	13.05	8.85	12.89
	18	9.11	9.11	9.04	9.04				
	19A	9.23	12.39	9.08	12.46	9.12	12.97	8.88	12.88
East Side Reference	25	9.93	12.77	9.8	12.14	8.86	13	8.7	12.59
	27	9.31	12.45	9.18	12.38	9.14	13.29	8.8	12.88



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



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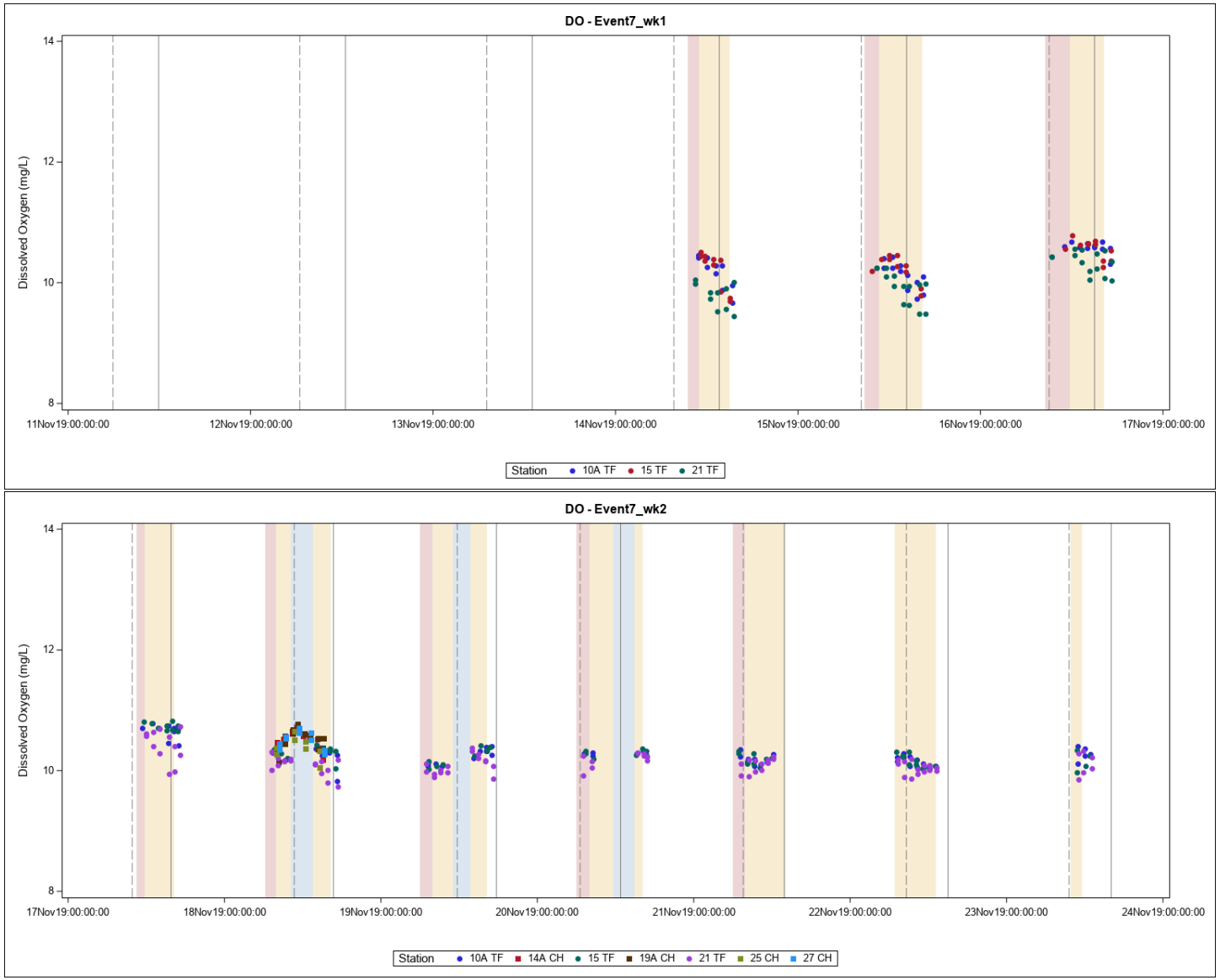

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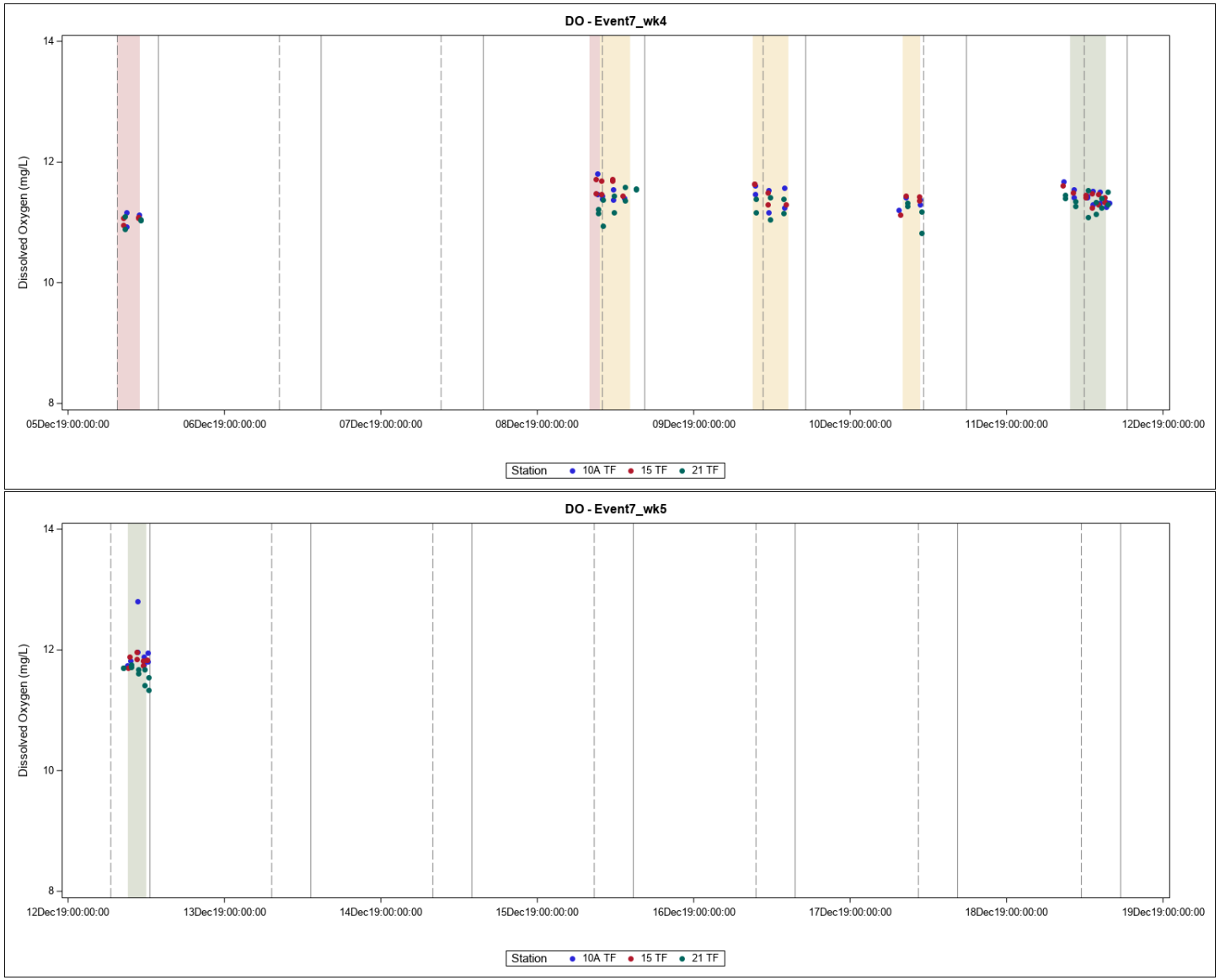

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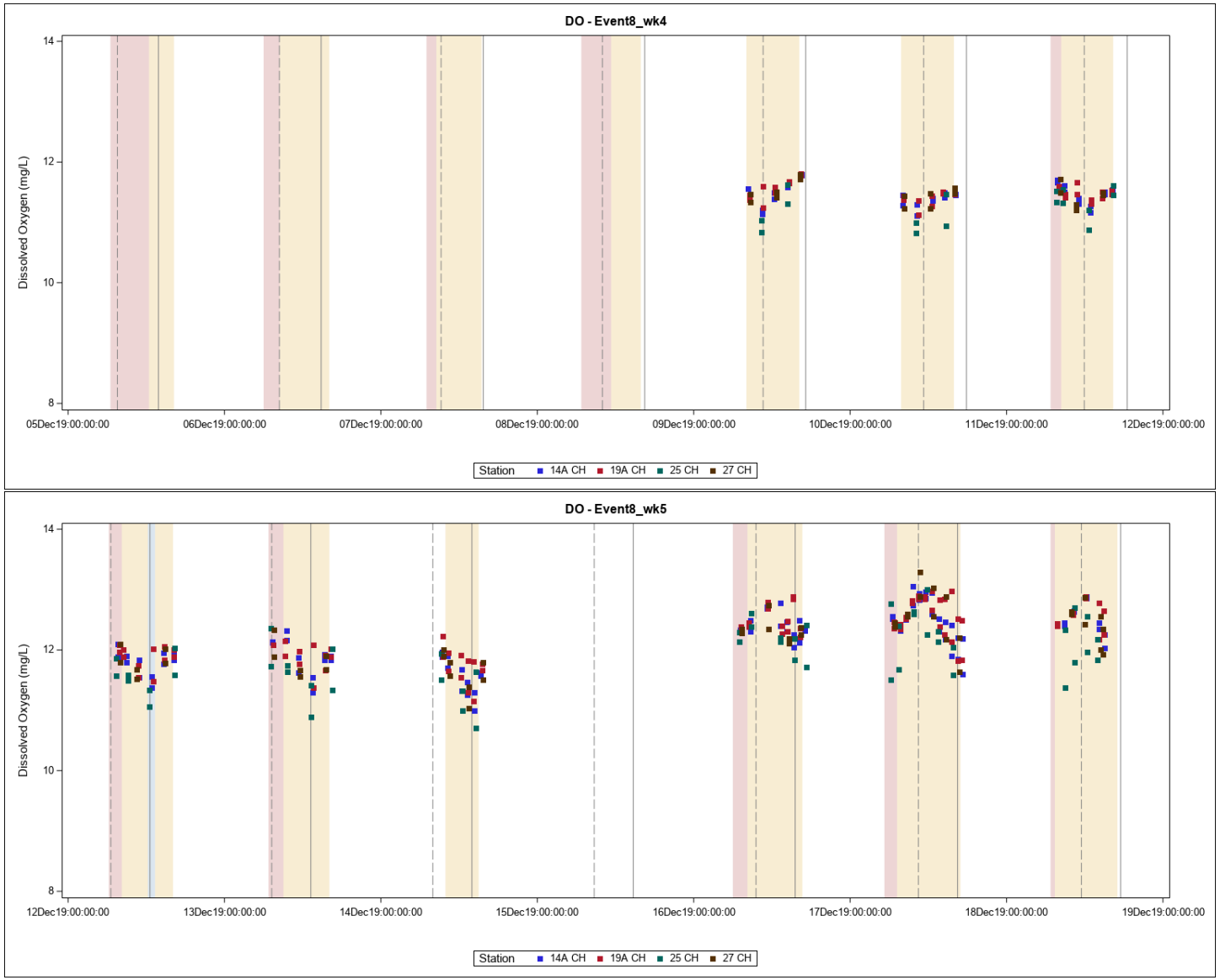
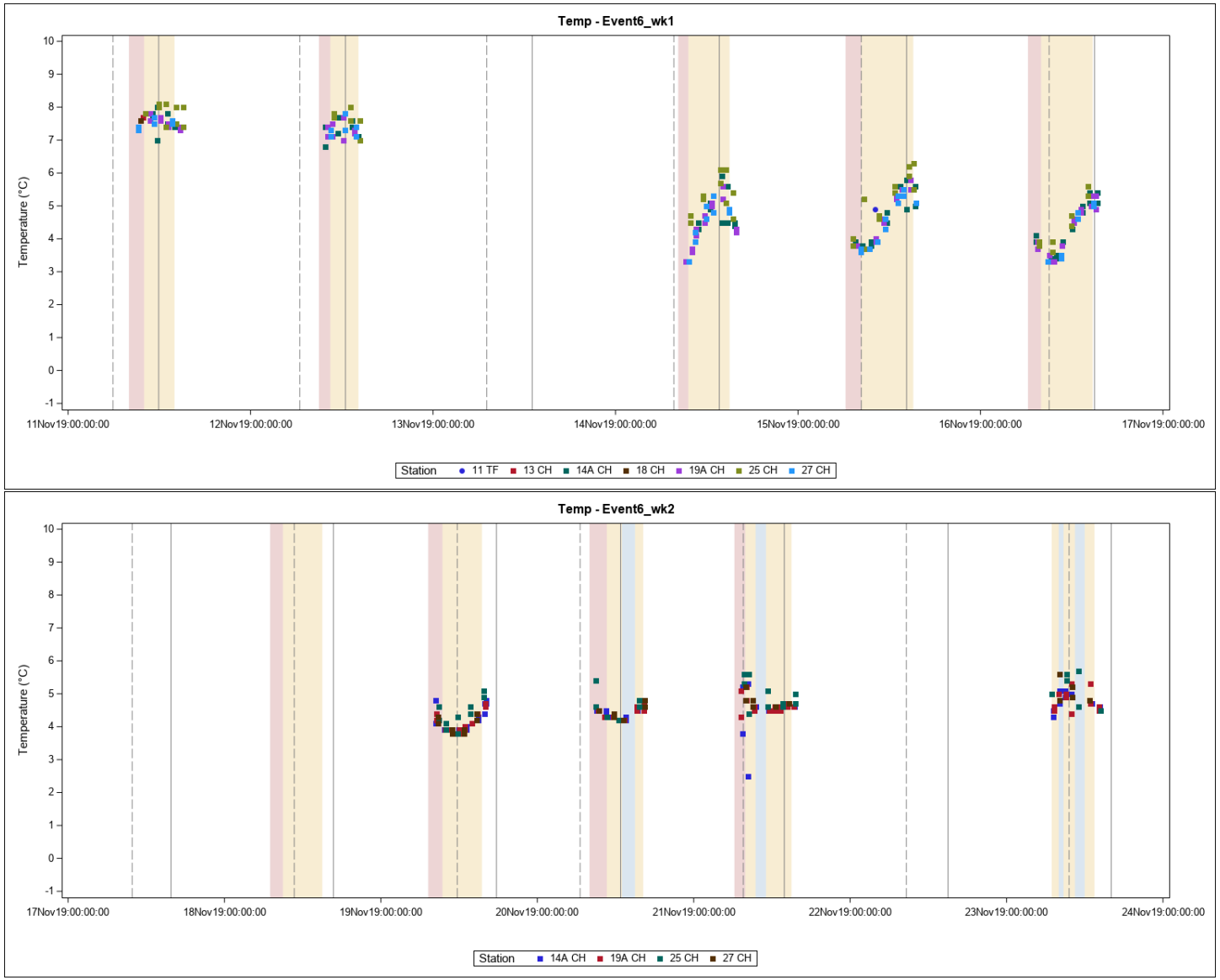


Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

Hand Jet

Temperature

Temperature (°C)		11 NOV 2019 – 18 DEC 2019							
		Before Start of Jet Plow				During Jet Plowing			
		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max
Location	Station								
West Side Boundary	10A	0.1	4.4	1.1	4.7	1.2	5.4	1.3	5.8
	11			4.9	4.9				
	15	0.4	4.3	1	4.8	0.3	5.6	1.1	5.6
West Side Reference	21	1.7	4.8	2	5.3	1.4	5.6	2	6.2
East Side Boundary	13	7.7	7.7	7.7	7.7				
	14A	0.5	6.8	1	7.4	0.5	7.7	0.7	8
	18	7.6	7.6	7.6	7.6				
	19A	-0.3	7.1	1.1	7.4	0.1	7.6	0.8	7.8
East Side Reference	25	0.7	5.3	1.9	5.6	0.5	8	1.2	8.1
	27	0.9	7.3	1.5	7.4	0.3	7.5	0.8	7.8



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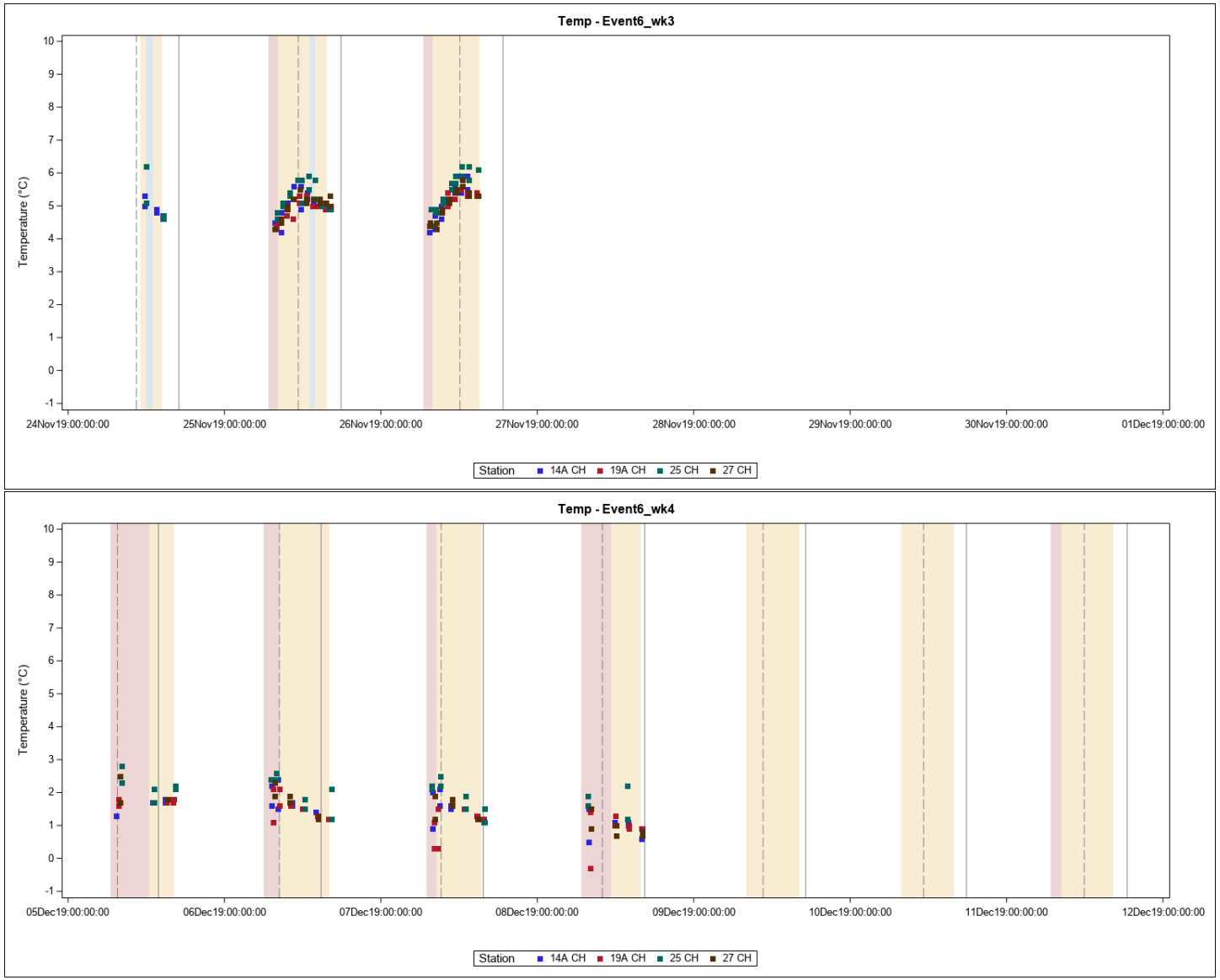

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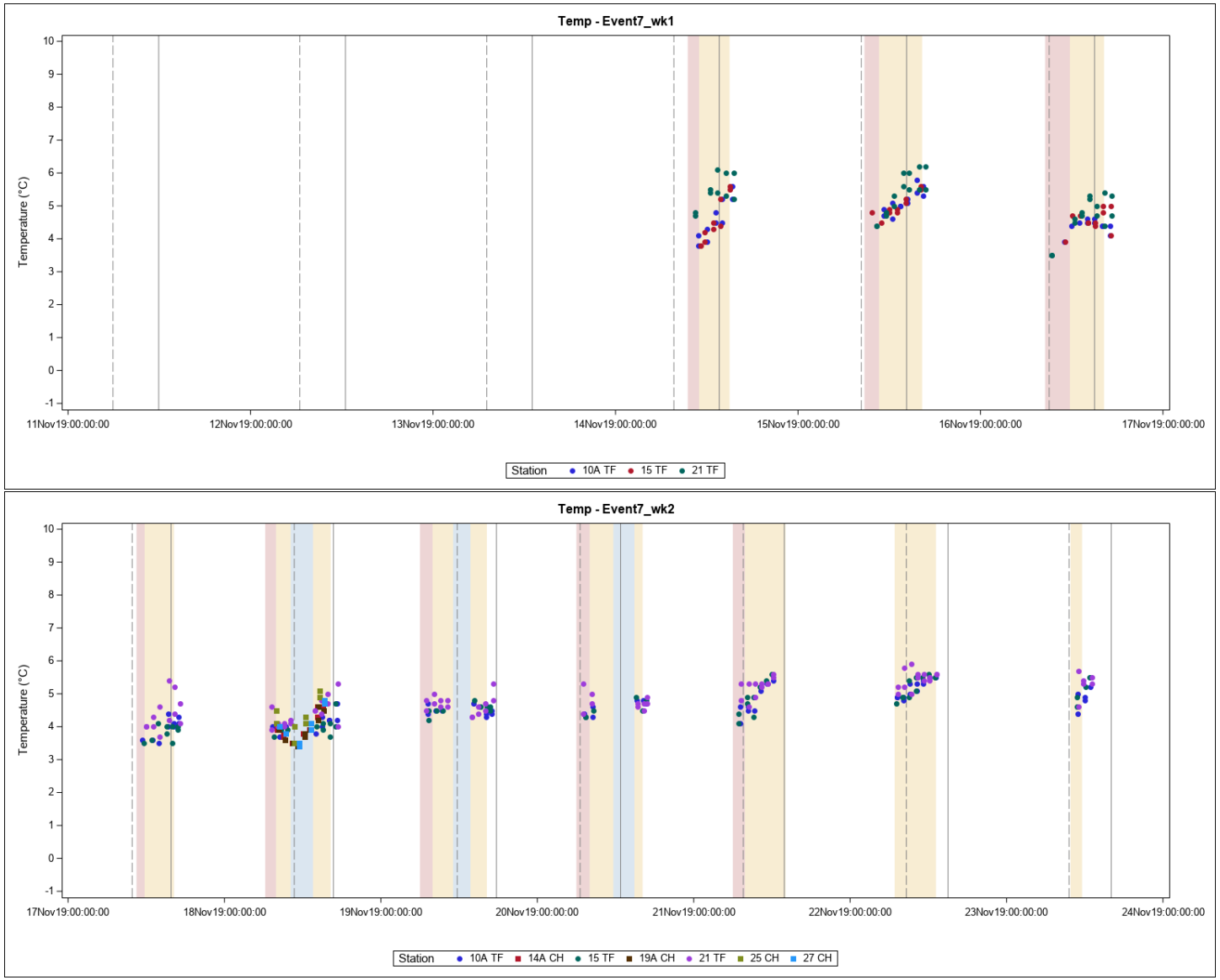

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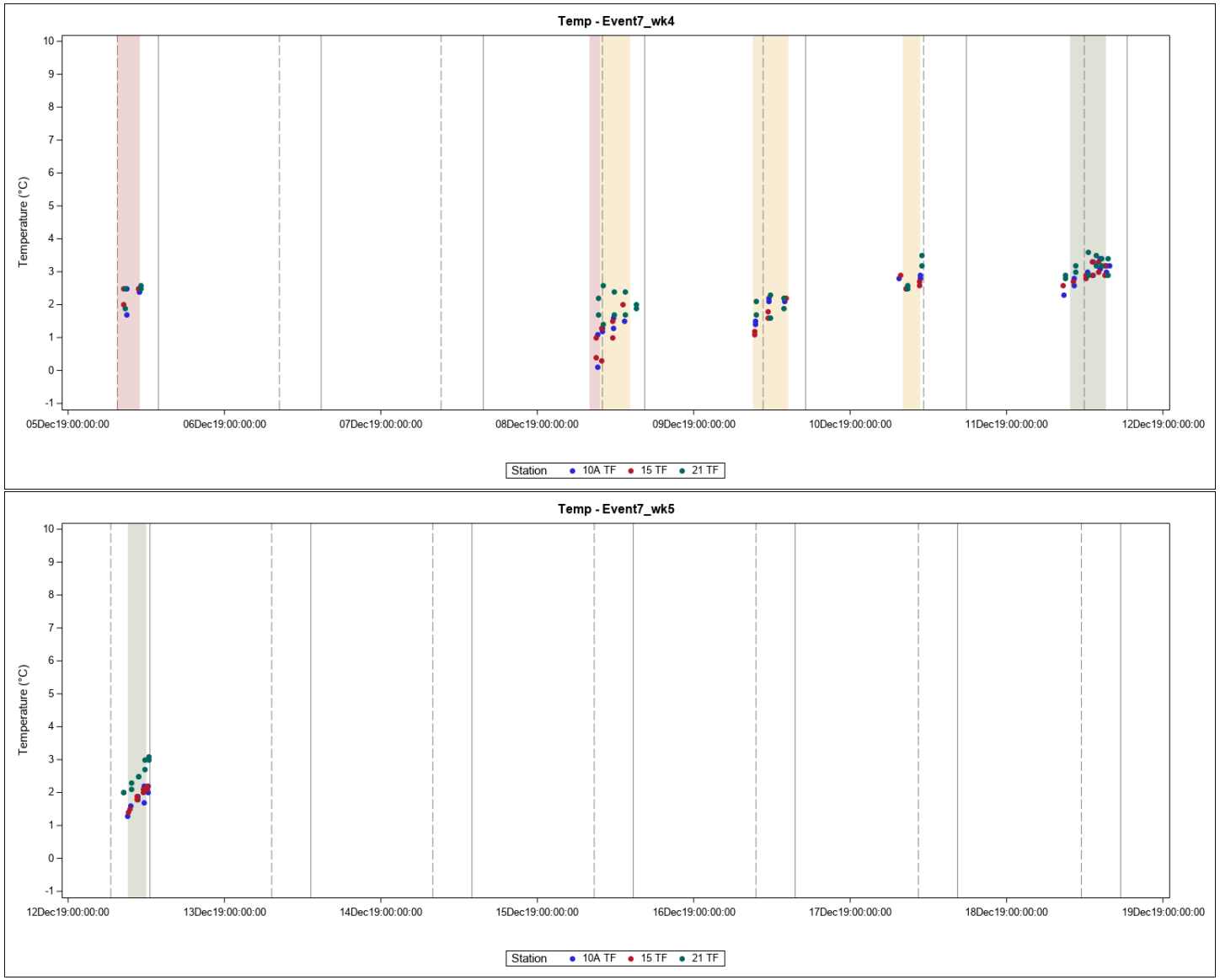

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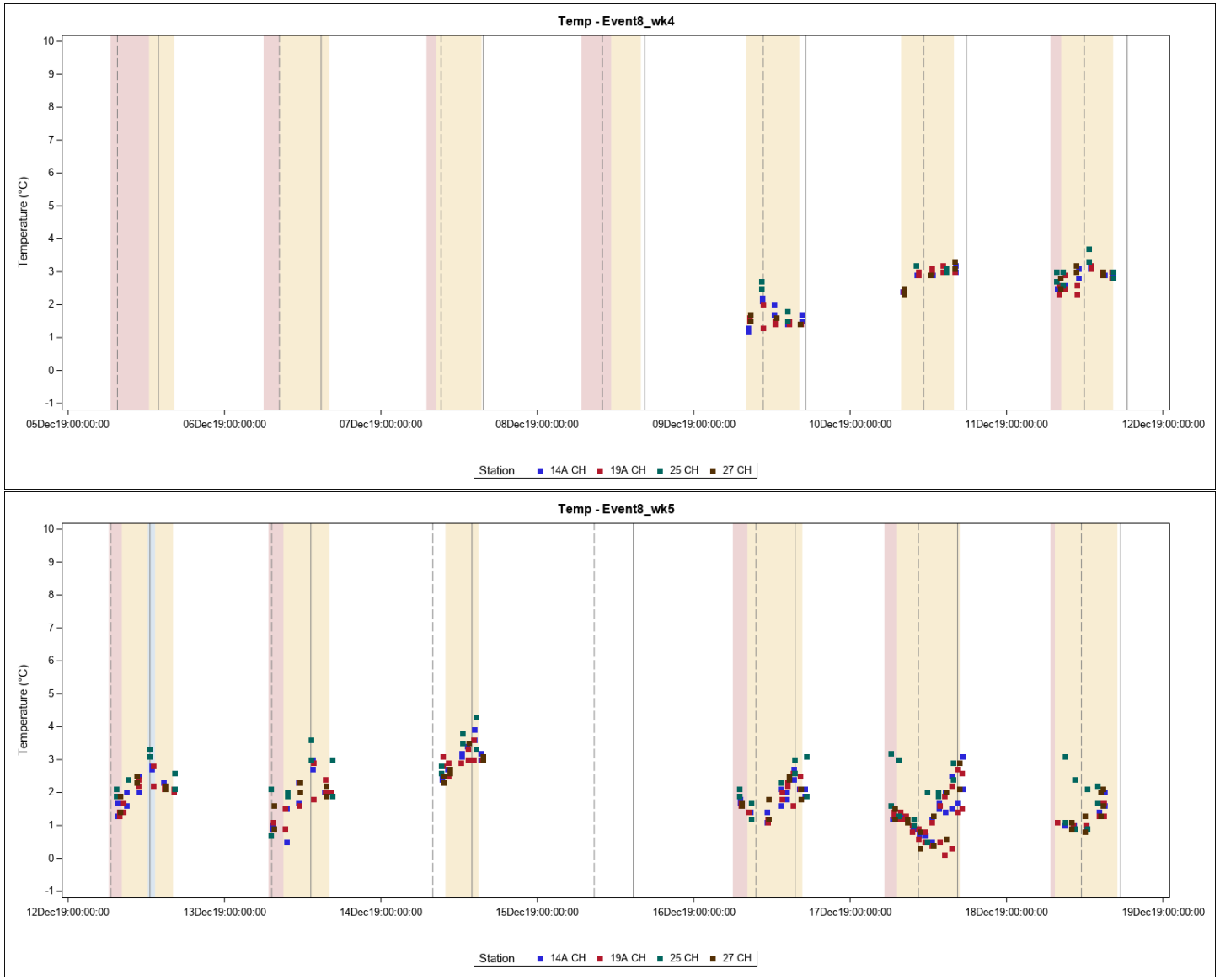
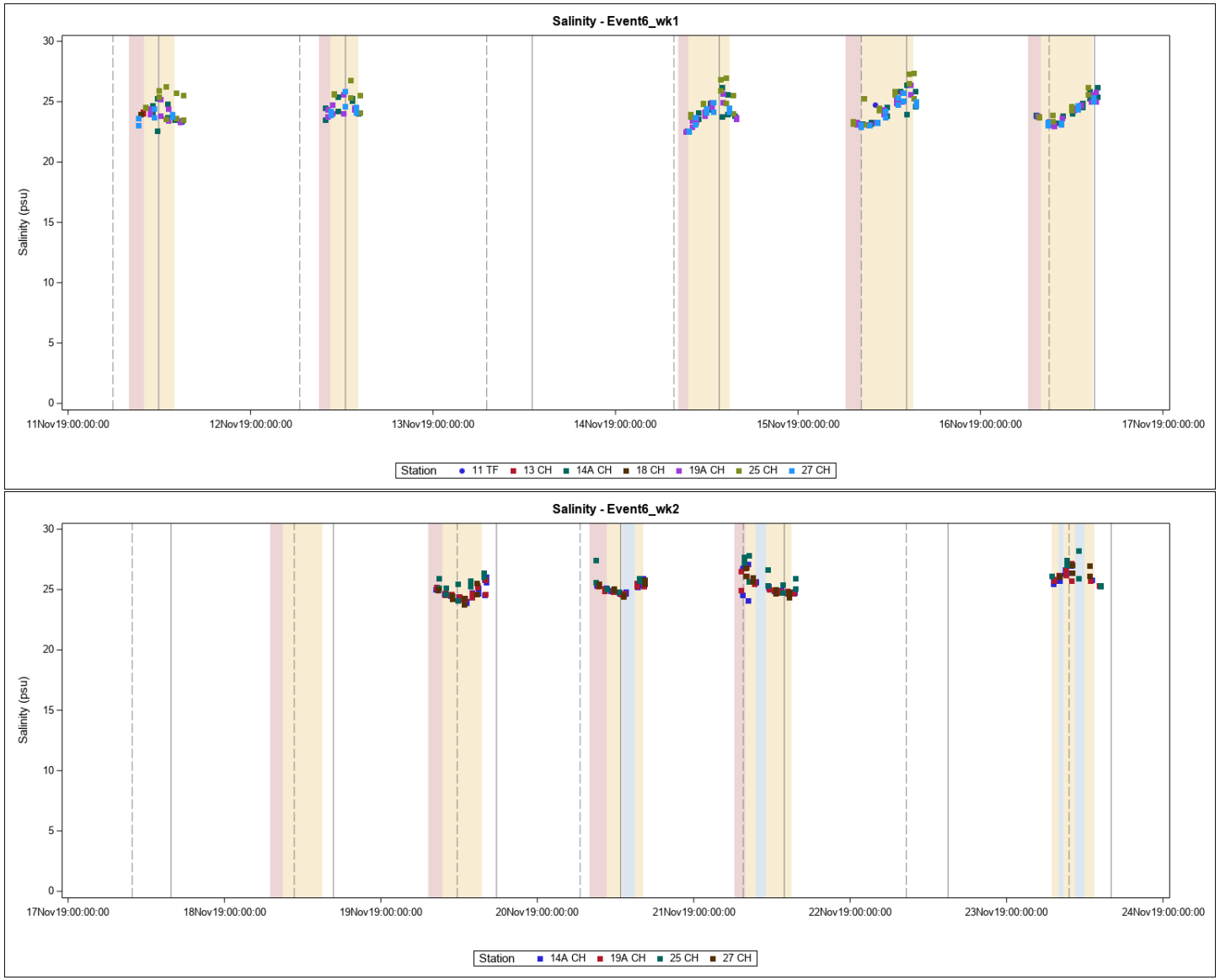


Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

Hand Jet

Salinity

Salinity (psu)		11 NOV 2019 – 18 DEC 2019							
		Before Start of Jet Plow				During Jet Plowing			
		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max
Location	Station								
West Side Boundary	10A	21.53	25.76	19.45	26.12	18.72	26.24	19.16	27.37
	11			24.74	24.74				
	15	21.51	25.27	20.01	26.33	18.62	26	18.79	26.84
West Side Reference	21	19.2	25.87	19.24	27.36	19.28	26.84	19.65	28.01
East Side Boundary	13	24.04	24.04	24.18	24.18				
	14A	10.15	25.33	10.27	26.78	7.82	26.42	7.8	27.44
	18	23.93	23.93	23.94	23.94				
	19A	7.43	25.37	10.59	26.52	8.14	26.3	8.26	27.9
East Side Reference	25	11	27.25	12.59	27.68	7.87	28.02	9.7	29.1
	27	10.11	25.37	10.85	25.44	6.22	26.97	8.67	27.32



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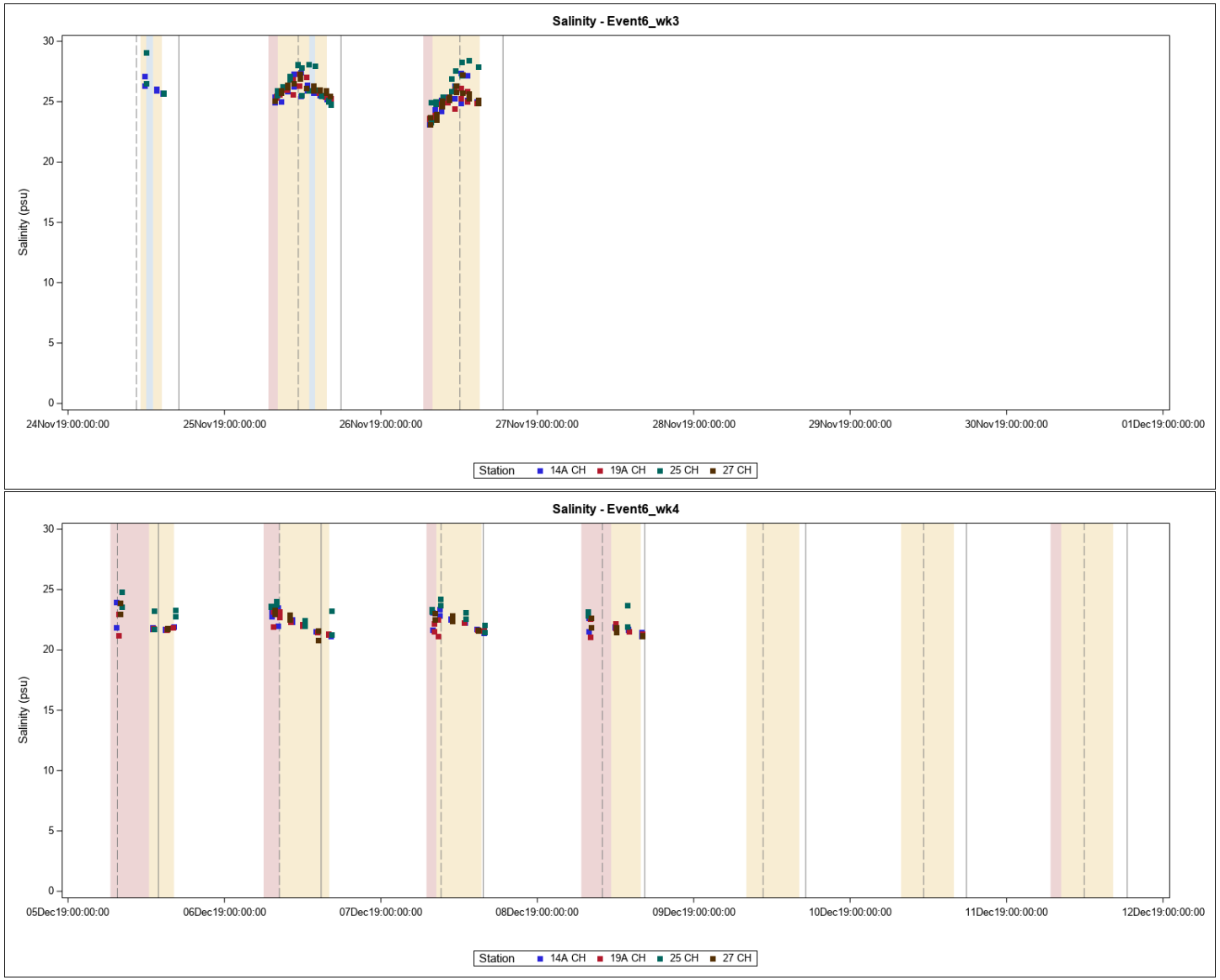

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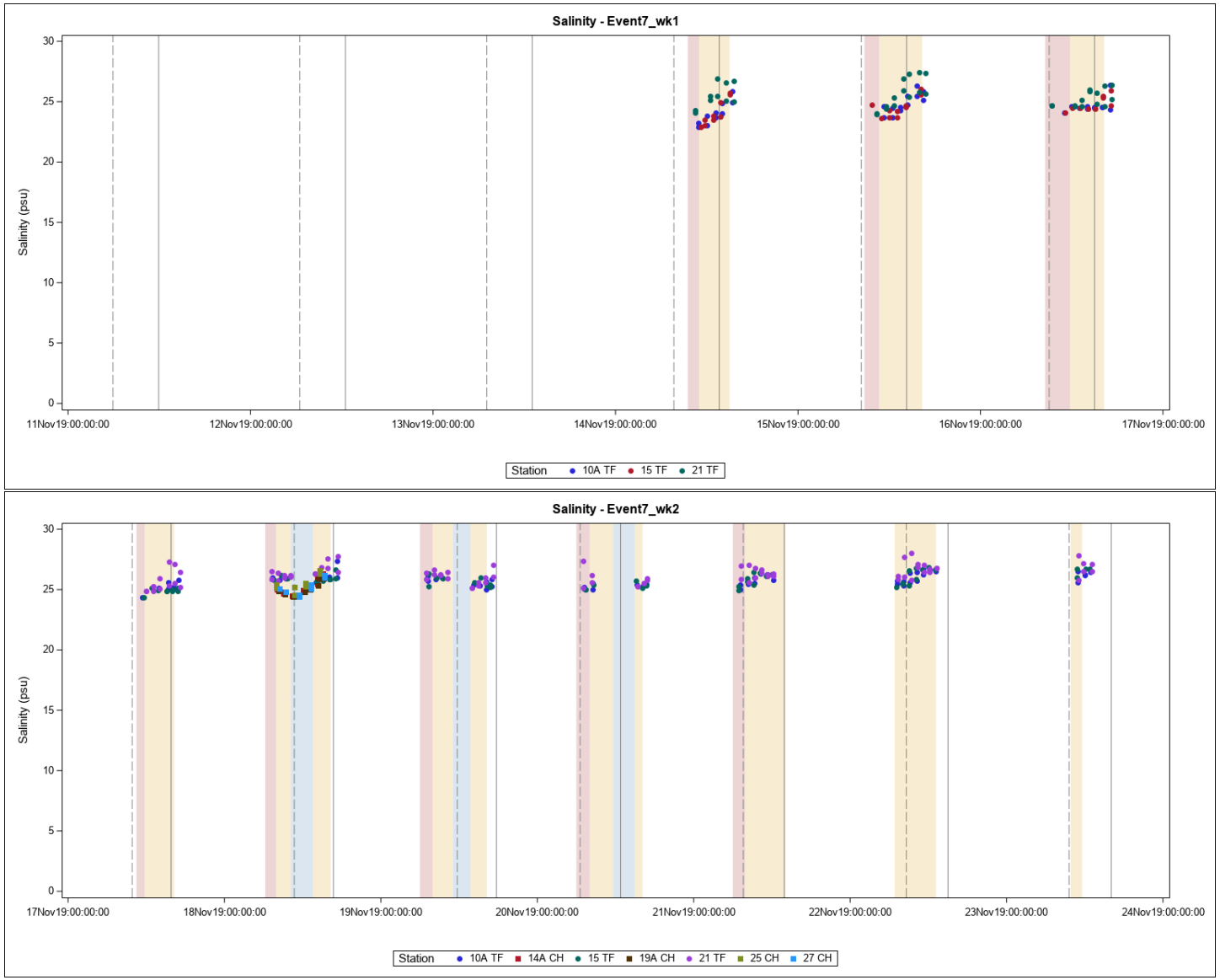

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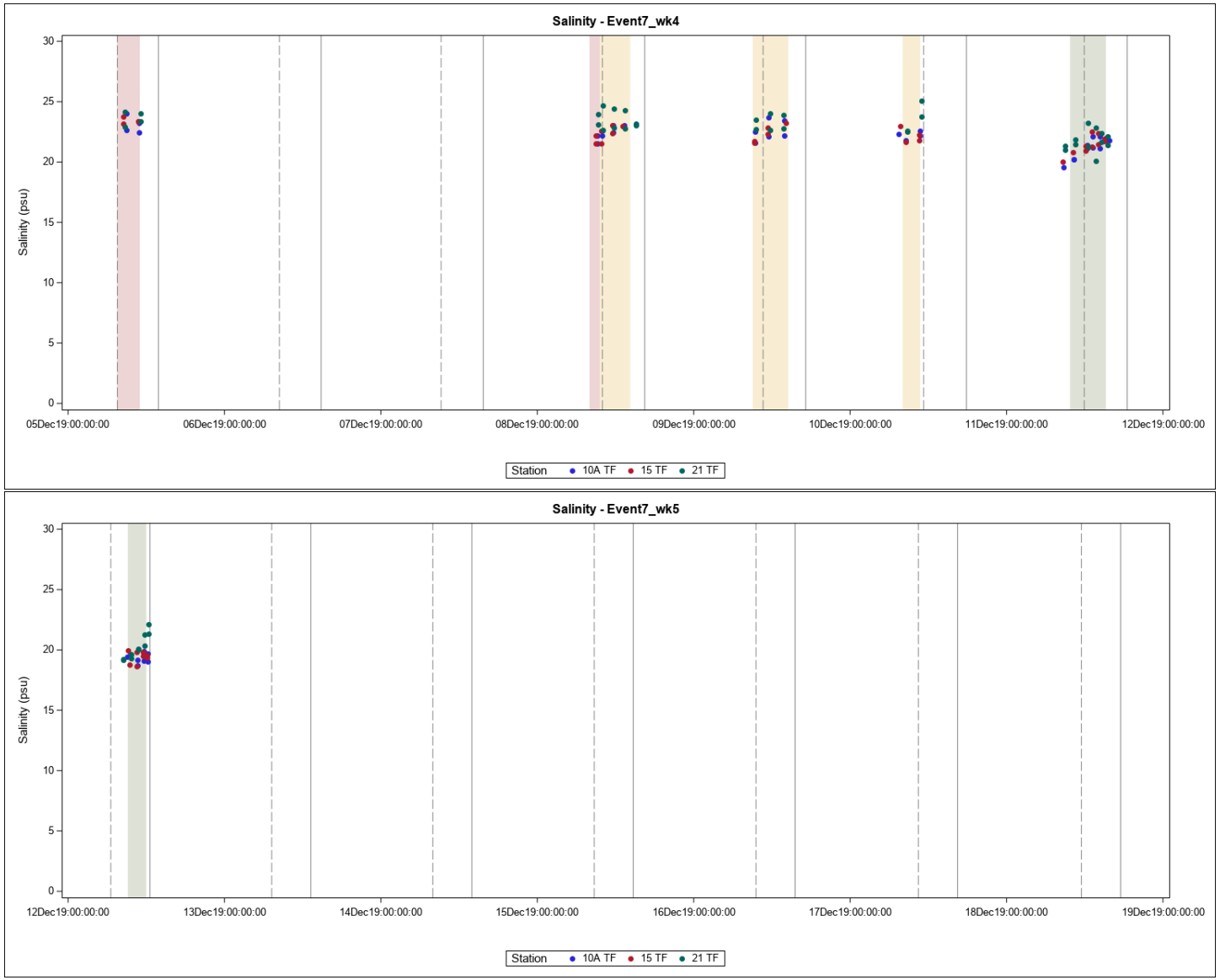

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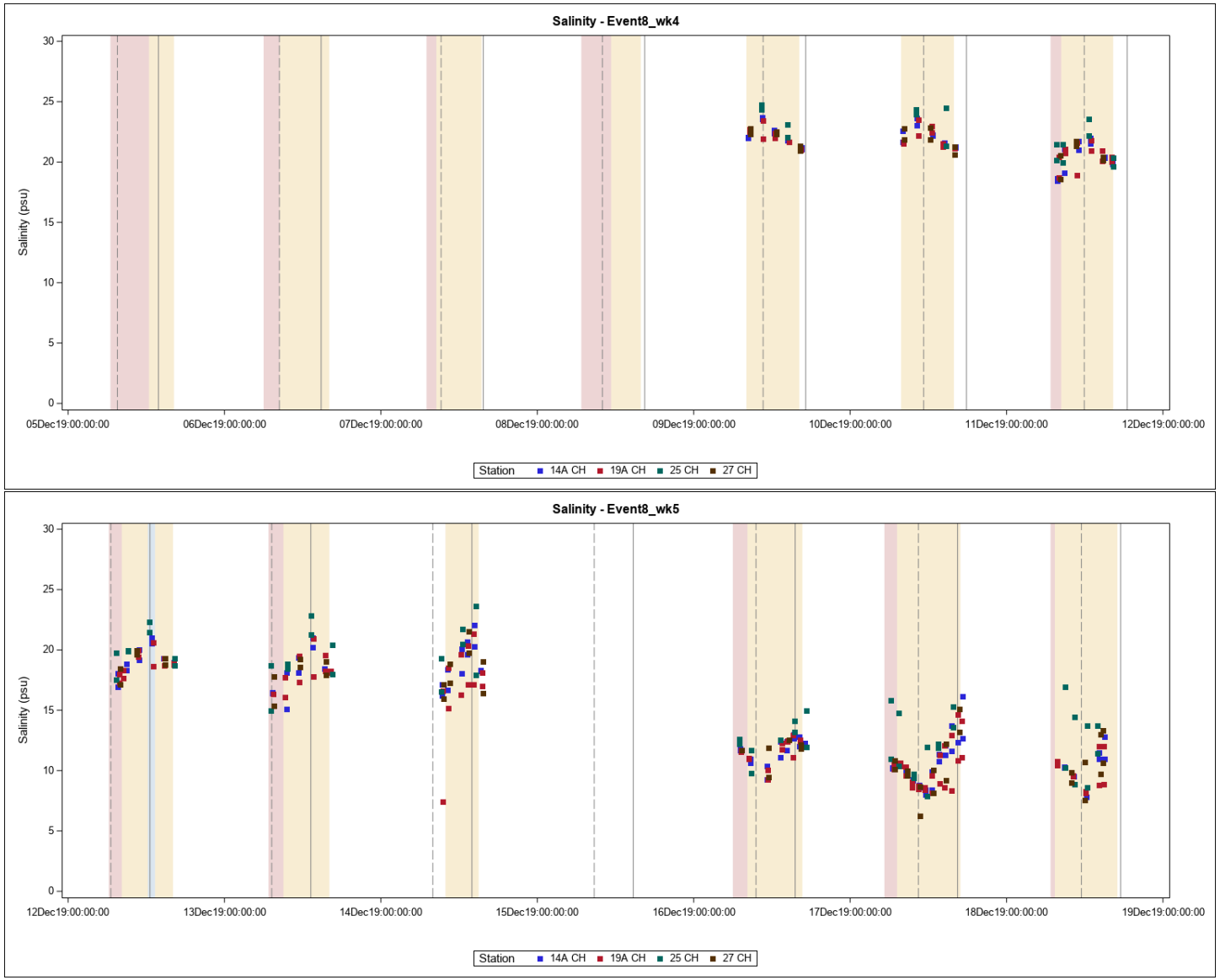
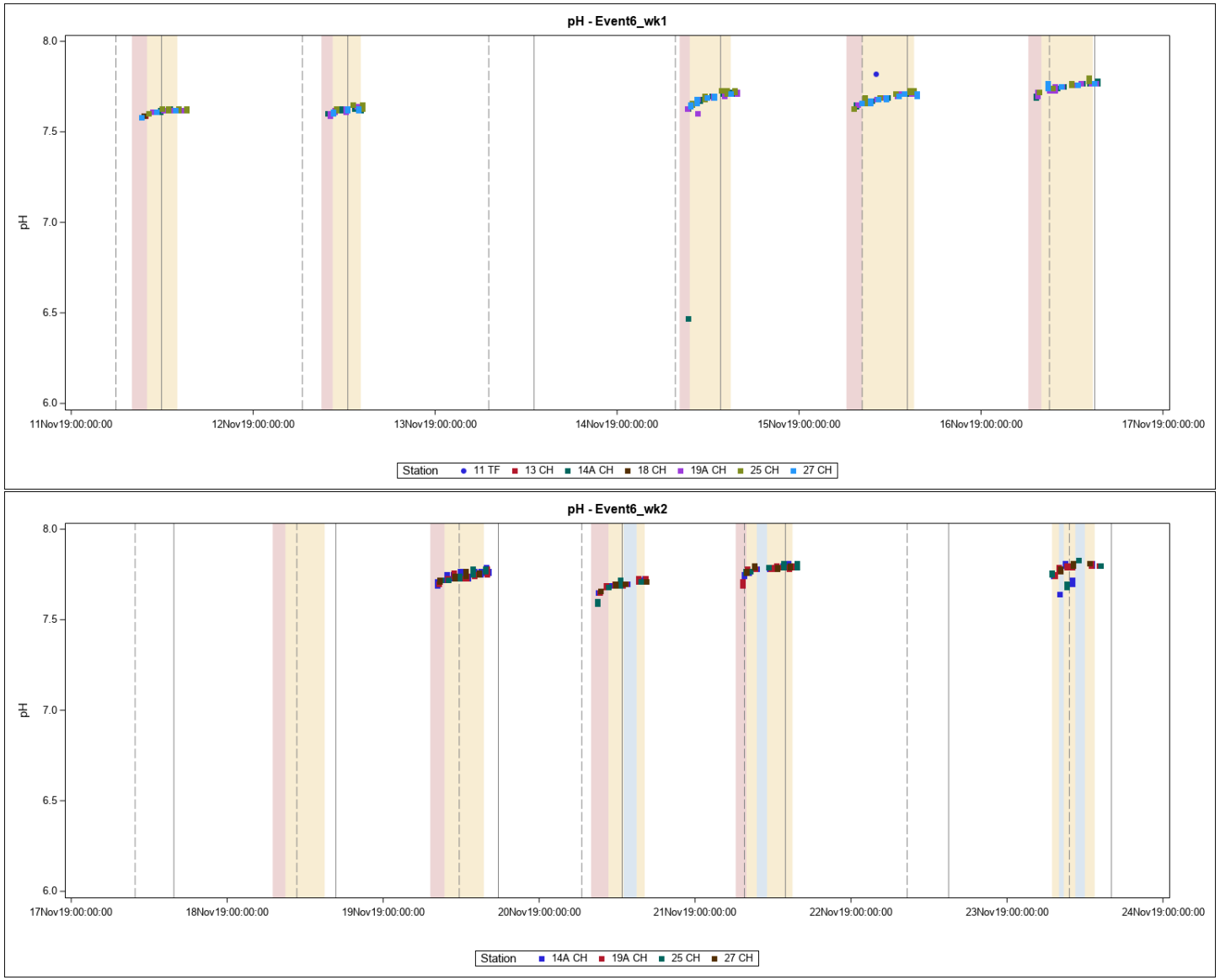


Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

Hand Jet

pH

pH		11 NOV 2019 – 18 DEC 2019							
		Before Start of Jet Plow				During Jet Plowing			
		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max
Location	Station								
West Side Boundary	10A	7.61	7.81	7.61	7.82	7.65	7.87	7.6	7.87
	11			7.82	7.82				
	15	7.6	7.83	7.6	7.83	7.7	7.9	7.66	7.89
West Side Reference	21	7.58	7.83	7.6	7.84	7.66	7.9	7.66	7.9
East Side Boundary	13	7.59	7.59	7.59	7.59				
	14A	6.47	7.78	7.29	7.79	7.27	7.86	7.25	7.86
	18	7.59	7.59	7.59	7.59				
	19A	7.4	7.8	7.34	7.79	7.26	7.86	7.26	7.86
East Side Reference	25	7.33	7.79	7.33	7.8	7.26	7.86	7.33	7.87
	27	7.42	7.79	7.35	7.8	7.24	7.86	7.2	7.86



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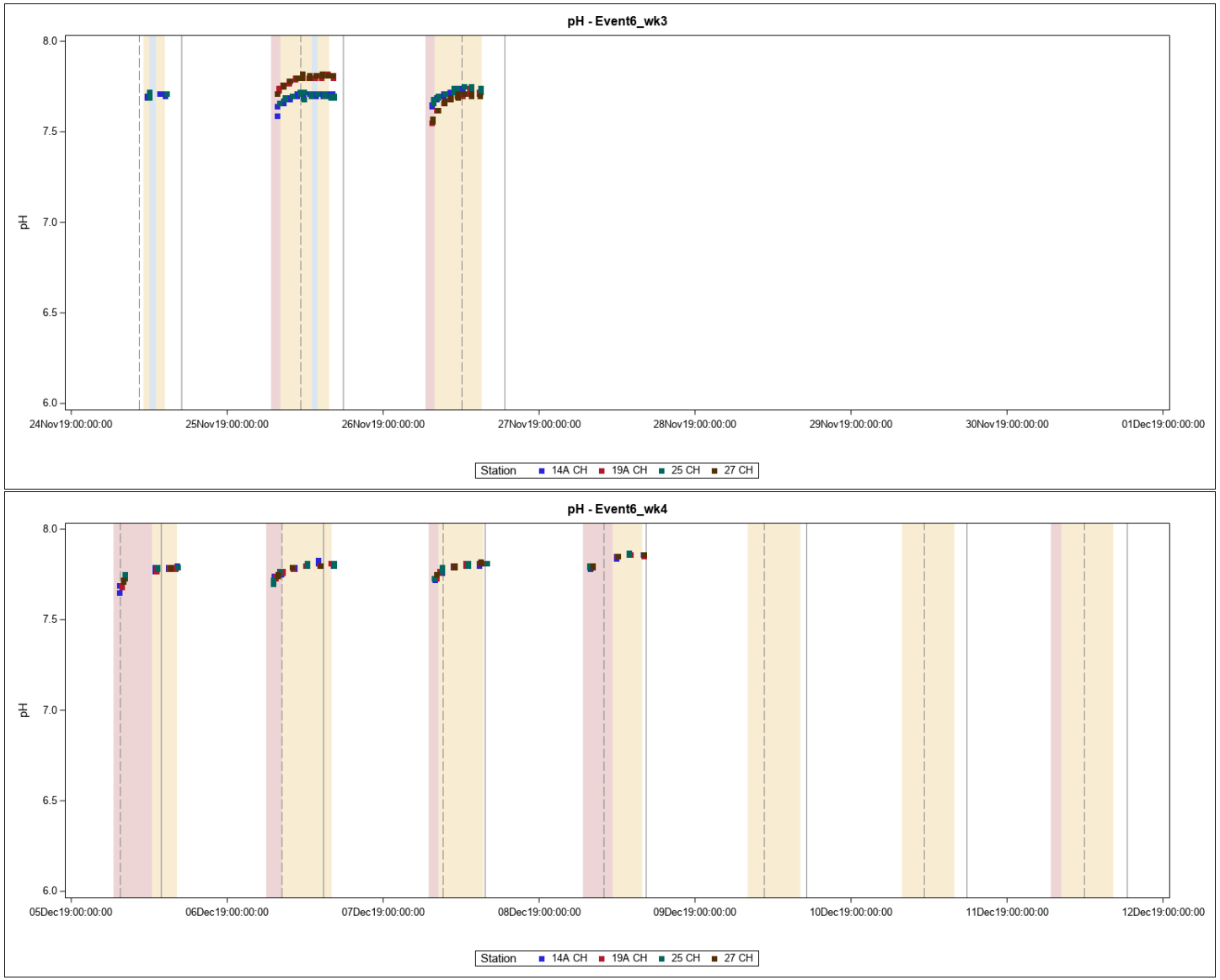

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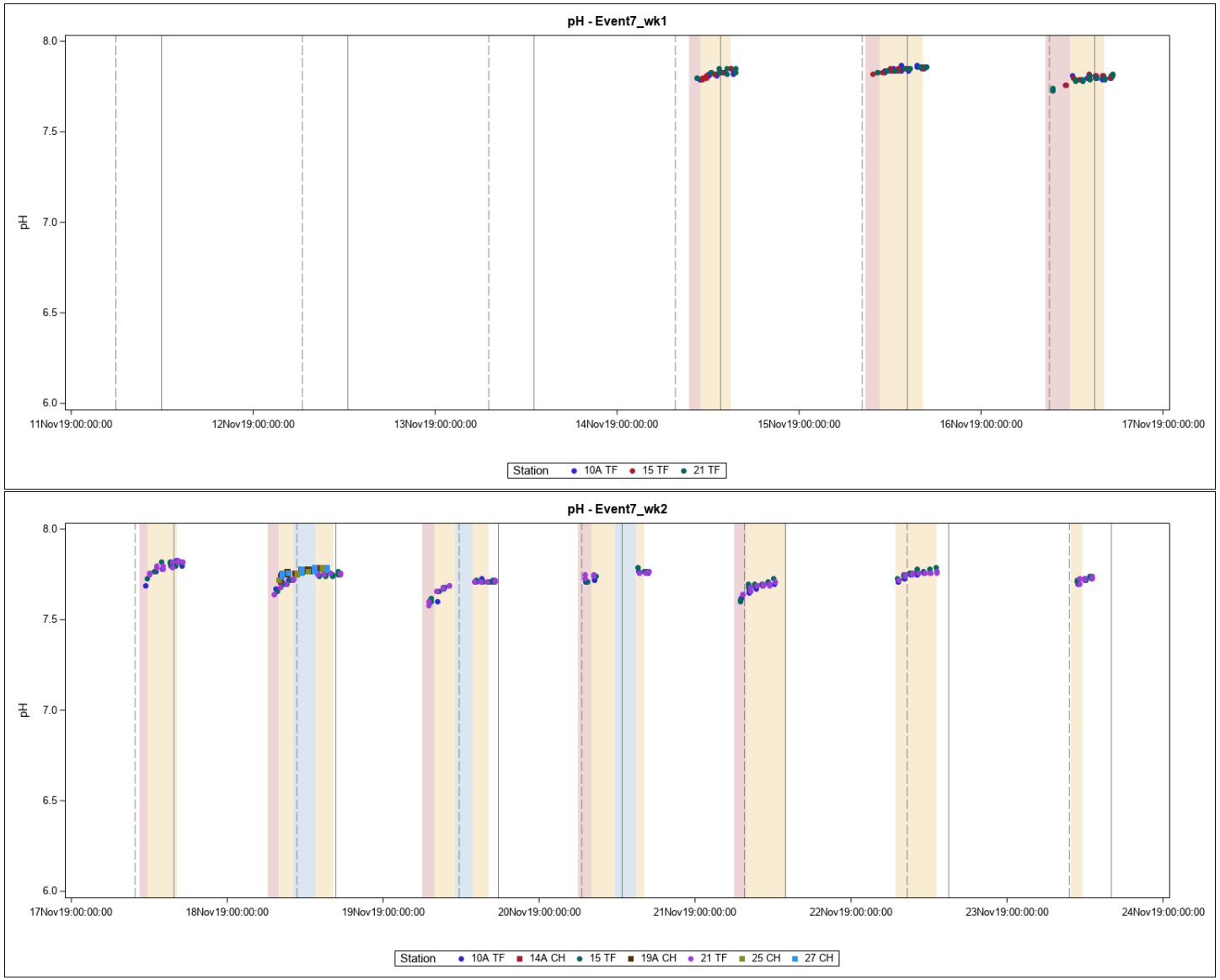

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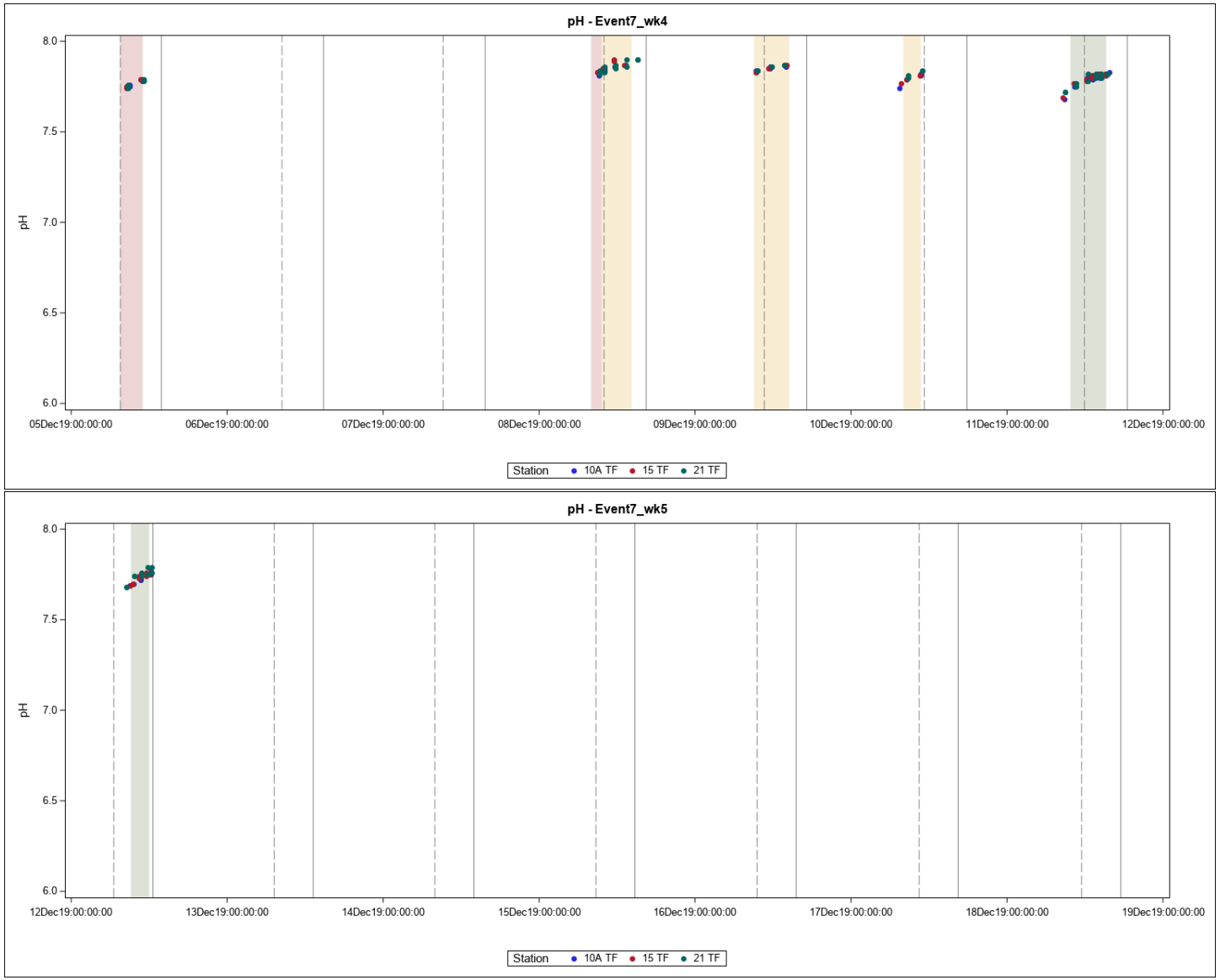

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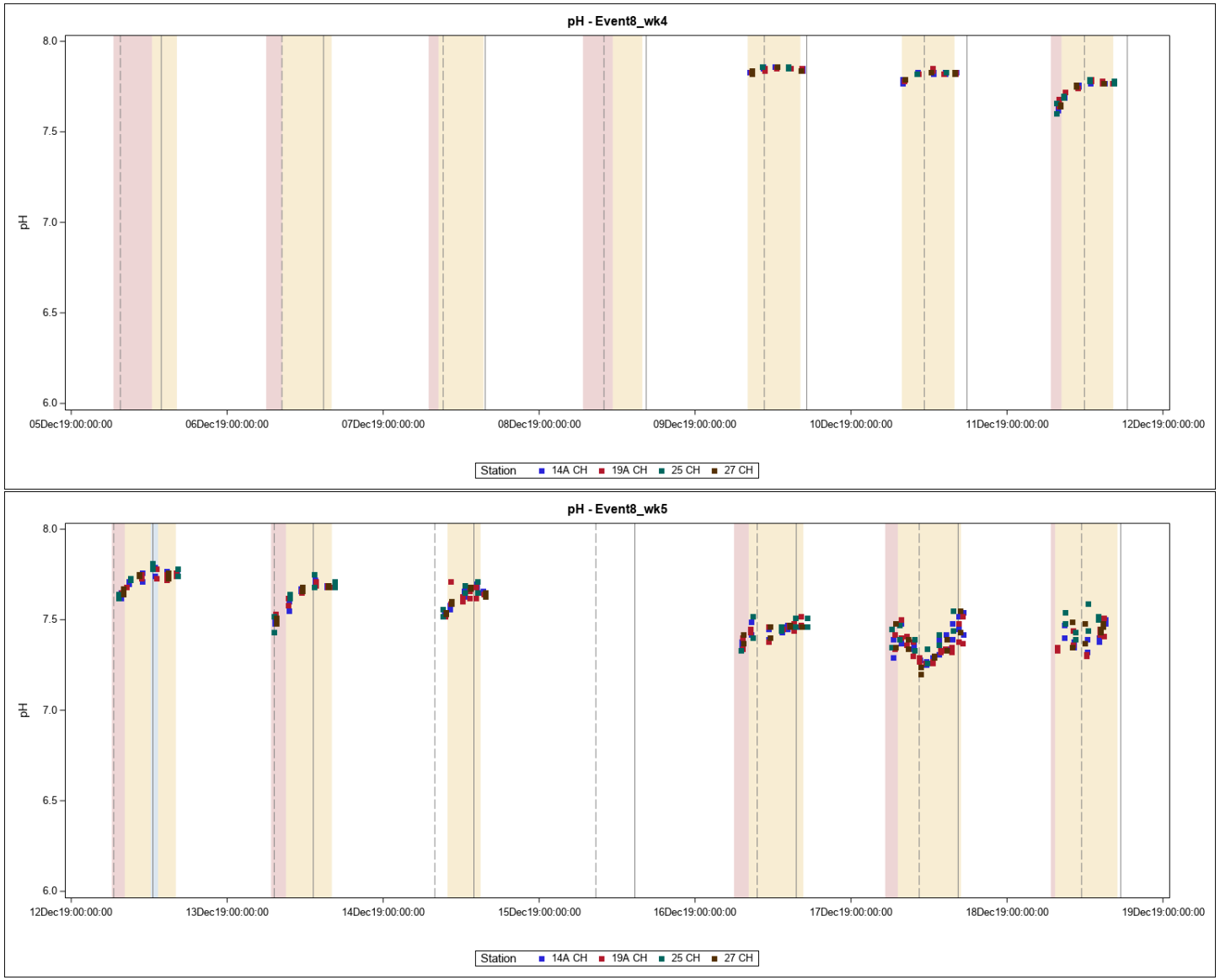


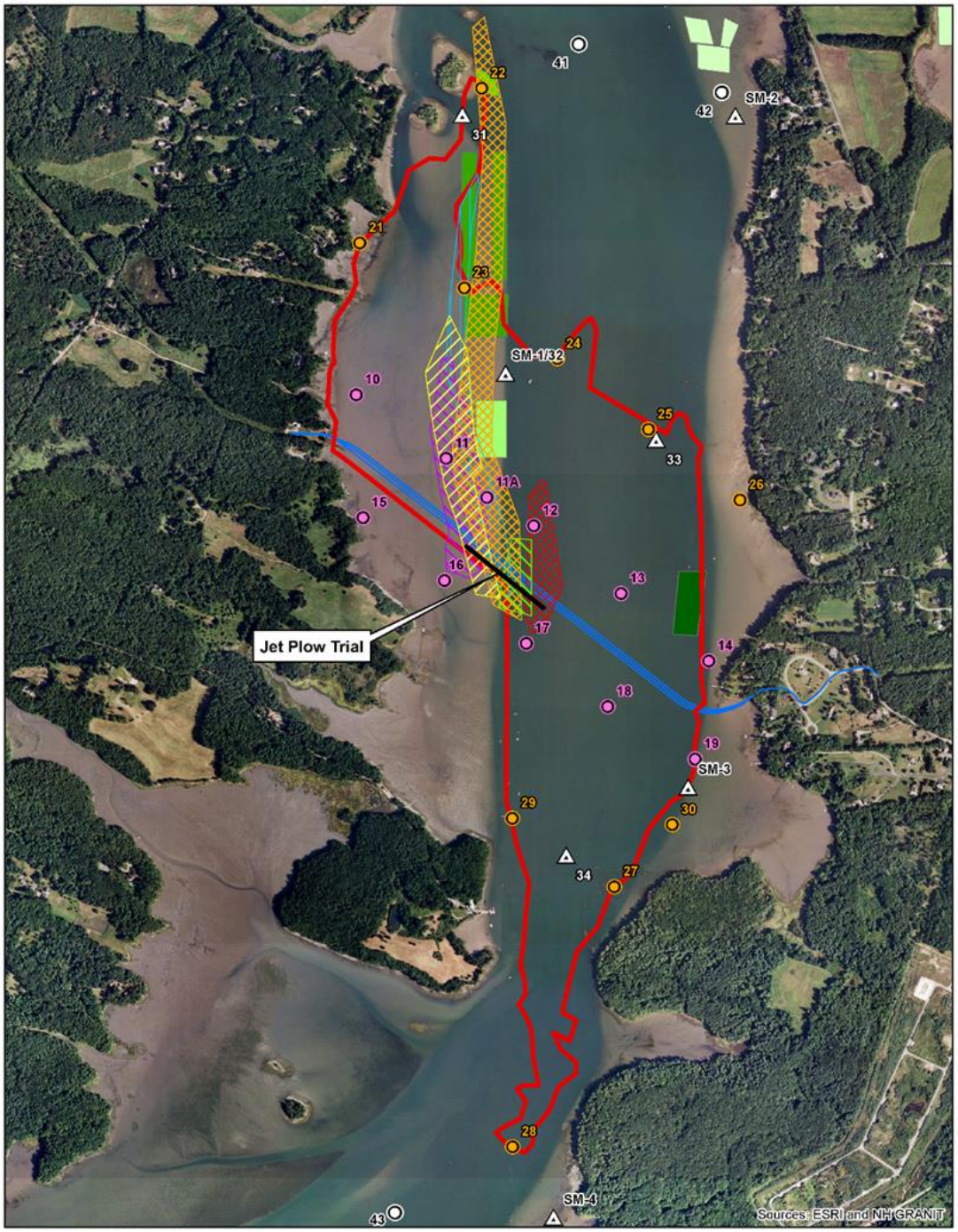
Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

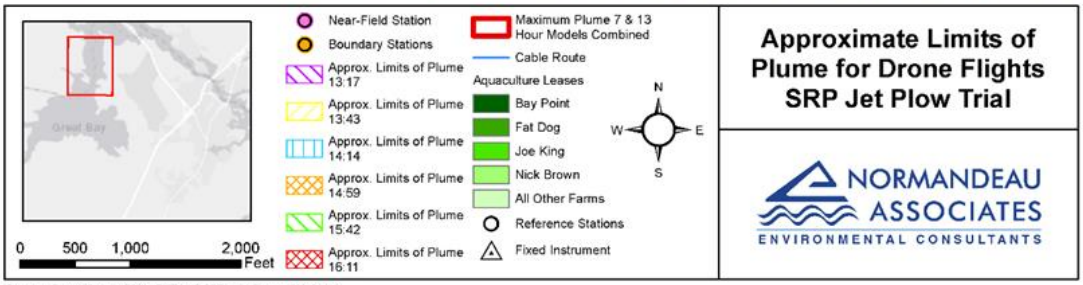
Appendix J
Drone Daily Log, Visible Plume Plots and Representative Photos

Drone Flight Days

Event	Date	Start	End	% of day	Approximate Hours
Jet Plow Trial	90519	1200	1800	full	6
Cable #1	No data due to winds (10/16/19-10/18/19) and lack of availability (10/19/19)				
Cable #2	102819	1355	1855	full	5
	102919	1055	1747	full	7
Cable #3	110619	807	1425	full	6
	110719	857	1349	full	5
Hand jet	111119	936	1433	full	5
	111219	1035	1322	full	3
	111419	848	1536	full	7
	111519	839	1611	full	7.5
	111619	806	1119	full	3
	111919	1143	1532	partial	4
	112019	821	920	partial	1
	112119	1144	1201	partial	1
	112219	814	1206	partial	4
	112519	905	1539	full	3.5
	120519	848	1514	full	6.5
	120719	844	1536	full	7
	120919	907	929	partial	0.5
	121019	840	1305	full	4.5
	121119	1048	1538	full	5
	121319	902	1544	full	6.5
	121619	846	1607	full	7.5
	121819	911	1444	full	5.5
Total					111

Drone Plume
Figures





Approximate Limits of Plume for Drone Flights SRP Jet Plow Trial

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

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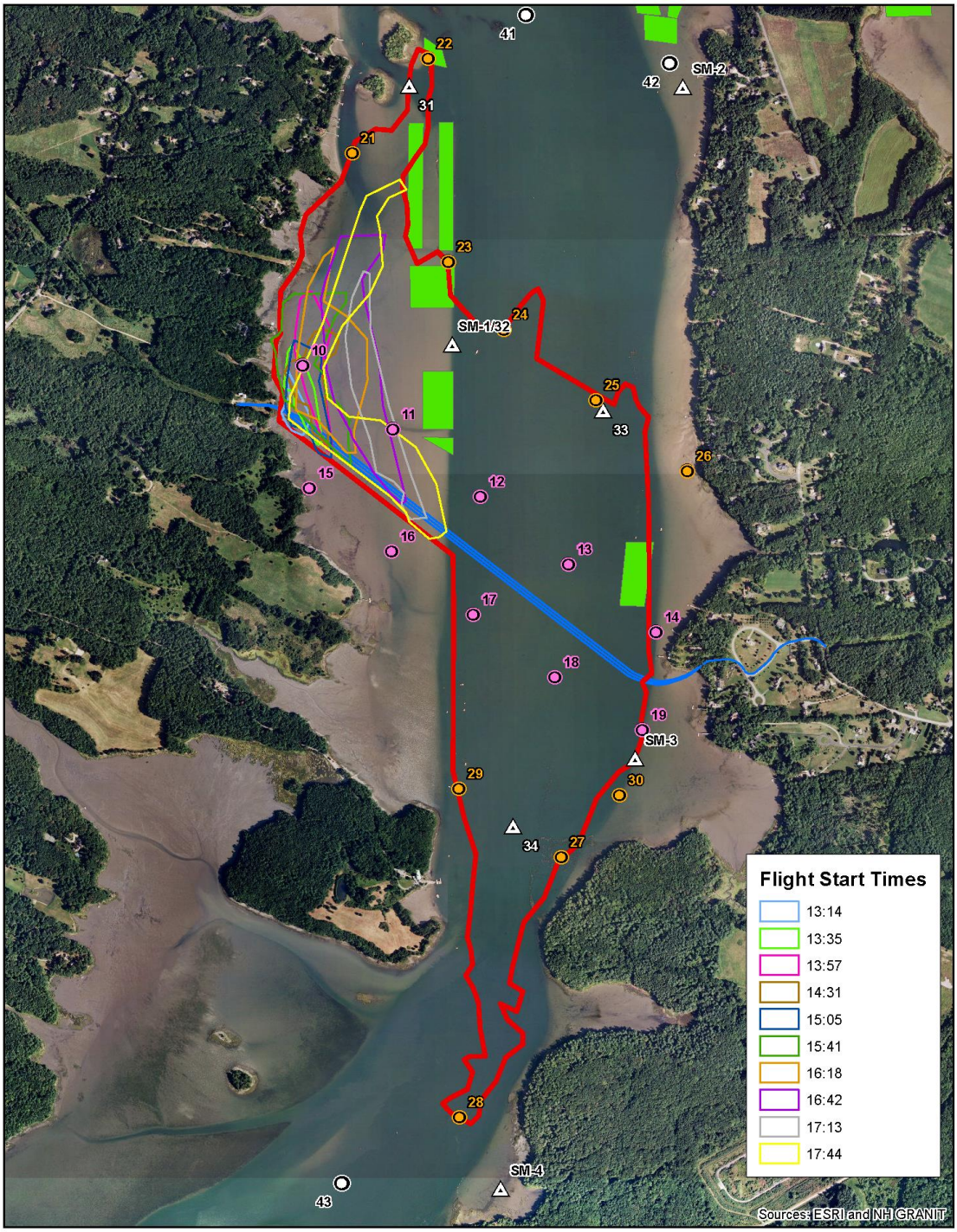

Near-Field Station
Boundary Stations
Fixed Instrument
Reference Stations
Maximum Plume 7 & 13 Hour Models Combined
Cable Route
Aquaculture Leases

0 500 1,000 2,000 Feet

N
W E
S

Approximate Limits of Plume for Drone Flights SRP Cable 2 - Day 1

October 28, 2019

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

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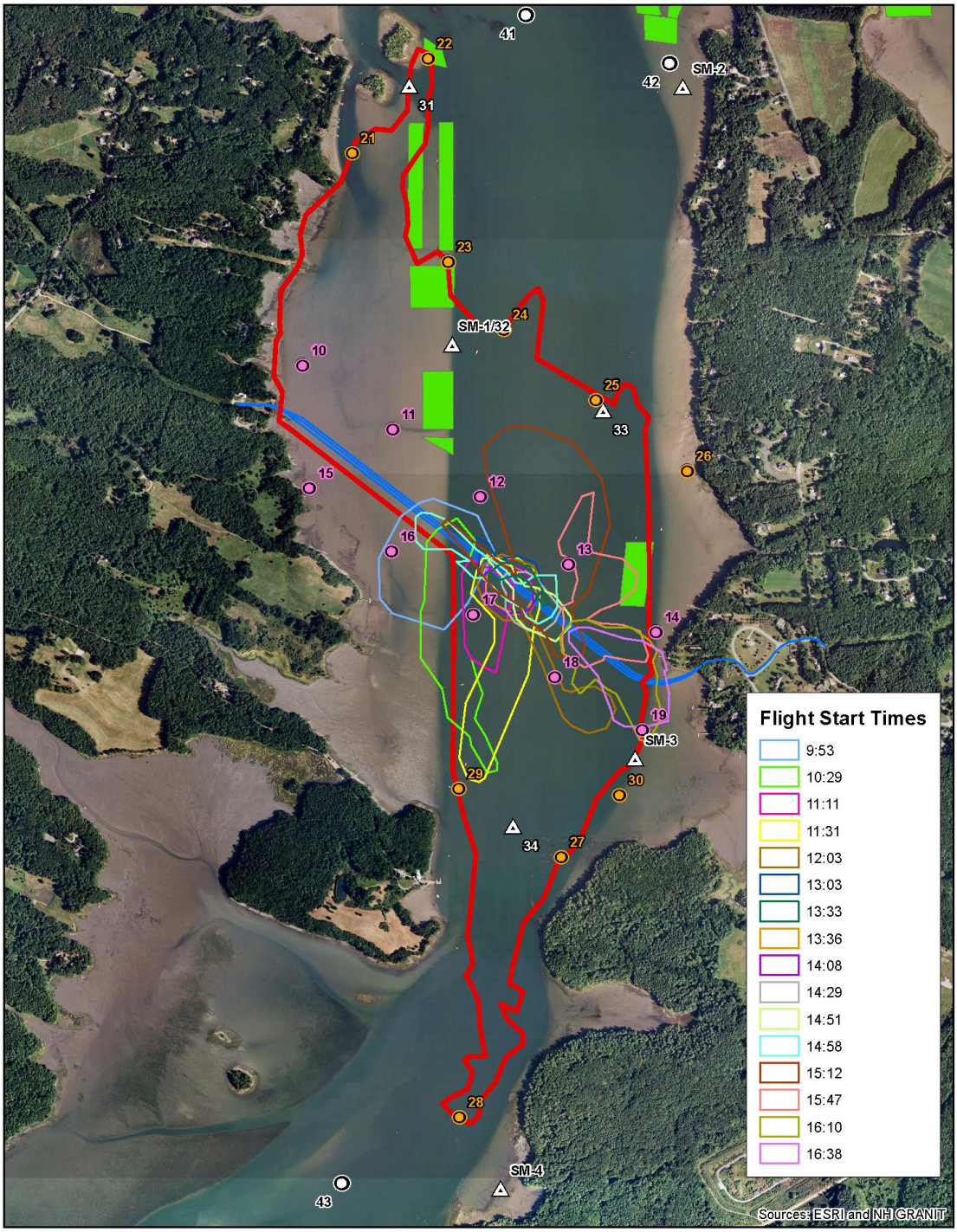

Near-Field Station
Boundary Stations
Fixed Instrument
Reference Stations
Maximum Plume 7 & 13 Hour Models Combined
Cable Route
Aquaculture Leases

0 500 1,000 2,000 Feet

N
W E
S

Approximate Limits of Plume for Drone Flights SRP Cable 2 - Day 2

October 29, 2019

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

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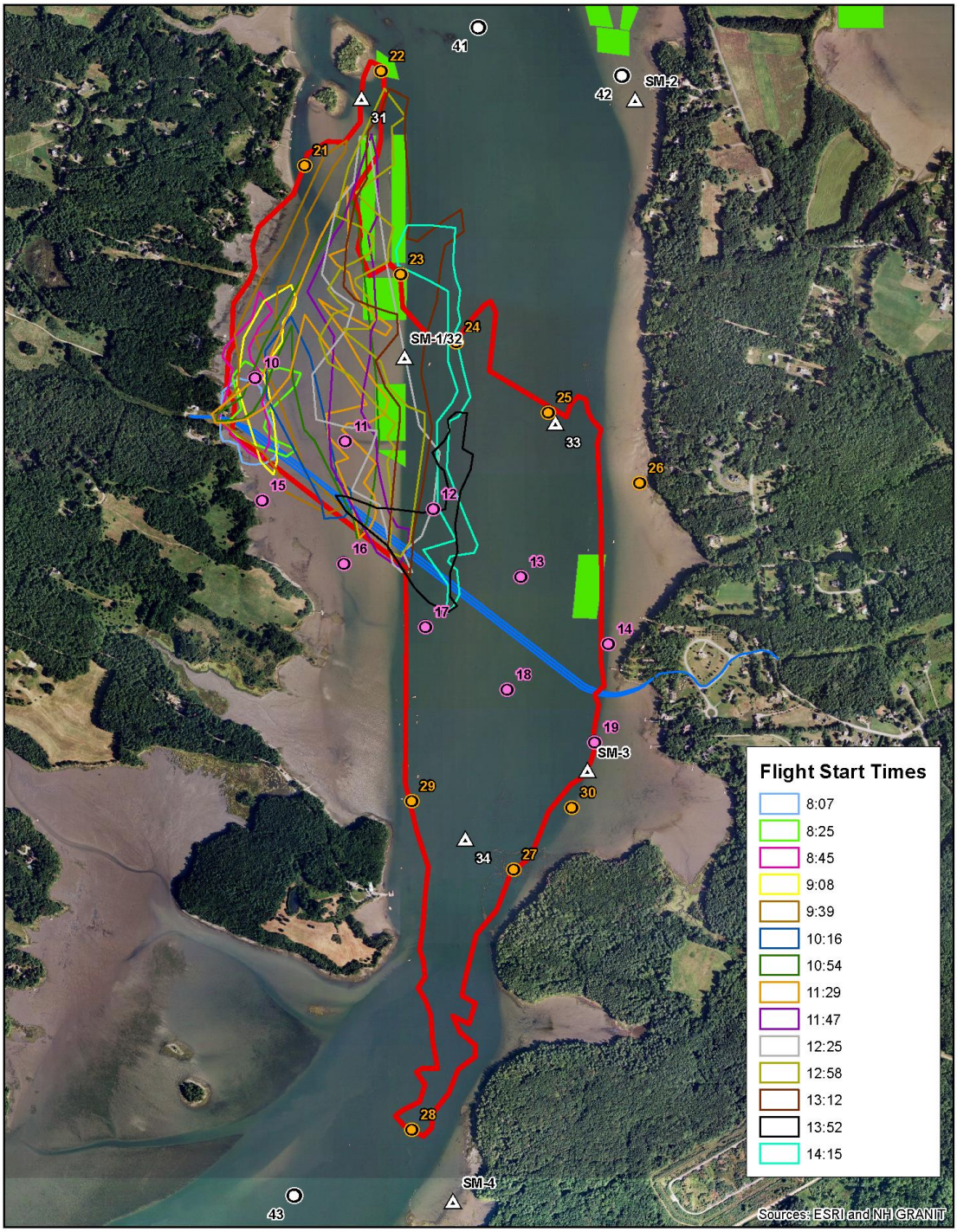

Near-Field Station
Boundary Stations
Fixed Instrument
Reference Stations
Maximum Plume 7 & 13 Hour Models Combined
Cable Route
Aquaculture Leases

0 500 1,000 2,000 Feet

N
W E
S

Approximate Limits of Plume for Drone Flights SRP Cable 3 - Day 1

November 6, 2019

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

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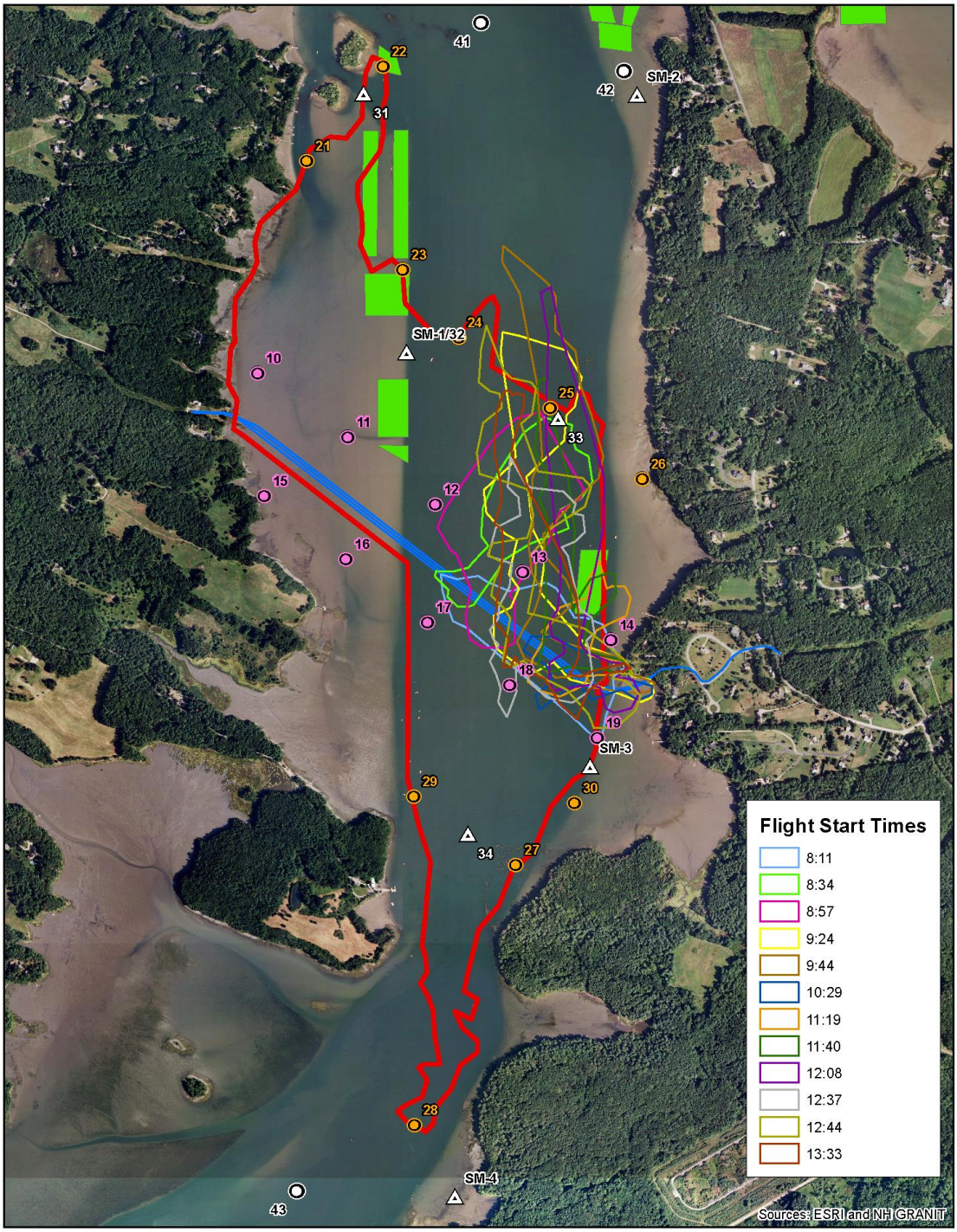

Near-Field Station
Boundary Stations
Fixed Instrument
Reference Stations
Maximum Plume 7 & 13 Hour Models Combined
Cable Route
Aquaculture Leases

0 500 1,000 2,000 Feet

N
W E
S

Approximate Limits of Plume for Drone Flights SRP Cable 3 - Day 2

November 7, 2019

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

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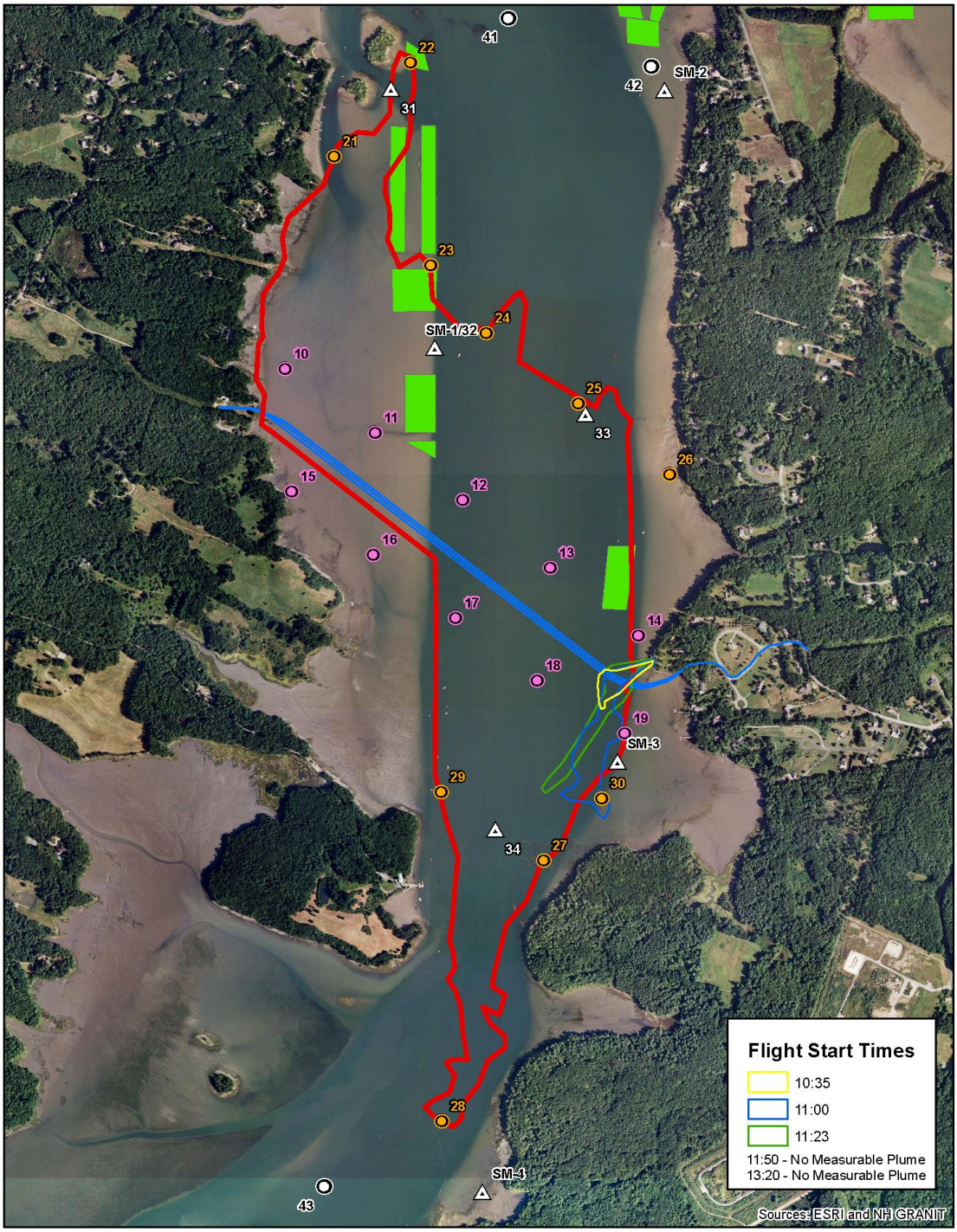

Near-Field Station
Boundary Stations
Fixed Instrument
Reference Stations
Maximum Plume 7 & 13 Hour Models Combined
Cable Route
Aquaculture Leases

0 500 1,000 2,000 Feet

N
W E
S

Approximate Limits of Plume for Drone Flights SRP Handjetting - Day 2

November 12, 2019

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

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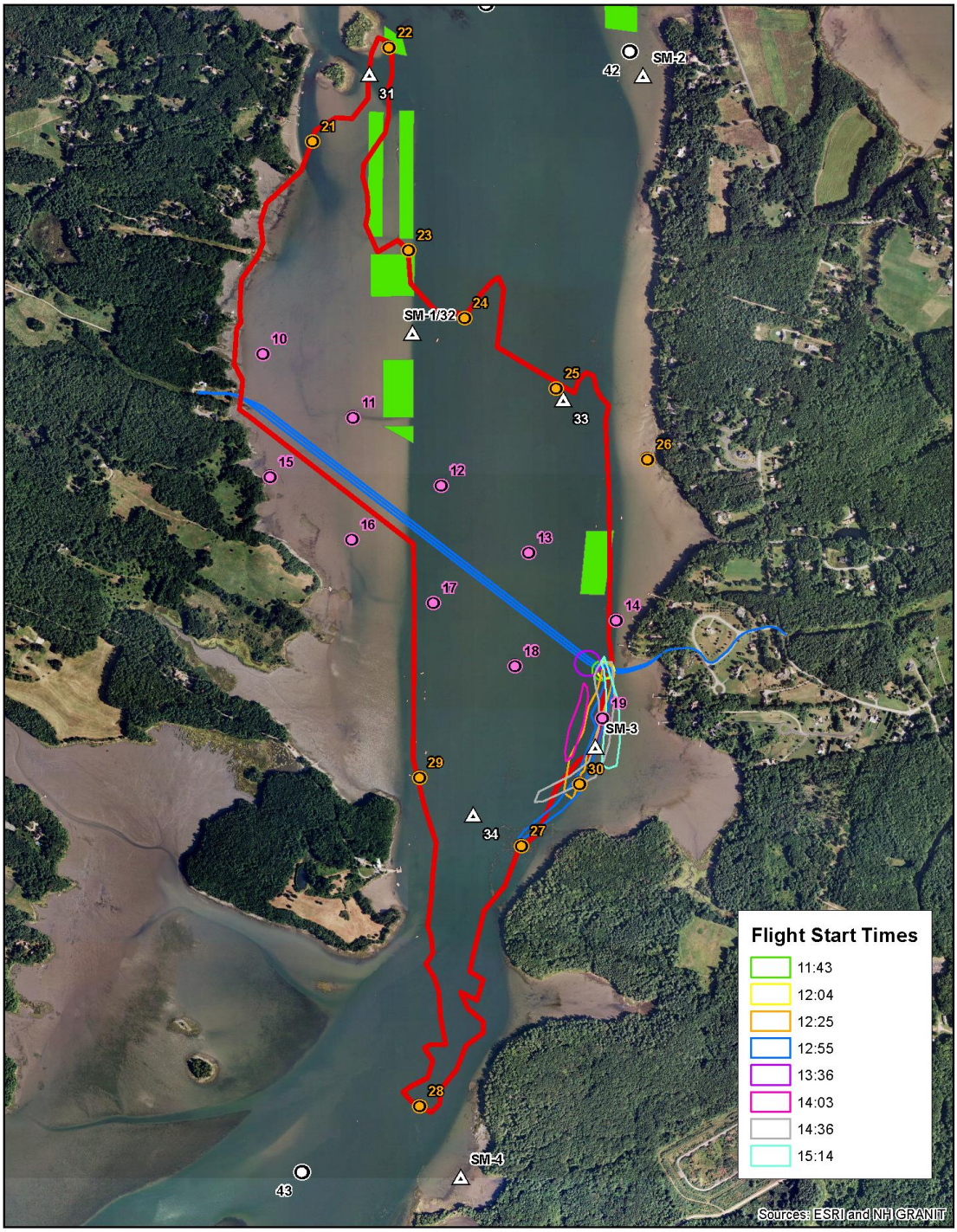


Near-Field Station
Boundary Stations
Fixed Instrument
Reference Stations
Maximum Plume 7 & 13 Hour Models Combined
Cable Route
Aquaculture Leases

0 500 1,000 2,000 Feet

N
W E
S

Approximate Limits of Plume for Drone Flights SRP Handjetting - Day 8

November 19, 2019

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Document Path: J:\Projects\PSNH_F107\MXD\SRP_UAV_Plume_111919.mxd

Selected Drone
Flight Photos

(jet plow trial, Cables 2, 3 and hand jetting only;
no drone for Cable 1)

Photo 1. Jet Plow Trial, Flight 1, 9/9/2019. Stationary jet plow in position with pump barge, in position prior to start of cable burial.

Photo 2. Jet Plow Trial, 9/9/2019. Northern end of turbidity plume facing south from Joe King Oyster Farm. Cable lay barge is visible to the south.

Photo 3. Jet Plow Trial, 9/9/2019. Jet plow track showing start of jet plow. For scale, the combined width of the two skids are approximately 15 ft wide.

Photo 4. Cable 2, Flight 5, 10/28/2019. Looking east across western flats, showing tender barge, jet plow with attendant work boats, cable on orange floats, and cable lay barge at edge of channel in distance.

Photo 5. Cable 2, Flight 4, 10/28/2019. Jet burial on western tidal flats. Note narrow linear turbidity plume.

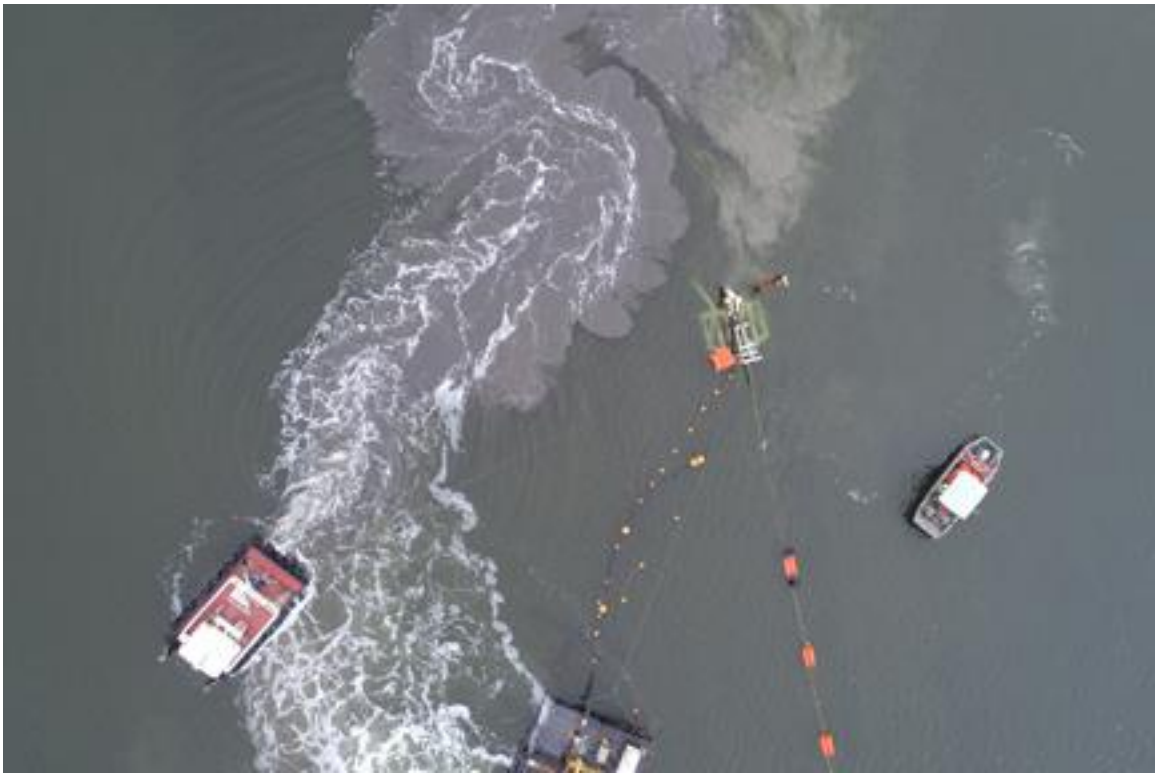


Photo 6. Cable 2, Flight 9, 10/28/2019. Tug necessary for approximately 1 hour to hold sled and cable on course during peak ebbing tide.

Photo 7. Cable 2, Flight 10, 10/29/2019. Lay barge on channel slope with jet plow behind. Turbidity plume from jet plow is visible on the right.

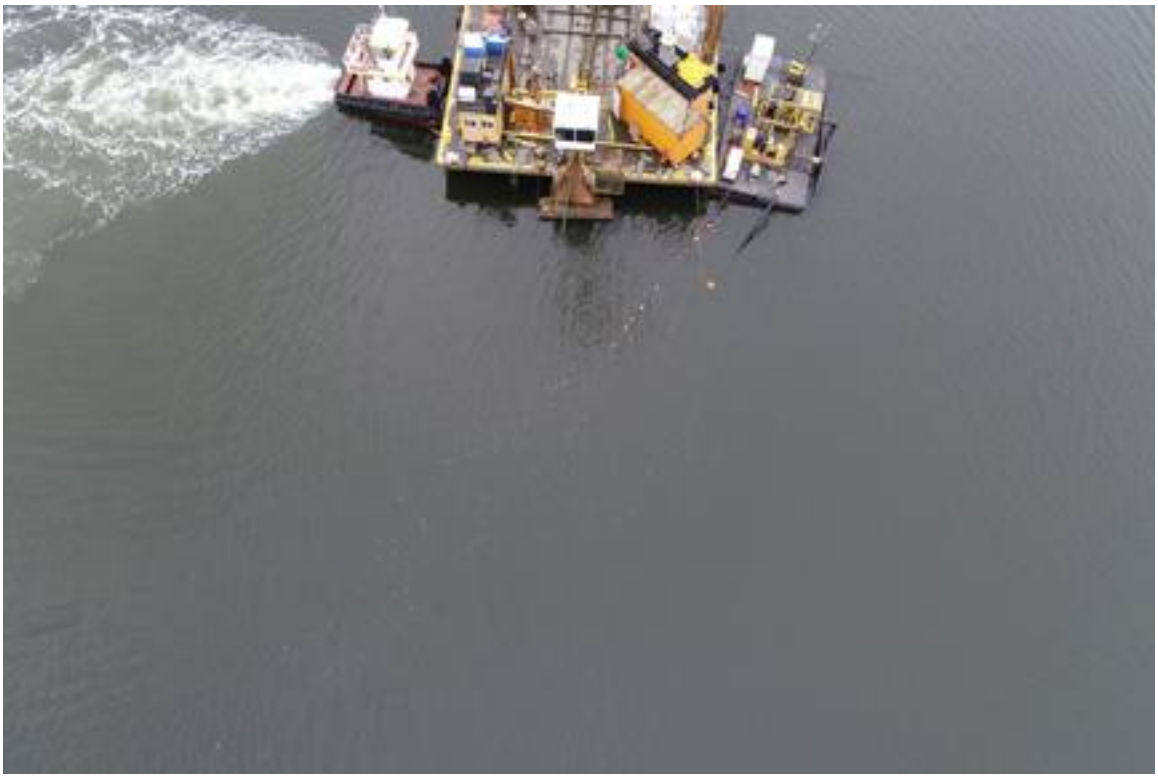


Photo 8. Cable 2, Flight 10, 10/29/2019. Lay barge with jet plow behind in deep channel. No visible turbidity plume.

Photo 9. Cable 3, Flight 1, 11/06/2019. Starting of jet plow on western tidal flat with pump barge being held in position by work skiff (not in photo). Note orange floats supporting cable. High slack tide.

Photo 10. Cable 3, Flight 1, 11/06/2019. Jet plow start on western tidal flat, with pump barge, work skiff and water quality sampling boat at top of photo. Note cable supported by orange floats leading to laybarge.

Photo 11. Cable 3, Flight 1, 11/06/2019. Approximately fifteen minutes after jet plow start on western tidal flats.

Photo 12. Cable 3, Flight 4, 11/06/2019. Jet plow advancing on western tidal flat, approximately 1 hour after start.

Photo 13. Cable 3, Flight 4, 11/06/2019. Nearshore turbidity plume on western tidal flat approximately 1 hour after start of jet plow.

Photo 14. Cable 3, Flight 4, 11/06/2019. Jet plow in lower portion of photo with work skiffs and support barge. Note diver releasing orange floats from cable.

Photo 15. Cable 3, Flight 6, 11/06/2019. Typical turbidity plume appearance on tidal flats, showing horizontal and vertical variability.

Photo 16. Cable 3, Flight 9, 11/06/2019. Cable lay barge in channel winching jet plow to it. Blue spool holds cable. Note cable coming off barge on the left of the photo, supported by orange floats.

Photo 17. Cable 3, Flight 9, 11/06/2019. Laying cable on tidal flats. At peak ebb, one or more work boats were required to hold jet plow and cable on course.

Photo 18. Cable 3, Flight 10, 11/06/2019. Water quality sampling boat in turbidity plume.

Photo 19. Cable 3, Flight 11, 11/06/2019. Ephemeral plume by Joe King Oysters.

Photo 20. Cable 3, Flight 12, 11/06/2019. Jet plow approaching barge at end of crossing of western tidal flat. Note cable burial tracks on flats.

Photo 21. Cable 3, Flight 12, 11/06/2019. Jet plow tracks for the three cables are on the right. The dark tracks on the left are from the jet plow trial and a pre-lay grapnel run.

Photo 22. Cable 3, Flight 3, 11/07/2019. Example of wrack line frequently encountered in channel. Tan material was primarily tree leaves.

Photo 23. Cable 3, Flight 3, 11/07/2019. Jet plow burial in channel; no visible plume.

Photo 24. Cable 3, Flight 1, 11/07/2019. Water quality sampling in channel with lay barge in background.

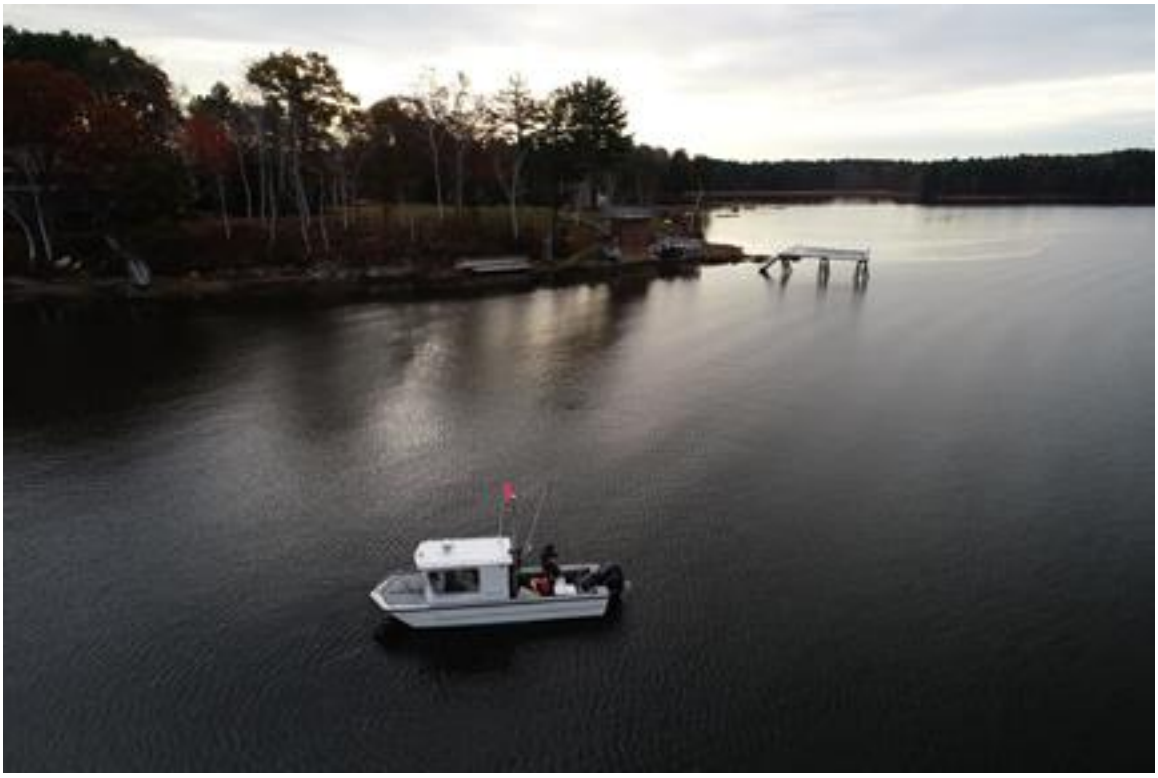


Photo 25. Cable 3, Flight 1, 11/07/2019. Water quality sampling at Station 14.

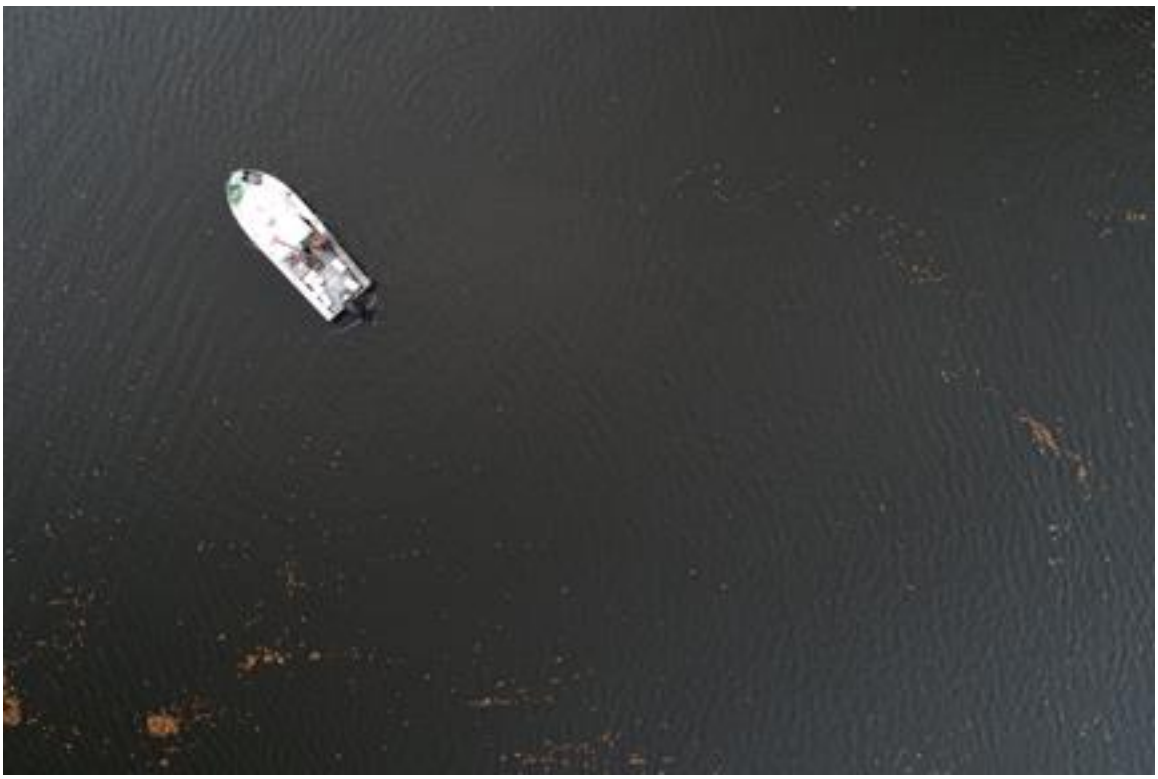


Photo 26. Cable 3, Flight 1, 11/07/2019. Durocher work skiff with leaves and debris in water.

Photo 27. Cable 3, Flight 8, 11/07/2019. Turbidity plume in nearfield channel.

Photo 28. Cable 3, Flight 8, 11/07/2019. Turbidity plume in mixing zone.

Photo 29. Cable 3, Flight 12, 11/07/2019. Completing jet plowing on east side.

Photo 30. Cable 3, Flight 12, 11/07/2019. Turbidity plume off stern of lay barge during completion of jet plowing.

Photo 31. Hand Jet, Flight 3, 11/11/2019. Diver burial in channel (no turbidity barrier) and dive support barge.

Photo 32. Hand Jet, Flight 6, 11/11/2019. Diver cable burial operation and localized plume.

Photo 33. Hand Jet, Flight 2, 11/12/2019. Diver burial in channel with dive support barge and faint turbidity plume.

Photo 34. Hand Jet, Flight 1, 11/14/2019. Western tidal flats, diver working inside turbidity barrier on an ebb tide.

Photo 35. Hand Jet, Flight 1, 11/14/2019. Cables running ashore before diver burial on east side of Little Bay.

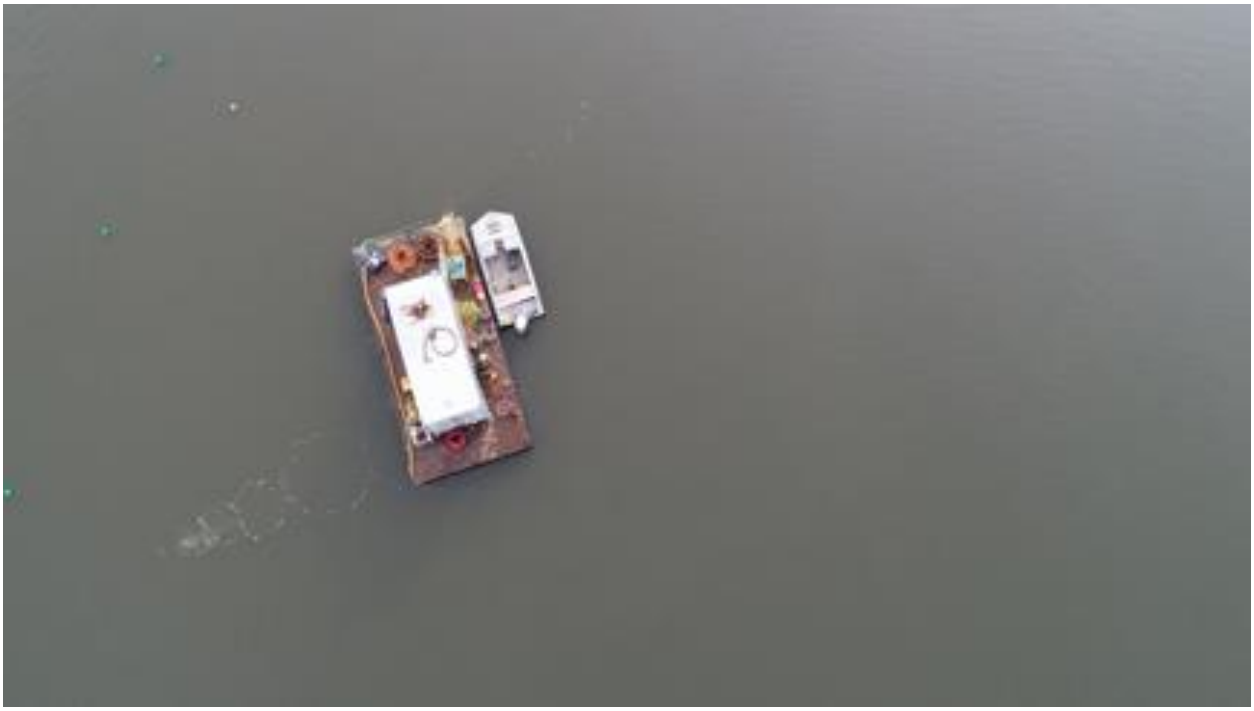


Photo 36. Hand Jet, Flight 1, 11/14/2019. Diver burial operation in channel – diver air bubbles can be seen in lower left of photo. No visible sediment plume. Note generally turbid water from storm event the previous day.

Photo 37. Hand Jet, Flight 4, 11/14/2019. Water quality sampling boat with dive support barge, looking north.

Photo 38. Hand Jet, Flight 1, 11/15/2019. Diver burial on channel slope on east side. Note diver air bubbles at top of sediment plume.

Photo 39. Hand Jet, Flight 1, 11/15/2019. Diver working inside turbidity barrier on a flood tide on west side.

Photo 40. Hand Jet, Flight 1, 11/15/2019. Diver burial inside turbidity barrier on western side on an ebb tide with plume seepage.

Photo 41. Hand Jet, Flight 1, 11/22/2019. West side turbidity barrier on a flood tide. Diver is working the highly turbid area at the upper left corner of the barrier.

Photo 42. Hand Jet, Flight 4, 11/25/2019. Diver burial in channel, with associated turbidity plume, on a windy day.

Photo 43. Hand Jet, Flight 8, 12/05/2019. Diver burial for a cable just outside of turbidity barrier on east side.

Photo 44. Hand Jet, Flight 2, 12/09/2019. Diver burial in west side turbidity barrier on a flood tide, showing icy conditions.

Photo 45. Hand Jet, Flight 1, 12/11/2019. Barge repositioning turbidity barrier.

Photo 46. Hand Jet, Flight 1, 12/11/2019. Cable burial using two divers in turbidity barrier on east side.

Photo 47. Hand Jet, Flight 6, 12/11/2019. Turbidity barrier removal and dumpster disposal.

Photo 48. Hand Jet, Flight 2, 12/13/2019. Skim ice piling up against turbidity barrier on flood tide.

Photo 49. Hand Jet, Flight 8, 12/13/2019. Overfull turbidity barrier on ebb tide on east side. Barrier is briefly spilling at near end. Note water quality sampling boat collecting turbidity profiles in and out of barrier.

Photo 50. Hand Jet, Flight 8, 12/13/2019. Water quality boat profiling turbidity in and out of barrier during spillage.

Photo 51. Hand Jet, Flight 8, 12/13/2019. Visible turbidity plume during ebb tide spill; no exceedances measured at mixing zone boundary.

Photo 52. Hand Jet, Flight 1, 12/16/19. Type 1 turbidity curtain installed after turbidity barrier failed on east side.

Photo 53. Hand Jet, Flight 2, 12/16/2019. Two divers hand jetting in shallows.

Photo 54. Hand Jet, Flight 8, 12/16/2019. Turbidity curtain and visible turbidity plume on ebb tide.

Photo 55. Hand Jet, Flight 2, 12/18/2019. Type 1 curtain on flood tide. Note turbid water in bay from storm event.

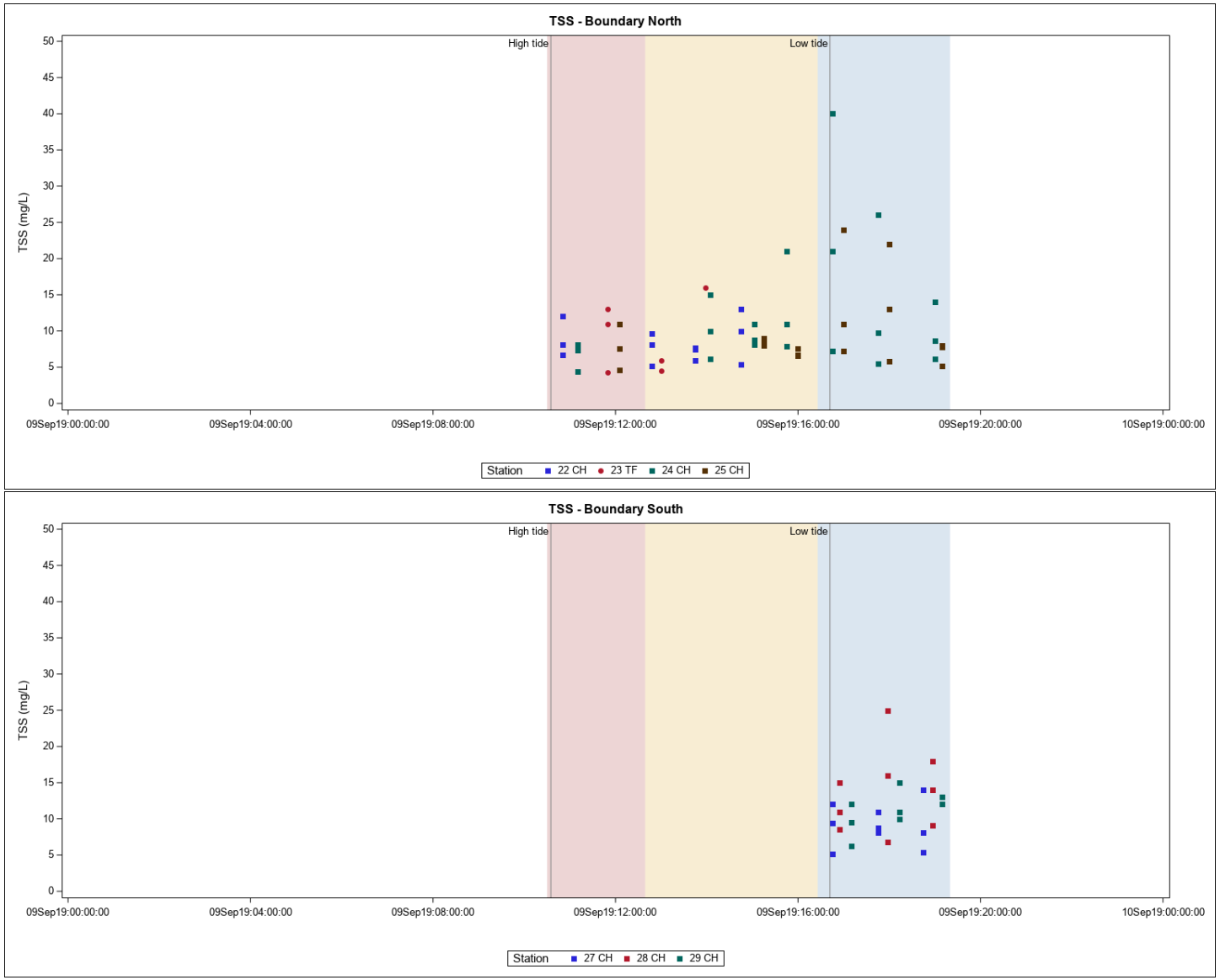
Photo 56. Hand Jet, Flight 3, 12/18/2019. View of diver hand jetting in shallows.

Appendix K
TSS Plots and Tables

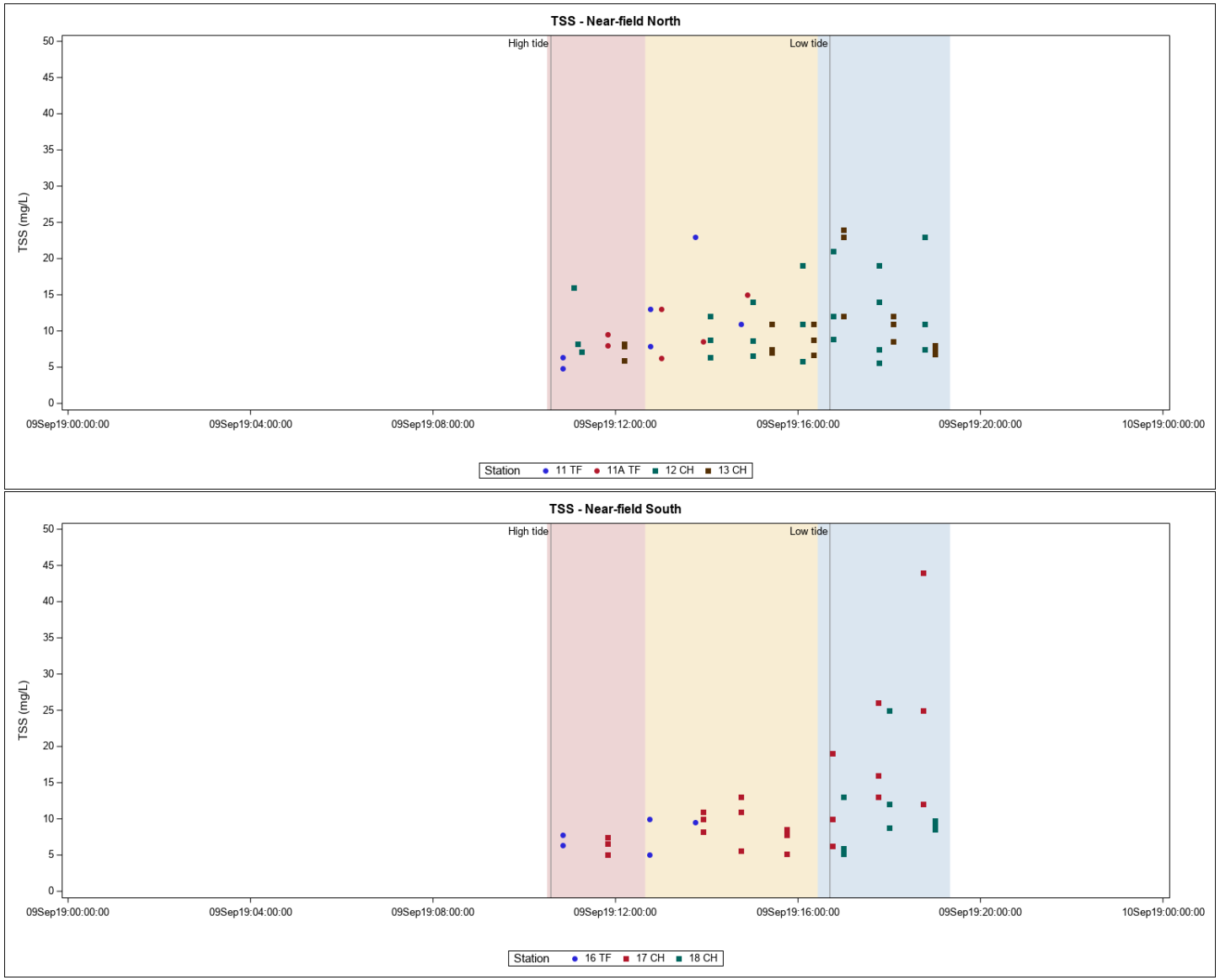
Jet Plow Trial

TSS

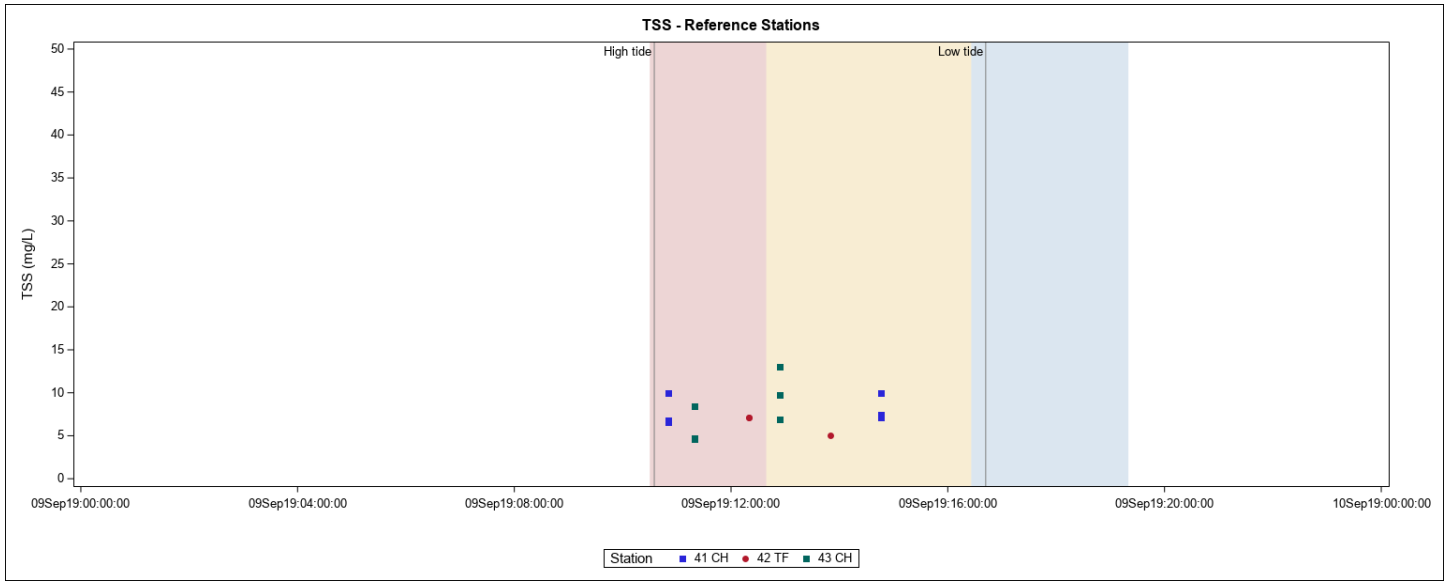
TSS (mg/L)		09 SEP 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	6.7	6.7	12	12	8.1	8.1	5.2	13	5.4	9.6	7.7	10
	23	4.3	4.3			11	13	5.9	5.9			4.5	16
	24	4.4	4.4	8.1	8.1	7.3	7.3	5.5	40	6.1	21	7.2	26
	25	4.6	4.6	7.6	7.6	11	11	7.6	13	6.6	24	5.2	8.6
Boundary South	27							8.1	12	5.2	11	8.8	14
	28							8.6	25	6.8	15	11	18
	29							6.3	13	9.5	13	12	15
Nearfield North	11	4.8	4.8			6.4	6.4	13	13			7.9	23
	11A	9.5	9.5			8	8	13	13			6.3	15
	12	16	16	8.2	8.2	7.1	7.1	5.8	21	5.6	23	6.4	19
	13	7.9	7.9	8.2	8.2	5.9	5.9	7.4	24	7	23	6.7	12
Nearfield South	16	7.8	7.8			6.4	6.4	10	10			5.1	9.5
	17	6.6	6.6	7.5	7.5	5	5	5.2	13	5.6	44	7.8	26
	18							9.7	13	5.2	8.8	5.9	25
Reference Stations	41	6.6	6.6	6.8	6.8	10	10	7.1	7.1	7.2	7.5	10	10
	42	7.1	7.1			7.1	7.1					5	5
	43	4.6	4.6	8.4	8.4	4.7	4.7	13	13	9.7	9.7	6.9	6.9



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 1

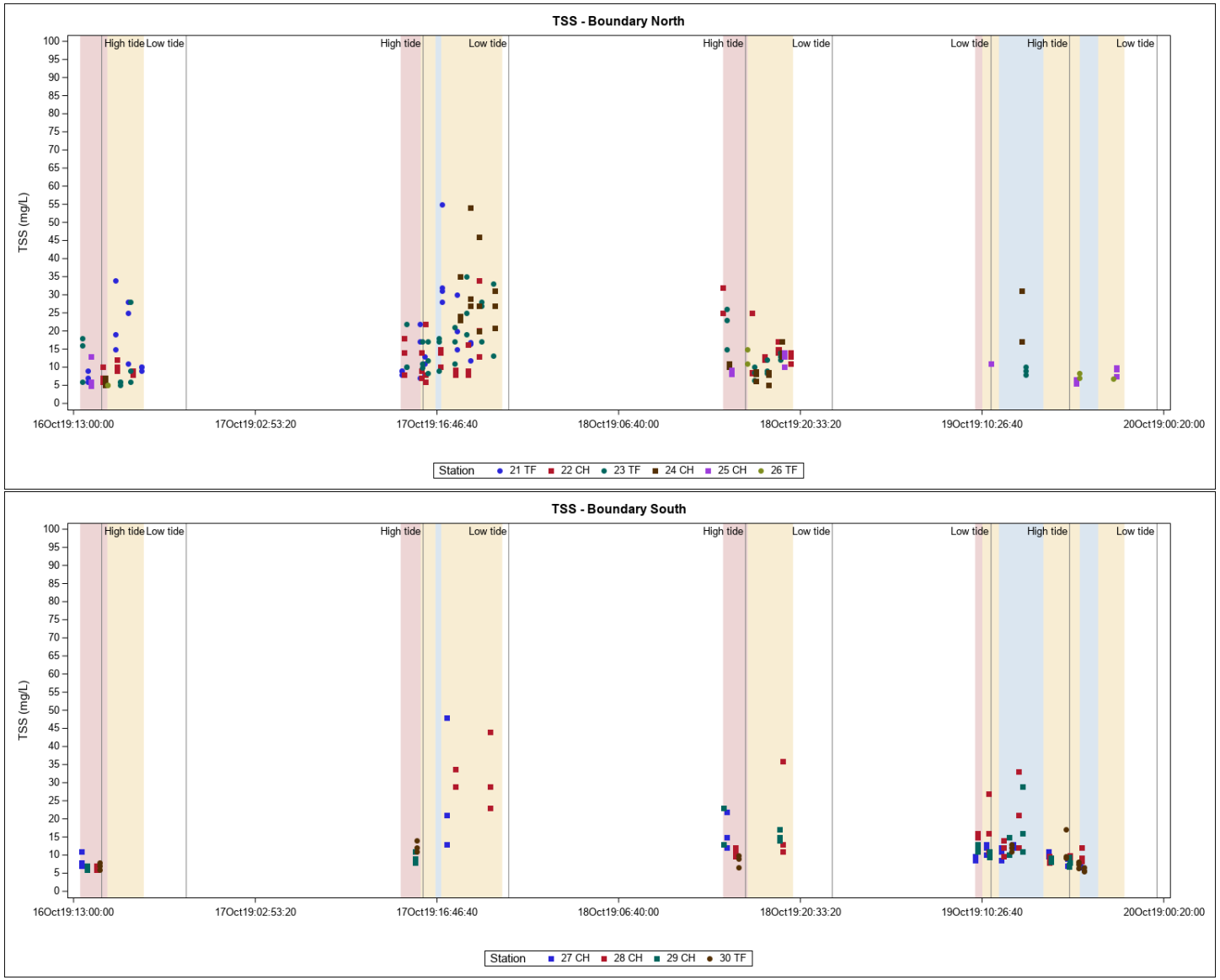
TSS

TSS (mg/L)		16 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	9	9	7	7	6	6	10	34	9	28	10	25
	22	10	10	7	7	6	6	8	9	8	12	9	10
	23	6	6	18	18	16	16	5	6	6	28	6	9
	24	7	7	6	6	5	5						
	25	4.9	4.9	13	13	6	6						
	26							5	5			5	5
Boundary South	27	7	7	11	11	8	8						
	28	7	7	6	6	6	6						
	29	6	6	7	7	7	7						
	30	7	7	8	8	6	6						
Nearfield North	10	6	6			17	17	14	94			33	84
	11	5	5	25	25	6	6	6	8			8	13
	12	8	8	18	18								
	13	5	5	5	5	6	6						
	14	21	21	29	29	10	10						
Nearfield South	15	15	15			18	18	8	11			8	9
	16	7	7			11	11	6	11	15	15	6	21
	17	6	6	15	15	7	7						
	18	8	8	6	6	14	14						
	19	9	9	6	6	6	6						
Reference Stations	41	7	7	6	6	11	11						
	42	5	5			6	6						
	43	8	8	10	10	9	9						

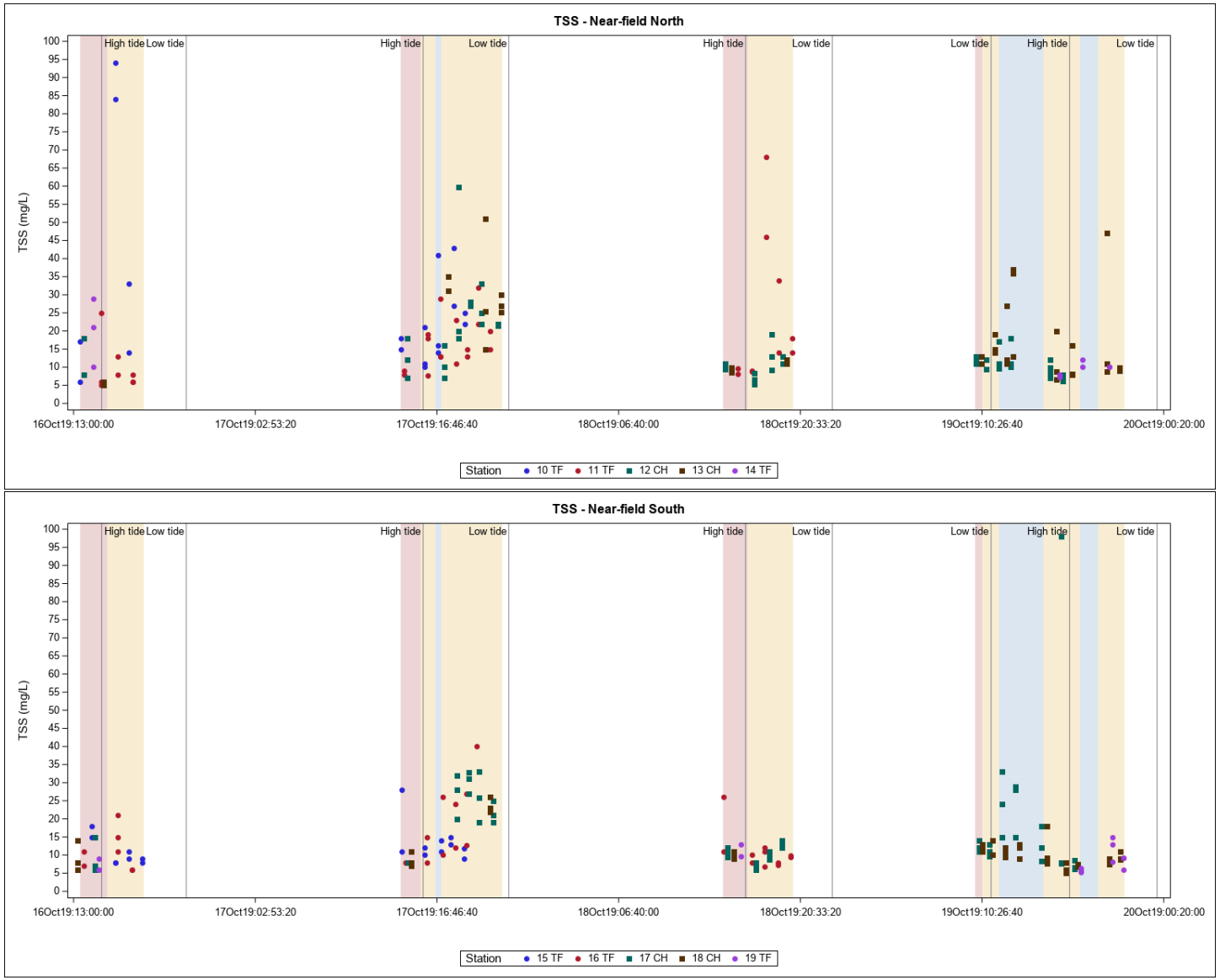
TSS (mg/L)		17 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	9	17	8	22	7	9	8	32	11	28	13	55
	22	8	8	14	14	18	18	7	34	8	20.1	6	16.3
	23	10	10	22	22	10	10	17	25	11	35	8.4	33
	24							20	27	27	35	23	54
Boundary South	27							21	21	13	13	48	48
	28							29	29	33.7	44	23	29
	29	11	11	9	9	8	8						
	30	12	12	11	11	14	14						
Nearfield North	10	18	18			15	15	10	43	11	16	21	41
	11	8	8			9	9	11	32	7.7	13	15	29
	12	7	7	18	18	12	12	7	27	10	28	16	59.7
	13							15	31	27	51	25.4	35
Nearfield South	15	28	28			11	11	11	15			9	14
	16	8	8			8	8	8	27			10	40
	17	8	8			8	8	19	31	25	33	21	32.7
	18	8	8	11	11	7	7	23	23	26	26	22	22
Reference Stations	41							15	15	8	8	6.7	6.7
	42							9.6	9.6			20	20
	43							37	68	21	25.1	23.1	27

TSS (mg/L)		18 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	25	25	32	32	25	25	8.4	17	8.5	15	13	25
	23	23	23	26	26	15	15	9.1	12	6.4	12.9	8.5	14
	24	11	11	10	10	11	11	5	13	8	14	6.2	17
	25	9.3	9.3	8.2	8.2	8.9	8.9	13	13	14	14	10	10
	26	11	11			15	15						
Boundary South	27	12	12	15	15	22	22						
	28	9.7	9.7	11	11	12	12	11	11	13	13	36	36
	29	13	13	23	23	13	13	17	17	15	15	14	14
	30	6.6	6.6	9.9	9.9	9	9						
Nearfield North	11	9.6	9.6			8.1	8.1	8.8	46			9.1	68
	12	9.5	9.5	11	11	11	11	6.7	11	5.3	13	8.4	19
	13	8.5	8.5	9.8	9.8	9.8	9.8	11	11	11	11	12	12
Nearfield South	16	26	26			11	11	6.8	9.8			7.9	12
	17	11	11	9.4	9.4	12	12	7.9	12	5.9	14	7.5	13
	18	10	10	9	9	11	11						
	19	13	13			9.6	9.6						
Reference Stations	41	20	20	15	15	8	8	12	12	16	16	18	18
	42	6.3	6.3	7.6	7.6	8.4	8.4						
	43	13	13	13	13	14	14						

TSS (mg/L)		19 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	23							9	9	7.8	7.8	10	10
	24							17	17	31	31	17	17
	25							5.9	11	6.5	11	5.5	11
	26							8.4	8.4			6.9	7
Boundary South	27	8.5	8.5	9.4	9.4	9.7	9.7	6.7	12	7.2	13	6.6	13
	28	13	13	15	15	16	16	7.8	33	9.2	27	8.7	21
	29	13	13	11	11	12	12	6.8	11	7.2	16	8.2	29
	30							6.5	17	5.8	11	5.4	13
Nearfield North	12	12	12	13	13	11	11	6.9	12	8	12	6.1	18
	13	11	11	11	11	13	13	8.7	37	6.7	36	7.9	47
	14							7.8	10	7.9	7.9	7.3	12
Nearfield South	17	11	11	14	14	12	12	6.5	29	6.2	24	8.6	98
	18	11	11	12	12	13	13	5.1	12	7.5	18	6	14
	19							5.3	8.2	5.8	15	6.4	13
Reference Stations	41							13	34	15	22	9.6	29
	42							13	21			7.2	12
	43	8.9	8.9	15	15	13	13	6.7	16	8	20	8.3	16



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



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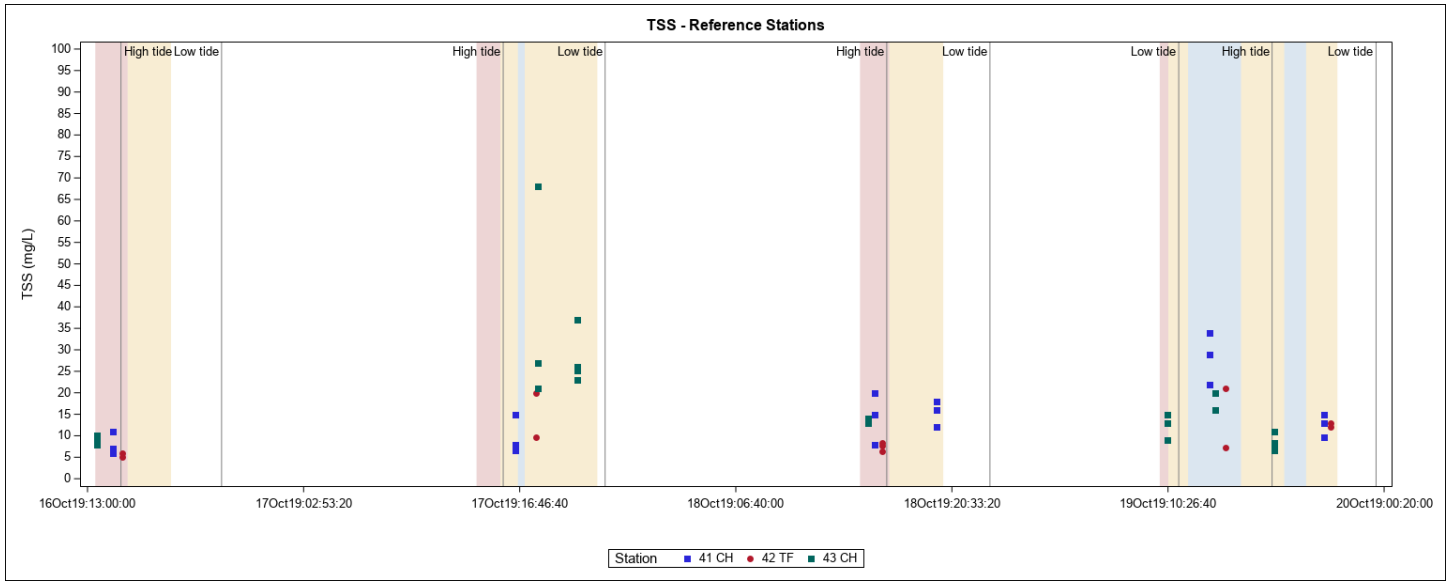


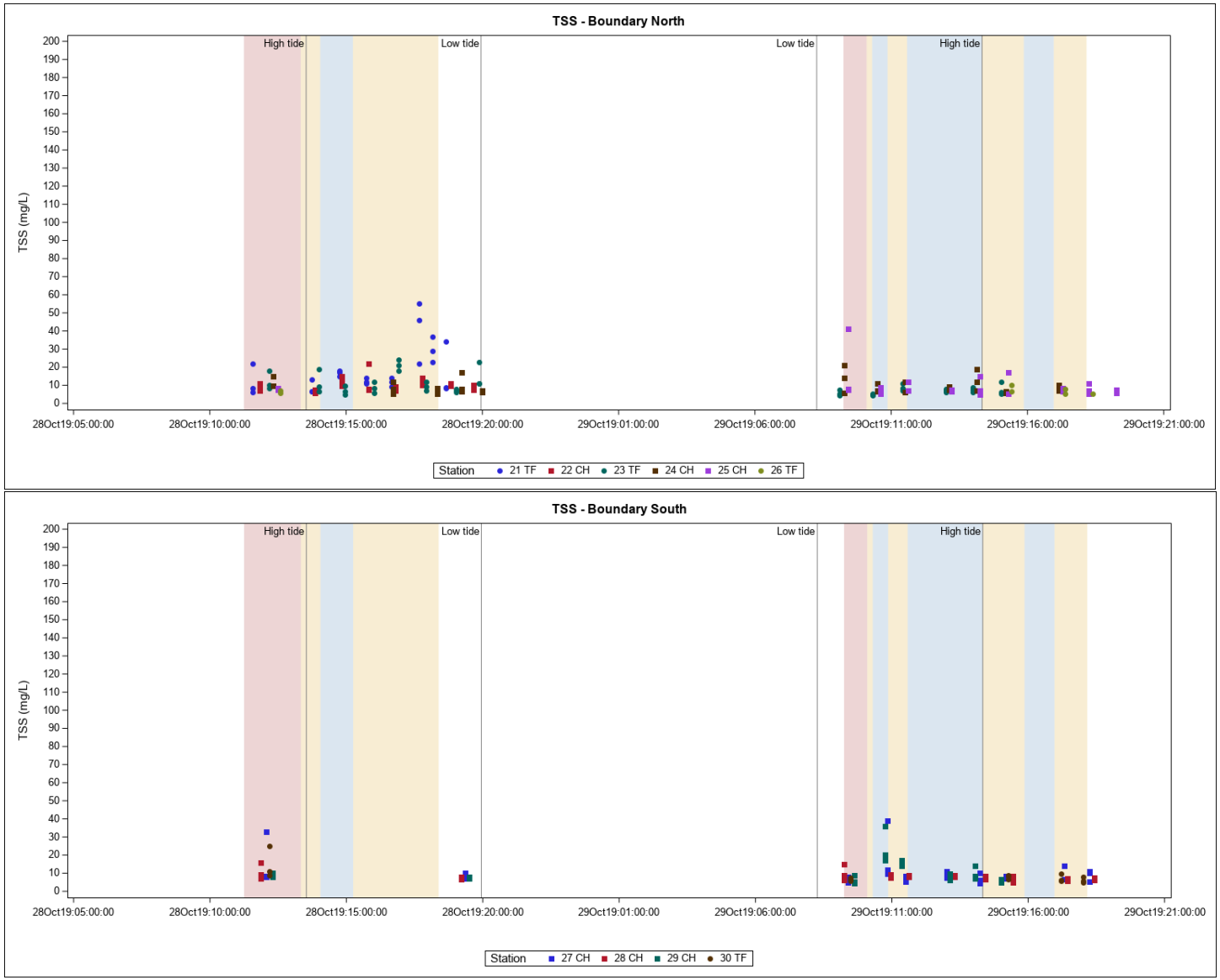
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 2

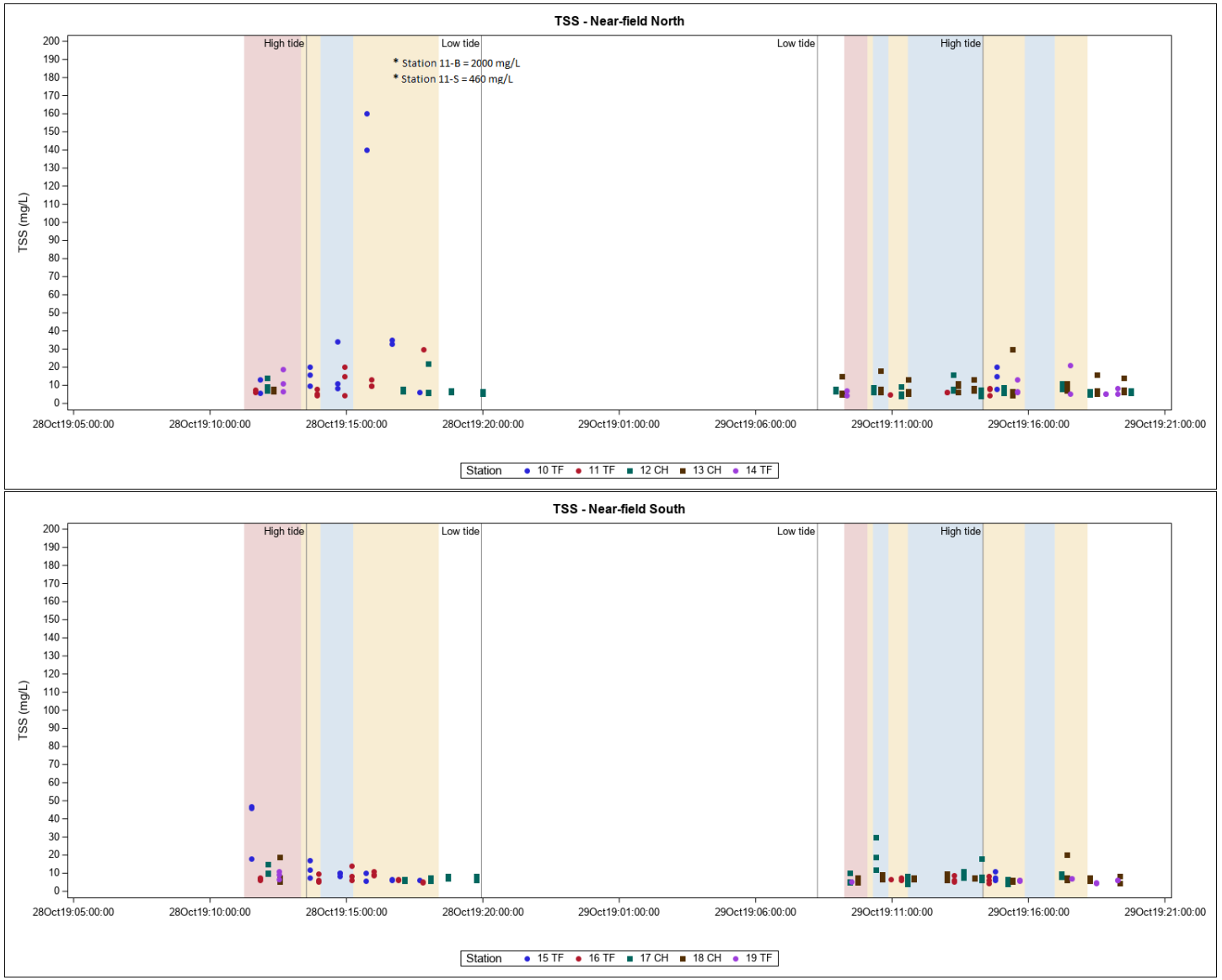
TSS

TSS (mg/L)		28 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	6.3	6.3	22	22	8.5	8.5	6.5	37	8.6	46	6.8	55
	22	6.9	6.9	11	11	10	10	5.7	22	7.3	13	7.2	14
	23	8.5	8.5	10	10	18	18	4.8	18	6.7	21	8.1	24
	24	15	15	9.8	9.8	9.5	9.5	5.2	6.8	6.9	8	7.1	17
	25	7.7	7.7	8.1	8.1	8.4	8.4						
	26	7.1	7.1			5.7	5.7						
Boundary South	27	7.8	7.8	8.6	8.6	33	33	7.2	7.2	7.7	7.7	10	10
	28	7.2	7.2	16	16	9.3	9.3	7.2	7.2	6.8	6.8	8	8
	29	8.1	8.1	10	10	10	10	6.9	6.9	7.6	7.6	8	8
	30	11	11	8.8	8.8	25	25						
Nearfield North	10	13	13			5.9	5.9	6	140	9.7	11	16	160
	11	6.3	6.3			7.4	7.4	4.3	460	5.4	15	7.8	2000
	12	7.2	7.2	9.3	9.3	14	14	5.4	6.6	5.6	7.5	6.2	22
	13	7.7	7.7	6.6	6.6	8	8						
	14	19	19	6.6	6.6	11	11						
Nearfield South	15	47	47	18	18	46	46	5.9	17	10	12	6.5	10
	16	6.1	6.1	7.6	7.6	7.2	7.2	5.2	9.9	5.5	8.5	5.1	14
	17	10	10	9.8	9.8	15	15	5.6	8.1	5.8	8.4	6.2	8.4
	18	5.4	5.4	19	19	7.7	7.7						
	19	6.5	6.5	9.2	9.2	11	11						
Reference Stations	41	7.3	7.3	6.3	6.3	6.7	6.7	6.4	6.4	10	10	9.4	9.4
	42	8.2	8.2	7.2	7.2	7.7	7.7	5.6	5.6			59	59
	43	11	11	10	10	8.9	8.9	6.3	6.3	12	12	9.8	9.8

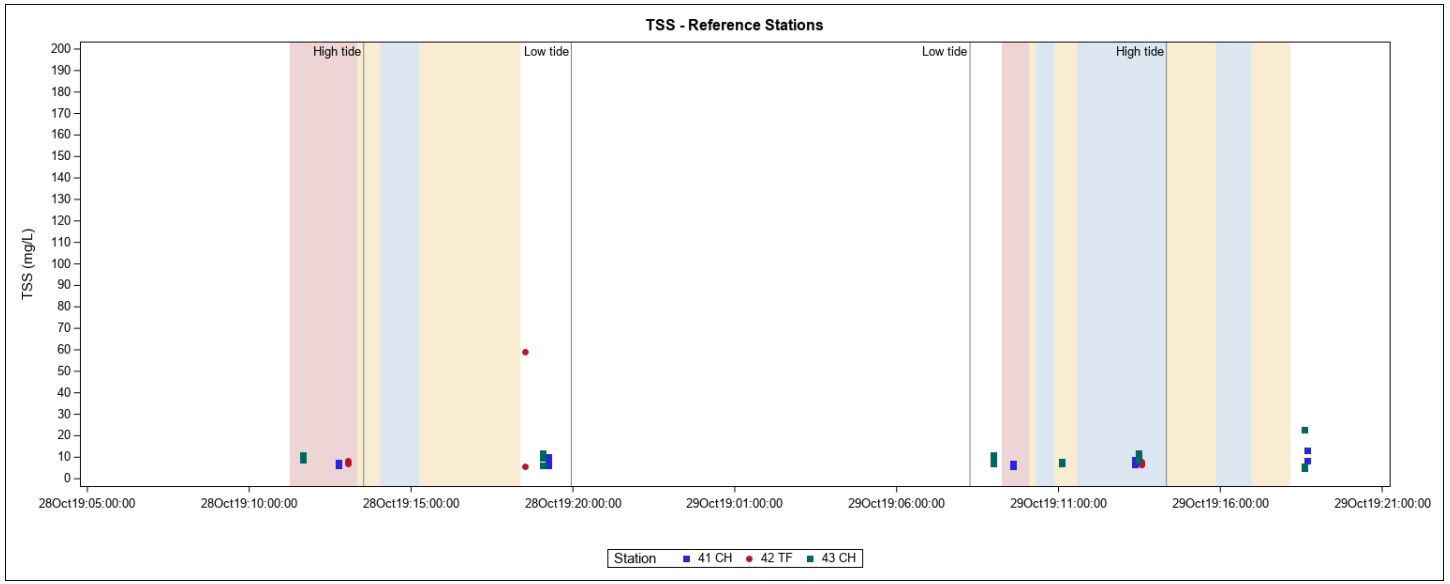
TSS (mg/L)		29 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	23	4.4	4.4	5.5	5.5	7.3	7.3	4.3	12	4.9	11	5.2	8.7
	24	5.6	5.6	14	14	21	21	5.9	7.7	6.3	12	6.6	19
	25	7.7	7.7	7.9	7.9	41	41	5.1	8.2	5.8	17	7.2	17
	26							7.8	10			5.4	6.8
Boundary South	27	4.8	4.8	5.4	5.4	8.1	8.1	4.6	12	5.5	39	6.6	11
	28	15	15	6.4	6.4	8.7	8.7	5	8.7	5.8	9.1	6.7	8.9
	29	5.2	5.2	4.6	4.6	8.9	8.9	5.1	20	6.4	36	6.6	17
	30	7.3	7.3	6.6	6.6	5.9	5.9	5.1	6.7	5.9	8.7	7.8	9.8
Nearfield North	10							7.8	7.8	15	15	20	20
	11							4.6	6.4			6.1	8.4
	12	6.6	6.6	7.2	7.2	7.9	7.9	3.8	8.8	5.5	10	5.6	16
	13	4.8	4.8	5.9	5.9	15	15	4.5	14	6	13	7.7	30
	14	4.6	4.6			6.9	6.9	5.2	6.4	6.5	6.5	5.4	21
Nearfield South	15							6.2	6.2	7.3	7.3	11	11
	16							4.4	6.4	8.4	8.4	6.1	9
	17	5	5	10	10	5.2	5.2	4.1	19	5.6	30	6.8	18
	18	5	5	7.3	7.3	5.9	5.9	4.5	7.7	5.6	20	4.6	9.8
	19	5.3	5.3					4.7	6.9	6.3	6.3	4.5	7.2
Reference Stations	41	5.8	5.8	6.9	6.9	6.7	6.7	6.7	8.6	8.5	8.8	6.6	13
	42							7.1	7.1	6.7	6.7	6.8	8
	43	10	10	7.2	7.2	11	11	5	9	5.8	12	7.4	23



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



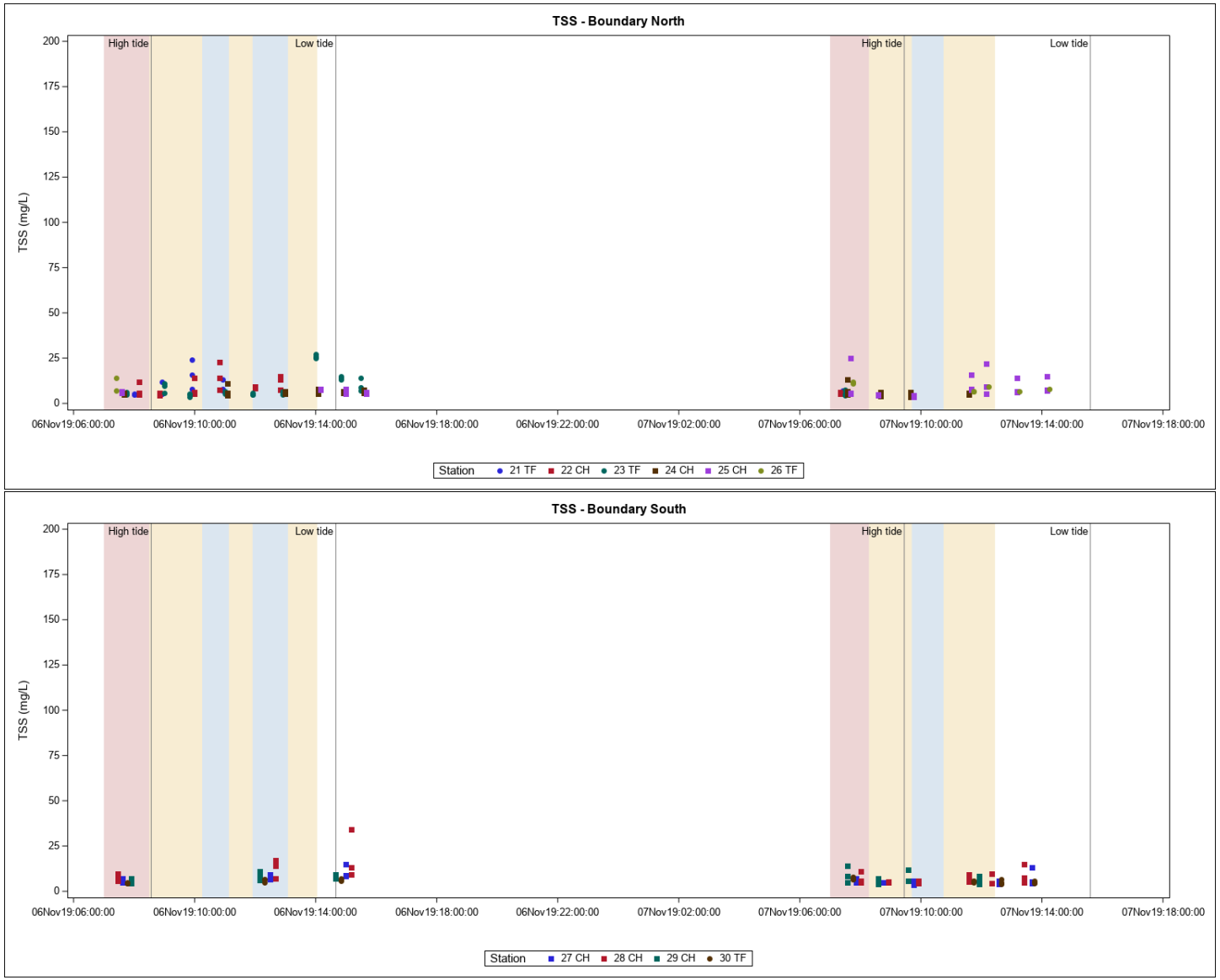
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 3

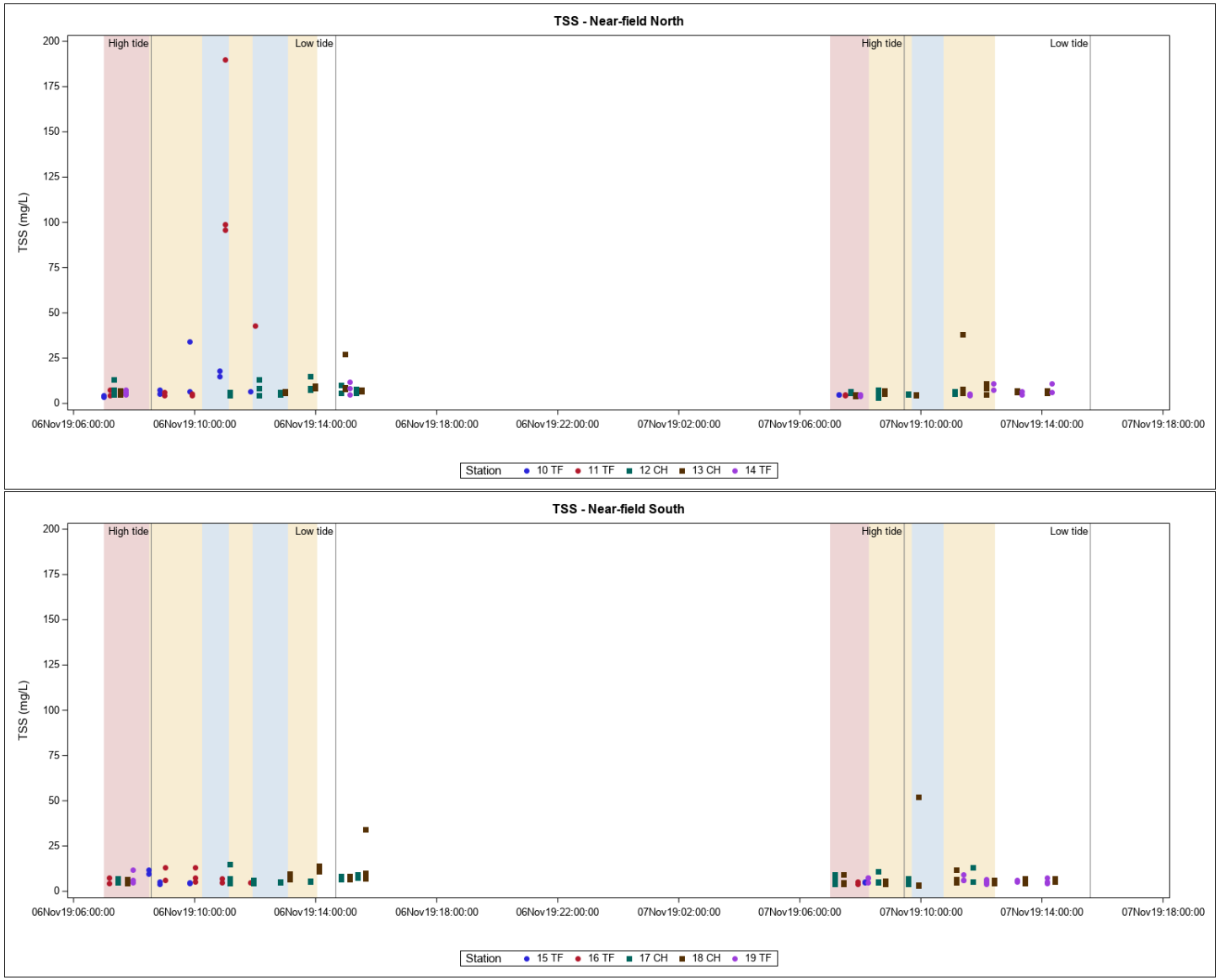
TSS

TSS (mg/L)		06 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	5.1	5.1	5.2	5.2	5	5	6.9	16	5.3	24	5.5	8.1
	22	5.7	5.7	12	12	4.7	4.7	5.3	15	4.3	23	5.9	14
	23	4.8	4.8	6.3	6.3	5.2	5.2	4.9	26	3.6	27	4.9	25
	24	4.9	4.9	4.7	4.7	5.8	5.8	5.2	11	5.7	8.1	4.5	7.4
	25	6.8	6.8	6.7	6.7	5.9	5.9	5.4	7.5	5.4	7.9	5.4	8.1
	26	6.9	6.9			14	14						
Boundary South	27	6.8	6.8	7	7	4.7	4.7	9.4	15	7.5	8.6	6.5	8.9
	28	8.6	8.6	5.6	5.6	9.5	9.5	7	9.4	13	14	17	34
	29	4.5	4.5	6.3	6.3	7	7	9.3	11	6.1	7.6	6.9	9.4
	30	4.4	4.4	4.5	4.5	5.1	5.1	5	6.3	6.6	7	5.9	6.7
Nearfield North	10	3.5	3.5			4.5	4.5	5.5	15			6.6	34
	11	7.7	7.7			4.3	4.3	4.5	99			5.3	190
	12	7.6	7.6	4.8	4.8	13	13	4.4	10	4.9	8.3	4.3	15
	13	5.4	5.4	4.8	4.8	6.9	6.9	6.1	8.8	5.7	9.7	6.6	27
	14	6	6	4.8	4.8	7.4	7.4	4.7	4.7	8.3	8.3	12	12
Nearfield South	15	12	12			9.5	9.5	3.9	4.4			4.9	5.3
	16	4.4	4.4			7.3	7.3	5	13			4.7	13
	17	6.9	6.9	5.1	5.1	5.4	5.4	4.7	7.6	4.5	8.3	4.6	15
	18	4.5	4.5	6.7	6.7	5.4	5.4	7	14	6.8	11	6.7	34
	19	12	12	6.2	6.2	4.7	4.7						
Reference Stations	41	4.3	4.3	5.7	5.7	5.2	5.2	4.1	6.1	3.8	9.1	6.5	9.3
	42	6.5	6.5			7.5	7.5	5.5	5.5				
	43	7.6	7.6	5.9	5.9	5.2	5.2	9	12	7.3	13	9.4	10

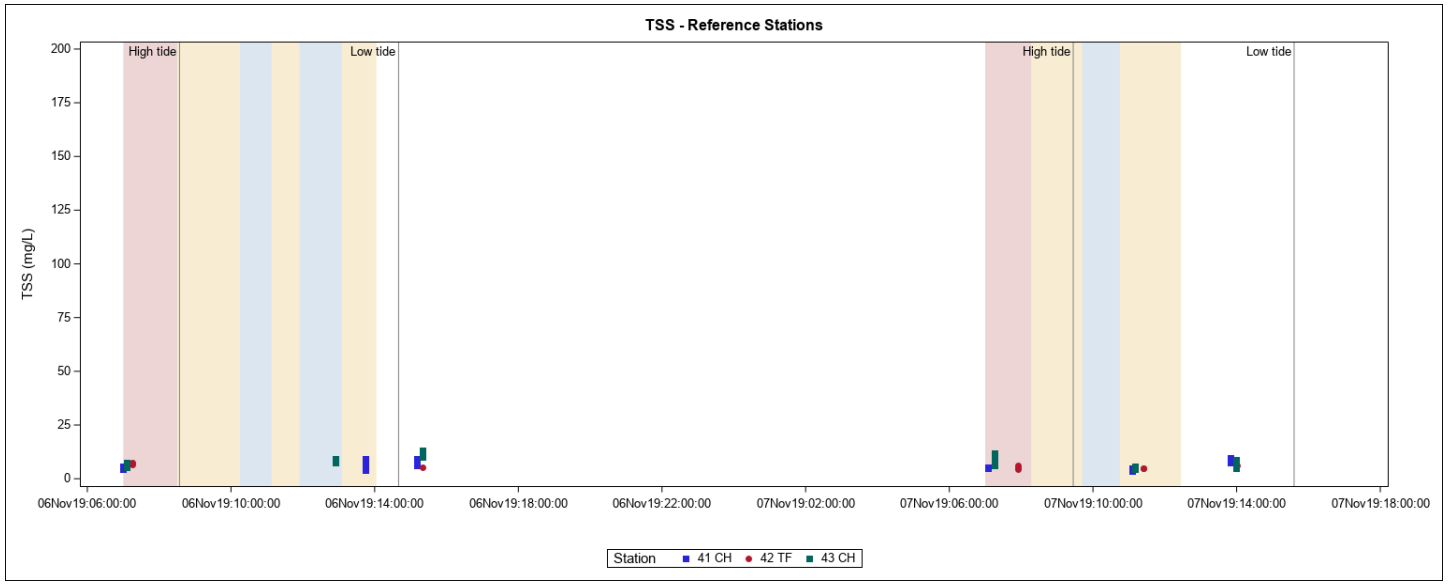
TSS (mg/L)		07 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	21	5.5	5.5	6.8	6.8	6.9	6.9						
	22	6.3	6.3	5.5	5.5	6.3	6.3						
	23	4.3	4.3	5.4	5.4	7.6	7.6						
	24	6.8	6.8	5	5	13	13	4.6	6	3.4	5	4.1	6
	25	25	25	5.3	5.3	5.8	5.8	3.5	7.7	4.1	9.2	4.3	22
	26	11	11			12	12	6.5	6.5			6.6	9.3
Boundary South	27	5.1	5.1	6.9	6.9	6.1	6.1	3.6	13	4.3	5.3	4.4	5.7
	28	11	11	5.9	5.9	5	5	4.7	9.7	4.6	15	4.5	9.1
	29	5	5	14	14	8.6	8.6	3.8	5.9	6.2	12	7.1	12
	30	6.5	6.5	7.9	7.9	6.7	6.7	5.6	6.8	4.1	5.6	4.9	5.1
Nearfield North	10	4.7	4.7			4.8	4.8						
	11	5	5			4.6	4.6						
	12	5.9	5.9	6.8	6.8	6.1	6.1	3.3	5.9	5.2	7.3	4.9	6.8
	13	4.1	4.1	4.9	4.9	4.1	4.1	4.7	6.9	4.6	8.5	4.7	38
	14	3.9	3.9	5.1	5.1	4.9	4.9	5	7.6	5.5	5.5	4.6	11
Nearfield South	15	5	5			5.3	5.3						
	16	3.8	3.8			5.4	5.4						
	17	3.9	3.9	6.5	6.5	9.4	9.4	3.8	5.5	5.3	13	4.4	13
	18	5.1	5.1	9.4	9.4	3.9	3.9	3.1	12	3.5	7.1	4.6	52
	19	4.8	4.8	7.4	7.4	7.5	7.5	5	9.3	4.2	6.2	4.3	6.7
Reference Stations	41	5	5	5.3	5.3	4.8	5.5	4.9	7.3	3.5	8.5	3.9	9.7
	42	4.4	6			5.4	5.4	5	5			4.8	6.1
	43	6.4	6.4	12	12	8.7	8.7	4.5	9	4.8	5.9	5.8	6



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

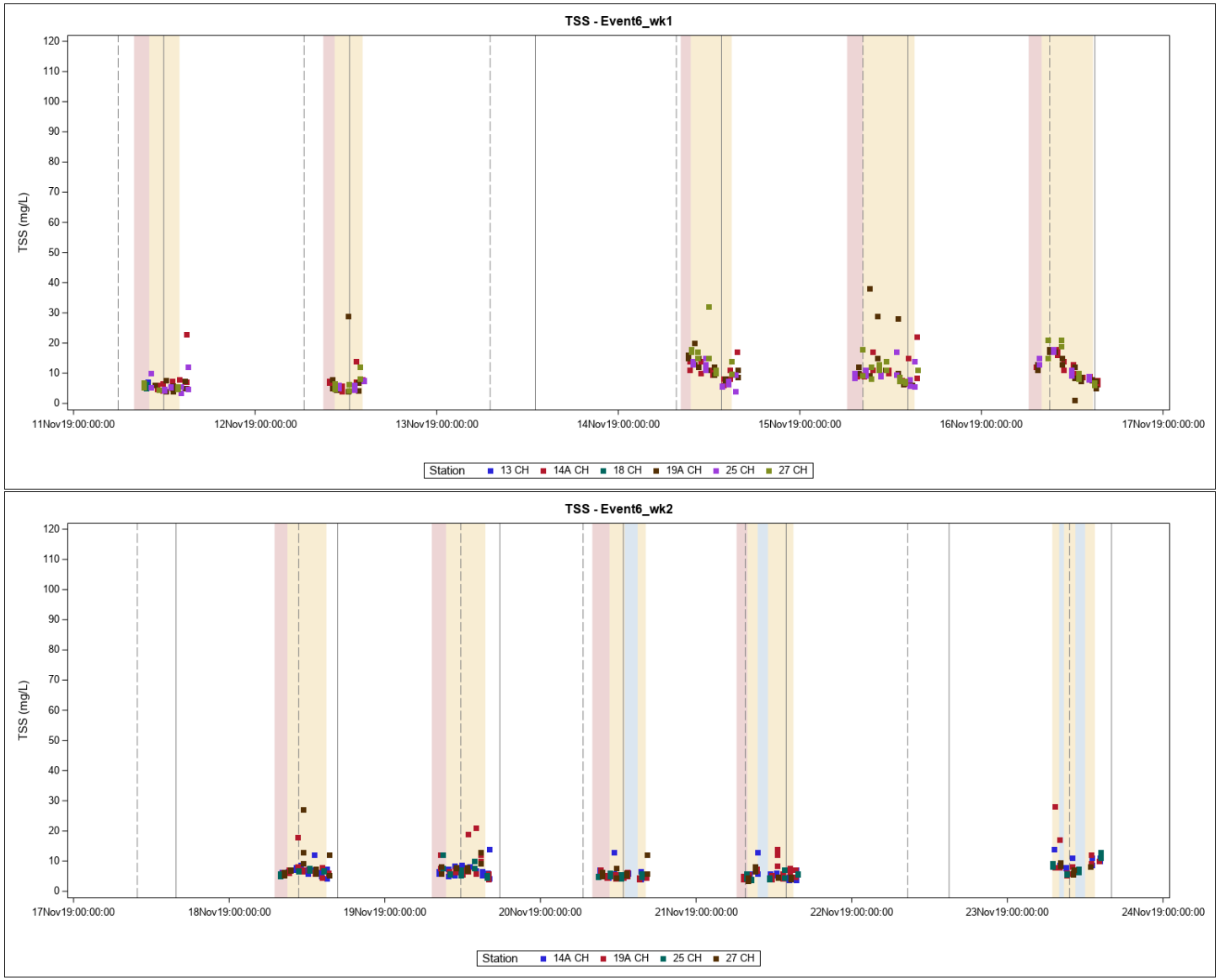


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

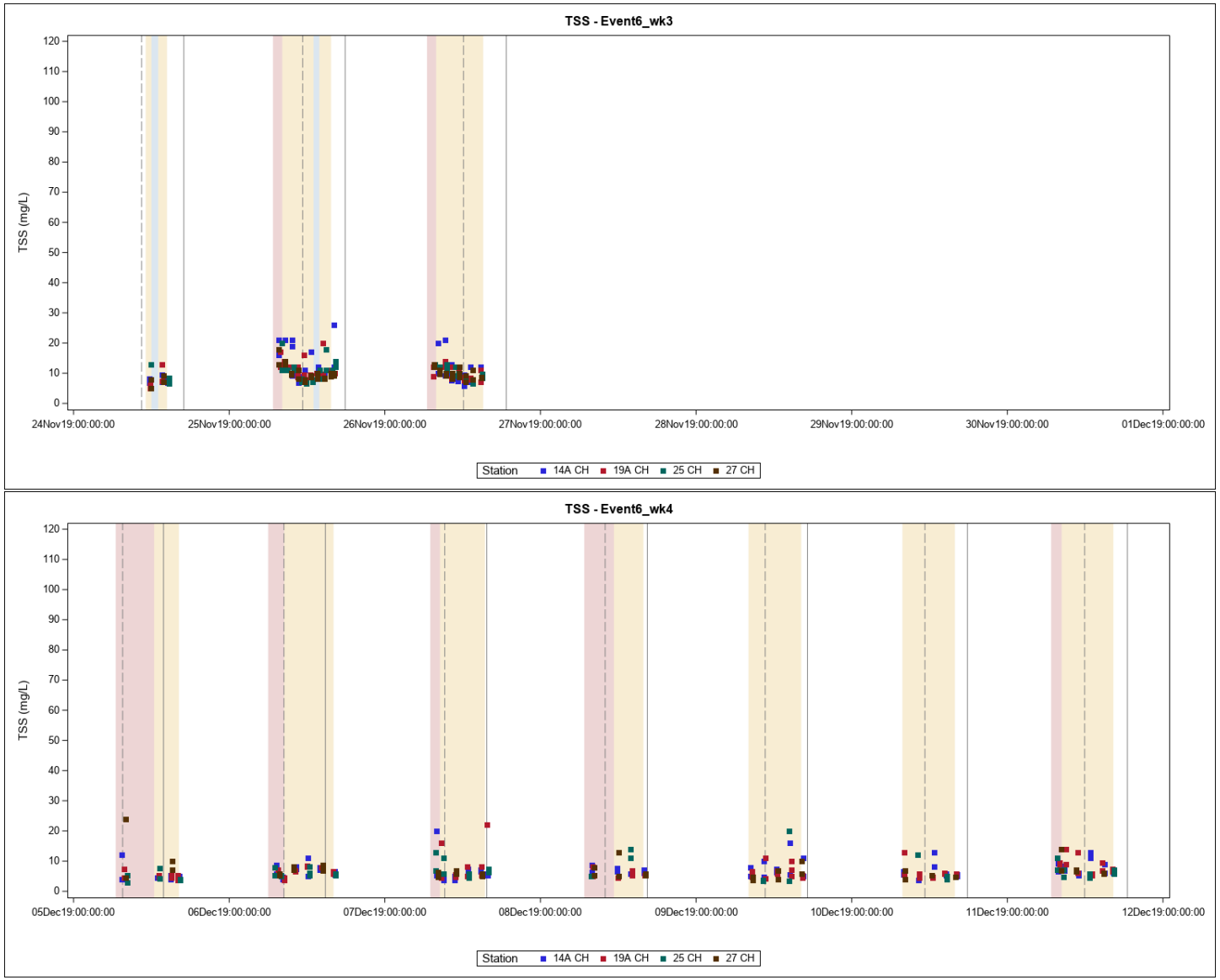
Hand Jet

TSS

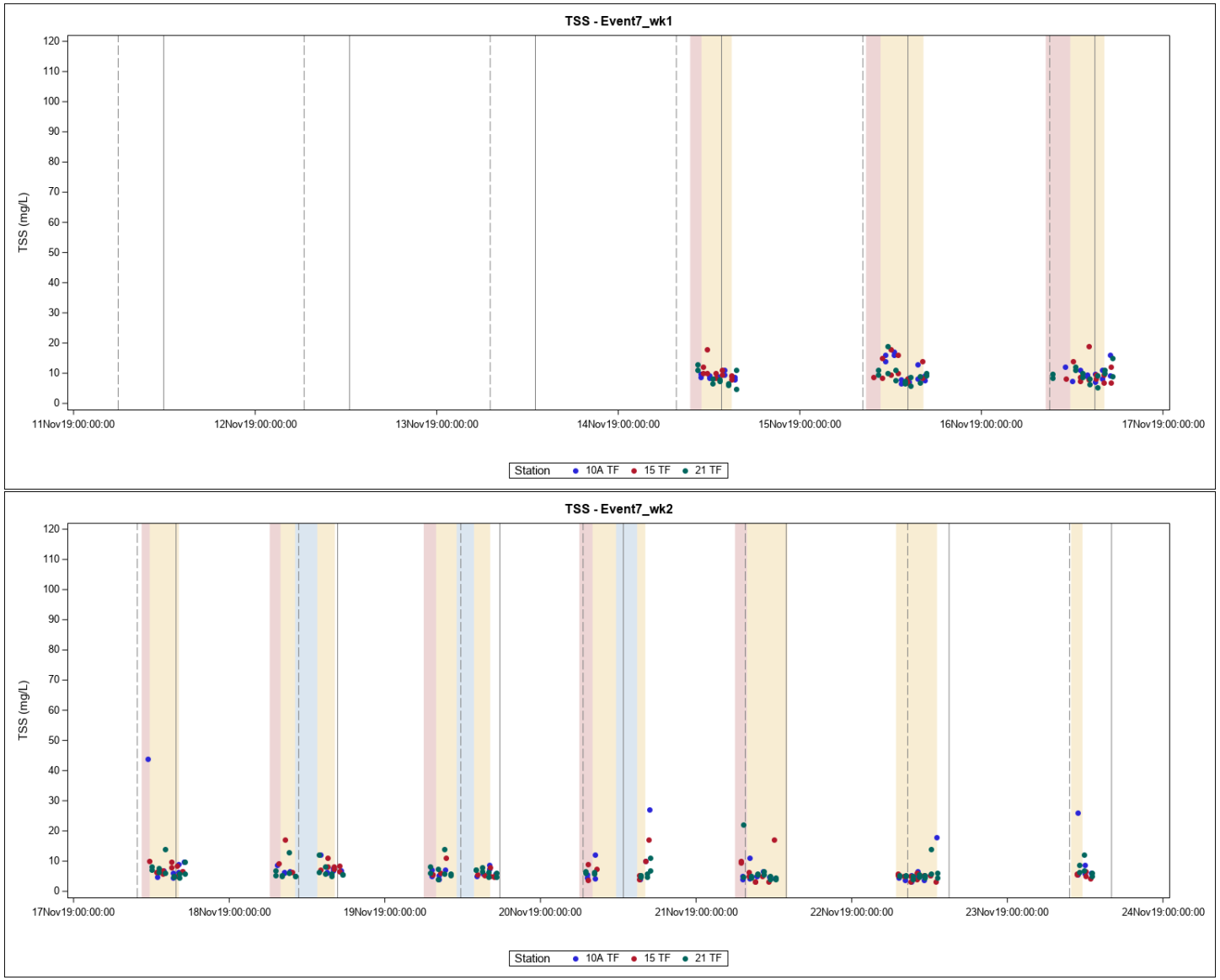
TSS (mg/L)		11 NOV 2019 – 18 DEC 2019											
						Before Start of Jet Plow				During Jet Plowing			
		Surface		Bottom		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Turbidity Profiles	50	7.4	52	8.2	110					72	72	73	73
	55	5.6	15	7.1	19					10	10	6.3	6.3
	60	24	38	37	50								
	65	9.4	9.5	12	15								
	66	28	28	14	14								
West Side Boundary	10A					3.9	9.8	3.5	44	3.1	26	3.4	45
	11							7	7				
	15					3.8	9.4	3.6	10	3.2	19	3.2	18
West Side Reference	21					4.4	22	3.5	13	3	19	3	14
East Side Boundary	13					7.1	7.1	5.8	5.8				
	14A					4	29	4	27	3.8	36	3.6	37
	18					4.9	4.9	6.3	6.3				
	19A					3.9	84	4.4	29	1	35	4.3	38
East Side Reference	25					3	29	4.2	28	3.5	36	3.4	50
	27					4.5	31	4.8	39	3.5	32	4.4	39



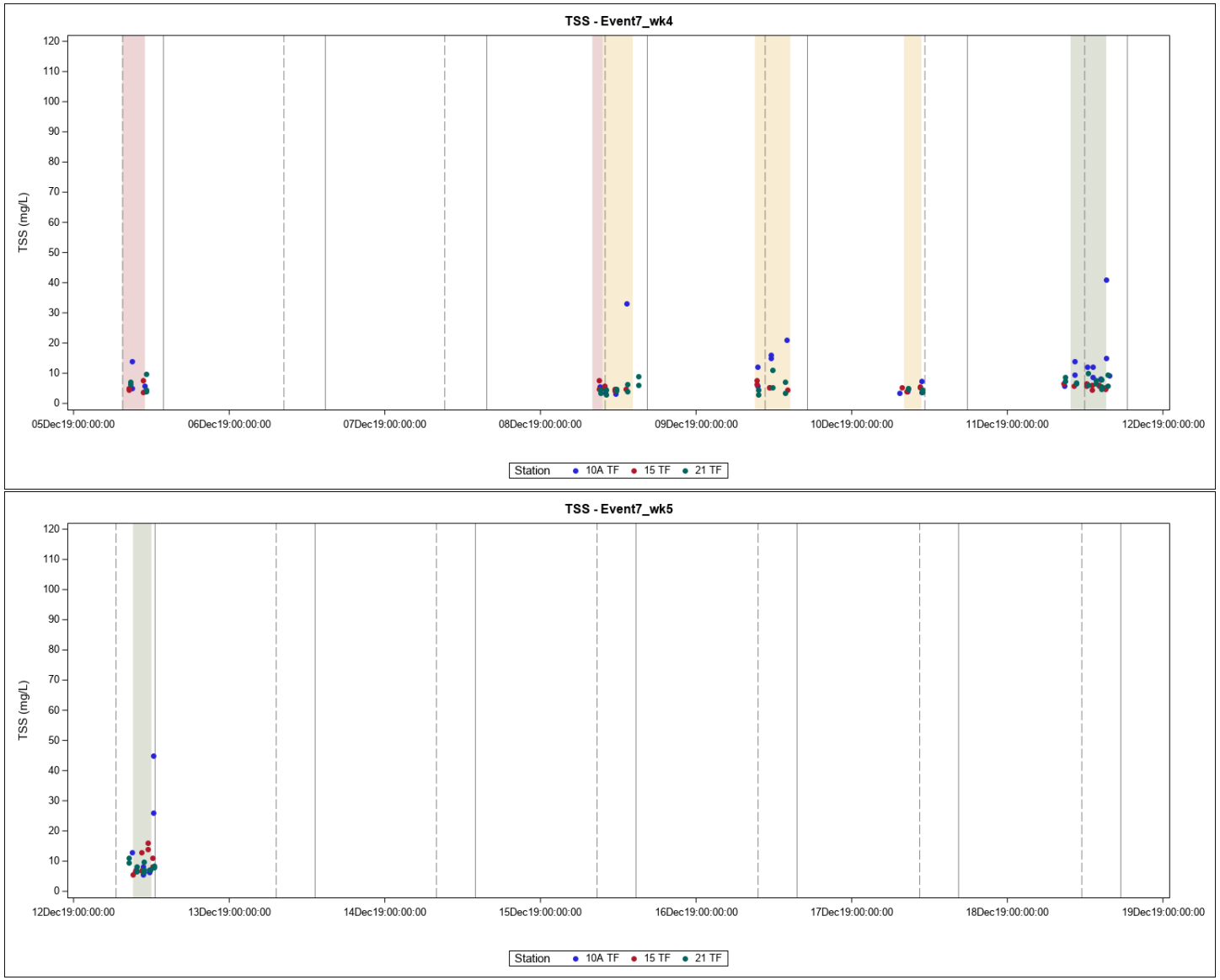
Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



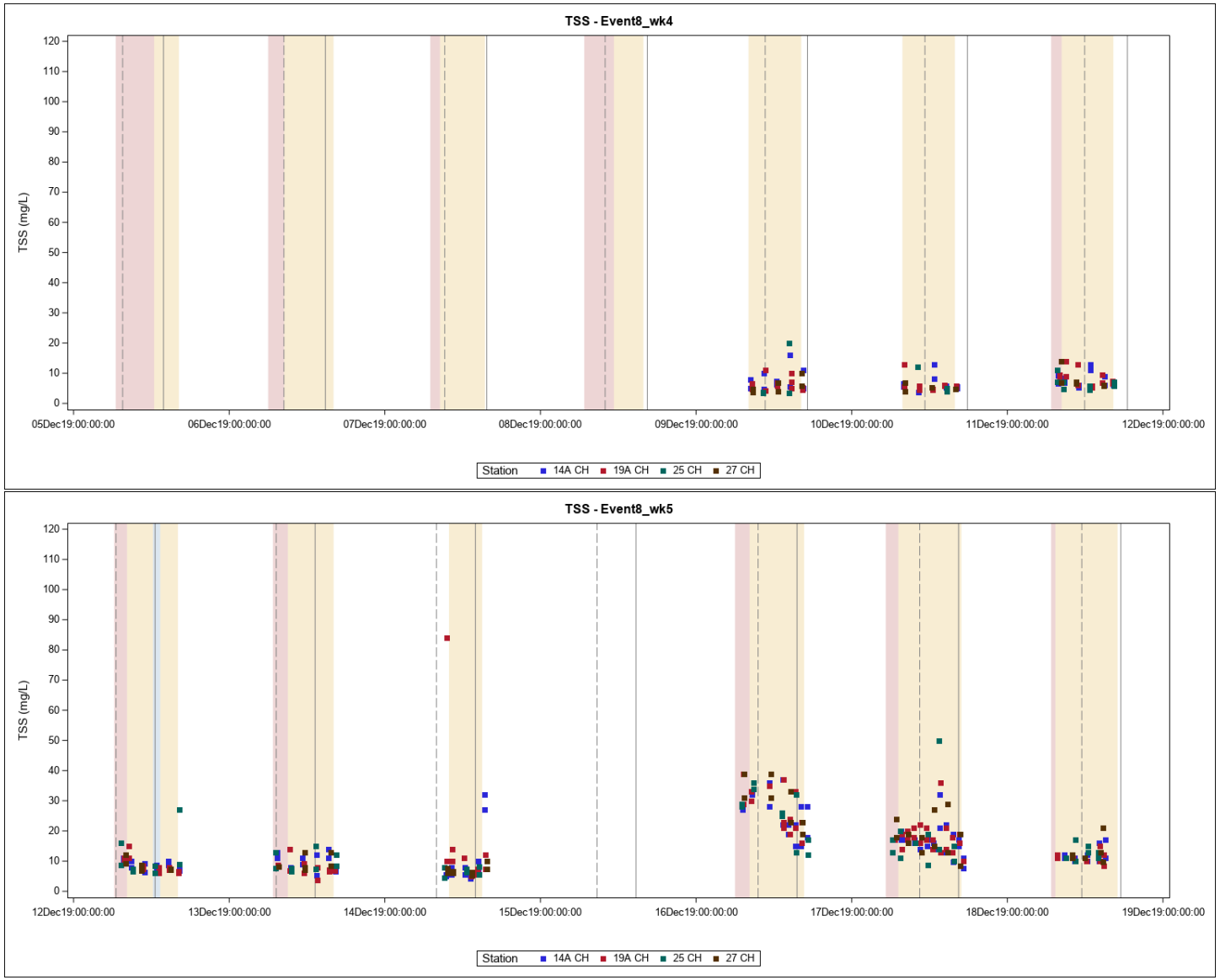
Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation; green shading indicates turbidity barrier removal. Vertical lines indicate high and low slack tides.



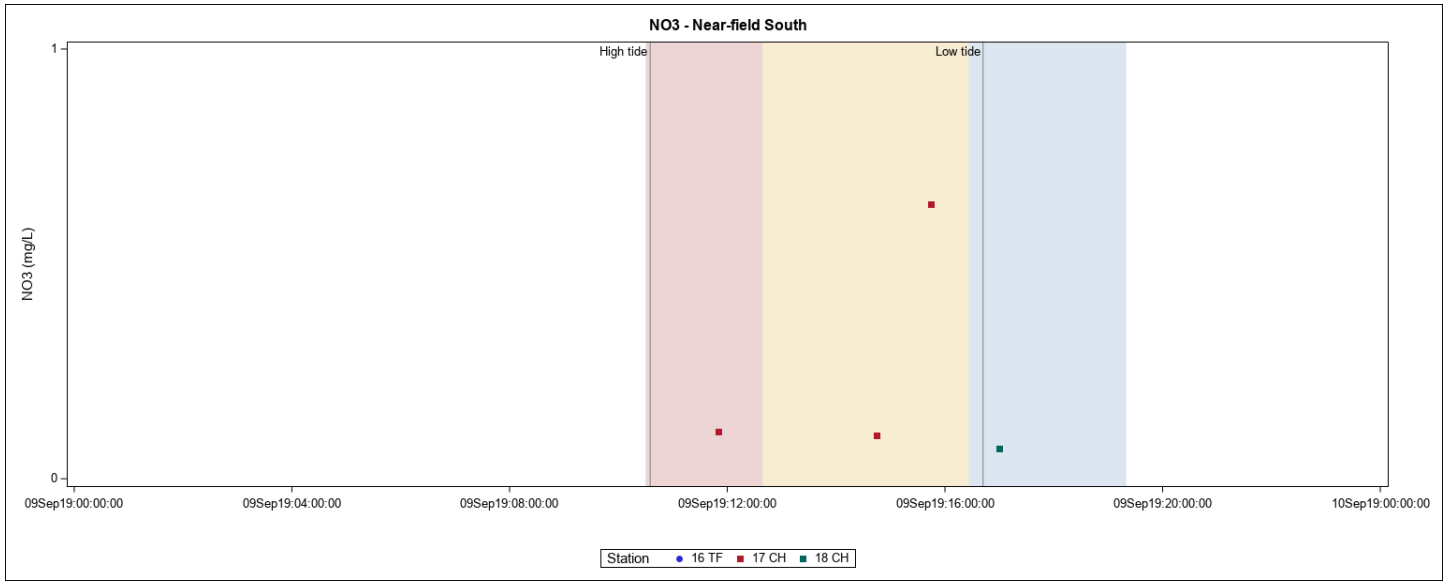
Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

Appendix L
Nitrogen Species Plots and Tables

Jet Plow Trial

Nitrate

NO_3 (mg/L)		09 SEP 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	23	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	24	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	25	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Boundary South	27							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	28							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	29							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nearfield North	11	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	11A	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nearfield South	16	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	17	0.11	0.11	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.64
	18							<0.05	<0.05	<0.05	<0.05	<0.05	0.071
Reference Stations	41	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	42	<0.05	<0.05			<0.05	<0.05					<0.05	<0.05
	43	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Jet Plow Trial

Nitrite

NO_2 (mg/L)		09 SEP 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												

Non-detect – No data plots available

Jet Plow Trial

Ammonia

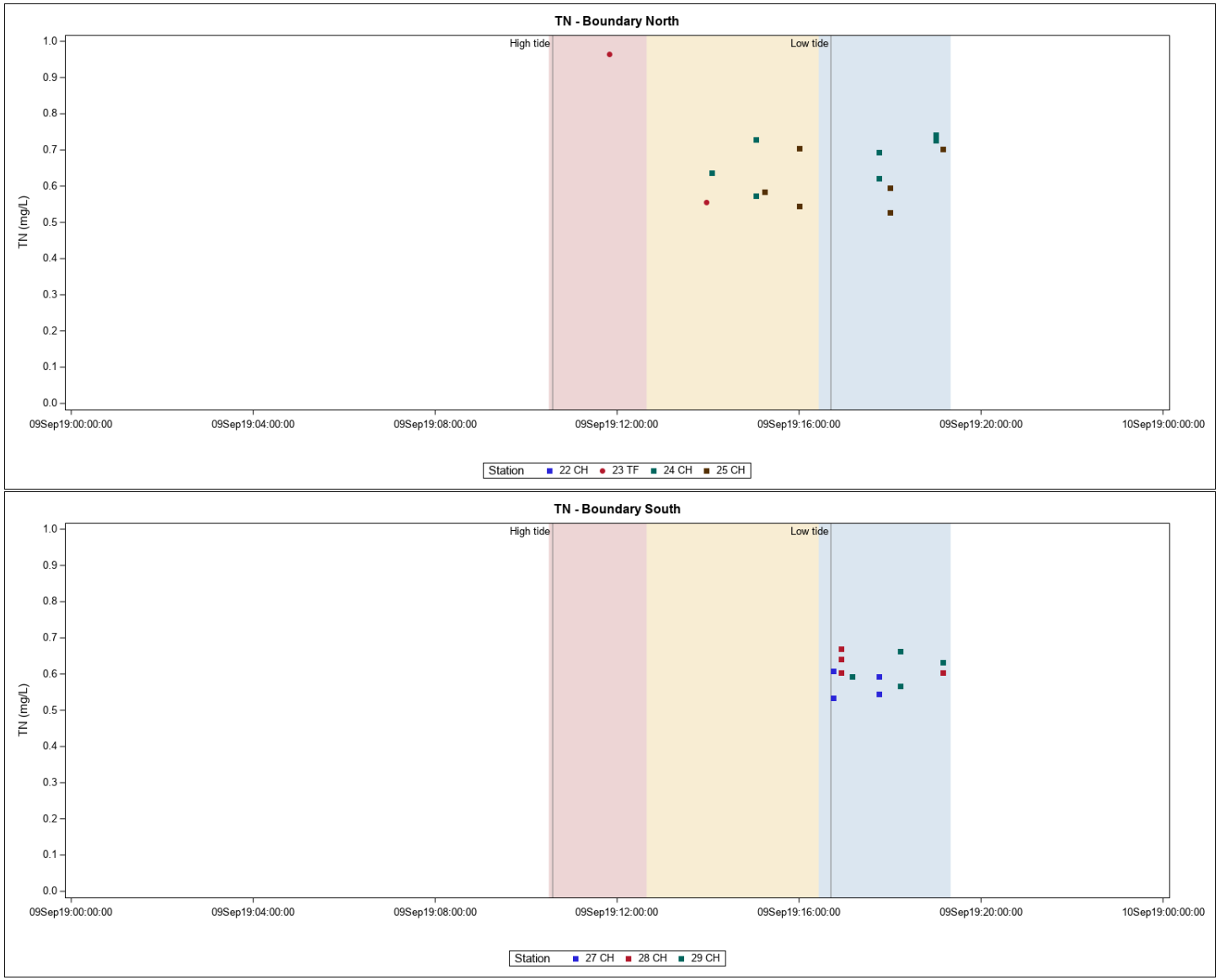
NH_3 (mg/L)		09 SEP 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	23	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	24	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Boundary South	27							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	28							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	29							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nearfield North	11	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	11A	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nearfield South	16	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	17	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	18							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Reference Stations	41	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	42	<0.1	<0.1			<0.1	<0.1					<0.1	<0.1
	43	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Non-detect – No data plots available

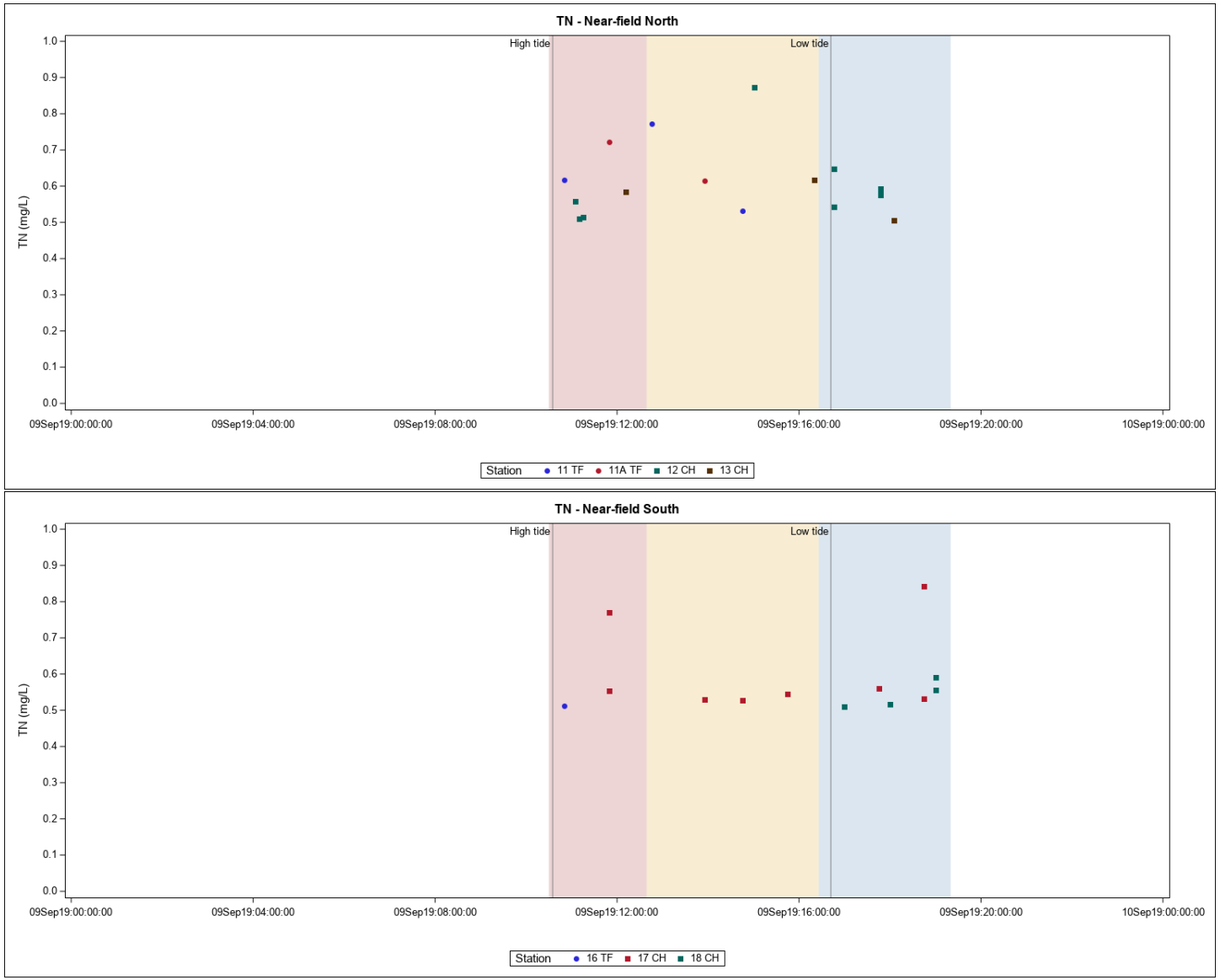
Jet Plow Trial

Total Nitrogen

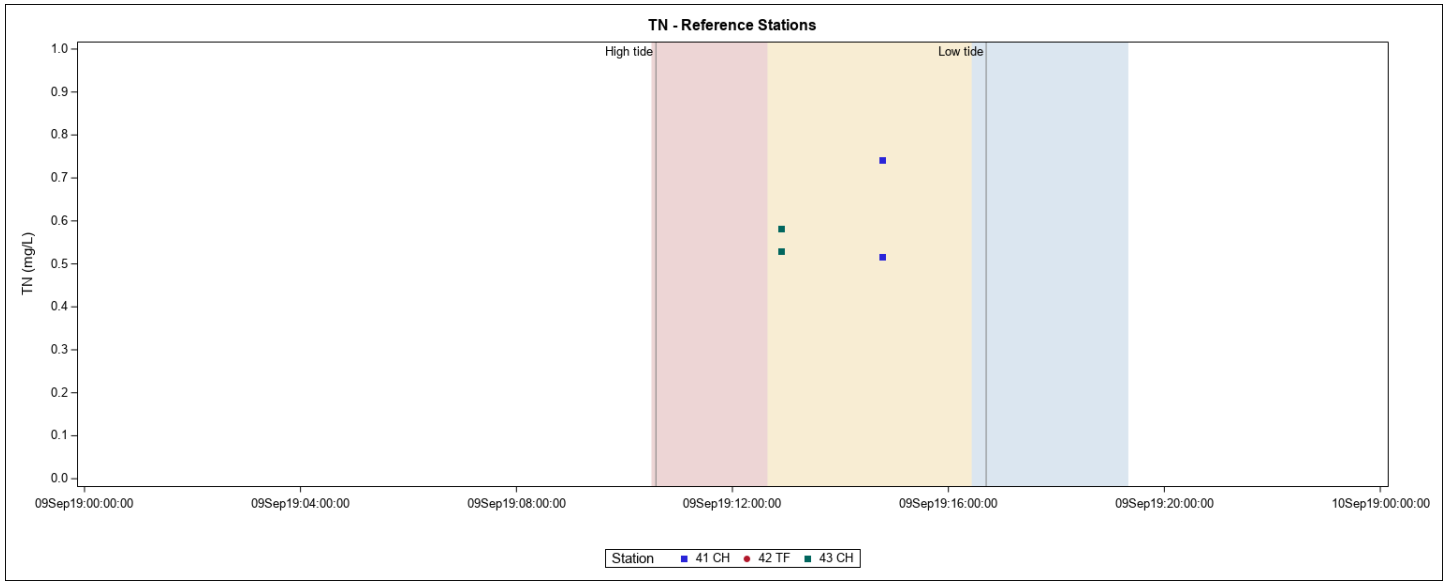
TN (mg/L)		09 SEP 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	23	<0.5	<0.5			<0.5	0.965	<0.5	<0.5			<0.5	0.556
	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.726	<0.5	<0.5	<0.5	0.742
	25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.705	<0.5	0.584	<0.5	0.595
Boundary South	27							<0.5	0.609	<0.5	<0.5	<0.5	0.592
	28							<0.5	0.669	<0.5	0.642	<0.5	0.605
	29							<0.5	0.663	<0.5	0.632	<0.5	0.594
Nearfield North	11	0.617	0.617			<0.5	<0.5	<0.5	<0.5			<0.5	0.773
	11A	0.722	0.722			<0.5	<0.5	<0.5	<0.5			<0.5	0.615
	12	0.557	0.557	0.509	0.509	0.514	0.514	<0.5	0.647	<0.5	0.593	<0.5	0.873
	13	<0.5	<0.5	<0.5	<0.5	0.585	0.585	<0.5	<0.5	<0.5	<0.5	<0.5	0.617
Nearfield South	16	<0.5	<0.5			0.512	0.512	<0.5	<0.5			<0.5	<0.5
	17	0.554	0.554	0.77	0.77	<0.5	<0.5	<0.5	<0.5	<0.5	0.545	<0.5	0.843
	18							<0.5	0.591	<0.5	0.556	<0.5	<0.5
Reference Stations	41	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.517	0.517	<0.5	0.741	<0.5	<0.5
	42	<0.5	<0.5			<0.5	<0.5					<0.5	<0.5
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.529	0.529	0.582	0.582



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

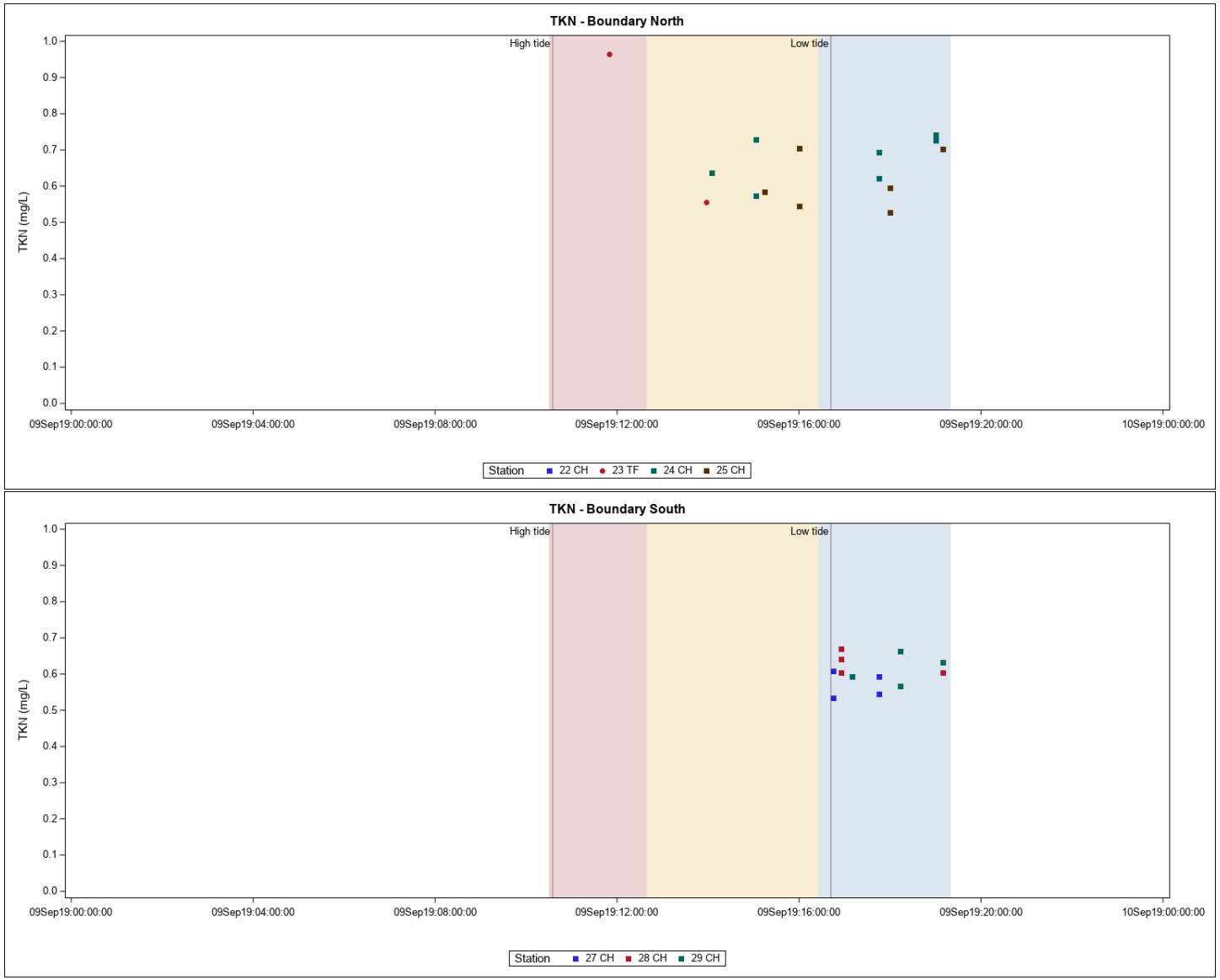


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

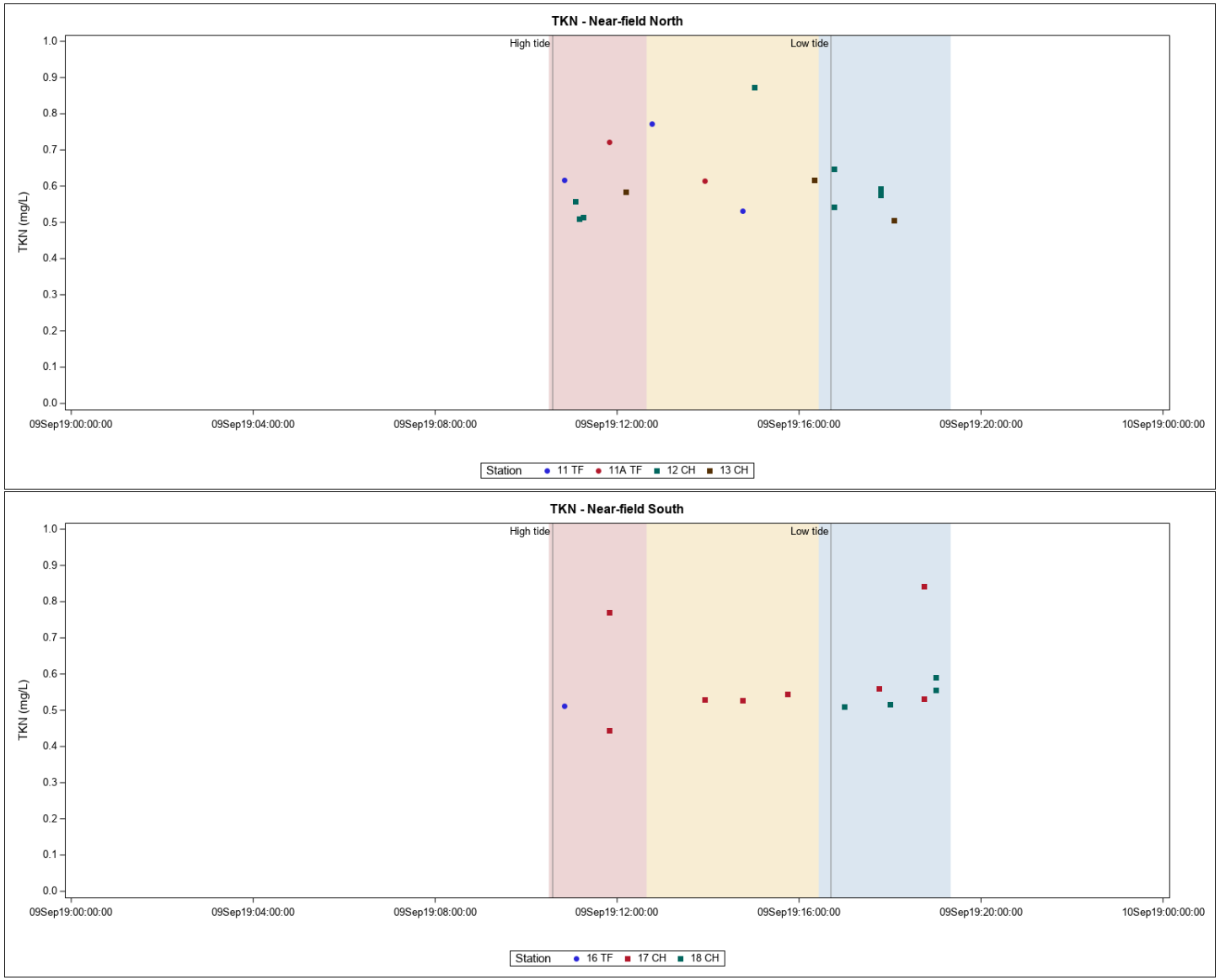
Jet Plow Trial

Total Keldjahl Nitrogen

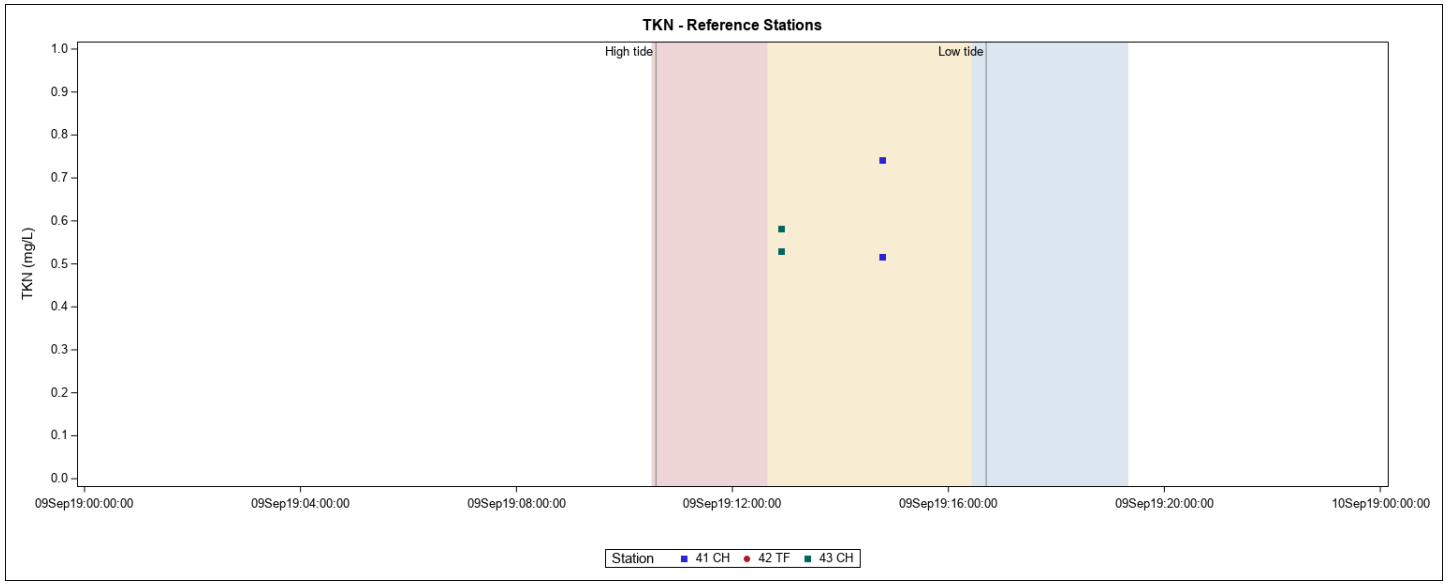
TKN (mg/L)		09 SEP 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	23	<0.5	<0.5			<0.5	0.965	<0.5	<0.5			<0.5	0.556
	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.726	<0.5	<0.5	<0.5	0.742
	25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.705	<0.5	0.584	<0.5	0.595
Boundary South	27							<0.5	0.609	<0.5	<0.5	<0.5	0.592
	28							<0.5	0.669	<0.5	0.642	<0.5	0.605
	29							<0.5	0.663	<0.5	0.632	<0.5	0.594
Nearfield North	11	0.617	0.617			<0.5	<0.5	<0.5	<0.5			<0.5	0.773
	11A	0.722	0.722			<0.5	<0.5	<0.5	<0.5			<0.5	0.615
	12	0.557	0.557	0.509	0.509	0.514	0.514	<0.5	0.647	<0.5	0.593	<0.5	0.873
	13	<0.5	<0.5	<0.5	<0.5	0.585	0.585	<0.5	<0.5	<0.5	<0.5	<0.5	0.617
Nearfield South	16	<0.5	<0.5			0.512	0.512	<0.5	<0.5			<0.5	<0.5
	17	0.444	0.444	0.77	0.77	<0.5	<0.5	<0.5	<0.5	<0.5	0.545	<0.5	0.843
	18							<0.5	0.591	<0.5	0.556	<0.5	<0.5
Reference Stations	41	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.517	0.517	<0.5	0.741	<0.5	<0.5
	42	<0.5	<0.5			<0.5	<0.5					<0.5	<0.5
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.529	0.529	0.582	0.582



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 1

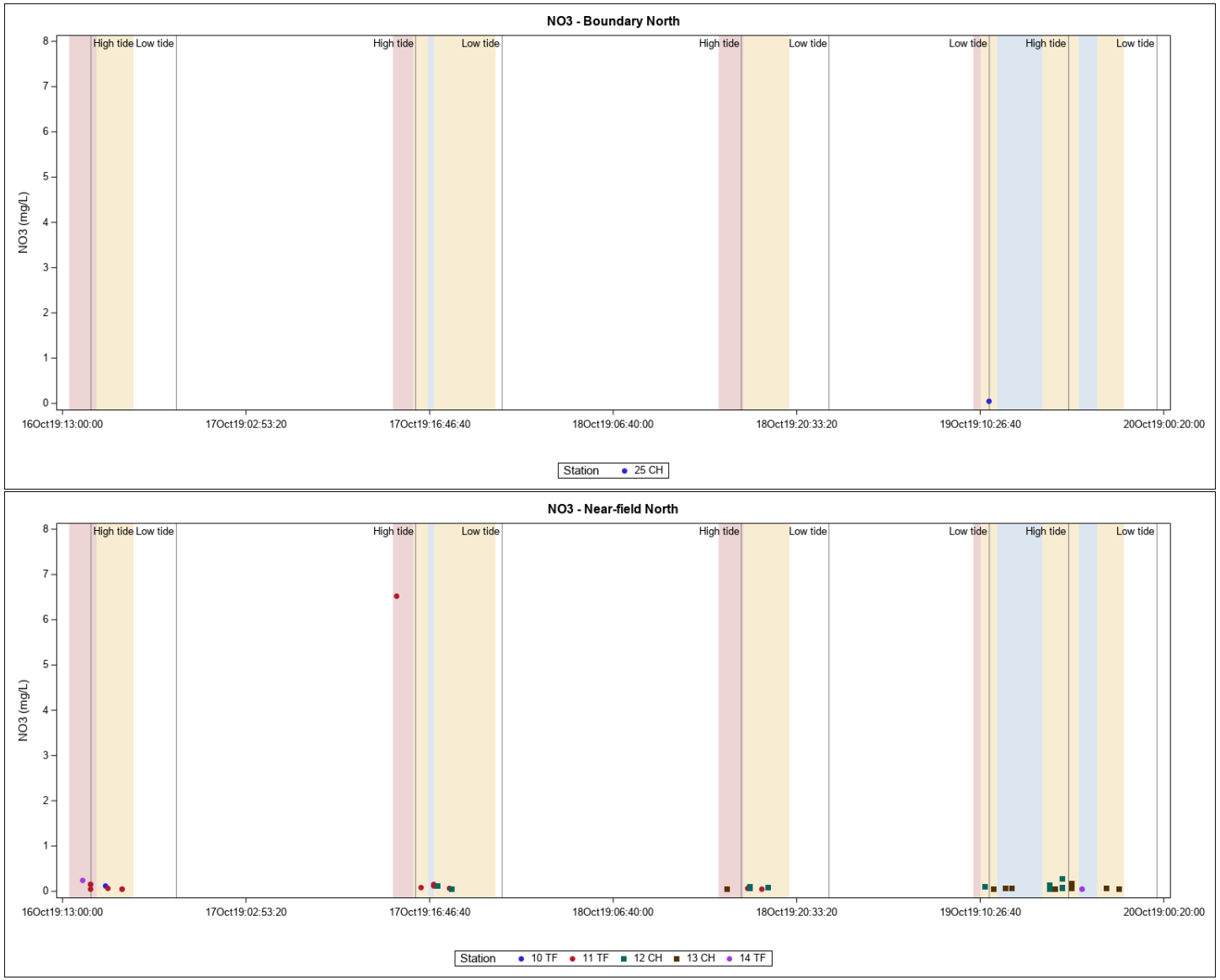
Nitrate

NO_3 (mg/L)		16 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	0.125
	11	0.06	0.06	0.163	0.163	0.168	0.168	<0.05	0.062			<0.05	0.073
	12	<0.05	<0.05	<0.05	<0.05								
	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						
	14	0.25	0.25	<0.05	<0.05	<0.05	<0.05						
Nearfield South	15	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	16	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	17	0.27	0.27	<0.05	<0.05	0.094	0.094						
	18	<0.05	<0.05	<0.05	<0.05	0.24	0.24						
	19	0.151	0.151	0.199	0.199	<0.05	<0.05						
Reference Stations	41	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						
	42	<0.05	<0.05			<0.05	<0.05						
	43	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						

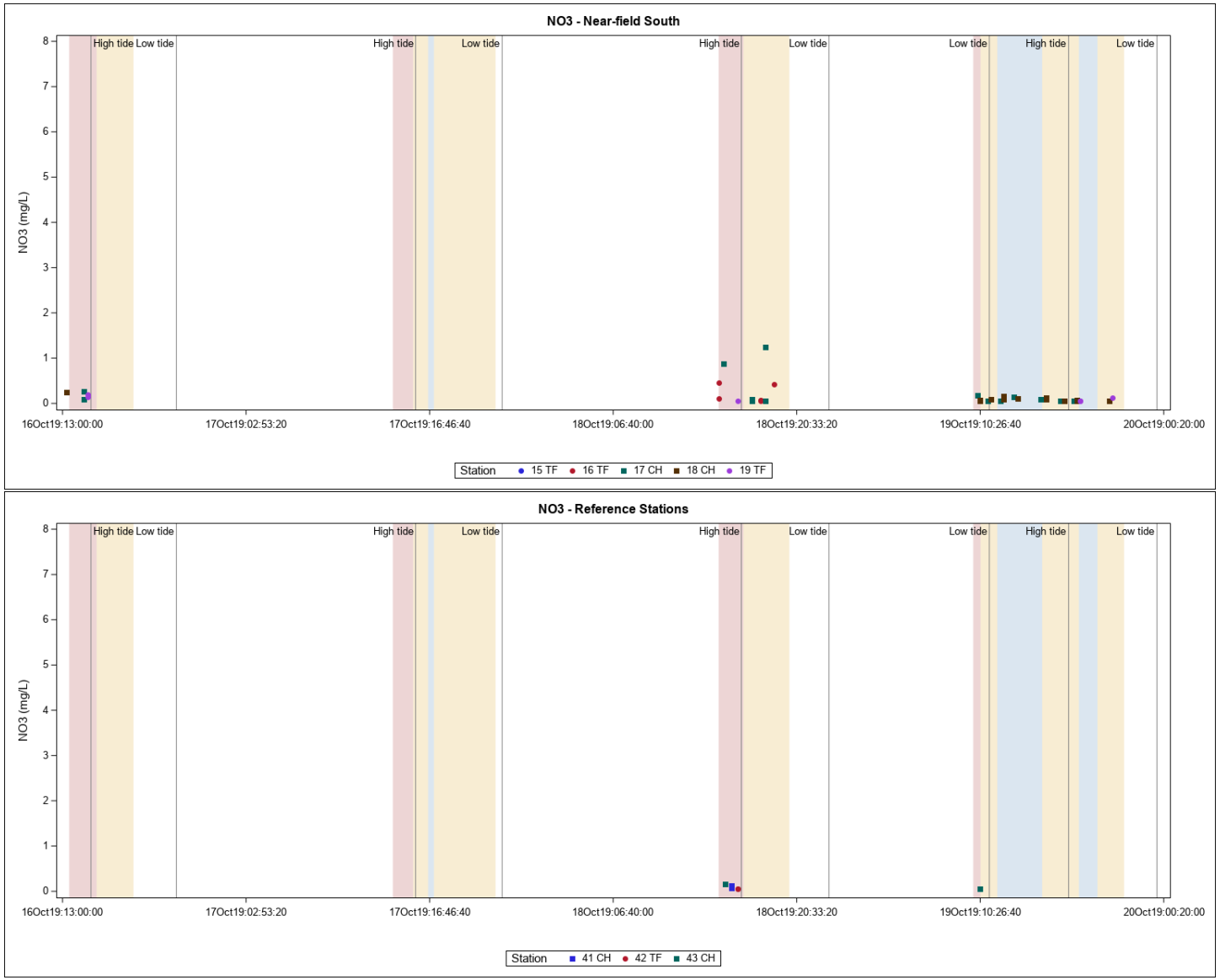
NO_3 (mg/L)		17 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	11	<0.05	<0.05			6.53	6.53	<0.05	<0.05	<0.05	0.131	<0.05	0.167
	12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.118	<0.05	0.052	<0.05	<0.05
	13							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nearfield South	15	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	16	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	17	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	18	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	19							<0.05	<0.05				
Reference Stations	41							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	42							<0.05	<0.05			<0.05	<0.05
	43							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

NO_3 (mg/L)		18 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	11	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	0.075
	12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.095	<0.05	0.077	<0.05	0.1
	13	0.056	0.056	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nearfield South	16	0.452	0.452			0.1	0.1	<0.05	0.052			<0.05	0.431
	17	<0.05	<0.05	0.87	0.87			<0.05	0.083	<0.05	1.24	<0.05	<0.05
	18	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						
	19	<0.05	0.053			<0.05	<0.05	<0.05	<0.05				
Reference Stations	41	0.076	0.076	<0.05	<0.05	0.119	0.119	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	42	0.055	0.055	0.056	0.056								
	43	0.163	0.163	<0.05	<0.05	<0.05	<0.05						

NO3 (mg/L)		19 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	25							0.05	0.05	<0.05	<0.05	<0.05	<0.05
Nearfield North	12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.281	<0.05	0.15	<0.05	0.091
	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.066	<0.05	0.181	<0.05	0.072
	14							<0.05	0.058	<0.05	<0.05	<0.05	0.058
Nearfield South	17	<0.05	<0.05	0.177	0.177	<0.05	<0.05	<0.05	0.053	<0.05	0.053	<0.05	0.139
	18	0.072	0.072	0.056	0.056	<0.05	<0.05	<0.05	0.119	<0.05	0.148	<0.05	0.165
	19							<0.05	0.119	<0.05	0.051	<0.05	<0.05
Reference Stations	41							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	42							<0.05	<0.05			<0.05	<0.05
	43	<0.05	<0.05	<0.05	<0.05	0.062	0.062	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 1

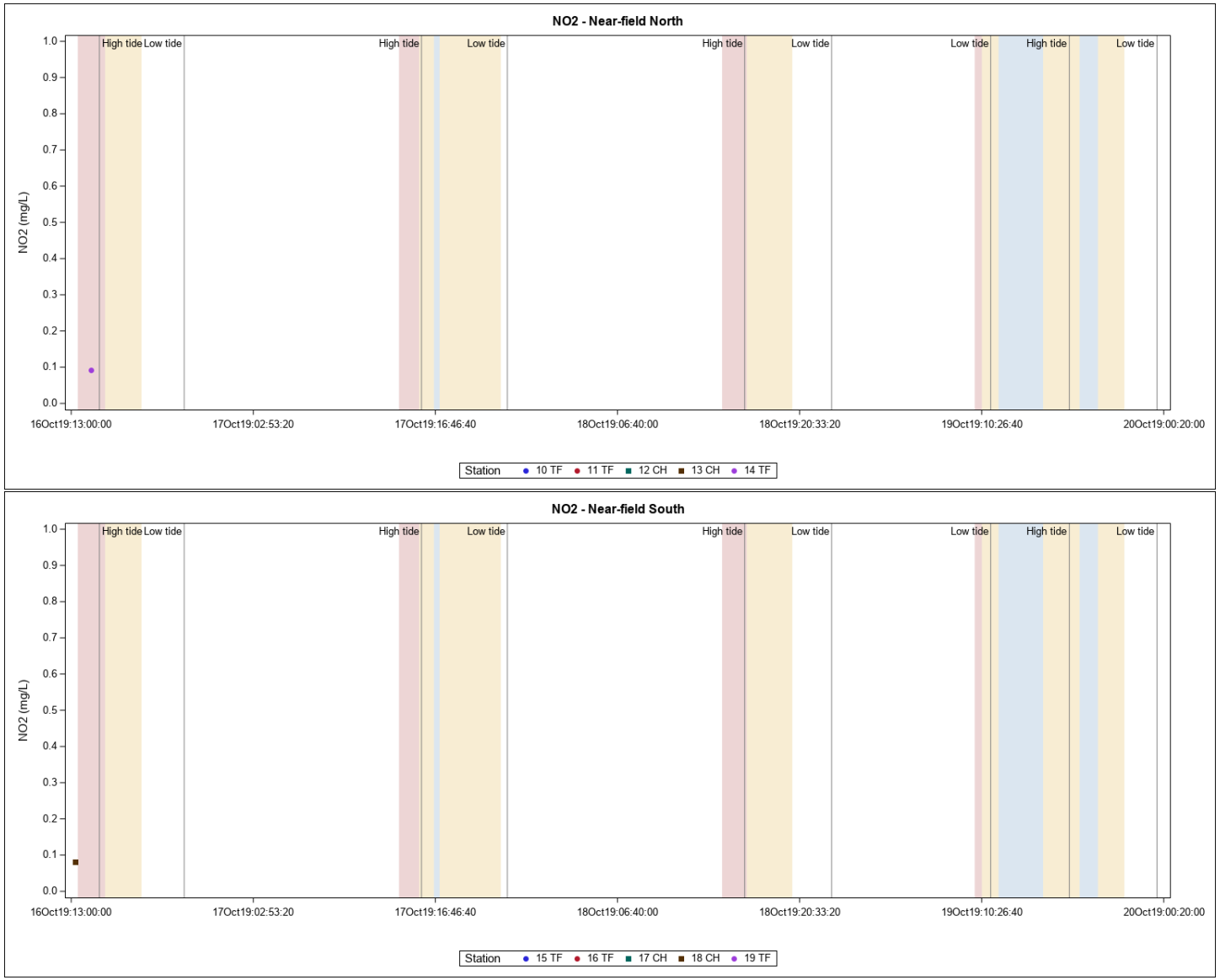
Nitrite

NO_2 (mg/L)		16 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	11	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	12	<0.05	<0.05	<0.05	<0.05								
	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						
	14	<0.05	<0.05	0.093	0.093	<0.05	<0.05						
Nearfield South	15	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	16	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						
	18	<0.05	<0.05	0.08	0.08	<0.05	<0.05						
	19	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						
Reference Stations	41	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						
	42	<0.05	<0.05			<0.05	<0.05						
	43	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						

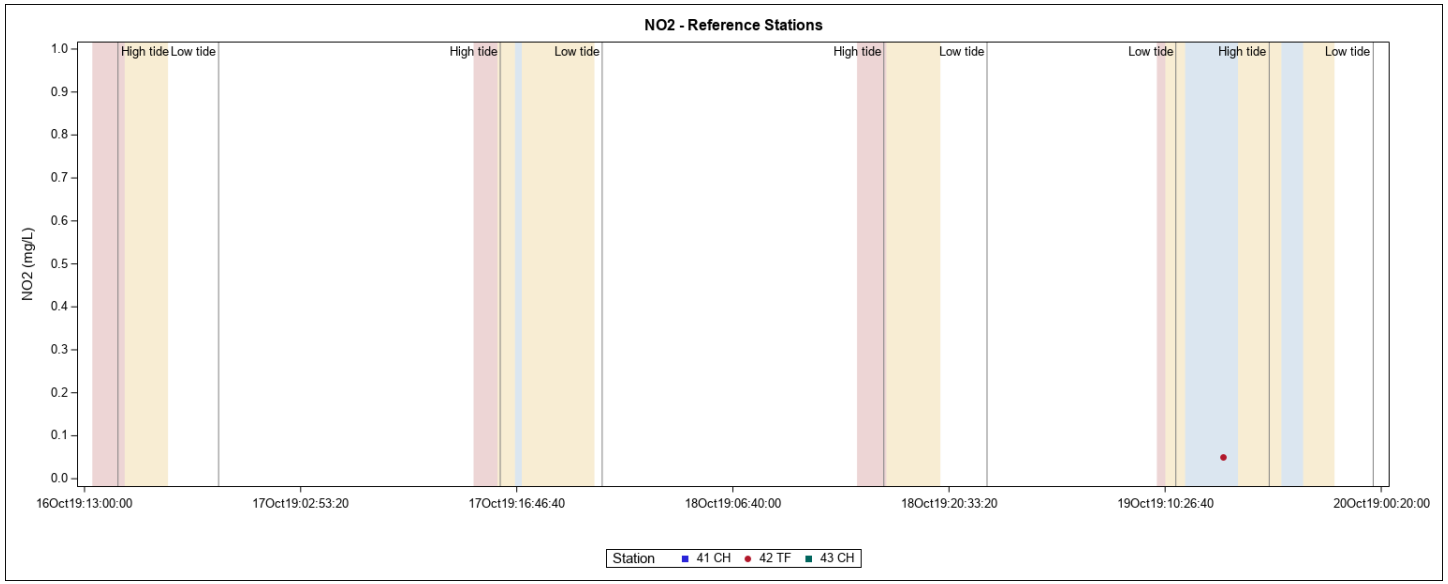
NO_2 (mg/L)		17 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	11	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	13							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nearfield South	15	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	16	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	17	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	18	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Reference Stations	41							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	42							<0.05	<0.05			<0.05	<0.05
	43							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

NO_2 (mg/L)		18 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	11	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nearfield South	16	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	17	<0.05	<0.05	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	18	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						
	19	<0.05	<0.05			<0.05	<0.05						
Reference Stations	41	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	42	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						
	43	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						

NO2 (mg/L)		19 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	25							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nearfield North	12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	14							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nearfield South	17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	18	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	19							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Reference Stations	41							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	42							<0.05	0.05			<0.05	<0.05
	43	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 1

Ammonia

NH_3 (mg/L)		16 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	11	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	12	<0.1	<0.1	<0.1	<0.1								
	13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
	14	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
Nearfield South	15	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	16	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	17	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
	18	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
	19	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
Reference Stations	41	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
	42	<0.1	<0.1			<0.1	<0.1						
	43	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						

NH_3 (mg/L)		17 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	11	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	13							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nearfield South	15	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	16	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	17	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	18	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Reference Stations	41							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	42							<0.1	<0.1			<0.1	<0.1
	43							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

NH_3 (mg/L)		18 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	11	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nearfield South	16	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	17	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	18	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
	19	<0.1	<0.1			<0.1	<0.1						
Reference Stations	41	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	42	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
	43	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						

NH3 (mg/L)		19 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	25							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nearfield North	12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	14							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nearfield South	17	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	18	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	19							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Reference Stations	41							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	42							<0.1	<0.1			<0.1	<0.1
	43	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Non-detect – No data plots available

Cable 1

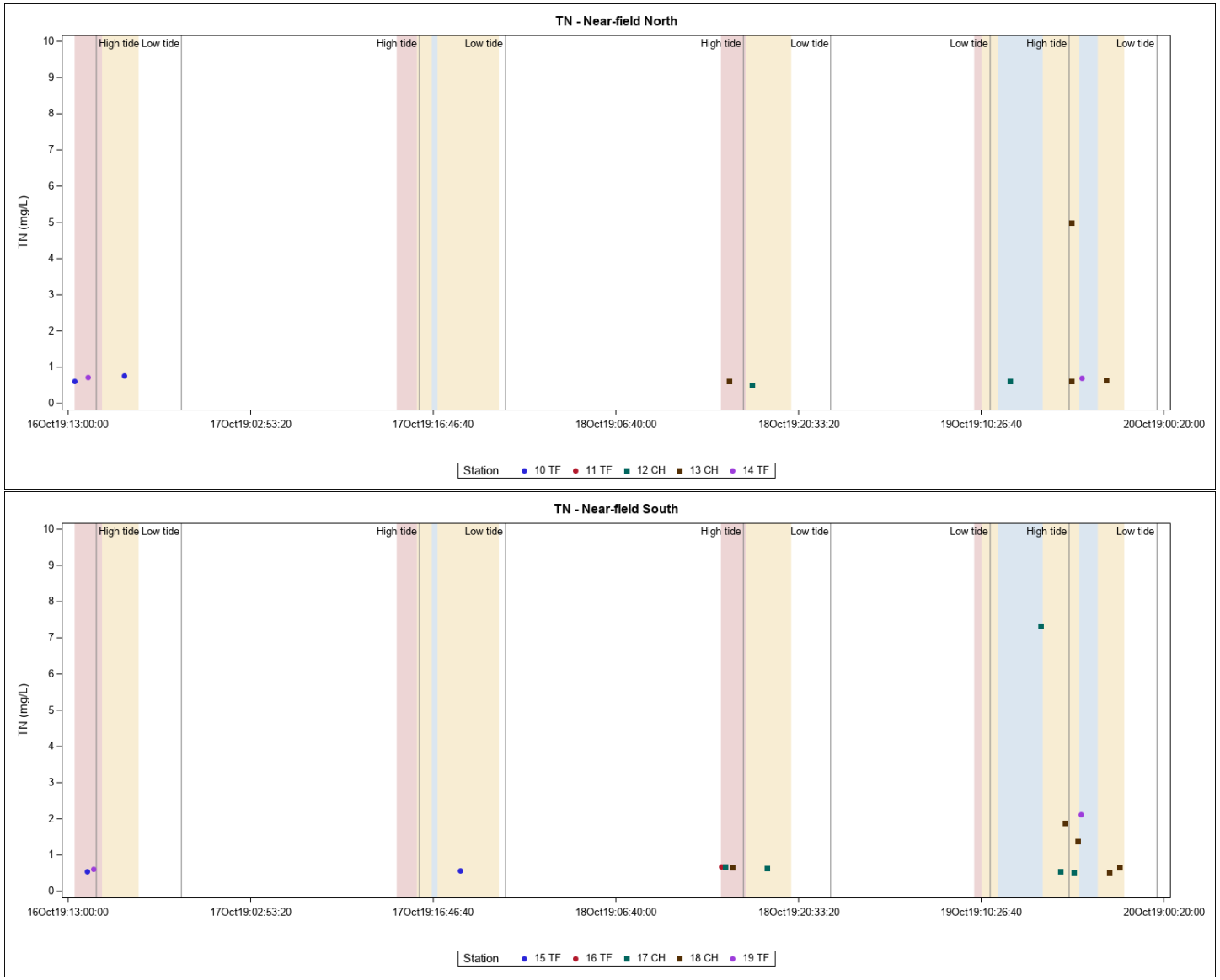
Total Nitrogen

TN (mg/L)		16 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.5	<0.5			0.61	0.61	<0.5	<0.5			<0.5	0.767
	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5
	12	<0.5	<0.5	<0.5	<0.5								
	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
	14	<0.5	<0.5	0.716	0.716	<0.5	<0.5						
Nearfield South	15	<0.5	<0.5			0.542	0.542	<0.5	<0.5			<0.5	<0.5
	16	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
	19	<0.5	<0.5	<0.5	<0.5	0.618	0.618						
Reference Stations	41	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
	42	<0.5	<0.5			<0.5	<0.5						
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						

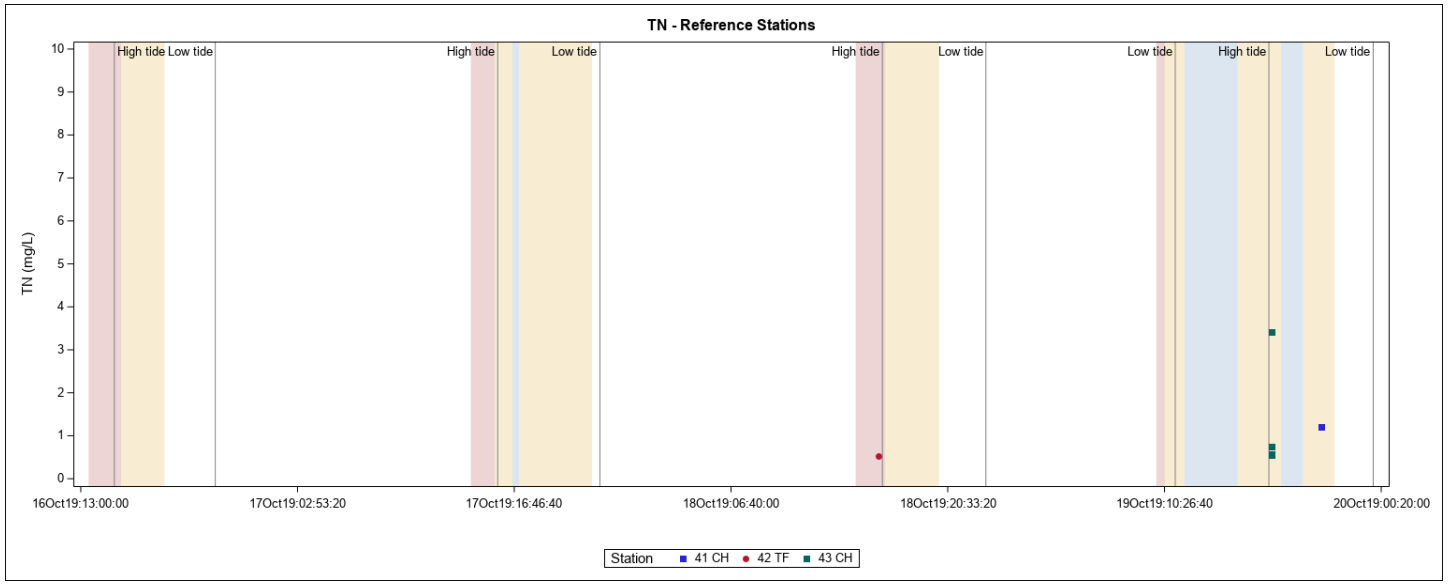
TN (mg/L)		17 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	11	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	13							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nearfield South	15	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	0.576
	16	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	<0.5
	17	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Reference Stations	41							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	42							<0.5	<0.5			<0.5	<0.5
	43							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

TN (mg/L)		18 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	11	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	<0.5
	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.502
	13	<0.5	<0.5	0.608	0.608	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nearfield South	16	0.674	0.674			<0.5	<0.5	<0.5	<0.5			<0.5	<0.5
	17	<0.5	<0.5	0.689	0.689			<0.5	<0.5	<0.5	0.647	<0.5	<0.5
	18	<0.5	<0.5	0.665	0.665	<0.5	<0.5						
	19	<0.5	<0.5			<0.5	<0.5						
Reference Stations	41	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	42	0.521	0.521	<0.5	<0.5	<0.5	<0.5						
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						

TN (mg/L)		19 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	25							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nearfield North	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.616	<0.5	<0.5	<0.5	<0.5
	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.621	<0.5	0.628	<0.5	4.99
	14							<0.5	0.698	<0.5	<0.5	<0.5	<0.5
Nearfield South	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.558	<0.5	7.33	<0.5	<0.5
	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.89	<0.5	<0.5	<0.5	1.39
	19							<0.5	2.13	<0.5	<0.5	<0.5	<0.5
Reference Stations	41							<0.5	<0.5	<0.5	1.21	<0.5	<0.5
	42							<0.5	<0.5			<0.5	<0.5
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.749	<0.5	0.574	<0.5	3.42



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 1

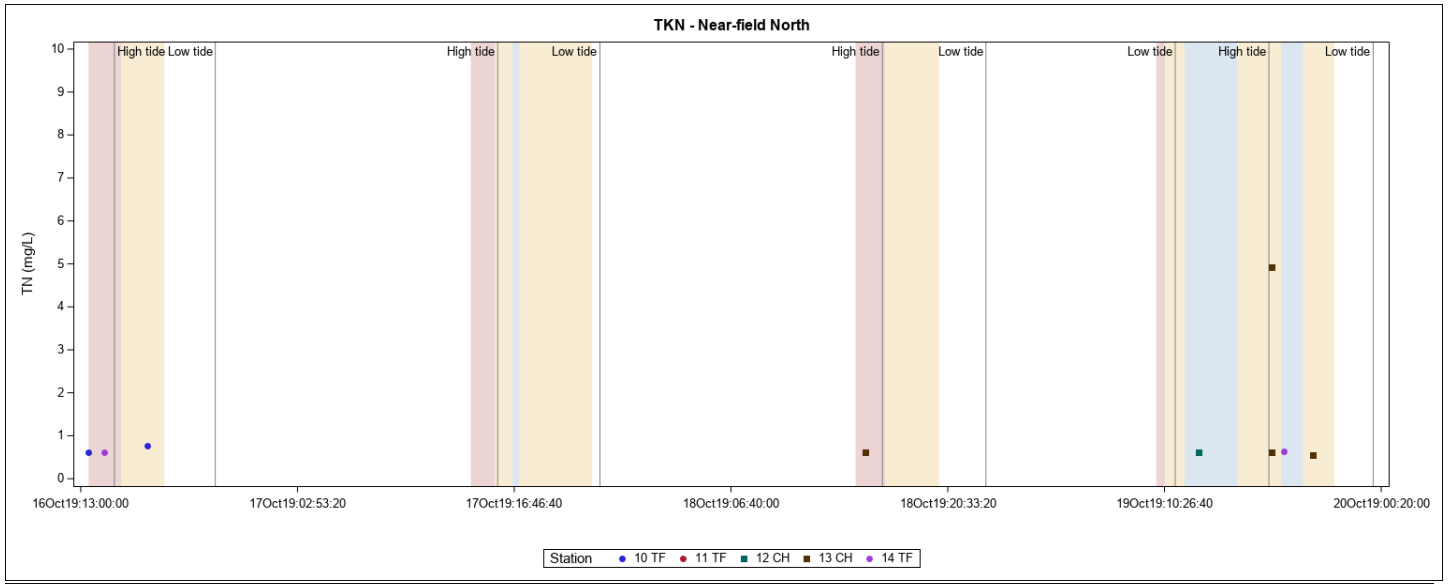
Total Keldjahl Nitrogen

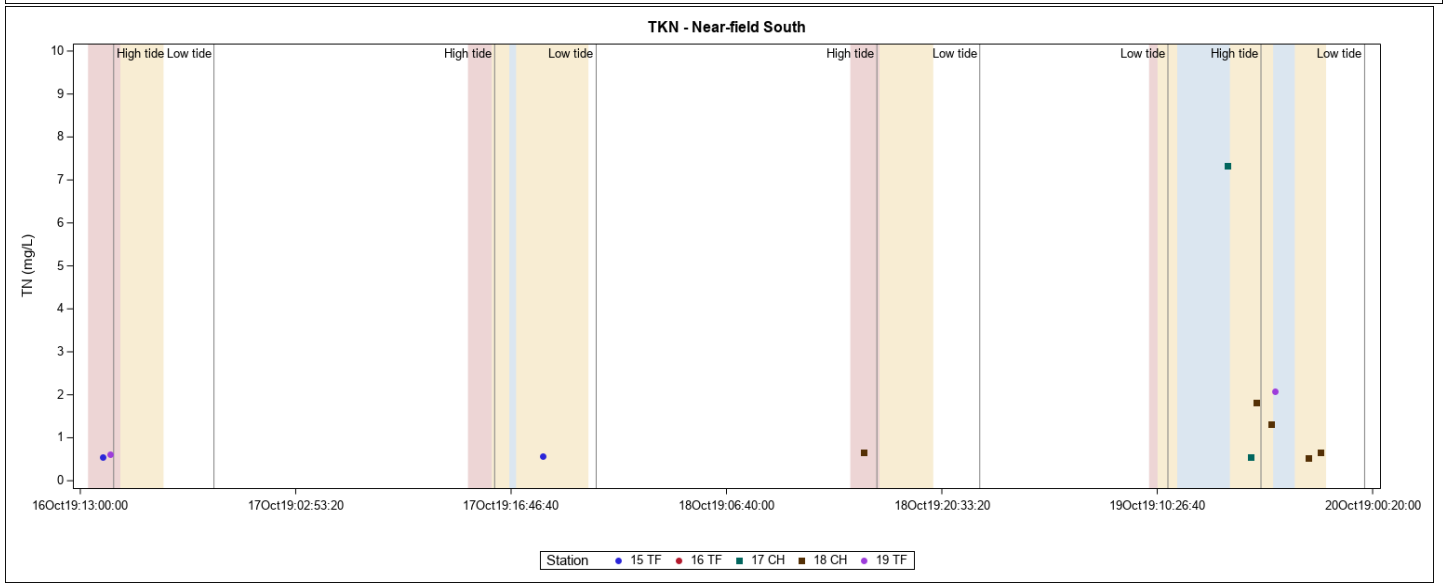
TKN (mg/L)		16 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.5	<0.5			0.61	0.61	<0.5	<0.5			<0.5	0.767
	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5
	12	<0.5	<0.5	<0.5	<0.5								
	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
	14	<0.5	<0.5	0.623	0.623	<0.5	<0.5						
Nearfield South	15	<0.5	<0.5			0.542	0.542	<0.5	<0.5			<0.5	<0.5
	16	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
	19	<0.5	<0.5	<0.5	<0.5	0.618	0.618						
Reference Stations	41	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
	42	<0.5	<0.5			<0.5	<0.5						
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						

TKN (mg/L)		17 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	11	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	13							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nearfield South	15	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	0.576
	16	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	<0.5
	17	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Reference Stations	41							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	42							<0.5	<0.5			<0.5	<0.5
	43							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

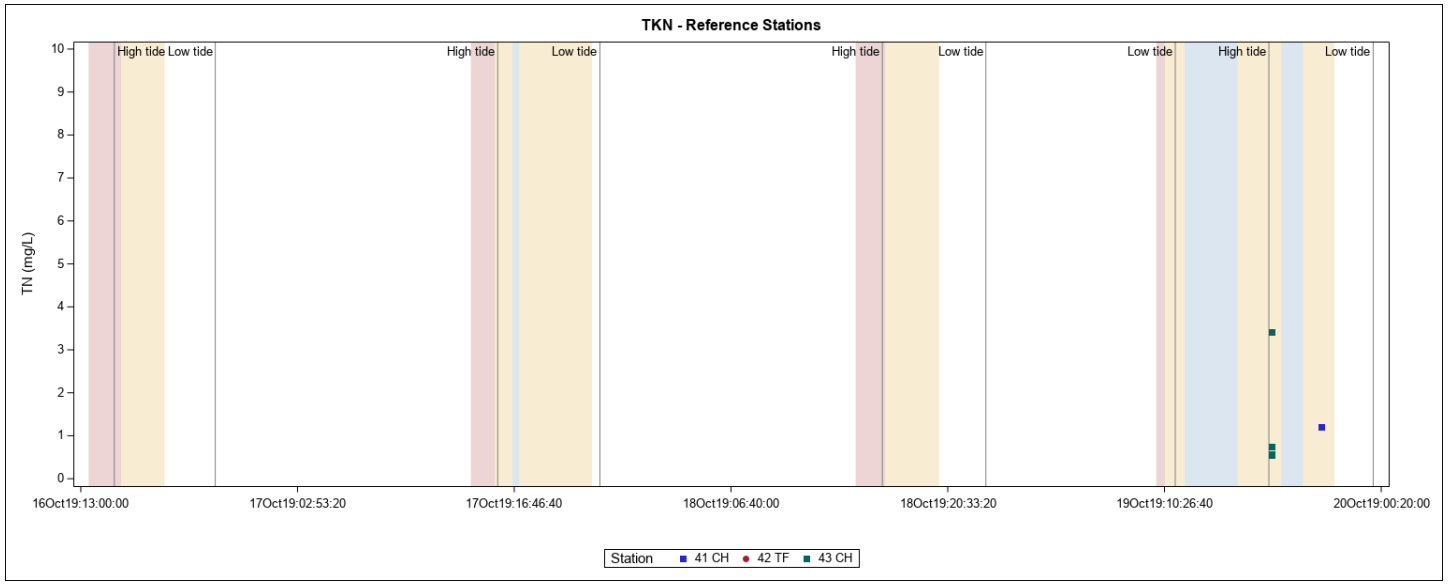
TKN (mg/L)		18 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	11	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	<0.5
	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	13	<0.5	<0.5	0.608	0.608	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nearfield South	16	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	<0.5
	17	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	18	<0.5	<0.5	0.665	0.665	<0.5	<0.5						
	19	<0.5	<0.5			<0.5	<0.5						
Reference Stations	41	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	42	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						

TKN (mg/L)		19 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	25							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nearfield North	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.616	<0.5	<0.5	<0.5	<0.5
	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.621	<0.5	0.556	<0.5	4.923
	14							<0.5	0.64	<0.5	<0.5	<0.5	<0.5
Nearfield South	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.558	<0.5	7.33	<0.5	<0.5
	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.826	<0.5	<0.5	<0.5	1.323
	19							<0.5	2.073	<0.5	<0.5	<0.5	<0.5
Reference Stations	41							<0.5	<0.5	<0.5	1.21	<0.5	<0.5
	42							<0.5	<0.5			<0.5	<0.5
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.749	<0.5	0.574	<0.5	3.42





Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



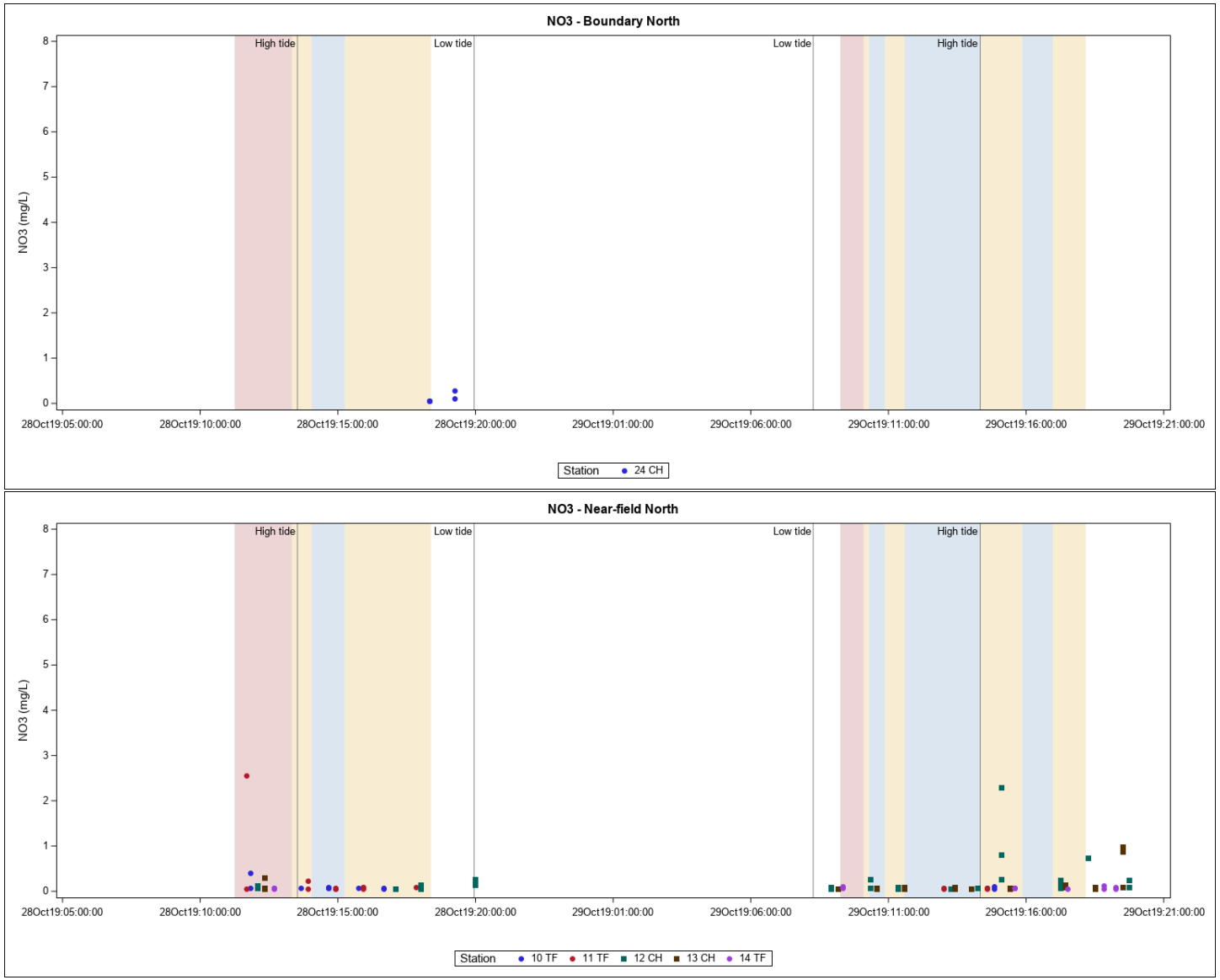
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 2

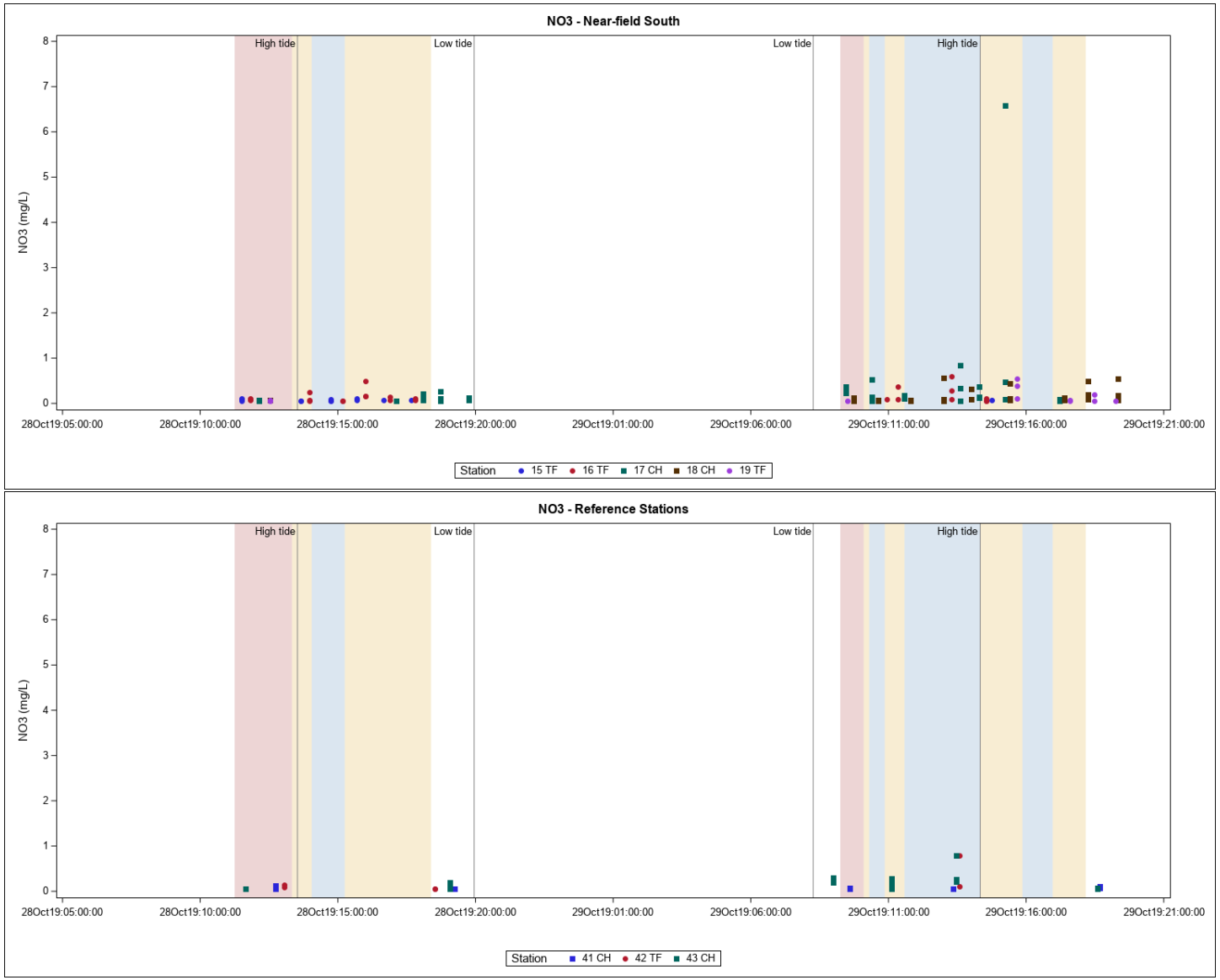
Nitrate

NO_3 (mg/L)		28 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	24							<0.05	0.052	0.055	0.101	0.051	0.278
Nearfield North	10	0.405	0.405			0.072	0.072	<0.05	0.072	<0.05	0.088	<0.05	0.08
	11	0.061	0.061			2.56	2.56	<0.05	0.23	<0.05	0.063	<0.05	0.095
	12	0.12	0.12	0.066	0.066	0.071	0.071	<0.05	0.147	<0.05	0.258	<0.05	0.235
	13	0.064	0.064	0.058	0.058	0.303	0.303						
	14	0.071	0.071	0.062	0.062	0.069	0.069						
Nearfield South	15	0.101	0.101	0.056	0.056	0.098	0.098	0.059	0.077	<0.05	0.082	<0.05	0.108
	16	0.093	0.093	0.103	0.103	0.076	0.076	0.055	0.167	0.051	0.056	<0.05	0.491
	17	<0.05	<0.05	0.067	0.067	0.056	0.056	0.052	0.132	<0.05	0.257	<0.05	0.215
	18	0.068	0.068	0.072	0.072	0.077	0.077						
	19	0.06	0.06	0.055	0.055	0.067	0.067						
Reference Stations	41	0.056	0.056	0.117	0.117	0.058	0.058	0.057	0.057	0.051	0.051	0.051	0.051
	42	<0.05	<0.05	0.143	0.143	0.092	0.092	0.057	0.057			0.052	0.052
	43	<0.05	<0.05	0.06	0.06	0.061	0.061	0.064	0.064	0.136	0.136	0.193	0.193

NO_3 (mg/L)		29 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10							<0.05	<0.05	0.054	0.054	0.115	0.115
	11							<0.05	0.07			0.059	0.079
	12	0.08	0.08	0.087	0.087	0.051	0.051	0.051	2.29	<0.05	0.816	<0.05	0.263
	13	0.06	0.06	<0.05	<0.05	0.063	0.063	0.058	0.142	<0.05	0.873	<0.05	0.986
	14	0.074	0.074			0.103	0.103	<0.05	0.088	0.068	0.068	0.058	0.129
Nearfield South	15							<0.05	<0.05	0.071	0.071	<0.05	<0.05
	16							0.063	0.599	0.061	0.061	0.082	0.276
	17	0.281	0.281	0.364	0.364	0.229	0.229	0.088	6.58	0.057	0.183	<0.05	0.847
	18	0.12	0.12	0.056	0.056	0.076	0.076	<0.05	0.565	<0.05	0.497	0.057	0.187
	19	0.058	0.058					0.055	0.193	0.389	0.389	<0.05	0.547
Reference Stations	41	0.061	0.061	0.065	0.065	0.064	0.064	0.051	0.067	<0.05	0.101	<0.05	0.069
	42							<0.05	<0.05	0.101	0.101	<0.05	0.788
	43	0.198	0.198	0.295	0.295	0.213	0.213	0.062	0.209	0.059	0.265	0.06	0.791



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 2

Nitrite

NO_2 (mg/L)		28 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	24							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nearfield North	10	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	11	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						
	14	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						
Nearfield South	15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	16	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	18	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						
	19	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						
Reference Stations	41	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	42	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	43	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

NO_2 (mg/L)		29 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	11							<0.05	<0.05			<0.05	<0.05
	12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	14	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nearfield South	15							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	16							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	18	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	19	<0.05	<0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Reference Stations	41	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	42							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	43	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

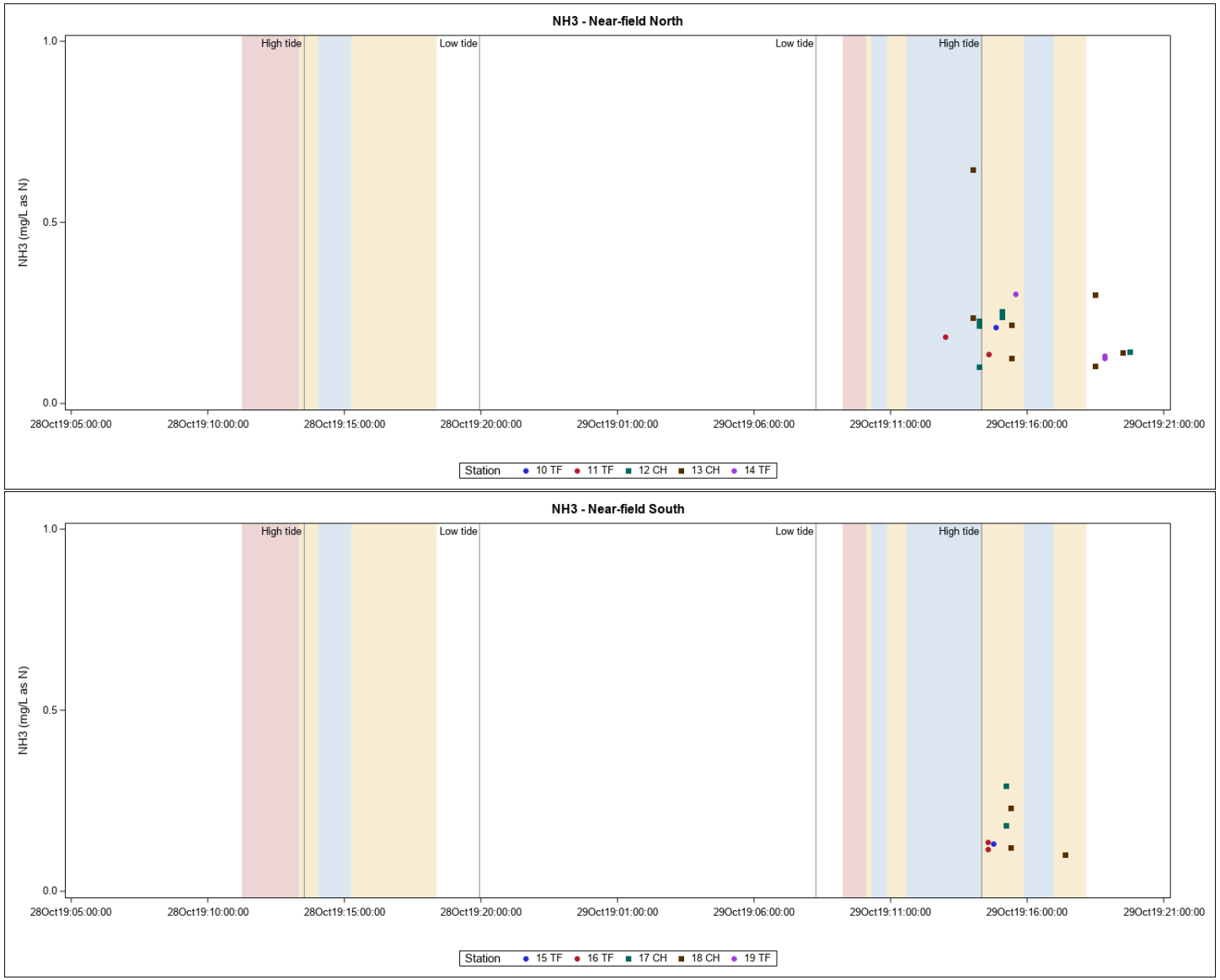
Non-detect – No data plots available

Cable 2

Ammonia

NH_3 (mg/L)		28 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	24							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nearfield North	10	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	11	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
	14	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
Nearfield South	15	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	16	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	17	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	18	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
	19	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
Reference Stations	41	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	42	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	43	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

NH_3 (mg/L)		29 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10							0.211	0.211	<0.1	<0.1	<0.1	<0.1
	11							<0.1	0.183			<0.1	0.136
	12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.255	<0.1	0.239	<0.1	0.214
	13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.301	<0.1	0.237	<0.1	0.645
	14	<0.1	<0.1			<0.1	<0.1	<0.1	0.125	0.303	0.303	<0.1	0.131
Nearfield South	15							<0.1	<0.1	0.132	0.132	<0.1	<0.1
	16							<0.1	0.117	0.137	0.137	<0.1	<0.1
	17	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.291	<0.1	<0.1	<0.1	0.182
	18	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.12	<0.1	0.102	<0.1	0.229
	19	<0.1	<0.1					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Reference Stations	41	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	42							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	43	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1



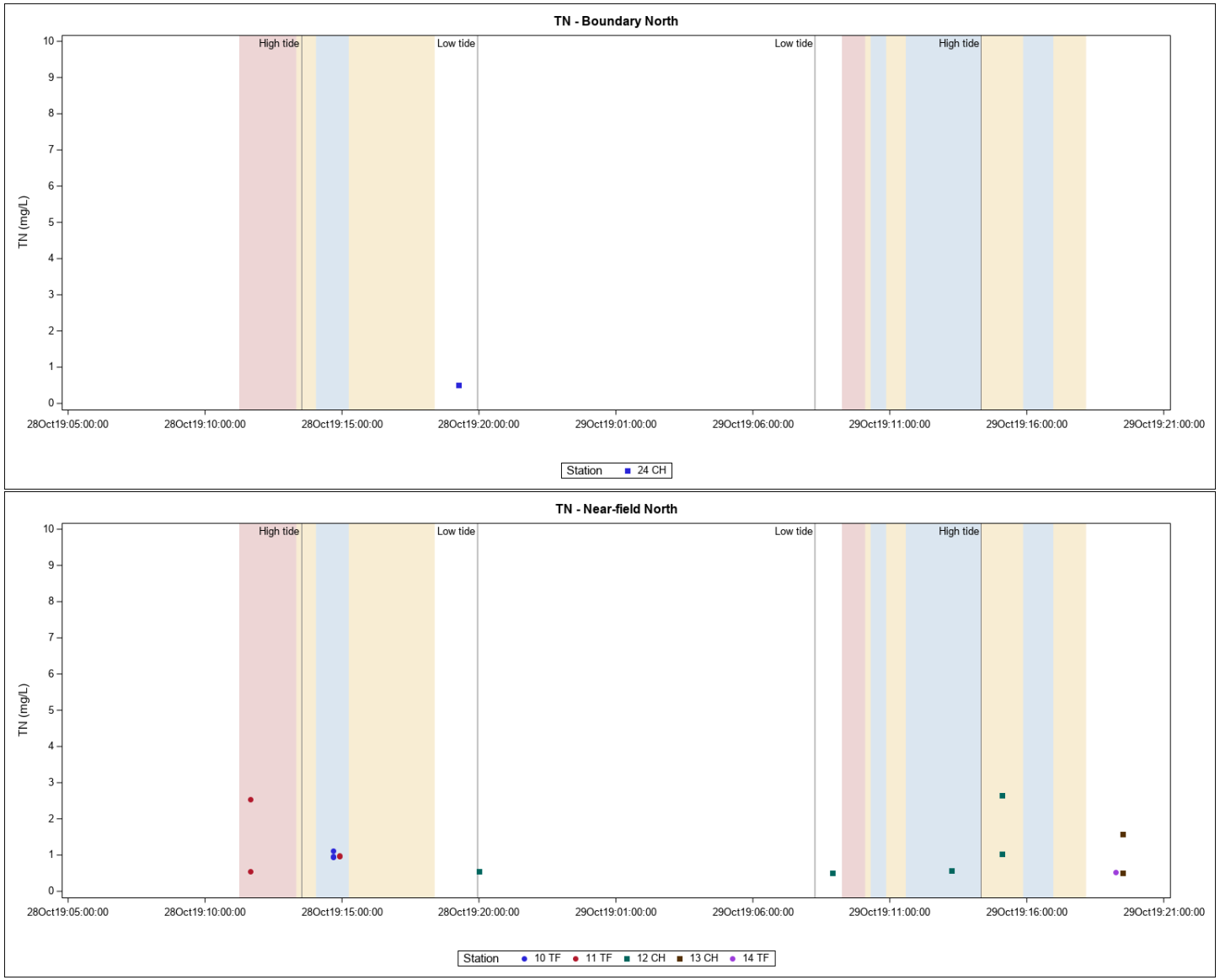
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 2

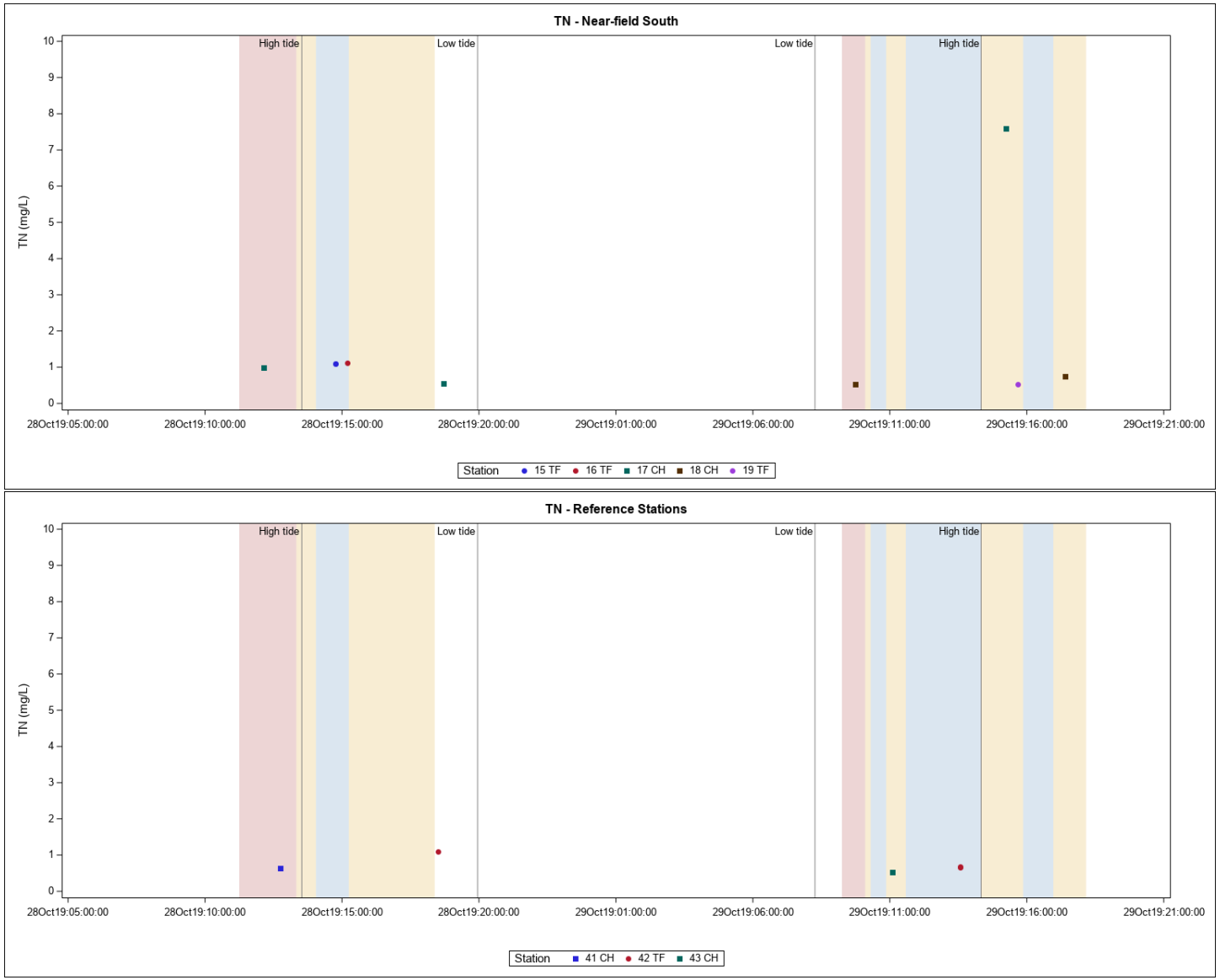
Total Nitrogen

TN (mg/L)		28 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	24							<0.5	<0.5	<0.5	<0.5	<0.5	0.5
Nearfield North	10	<0.5	<0.5			<0.5	<0.5	<0.5	1.12	<0.5	0.953	<0.5	0.956
	11	0.549	0.549			2.55	2.55	<0.5	0.966	<0.5	0.998	<0.5	<0.5
	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.545	<0.5	0.54
	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
Nearfield South	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.09	<0.5	<0.5	<0.5	1.09
	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.11	<0.5	<0.5	<0.5	<0.5
	17	0.993	0.993	<0.5	<0.5	0.98	0.98	<0.5	<0.5	<0.5	0.546	<0.5	<0.5
	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
Reference Stations	41	<0.5	<0.5	0.633	0.633	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	42	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	1.1			<0.5	<0.5
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

TN (mg/L)		29 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	11							<0.5	<0.5			<0.5	<0.5
	12	<0.5	<0.5	<0.5	<0.5	0.511	0.511	<0.5	2.66	<0.5	1.04	<0.5	0.562
	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.51	<0.5	<0.5	<0.5	1.57
	14	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.535
Nearfield South	15							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	16							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	7.59	<0.5	<0.5	<0.5	<0.5
	18	<0.5	<0.5	<0.5	<0.5	0.524	0.524	<0.5	0.739	<0.5	<0.5	<0.5	<0.5
	19	<0.5	<0.5					<0.5	<0.5	<0.5	<0.5	<0.5	0.526
Reference Stations	41	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	42							0.662	0.662	<0.5	<0.5	<0.5	0.683
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.518	<0.5	<0.5



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



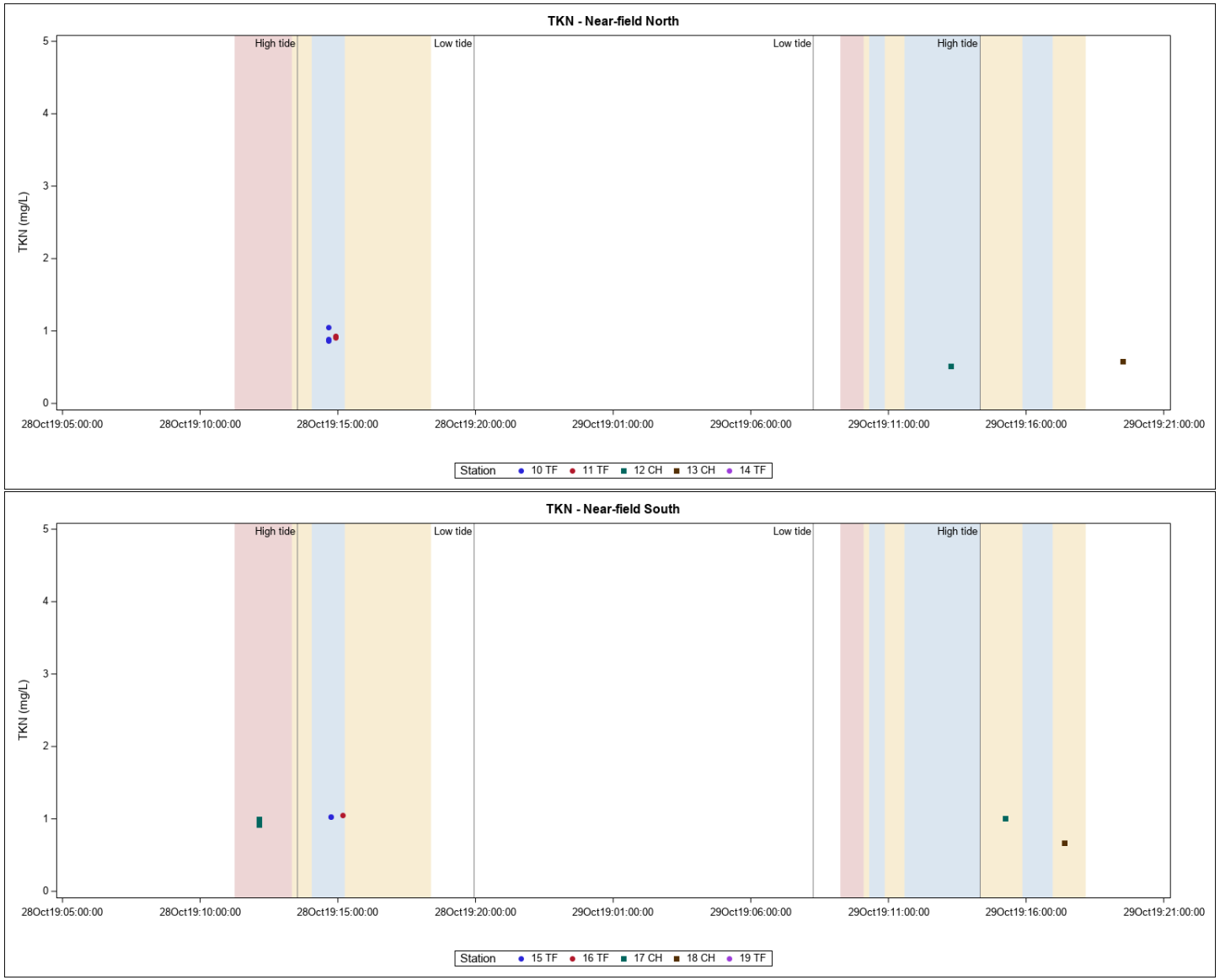
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 2

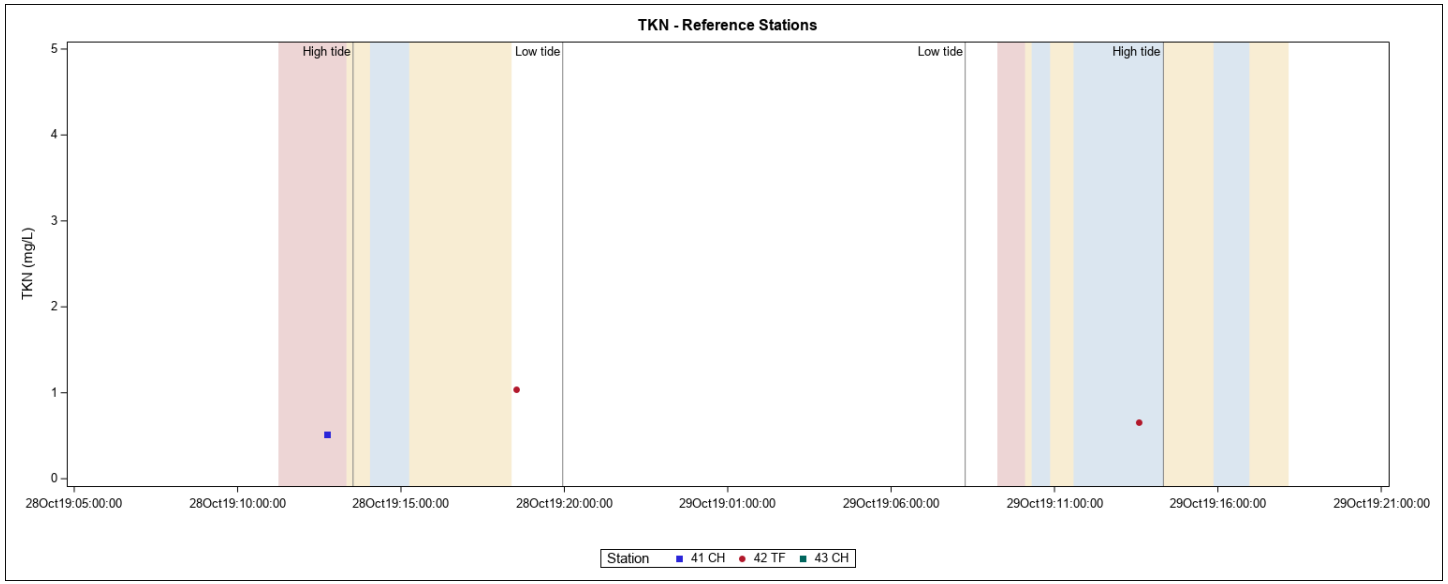
Total Keldjahl Nitrogen

TKN (mg/L)		28 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	24							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nearfield North	10	<0.5	<0.5			<0.5	<0.5	<0.5	1.049	<0.5	0.866	<0.5	0.891
	11	<0.5	<0.5			<0.5	<0.5	<0.5	0.906	<0.5	0.935	<0.5	<0.5
	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
Nearfield South	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.031	<0.5	<0.5	<0.5	1.028
	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.055	<0.5	<0.5	<0.5	<0.5
	17	0.993	0.993	<0.5	<0.5	0.924	0.924	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
Reference Stations	41	<0.5	<0.5	0.516	0.516	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	42	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.043	1.043			<0.5	<0.5
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

TKN (mg/L)		29 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	11							<0.5	<0.5			<0.5	<0.5
	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.512
	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.584
	14	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nearfield South	15							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	16							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.01	<0.5	<0.5	<0.5	<0.5
	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.672	<0.5	<0.5	<0.5	<0.5
	19	<0.5	<0.5					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Reference Stations	41	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	42							0.662	0.662	<0.5	<0.5	<0.5	<0.5
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



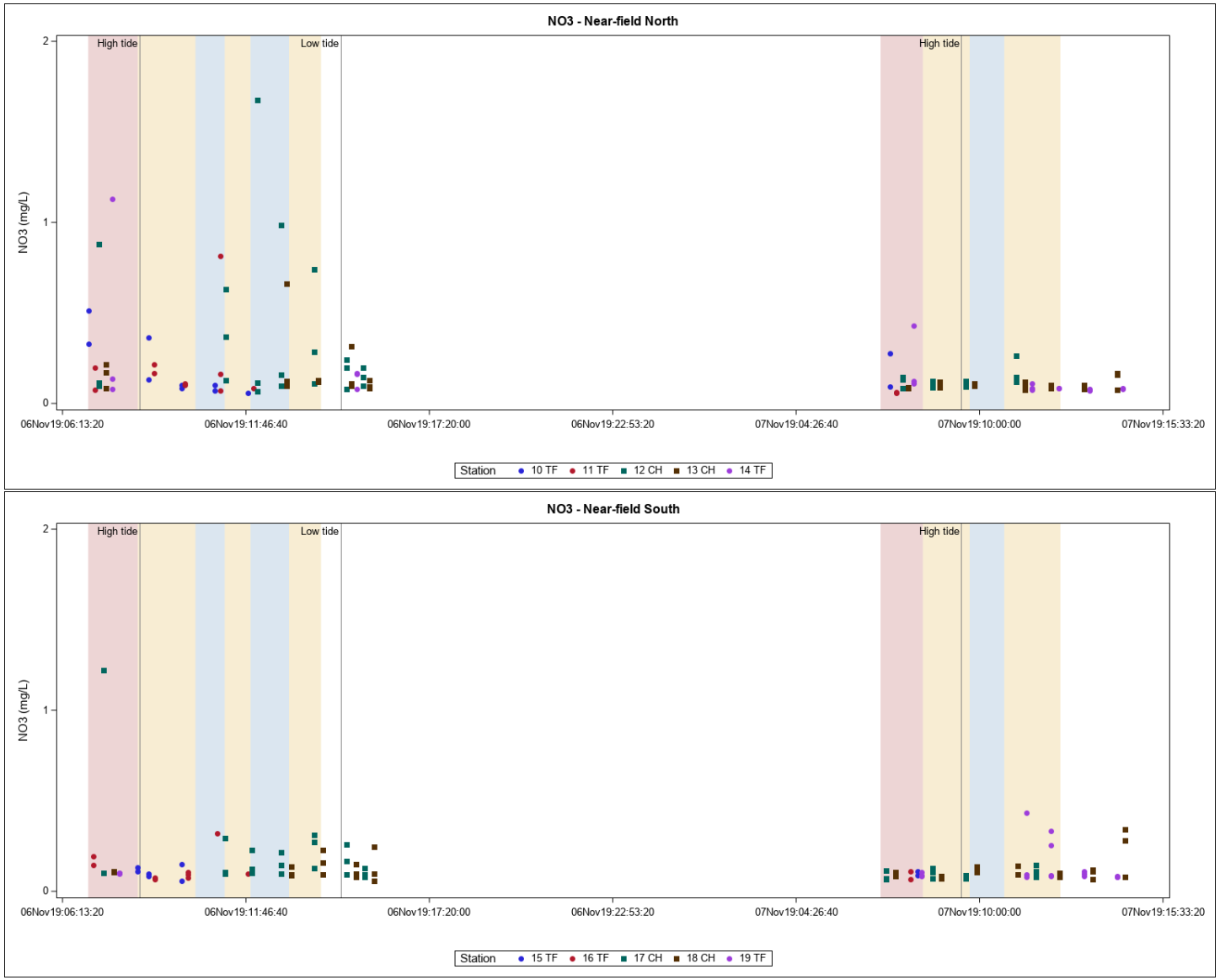
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 3

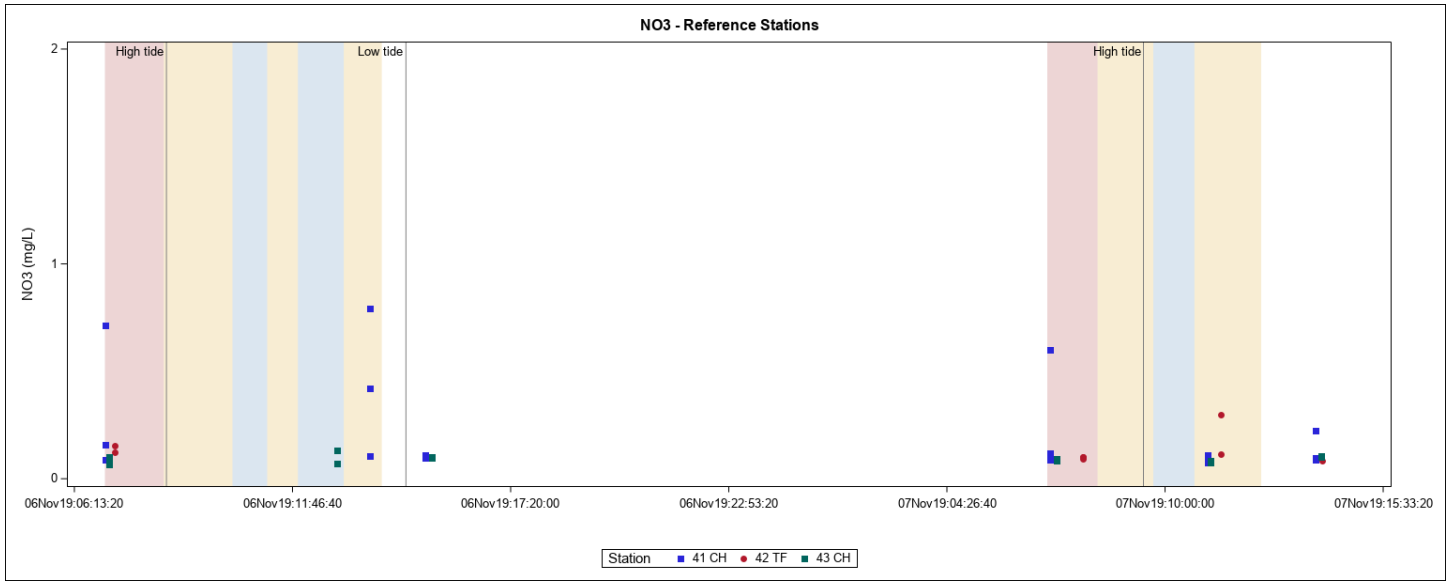
Nitrate

NO_3 (mg/L)		06 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	0.33	0.33			0.514	0.514	0.1	0.365			0.058	0.132
	11	0.196	0.196			0.073	0.073	0.07	0.167			0.084	0.815
	12	0.097	0.097	0.116	0.116	0.882	0.882	0.069	0.63	0.098	0.738	0.081	1.678
	13	0.214	0.214	0.085	0.085	0.173	0.173	0.097	0.317	0.092	0.126	0.084	0.661
	14	1.128	1.128	0.138	0.138	0.081	0.081	0.163	0.163	0.081	0.081	0.167	0.167
Nearfield South	15	0.112	0.112			0.133	0.133	0.056	0.096			0.082	0.148
	16	0.191	0.191			0.144	0.144	0.075	0.321			0.067	0.107
	17	<0.05	<0.05	0.103	0.103	1.22	1.22	0.08	0.165	0.104	0.31	0.093	0.295
	18	0.108	0.108	0.104	0.104	0.109	0.109	0.098	0.246	0.056	0.156	0.092	0.15
	19	0.1	0.1	0.1	0.1	0.099	0.099						
Reference Stations	41	0.157	0.157	0.086	0.086	0.712	0.712	0.098	0.422	<0.05	0.792	0.104	0.111
	42	0.155	0.155			0.124	0.124	0.098	0.098				
	43	0.078	0.078	0.067	0.067	0.103	0.103	0.072	0.1	0.095	0.134	0.073	0.103

NO_3 (mg/L)		07 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	0.277	0.277			0.093	0.093						
	11	0.062	0.062			0.058	0.058						
	12	0.144	0.144	0.084	0.084	0.13	0.13	0.087	0.264	0.099	0.122	0.103	0.144
	13	0.083	0.083	0.087	0.087	0.086	0.086	0.073	0.106	<0.05	0.157	0.083	0.167
	14	0.109	0.109	0.123	0.123	0.431	0.431	0.073	0.085	0.111	0.111	0.069	0.085
Nearfield South	15	0.088	0.088			0.11	0.11						
	16	0.109	0.109			0.065	0.065						
	17	0.065	0.065	0.116	0.116	0.07	0.07	0.087	0.145	0.072	0.109	0.07	0.081
	18	0.099	0.099	0.107	0.107	0.085	0.085	0.07	0.343	0.07	0.281	0.065	0.118
	19	0.105	0.105	0.087	0.087	0.084	0.084	0.08	0.257	0.079	0.432	0.077	0.333
Reference Stations	41	0.087	0.087	0.117	0.117	0.107	0.601	0.077	0.087	0.104	0.225	0.097	0.108
	42	0.092	0.101			0.1	0.1	0.297	0.297			0.084	0.114
	43	0.084	0.084	0.089	0.089	0.091	0.091	0.075	0.101	0.077	0.107	0.077	0.107



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



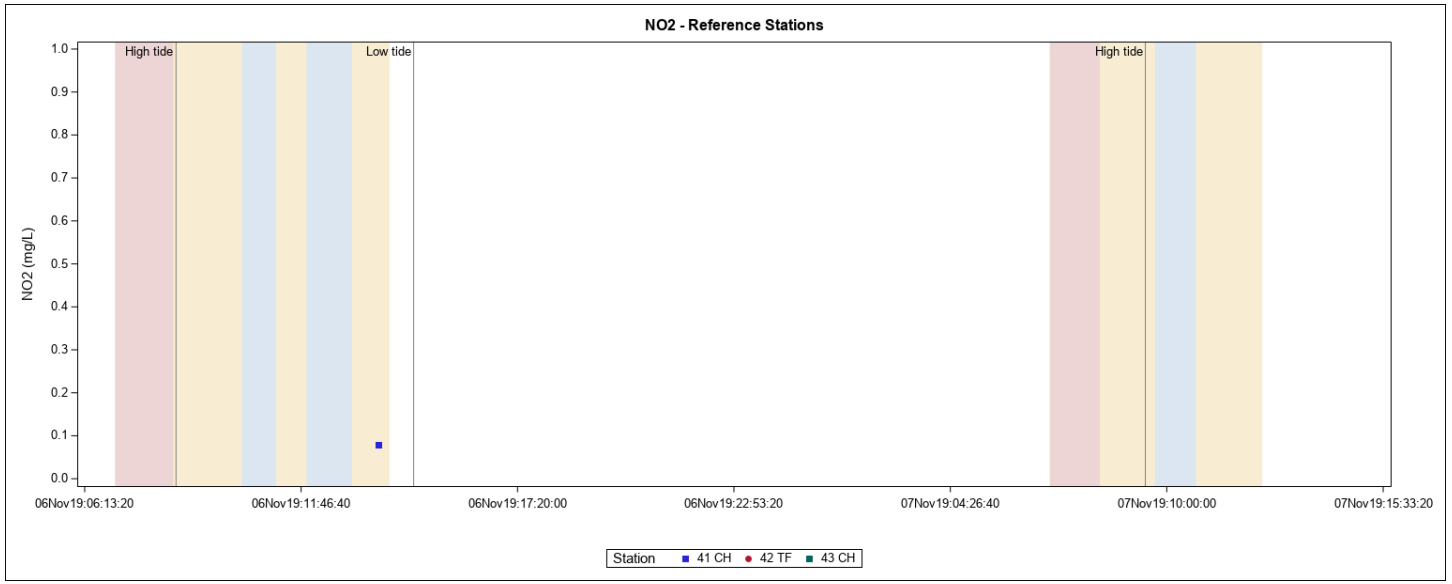
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 3

Nitrite

NO_2 (mg/L)		06 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	11	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	14	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nearfield South	15	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	16	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	18	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	19	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05						
Reference Stations	41	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.079	<0.05	<0.05
	42	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05				
	43	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

NO_2 (mg/L)		07 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.05	<0.05			<0.05	<0.05						
	11	<0.05	<0.05			<0.05	<0.05						
	12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	14	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nearfield South	15	<0.05	<0.05			<0.05	<0.05						
	16	<0.05	<0.05			<0.05	<0.05						
	17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	18	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	19	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Reference Stations	41	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	42	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05
	43	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05



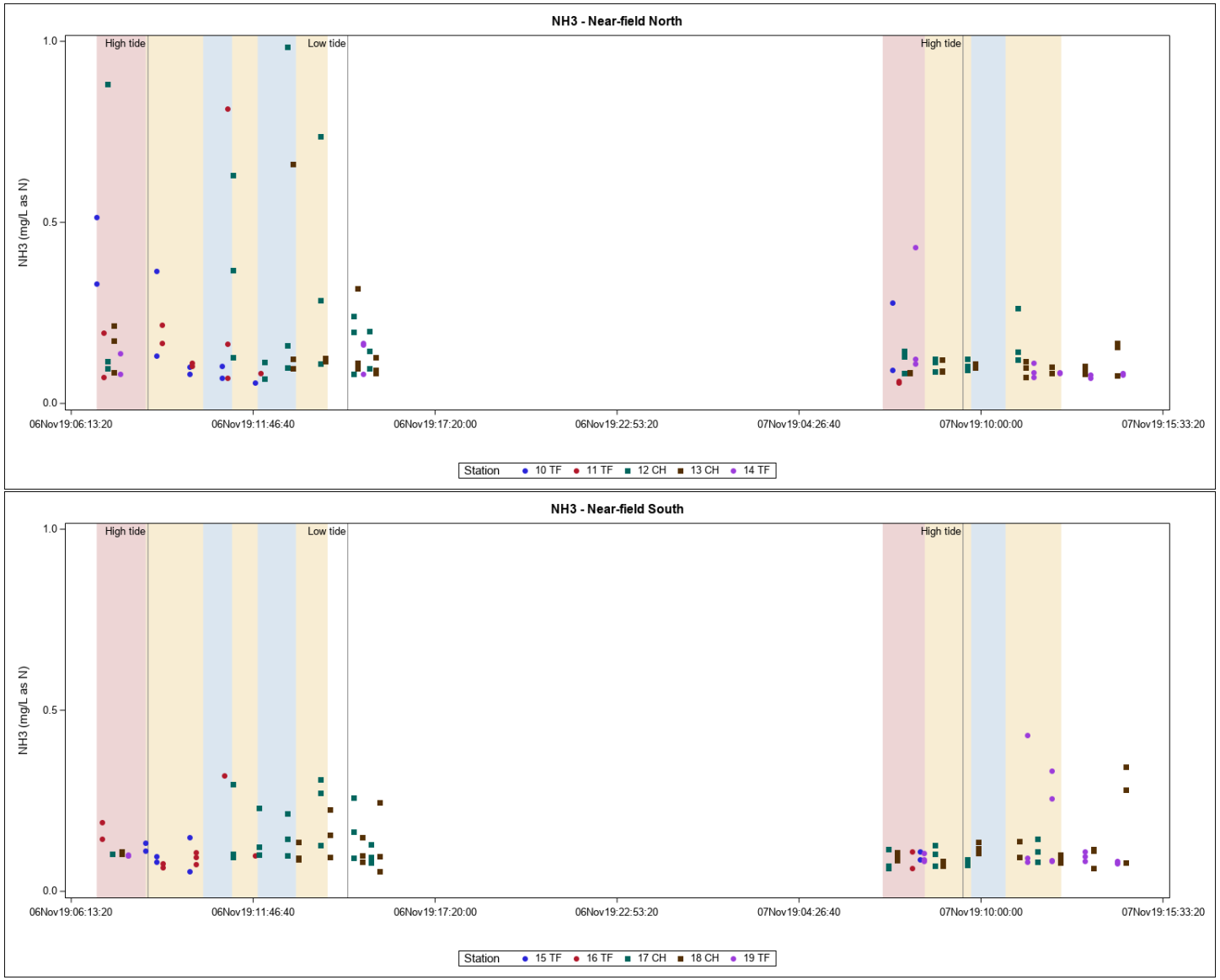
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 3

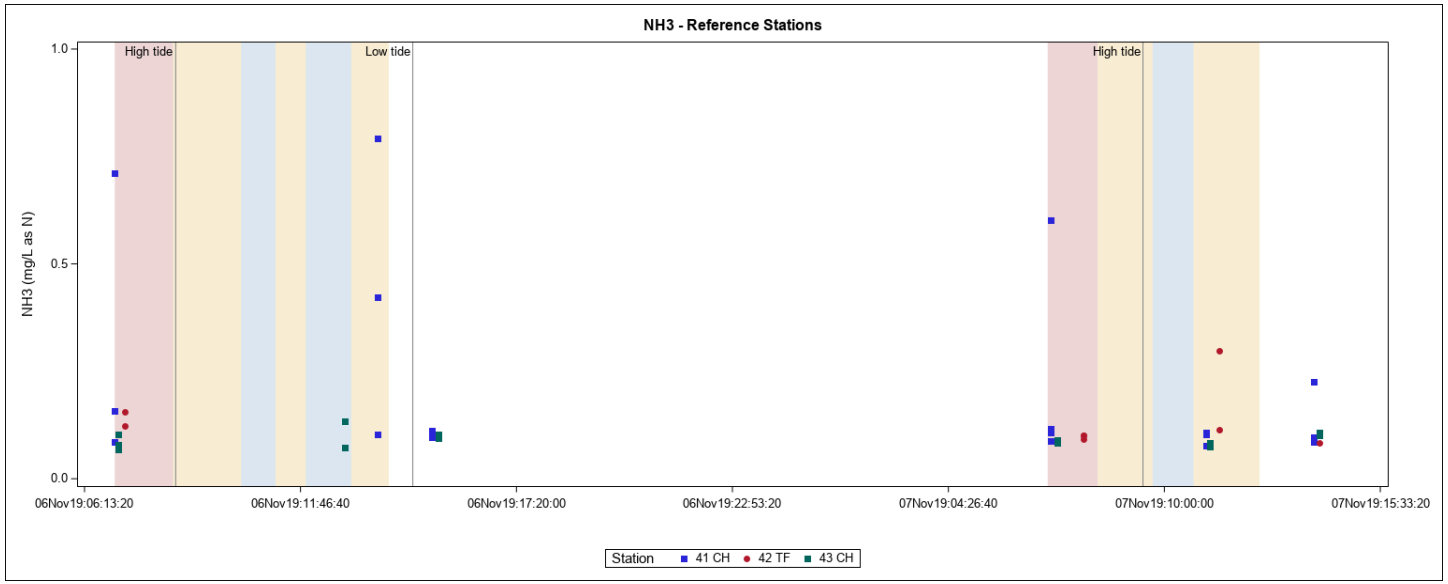
Ammonia

NH_3 (mg/L)		06 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	11	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.116	<0.1	0.177	<0.1	<0.1
	13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.123	<0.1	<0.1	<0.1	0.143
	14	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.157	0.157	0.185	0.185
Nearfield South	15	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	16	<0.1	<0.1			<0.1	<0.1	<0.1	0.104			<0.1	<0.1
	17	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.172	<0.1	0.112	<0.1	0.11
	18	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.177	<0.1	0.235	<0.1	0.104
	19	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
Reference Stations	41	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.125	0.129	0.158	0.106	0.184
	42	<0.1	<0.1			<0.1	<0.1	0.134	0.134				
	43	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

NH_3 (mg/L)		07 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.1	<0.1			<0.1	<0.1						
	11	<0.1	<0.1			<0.1	<0.1						
	12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	14	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nearfield South	15	<0.1	<0.1			<0.1	<0.1						
	16	<0.1	<0.1			<0.1	<0.1						
	17	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	18	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.107	<0.1	<0.1	<0.1	<0.1
	19	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Reference Stations	41	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	42	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1			<0.1	<0.1
	43	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



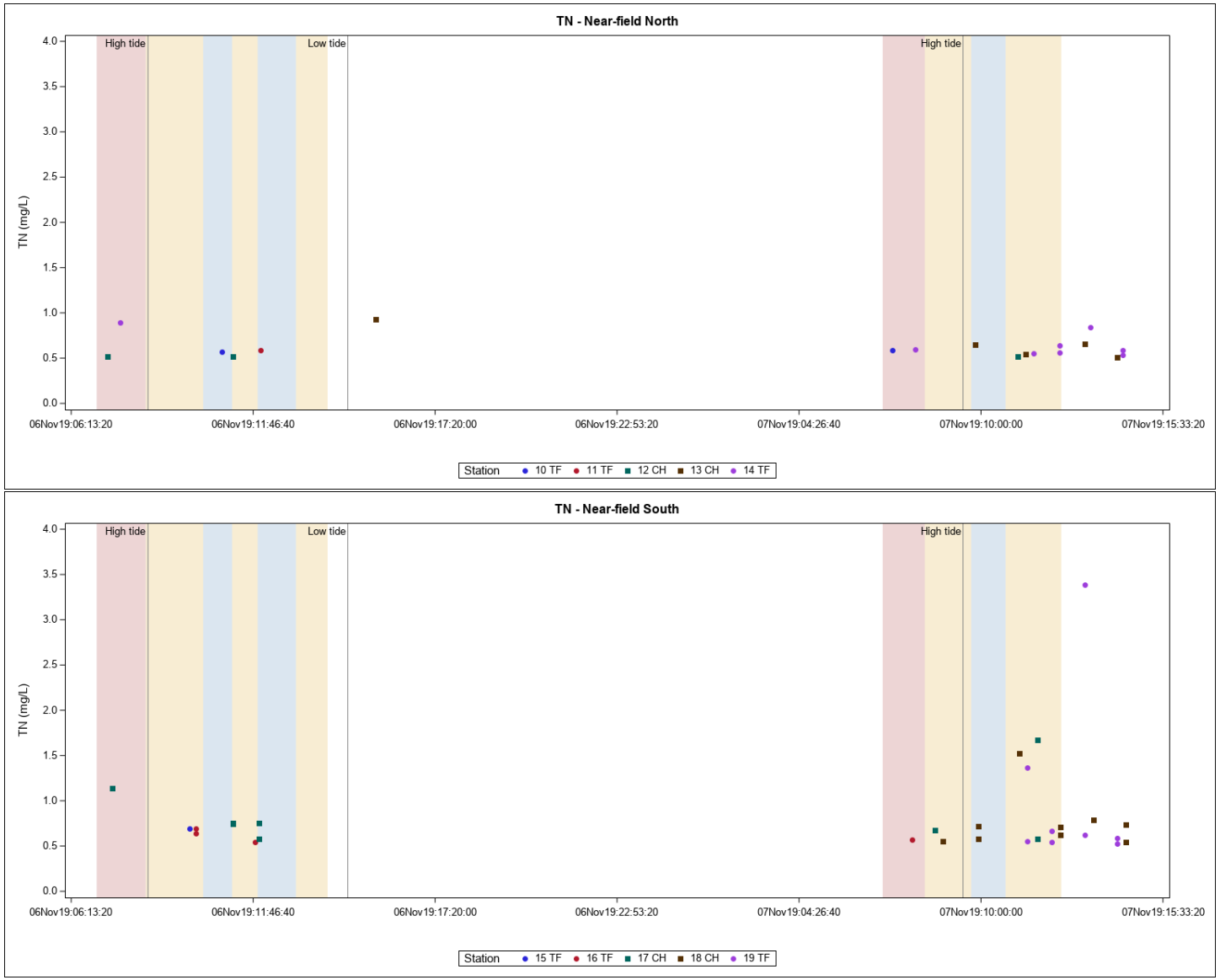
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 3

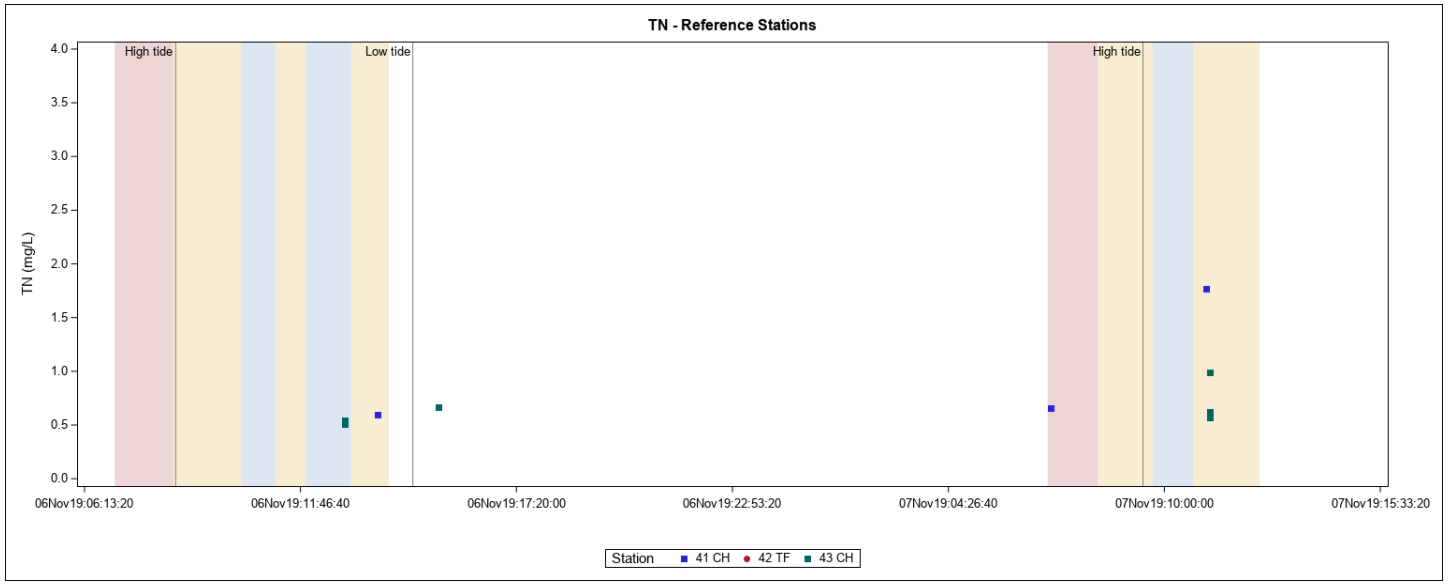
Total Nitrogen

TN (mg/L)		06 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	0.566
	11	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	0.59
	12	<0.5	<0.5	0.52	0.52	<0.5	<0.5	<0.5	<0.5	<0.5	0.52	<0.5	<0.5
	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.929	<0.5	<0.5
	14	0.894	0.894	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nearfield South	15	<0.5	<0.5			<0.5	<0.5	<0.5	0.695			<0.5	<0.5
	16	<0.5	<0.5			<0.5	<0.5	<0.5	0.641			<0.5	0.695
	17	<0.5	<0.5	1.14	1.14	<0.5	<0.5	<0.5	0.757	<0.5	0.575	<0.5	0.745
	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
Reference Stations	41	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.597	<0.5	<0.5
	42	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5				
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.54	0.665	<0.5	0.505	<0.5	<0.5

TN (mg/L)		07 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	0.588	0.588			<0.5	<0.5						
	11	<0.5	<0.5			<0.5	<0.5						
	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.514	<0.5	<0.5
	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.541	<0.5	0.656	<0.5	0.645
	14	<0.5	<0.5	0.598	0.598	<0.5	<0.5	<0.5	0.588	<0.5	<0.5	0.537	0.845
Nearfield South	15	<0.5	<0.5			<0.5	<0.5						
	16	<0.5	<0.5			0.572	0.572						
	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.575	<0.5	0.674	<0.5	1.67
	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.52	<0.5	0.718	<0.5	0.735
	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.589	<0.5	1.37	<0.5	3.39
Reference Stations	41	0.654	0.654	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.77	<0.5	<0.5
	42	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	<0.5
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.57	<0.5	0.991	<0.5	<0.5



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



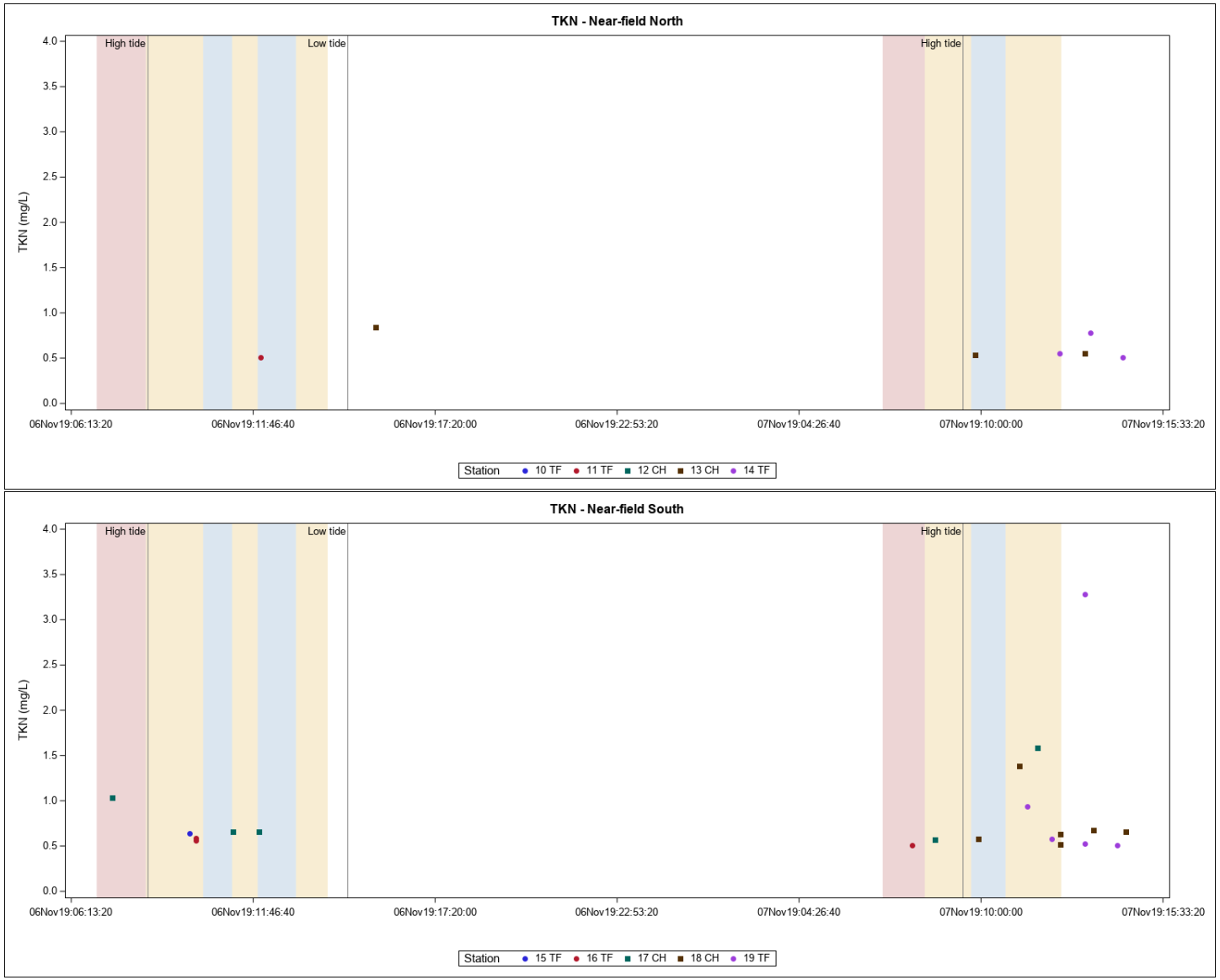
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 3

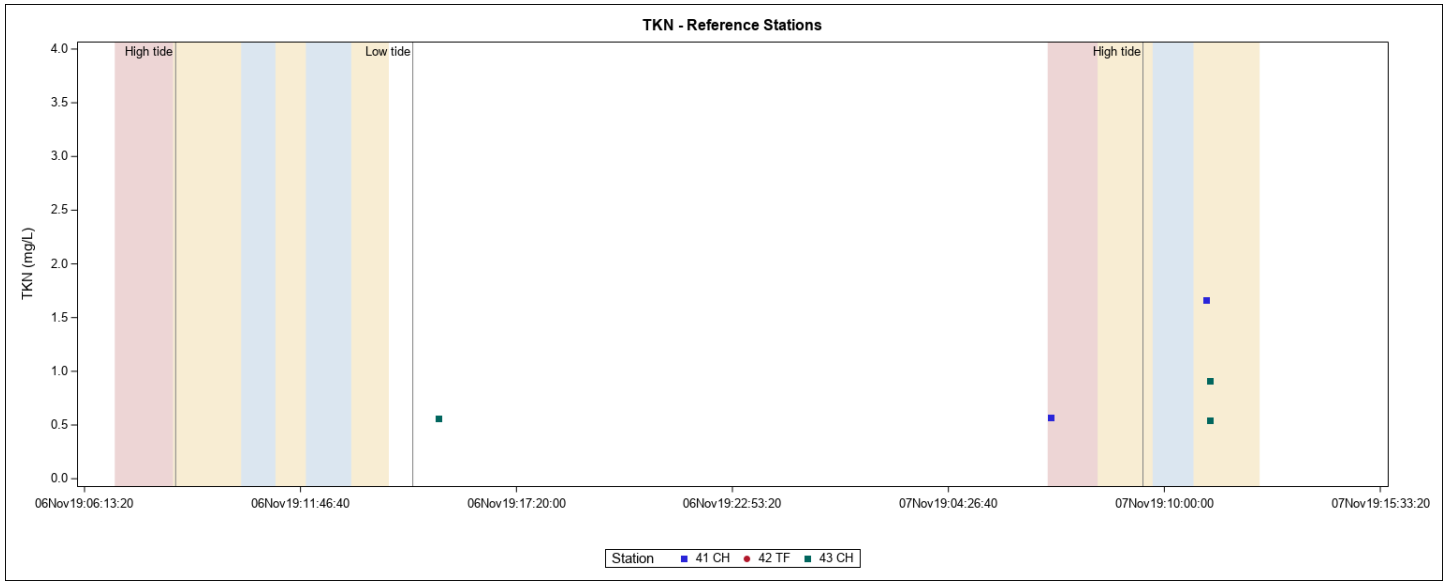
Total Keldjahl Nitrogen

TKN (mg/L)		06 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	<0.5
	11	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	0.506
	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.838	<0.5	<0.5
	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nearfield South	15	<0.5	<0.5			<0.5	<0.5	<0.5	0.639			<0.5	<0.5
	16	<0.5	<0.5			<0.5	<0.5	<0.5	0.566			<0.5	0.588
	17	<0.5	<0.5	1.037	1.037	<0.5	<0.5	<0.5	0.658	<0.5	<0.5	<0.5	<0.5
	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
Reference Stations	41	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	42	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5				
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.565	<0.5	<0.5	<0.5	<0.5

TKN (mg/L)		07 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.5	<0.5			<0.5	<0.5						
	11	<0.5	<0.5			<0.5	<0.5						
	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.553	<0.5	0.536
	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.505	<0.5	<0.5	<0.5	0.776
Nearfield South	15	<0.5	<0.5			<0.5	<0.5						
	16	<0.5	<0.5			0.507	0.507						
	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.57	<0.5	1.589
	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.382	<0.5	0.582	<0.5	0.656
	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.506	<0.5	0.938	<0.5	3.28
Reference Stations	41	0.567	0.567	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.667	<0.5	<0.5
	42	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	<0.5
	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.908	<0.5	<0.5



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

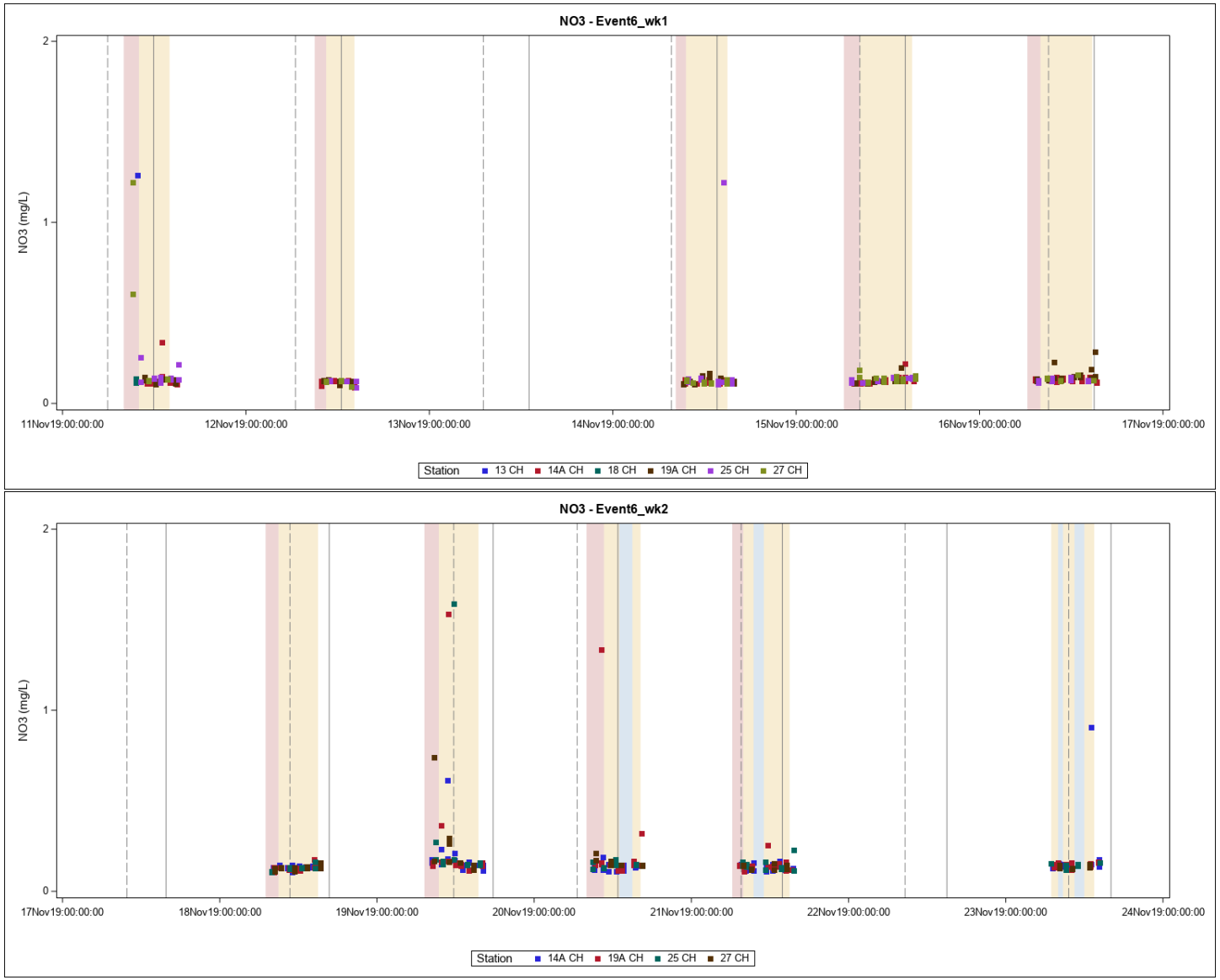


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

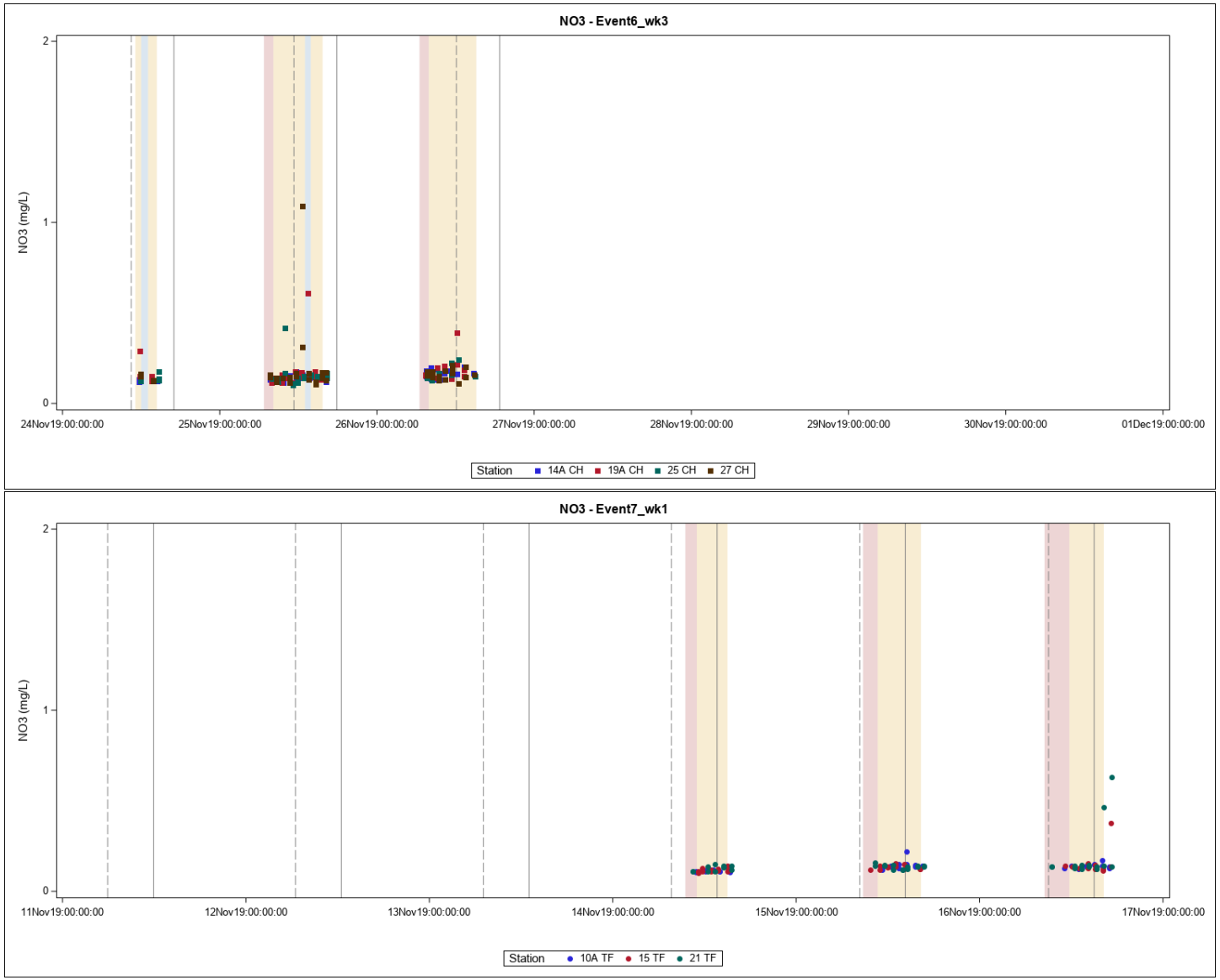
Hand Jet

Nitrate

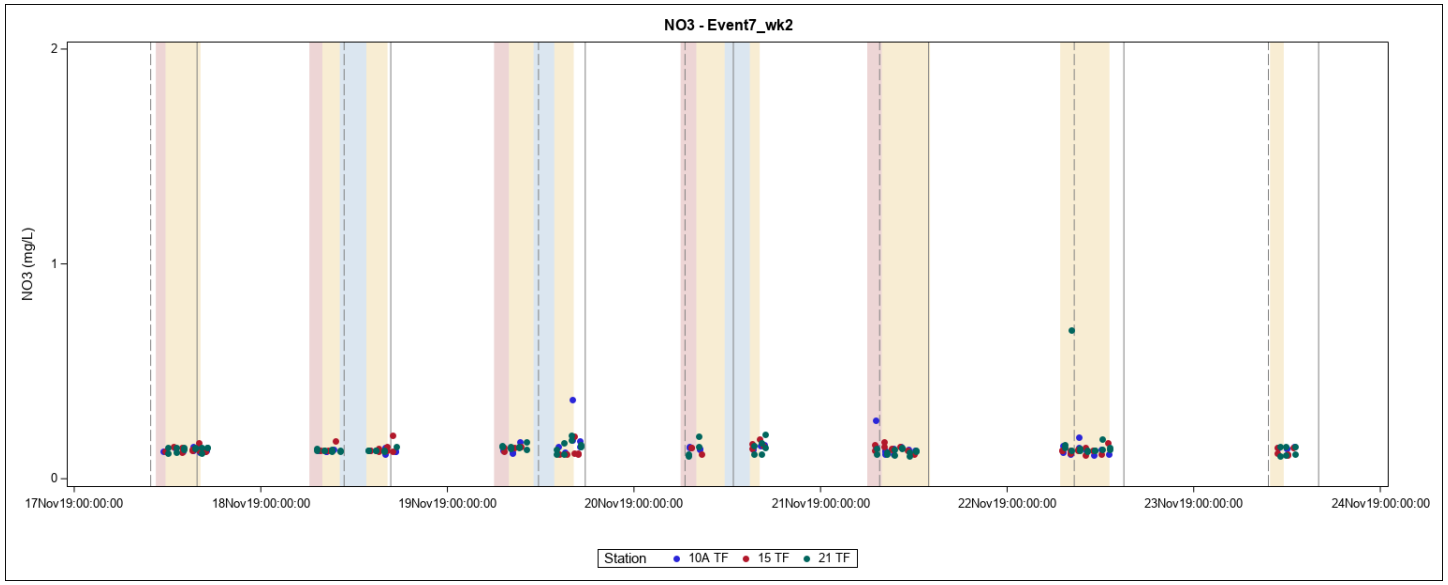
NO_3 (mg/L)		11 NOV 2019 – 18 DEC 2019							
		Before Start of Jet Plow				During Jet Plowing			
		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max
Location	Station								
West Side Boundary	10A	0.107	0.148	0.111	0.27	0.109	0.366	0.105	0.218
	11			0.117	0.117				
	15	0.126	0.146	0.117	0.158	0.109	0.154	0.102	0.376
West Side Reference	21	0.111	0.155	0.106	0.157	0.107	0.629	<0.05	0.692
East Side Boundary	13	1.26	1.26	0.119	0.119				
	14A	0.096	0.19	0.11	0.18	0.088	0.615	<0.05	0.904
	18	0.135	0.135	0.114	0.114				
	19A	0.106	0.158	0.108	1.333	<0.05	0.391	0.101	1.533
East Side Reference	25	0.109	0.175	0.106	0.271	0.086	1.59	0.1	1.22
	27	0.127	0.741	0.11	1.22	<0.05	0.31	0.091	1.09



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

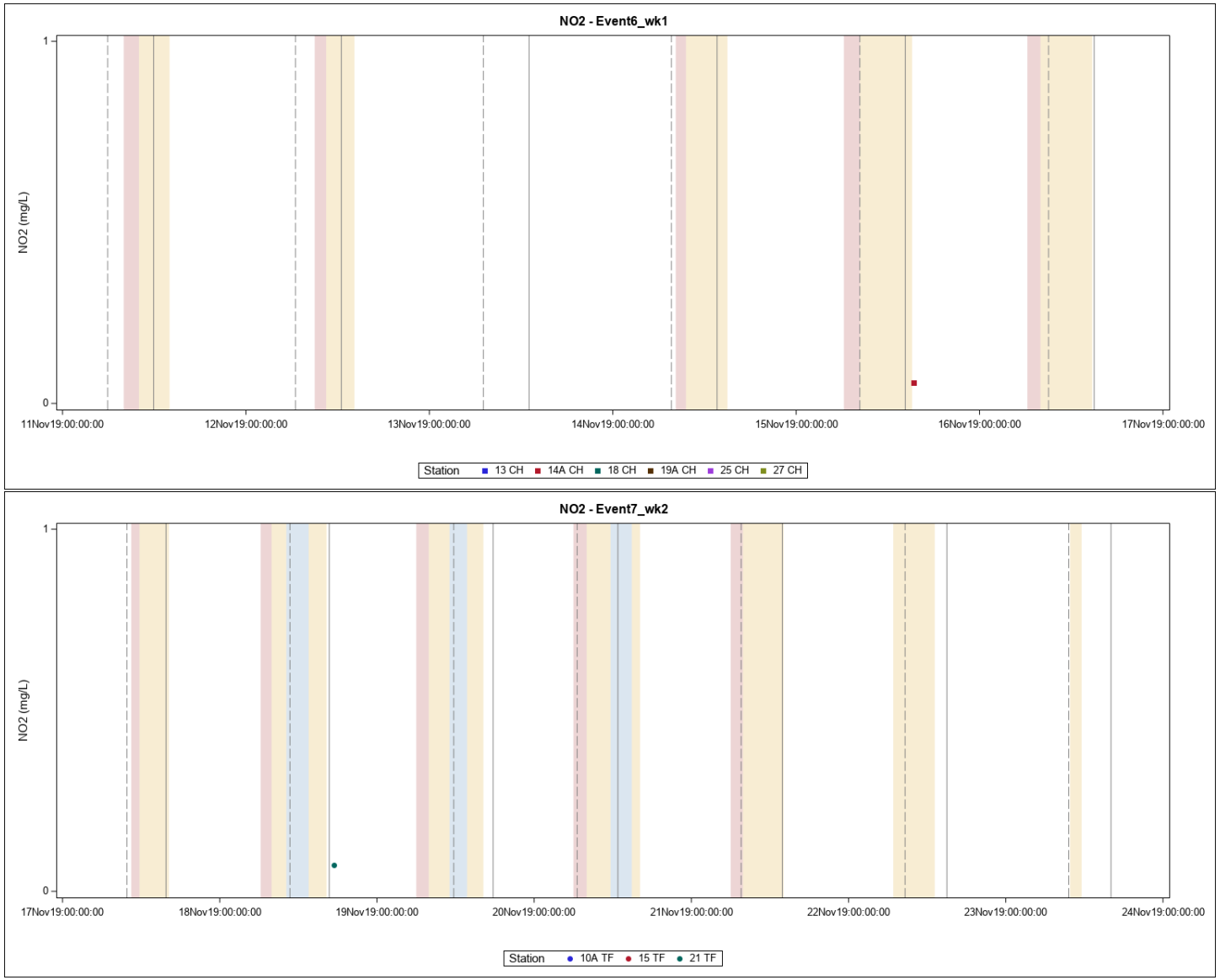


Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

Hand Jet

Nitrite

NO_2 (mg/L)		11 NOV 2019 – 18 DEC 2019							
		Before Start of Jet Plow				During Jet Plowing			
		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max
Location	Station								
West Side Boundary	10A	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	11			<0.05	<0.05				
	15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
West Side Reference	21	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.073
East Side Boundary	13	<0.05	<0.05	<0.05	<0.05				
	14A	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.057
	18	<0.05	<0.05	<0.05	<0.05				
	19A	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
East Side Reference	25	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

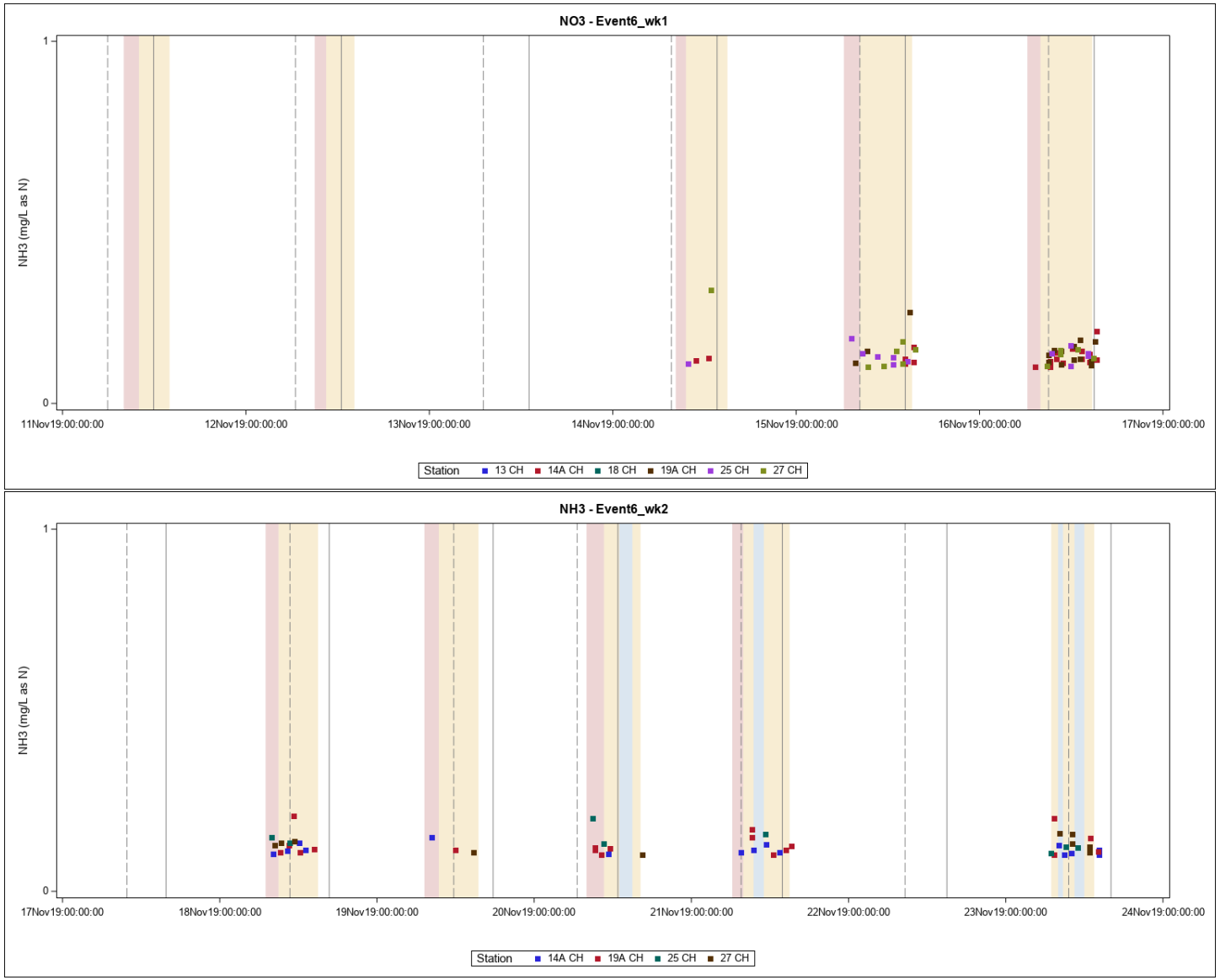


Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

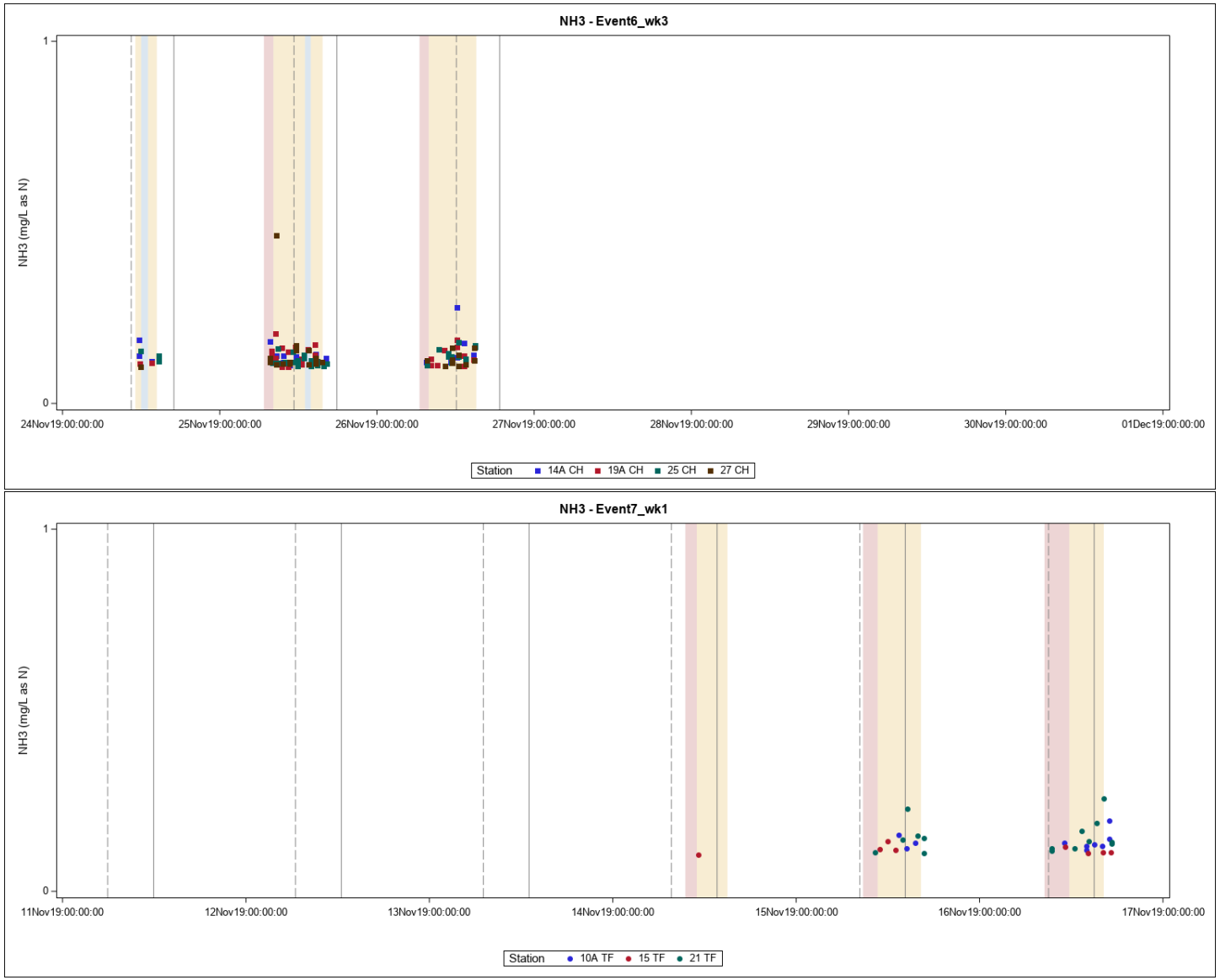
Hand Jet

Ammonia

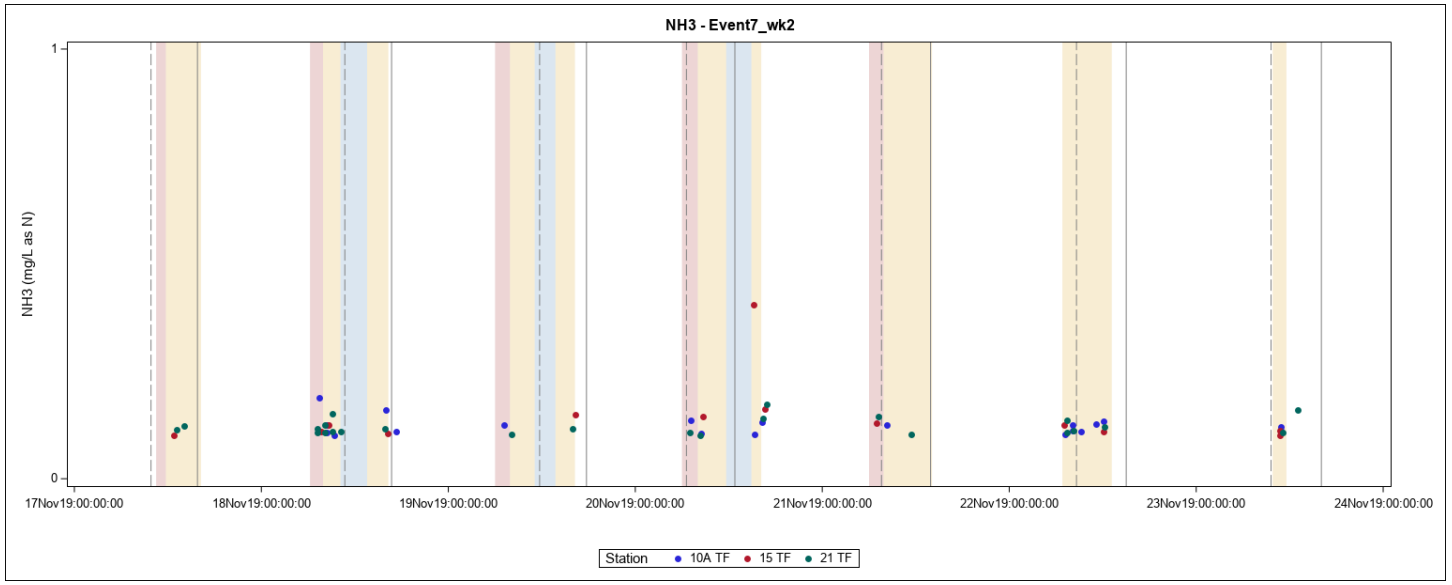
NH_3 (mg/L)		11 NOV 2019 – 18 DEC 2019							
		Before Start of Jet Plow				During Jet Plowing			
		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max
Location	Station								
West Side Boundary	10A	<0.1	0.135	<0.1	0.188	<0.1	0.194	<0.1	0.145
	11			<0.1	<0.1				
	15	<0.1	<0.1	<0.1	0.129	<0.1	0.111	<0.1	0.405
West Side Reference	21	<0.1	0.111	<0.1	0.145	<0.1	0.173	<0.1	0.256
East Side Boundary	13	<0.1	<0.1	<0.1	<0.1				
	14A	<0.1	0.114	<0.1	0.172	<0.1	0.155	<0.1	0.265
	18	<0.1	<0.1	<0.1	<0.1				
	19A	<0.1	0.145	<0.1	0.139	<0.1	0.208	<0.1	0.251
East Side Reference	25	<0.1	0.111	<0.1	0.202	<0.1	0.169	<0.1	0.159
	27	<0.1	0.127	<0.1	0.124	<0.1	0.313	<0.1	0.463



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

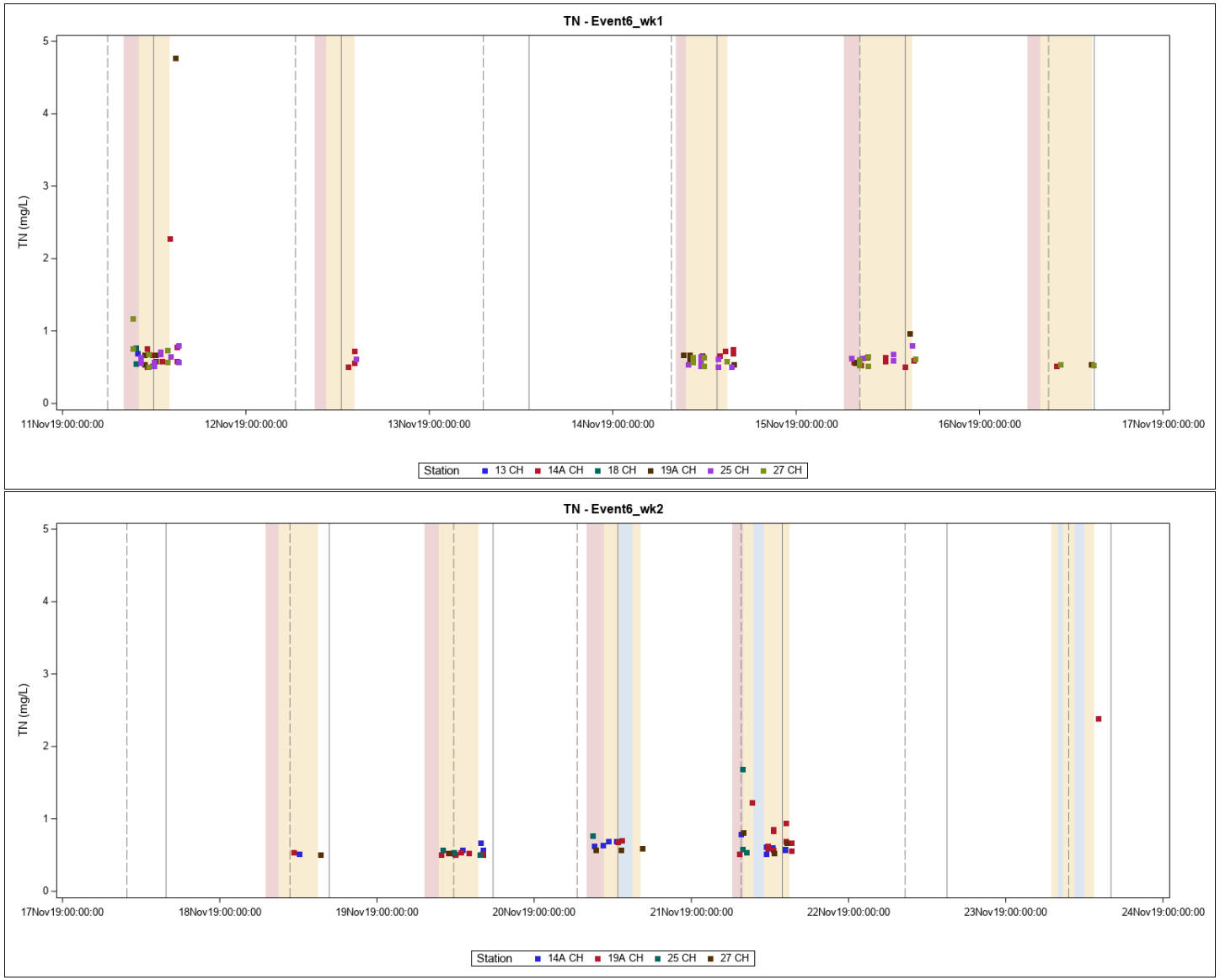


Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

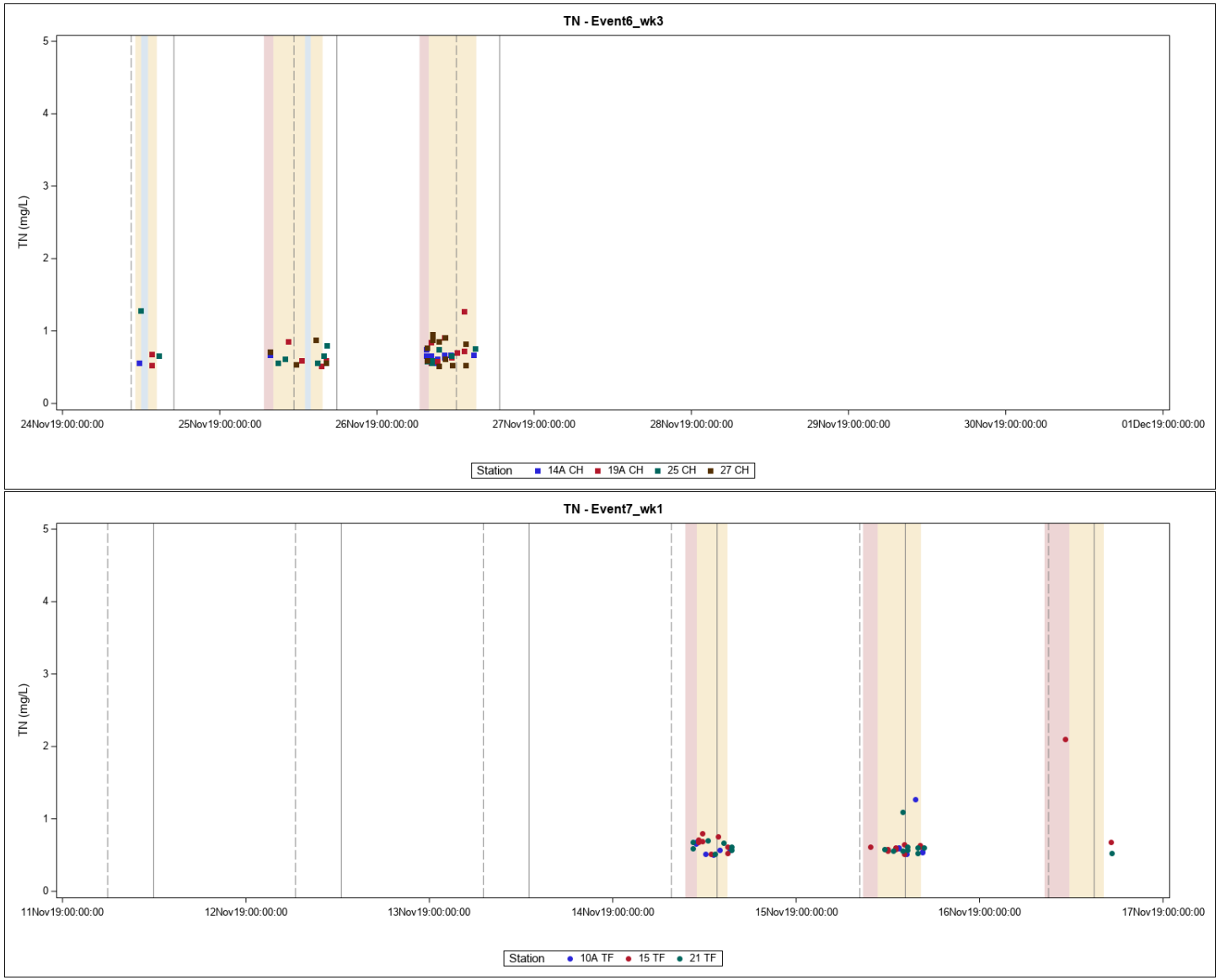
Hand Jet

Total Nitrogen

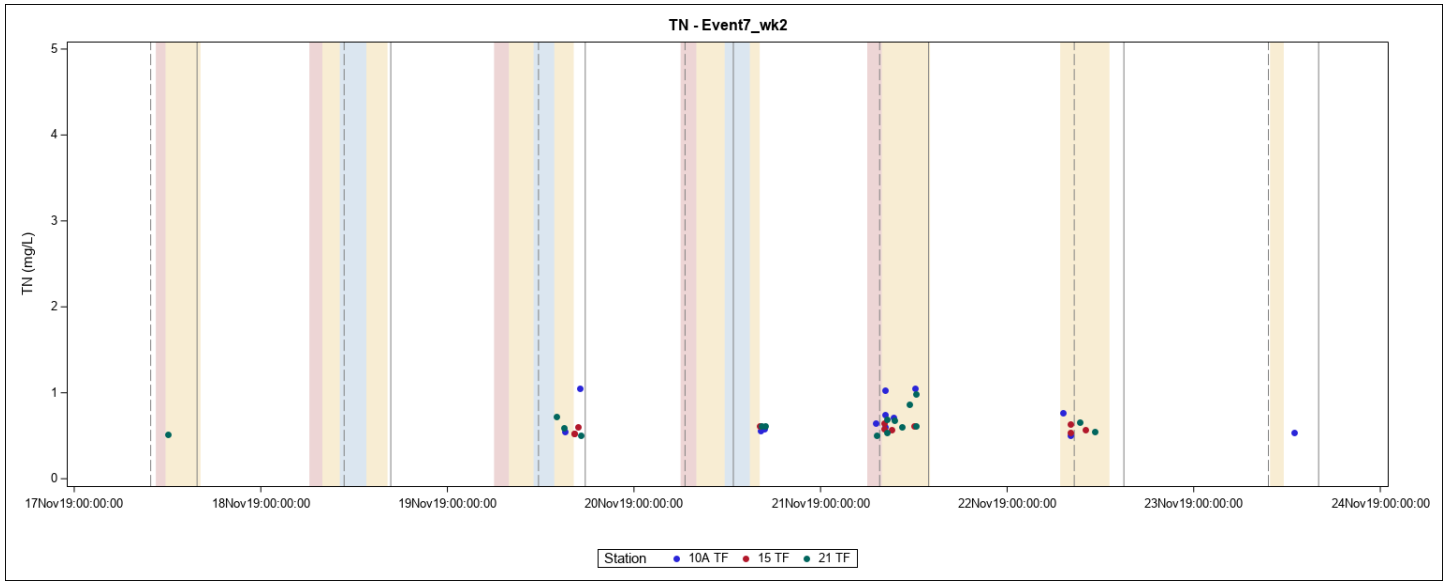
TN (mg/L)		11 NOV 2019 – 18 DEC 2019							
		Before Start of Jet Plow				During Jet Plowing			
		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max
Location	Station								
West Side Boundary	10A	<0.5	0.68	<0.5	0.657	<0.5	1.27	<0.5	1.05
	11			0.571	0.571				
	15	<0.5	<0.5	<0.5	2.1	<0.5	0.799	<0.5	0.713
West Side Reference	21	<0.5	0.685	<0.5	0.594	<0.5	0.983	<0.5	1.09
East Side Boundary	13	0.691	0.691	<0.5	<0.5				
	14A	<0.5	0.784	<0.5	0.741	<0.5	0.723	<0.5	2.28
	18	0.547	0.547	0.769	0.769				
	19A	<0.5	0.667	<0.5	0.562	<0.5	4.77	<0.5	1.27
East Side Reference	25	<0.5	0.764	<0.5	1.69	<0.5	1.28	<0.5	0.802
	27	<0.5	1.17	<0.5	0.752	<0.5	0.912	<0.5	0.95



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

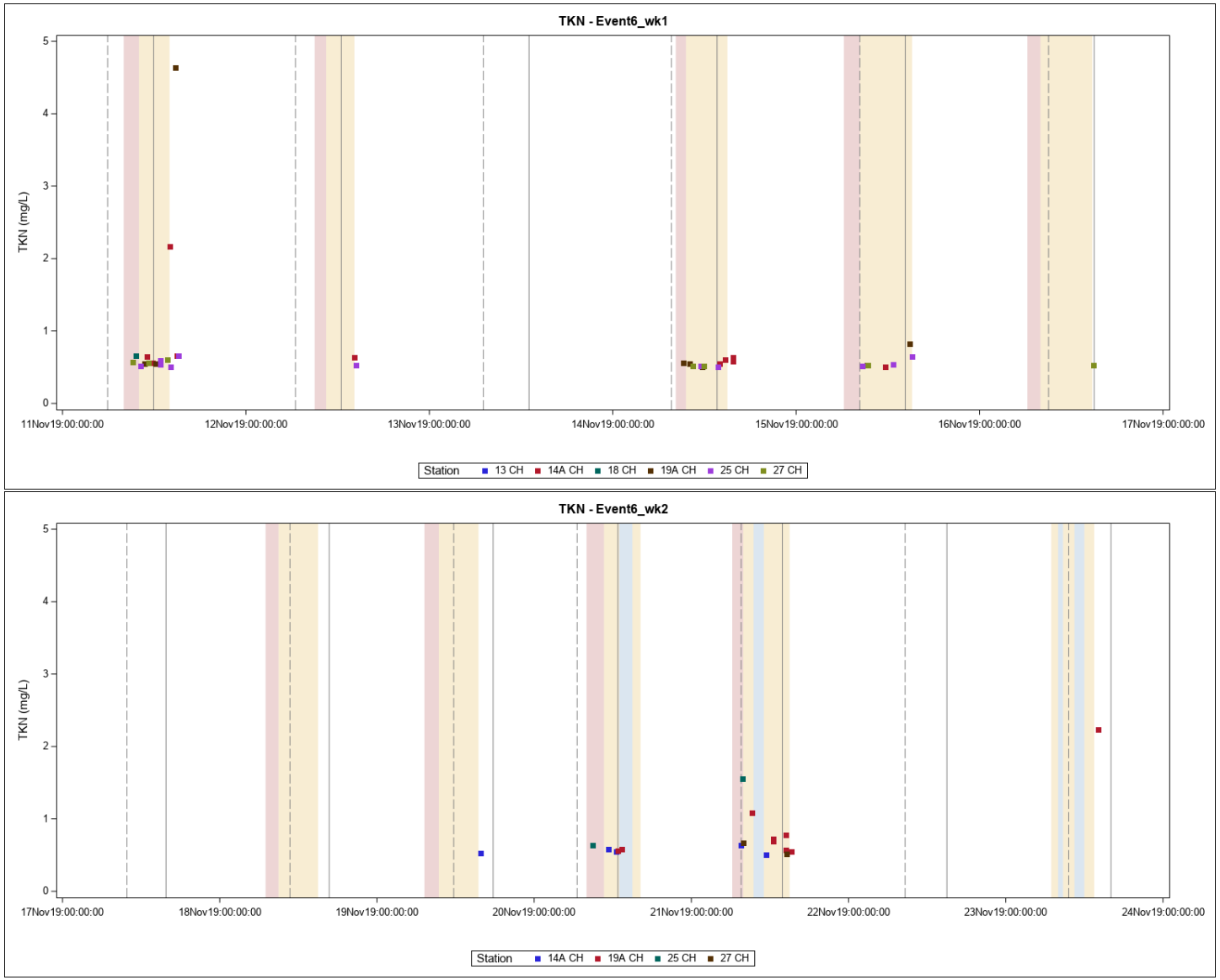


Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

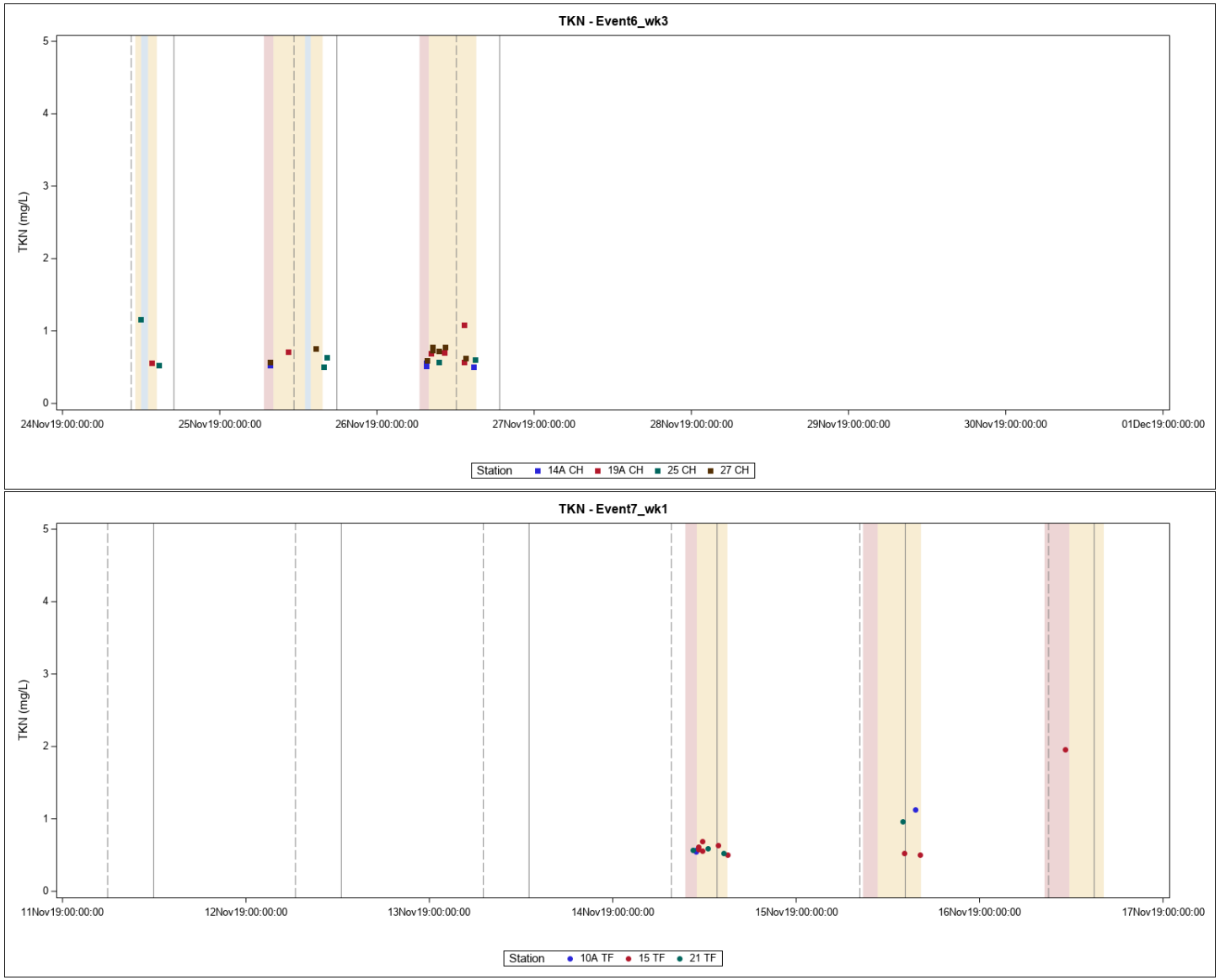
Hand Jet

Total Keldjahl Nitrogen

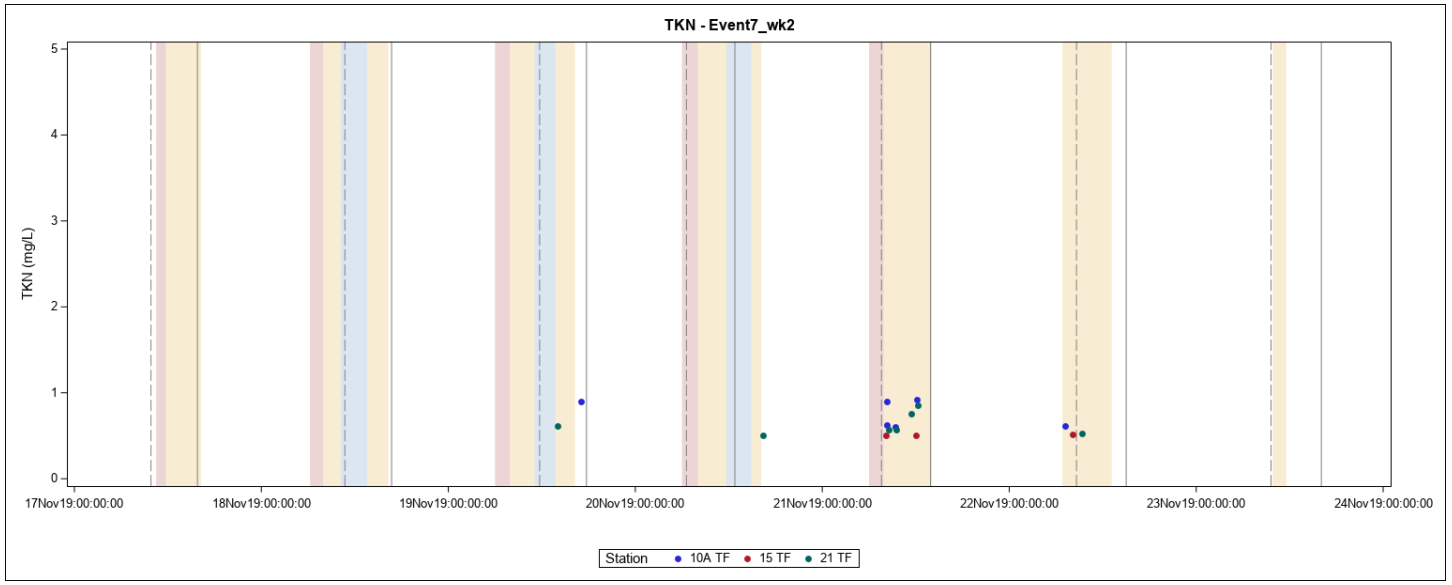
TKN (mg/L)		11 NOV 2019 – 18 DEC 2019							
		Before Start of Jet Plow				During Jet Plowing			
		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max
Location	Station								
West Side Boundary	10A	<0.5	0.573	<0.5	0.546	<0.5	1.127	<0.5	0.916
	11			<0.5	<0.5				
	15	<0.5	<0.5	<0.5	1.959	<0.5	0.687	<0.5	0.611
West Side Reference	21	<0.5	0.574	<0.5	<0.5	<0.5	0.855	<0.5	0.969
East Side Boundary	13	<0.5	<0.5	<0.5	<0.5				
	14A	<0.5	0.638	<0.5	0.561	<0.5	0.633	<0.5	2.166
	18	<0.5	<0.5	0.655	0.655				
	19A	<0.5	0.561	<0.5	<0.5	<0.5	4.637	<0.5	1.087
East Side Reference	25	<0.5	0.639	<0.5	1.551	<0.5	1.157	<0.5	0.663
	27	<0.5	0.596	<0.5	0.57	<0.5	0.781	<0.5	0.774



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



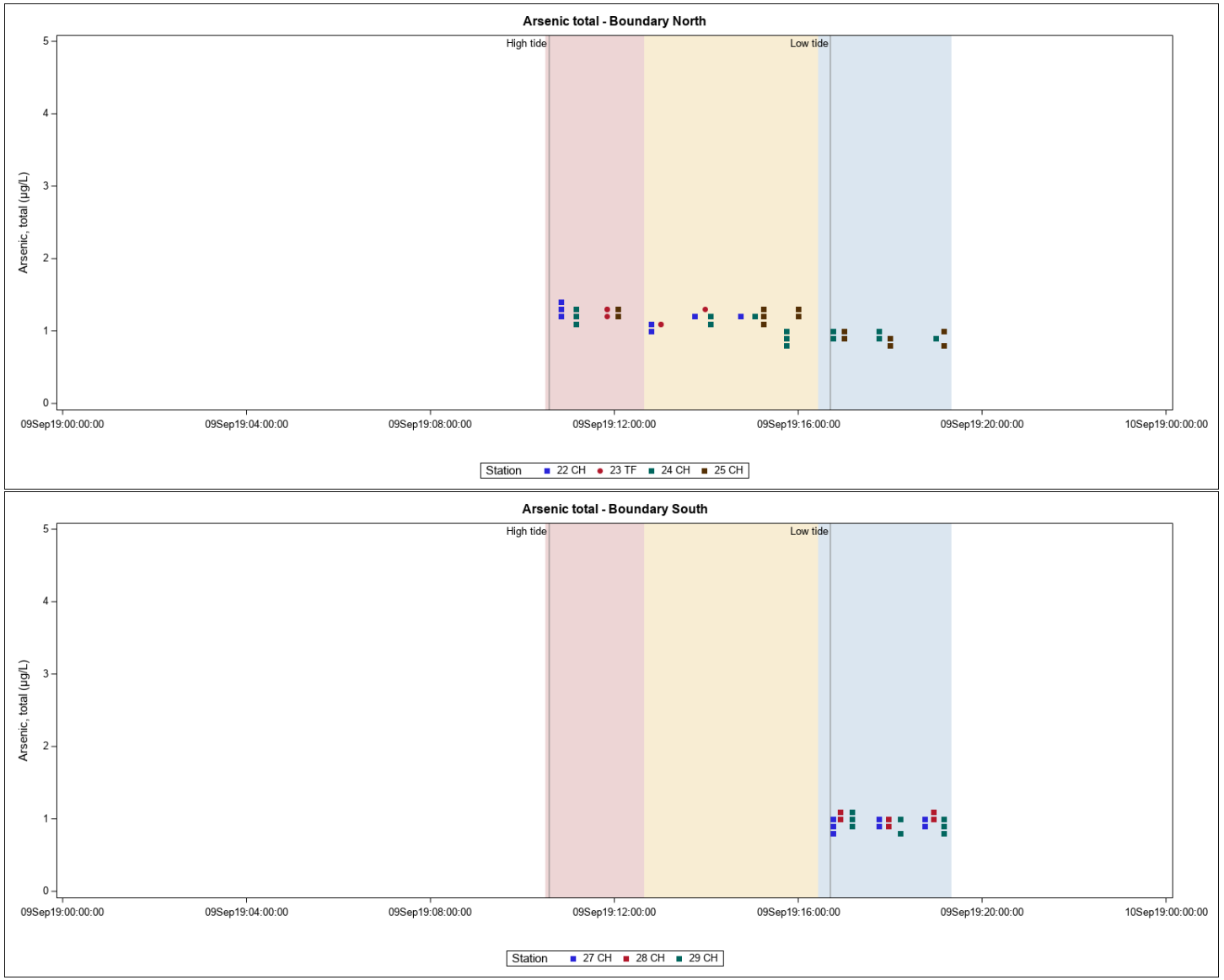
Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

Appendix M
Total Metal Plots and Tables

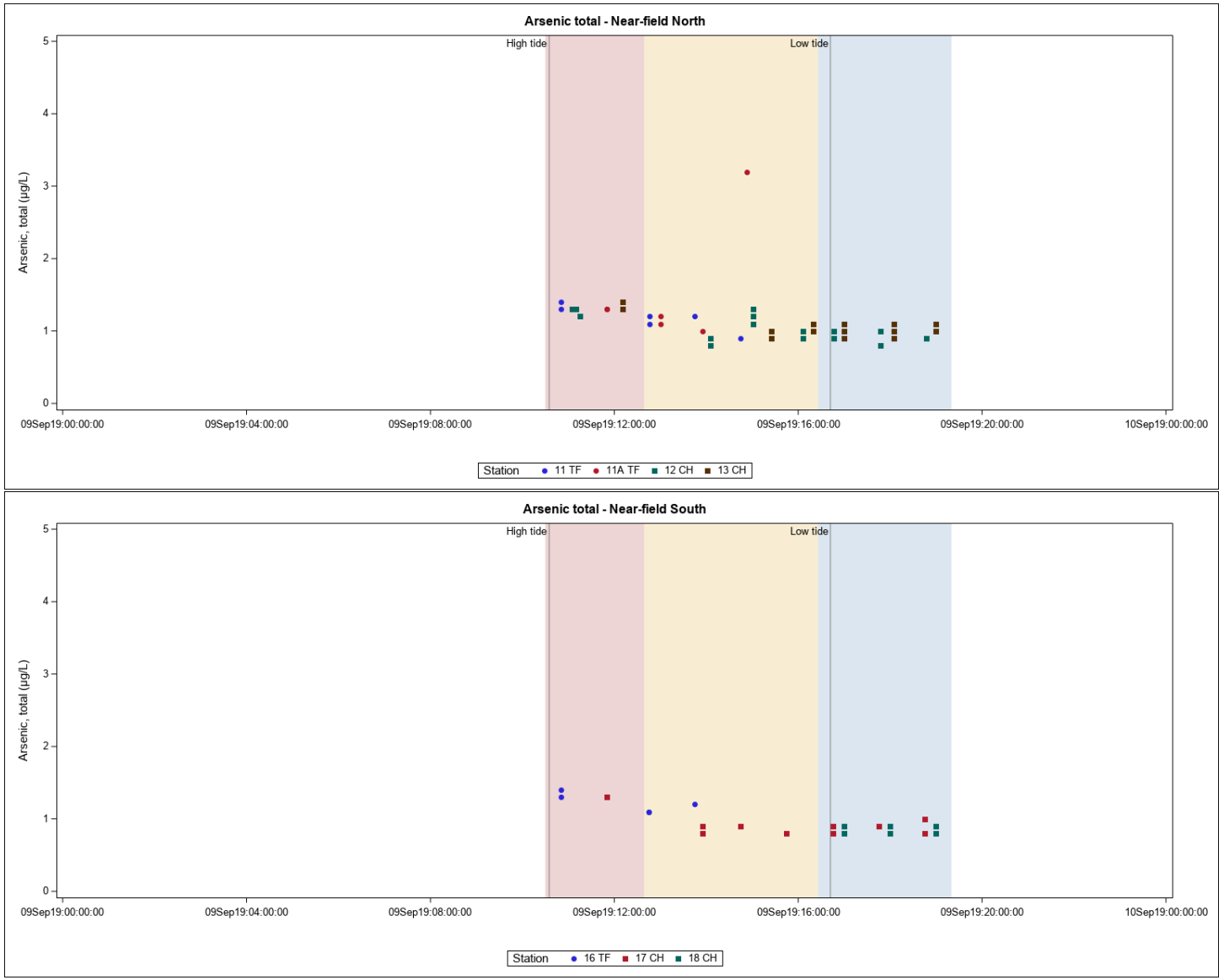
Jet Plow Trial

Total Arsenic

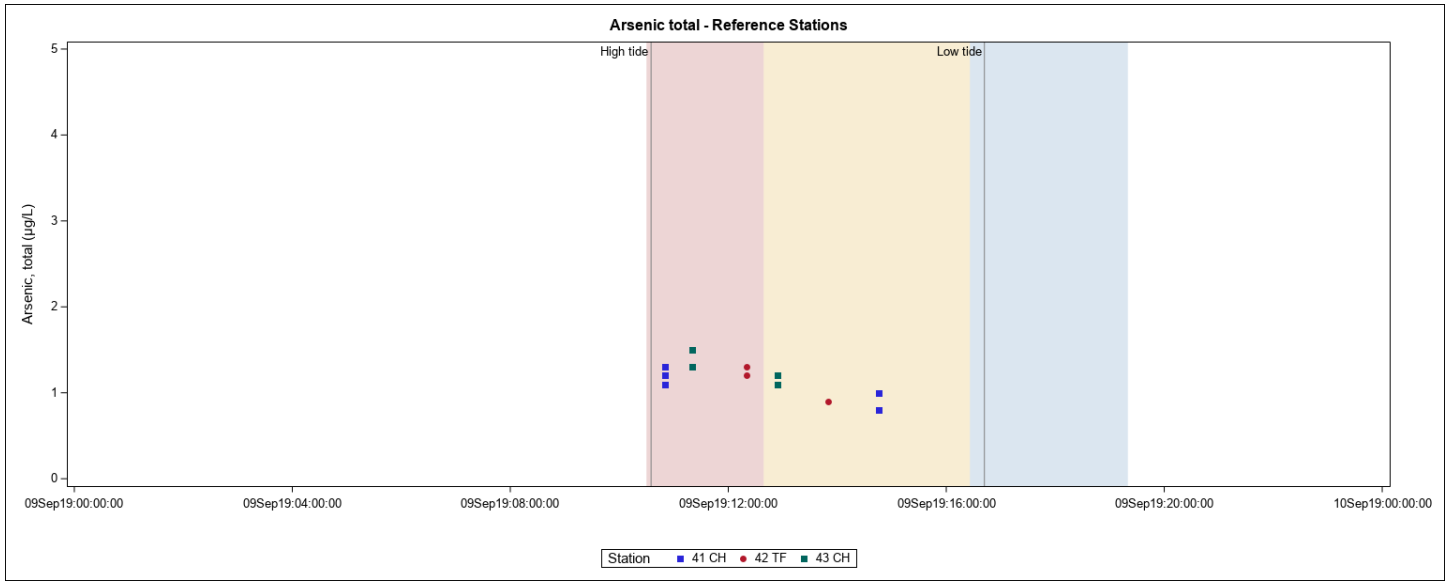
Arsenic, total (µg/L)		09 SEP 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	1.3	1.3	1.4	1.4	1.2	1.2	1.1	1.2	1.1	1.2	1	1.2
	23	1.2	1.2			1.3	1.3	1.1	1.1			1.1	1.3
	24	1.3	1.3	1.1	1.1	1.2	1.2	0.9	1.2	0.8	1.2	0.9	1.2
	25	1.3	1.3	1.2	1.2	1.2	1.2	0.9	1.2	0.8	1.3	0.8	1.3
Boundary South	27							0.9	0.9	0.8	1	1	1
	28							0.9	1.1	1	1.1	1	1
	29							0.8	1	0.8	1.1	0.9	1
Nearfield North	11	1.4	1.4			1.3	1.3	1.2	1.2			0.9	1.2
	11A	1.3	1.3			1.3	1.3	1.2	1.2			1	3.2
	12	1.3	1.3	1.3	1.3	1.2	1.2	0.8	1.2	0.9	1.1	0.9	1.3
	13	1.3	1.3	1.4	1.4	1.3	1.3	0.9	1.1	1	1.1	1	1.1
Nearfield South	16	1.3	1.3			1.4	1.4	1.1	1.1			1.1	1.2
	17	1.3	1.3	1.3	1.3	1.3	1.3	0.8	0.9	0.8	1	0.8	1
	18							0.8	0.9	0.8	0.9	0.8	0.9
Reference Stations	41	1.3	1.3	1.1	1.1	1.2	1.2	1	1	0.8	1	1	1
	42	1.3	1.3			1.2	1.2					0.9	0.9
	43	1.3	1.3	1.5	1.5	1.3	1.3	1.2	1.2	1.1	1.1	1.2	1.2



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

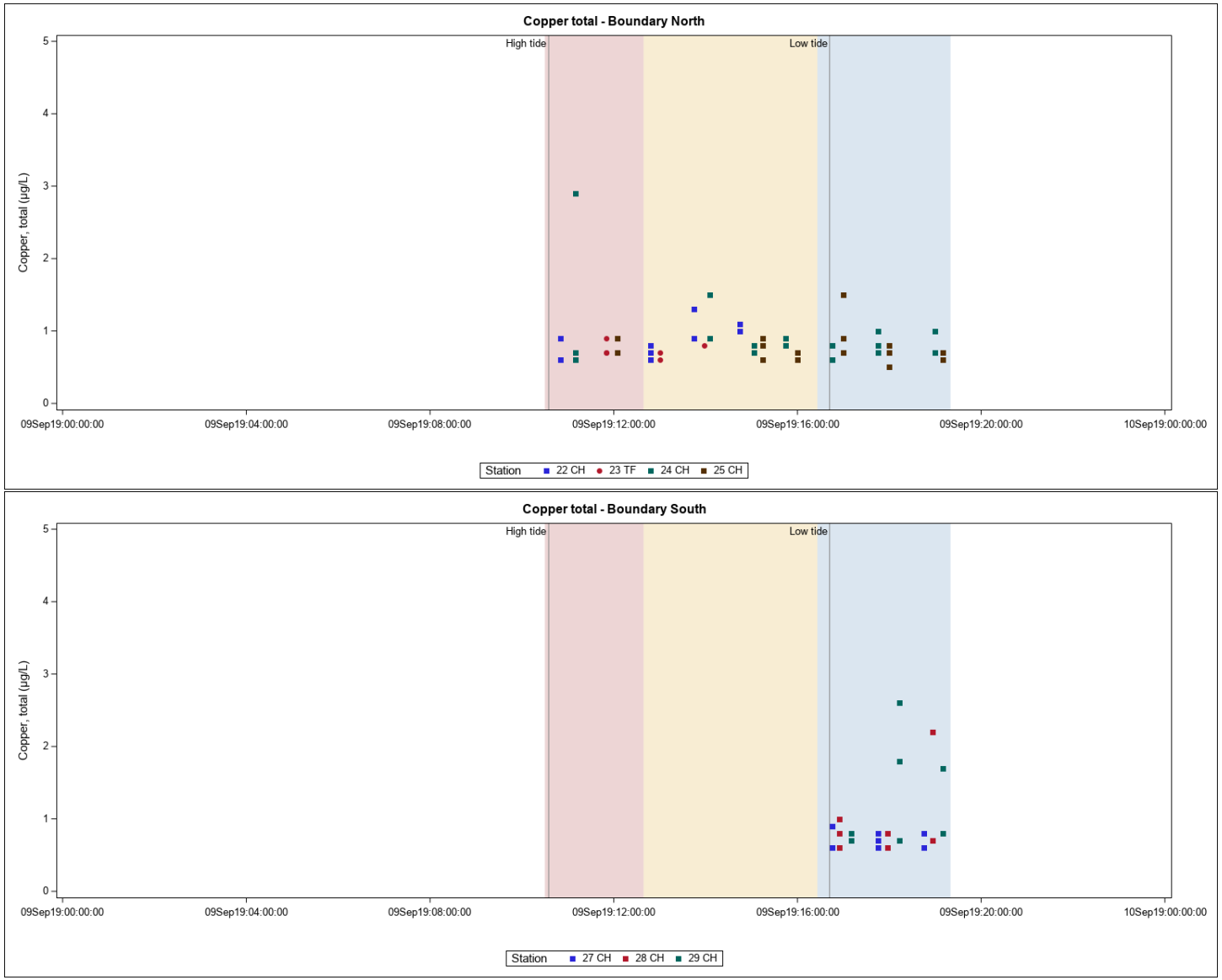


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

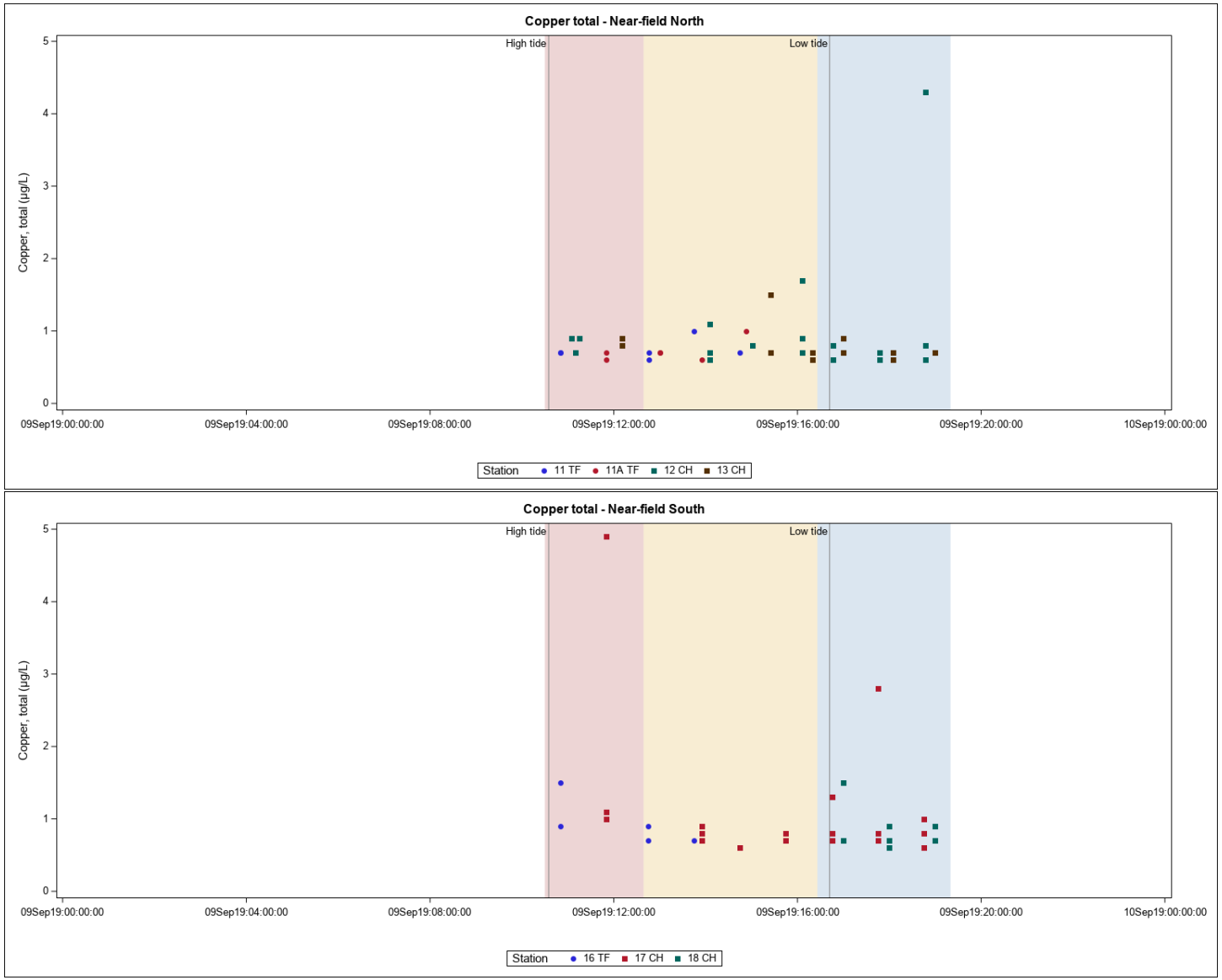
Jet Plow Trial

Total Copper

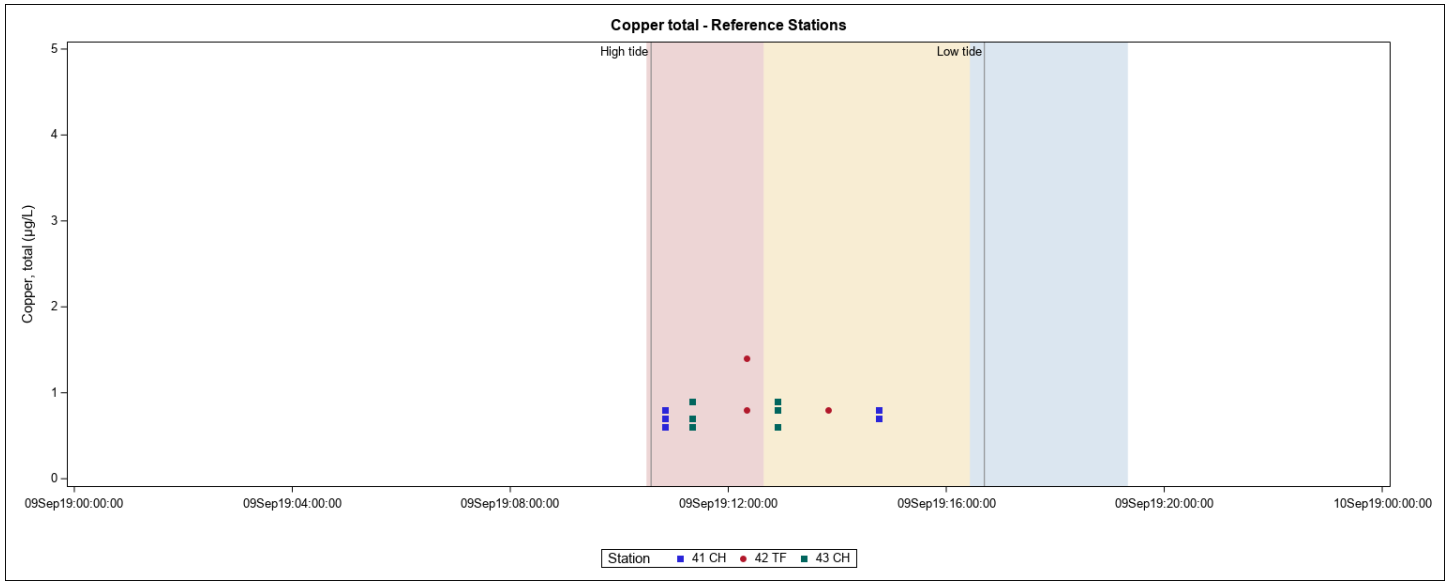
Copper, total (µg/L)		09 SEP 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	0.9	0.9	0.6	0.6	0.9	0.9	0.6	1	0.8	1.3	0.7	25.7
	23	0.7	0.7			0.7	0.9	0.7	0.7			0.6	0.8
	24	2.9	2.9	0.7	0.7	0.6	0.6	0.8	1.5	0.6	28.6	0.7	0.9
	25	0.9	0.9	0.7	0.7	0.7	0.7	0.5	1.5	0.6	0.9	0.6	0.9
Boundary South	27							0.6	0.9	0.6	0.8	0.6	0.8
	28							0.7	1	0.6	0.8	0.6	2.2
	29							0.7	0.8	0.8	2.6	0.8	1.8
Nearfield North	11	0.7	0.7			0.7	0.7	0.6	0.6			0.7	1
	11A	0.7	0.7			0.6	0.6	0.7	0.7			0.6	1
	12	0.9	0.9	0.7	0.7	0.9	0.9	0.6	1.1	0.6	1.7	0.6	4.3
	13	0.8	0.8	0.8	0.8	0.9	0.9	0.6	0.9	0.6	1.5	0.6	0.7
Nearfield South	16	1.5	1.5			0.9	0.9	0.7	0.7			0.7	0.9
	17	1	1	1.1	1.1	4.9	4.9	<0.5	0.8	0.6	0.8	0.6	2.8
	18							0.7	1.5	0.7	0.9	0.6	0.7
Reference Stations	41	0.7	0.7	0.6	0.6	0.8	0.8	0.8	0.8	0.7	0.8	0.7	0.7
	42	0.8	0.8			1.4	1.4					0.8	0.8
	43	0.7	0.7	0.6	0.6	0.9	0.9	0.6	0.6	0.8	0.8	0.9	0.9



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 1

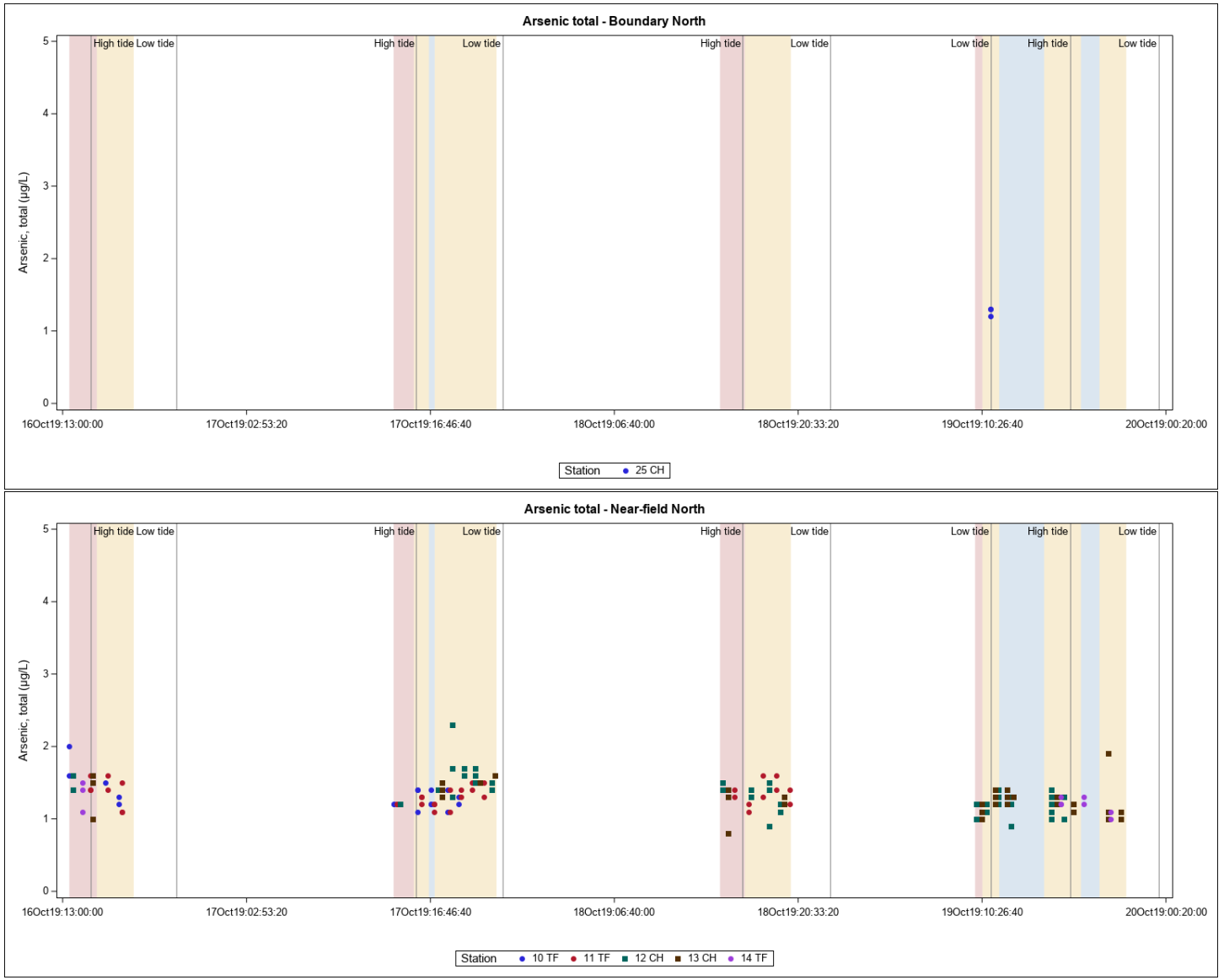
Total Arsenic

Arsenic, total (µg/L)		16 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	1.6	1.6			2	2	1.2	1.5			1.3	1.3
	11	1.6	1.6	1.4	1.4	1.4	1.4	1.1	1.4			1.5	1.6
	12	1.4	1.4	1.6	1.6								
	13	1.5	1.5	1.6	1.6	1	1						
	14	1.4	1.4	1.5	1.5	1.1	1.1						
Nearfield South	15	1.5	1.5			1	1	1.2	1.6			1.1	1.5
	16	1.5	1.5			1.4	1.4	1.1	1.5	1.5	1.5	1.2	1.4
	17	1.1	1.1	1	1	1.5	1.5						
	18	1.5	1.5	1.1	1.1	1.6	1.6						
	19	1.5	1.5	1.4	1.4	1.5	1.5						
Reference Stations	41	1.5	1.5	1.5	1.5	1.6	1.6						
	42	1.5	1.5			1.5	1.5						
	43	1.5	1.5	1.5	1.5	1.1	1.1						

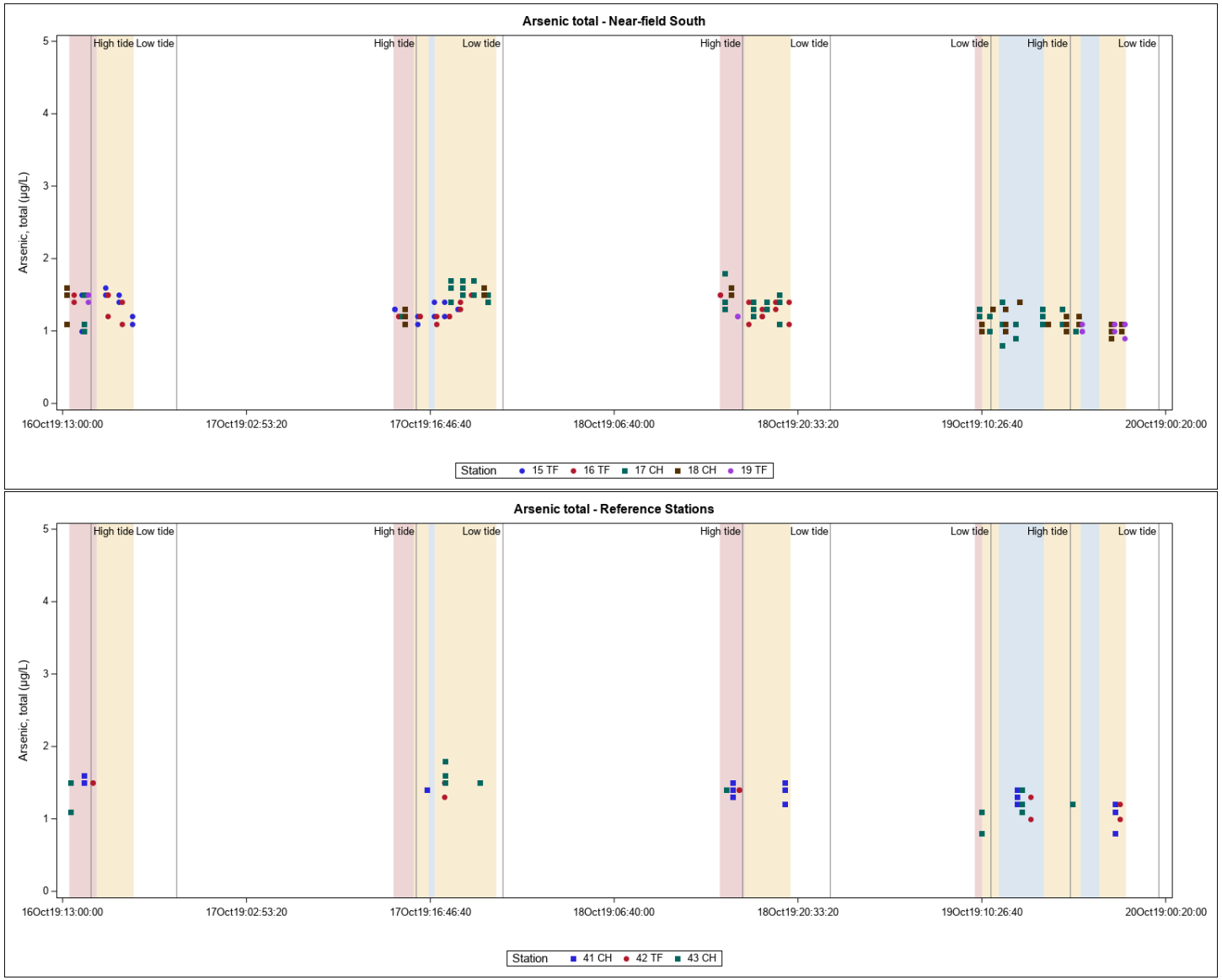
Arsenic, total (µg/L)		17 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	1.2	1.2			1.2	1.2	1.1	1.4	1.1	1.4	1.2	1.4
	11	1.2	1.2			1.2	1.2	1.1	1.5	1.2	1.2	1.2	1.5
	12	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.6	1.4	1.7	1.4	2.3
	13							1.3	1.6	1.4	1.6	1.5	1.6
Nearfield South	15	1.3	1.3			1.3	1.3	1.2	1.4			1.1	1.4
	16	1.2	1.2			1.2	1.2	1.1	1.4			1.2	1.5
	17	1.2	1.2			1.2	1.2	1.4	1.5	1.4	1.7	1.5	1.7
	18	1.3	1.3	1.1	1.1	1.2	1.2	1.5	1.5	1.5	1.5	1.6	1.6
Reference Stations	41							1.4	1.4	1.4	1.4	1.4	1.4
	42							1.5	1.5			1.3	1.3
	43							1.5	1.8	1.5	1.6	1.5	1.5

Arsenic, total (µg/L)		18 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	11	1.3	1.3			1.4	1.4	1.2	1.4			1.1	1.6
	12	1.5	1.5	1.4	1.4	1.4	1.4	0.9	1.3	1.1	1.4	1.2	1.5
	13	1.3	1.3	1.4	1.4	0.8	0.8	1.3	1.3	1.2	1.2	1.2	1.2
Nearfield South	16	1.5	1.5			1.5	1.5	1.1	1.4			1.1	1.4
	17	1.4	1.4	1.3	1.3	1.8	1.8	1.1	1.3	1.3	1.4	1.4	1.5
	18	1.5	1.5	1.6	1.6	1.6	1.6						
	19	1.2	1.2			1.2	1.2						
Reference Stations	41	1.4	1.4	1.3	1.3	1.5	1.5	1.4	1.4	1.2	1.2	1.5	1.5
	42	1.4	1.4	1.4	1.4	1.4	1.4						
	43	1.4	1.4	1.4	1.4	1.4	1.4						

Arsenic, total (µg/L)		19 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	25							1.3	1.3	1.2	1.2	1.3	1.3
Nearfield North	12	1.2	1.2	1	1	1	1	1	1.4	0.9	1.3	1.1	1.4
	13	1.1	1.1	1.2	1.2	1	1	1.1	1.3	1	1.4	1	1.9
	14							1	1.2	1.2	1.2	1.1	1.3
Nearfield South	17	1.3	1.3	1.3	1.3	1.2	1.2	1	1.3	0.8	1.3	0.9	1.4
	18	1.1	1.1	1	1	1.1	1.1	0.9	1.4	1	1.4	1	1.4
	19							0.9	1.1	1	1.1	1	1.1
Reference Stations	41							1.1	1.4	1.2	1.3	0.8	1.2
	42							1.2	1.3			1	1
	43	1.1	1.1	0.8	0.8	1.1	1.1	1.2	1.2	1.1	1.2	1.2	1.4



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 1

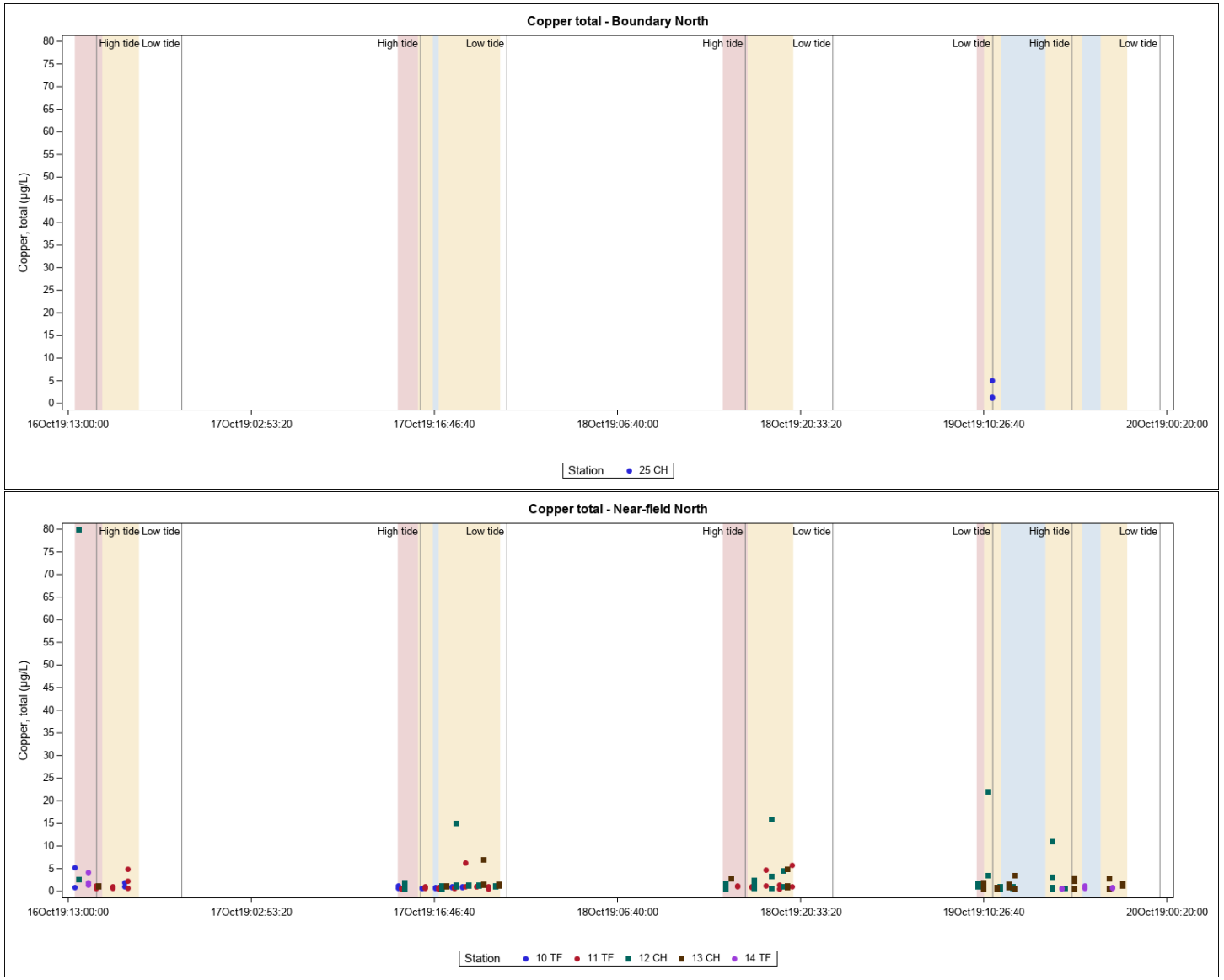
Total Copper

Copper, total (µg/L)		16 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	0.9	0.9			5.2	5.2	<0.5	1.9			1.1	1.1
	11	0.8	0.8	0.8	0.8	1.3	1.3	0.8	4.9			0.8	1
	12	80	80	2.6	2.6								
	13	1	1	1.2	1.2	<0.5	<0.5						
	14	2	2	1.4	1.4	4.2	4.2						
Nearfield South	15	0.9	0.9			2	2	<0.5	1.1			<0.5	1.2
	16	1	1			0.7	0.7	0.6	0.7	0.6	0.6	1	4
	17	<0.5	<0.5	0.6	0.6	0.8	0.8						
	18	0.9	0.9	0.5	0.5	1.4	1.4						
	19	1.2	1.2	0.8	0.8	0.7	0.7						
Reference Stations	41	0.6	0.6	0.6	0.6	0.8	0.8						
	42	0.8	0.8			0.7	0.7						
	43	1	1	0.8	0.8	<0.5	<0.5						

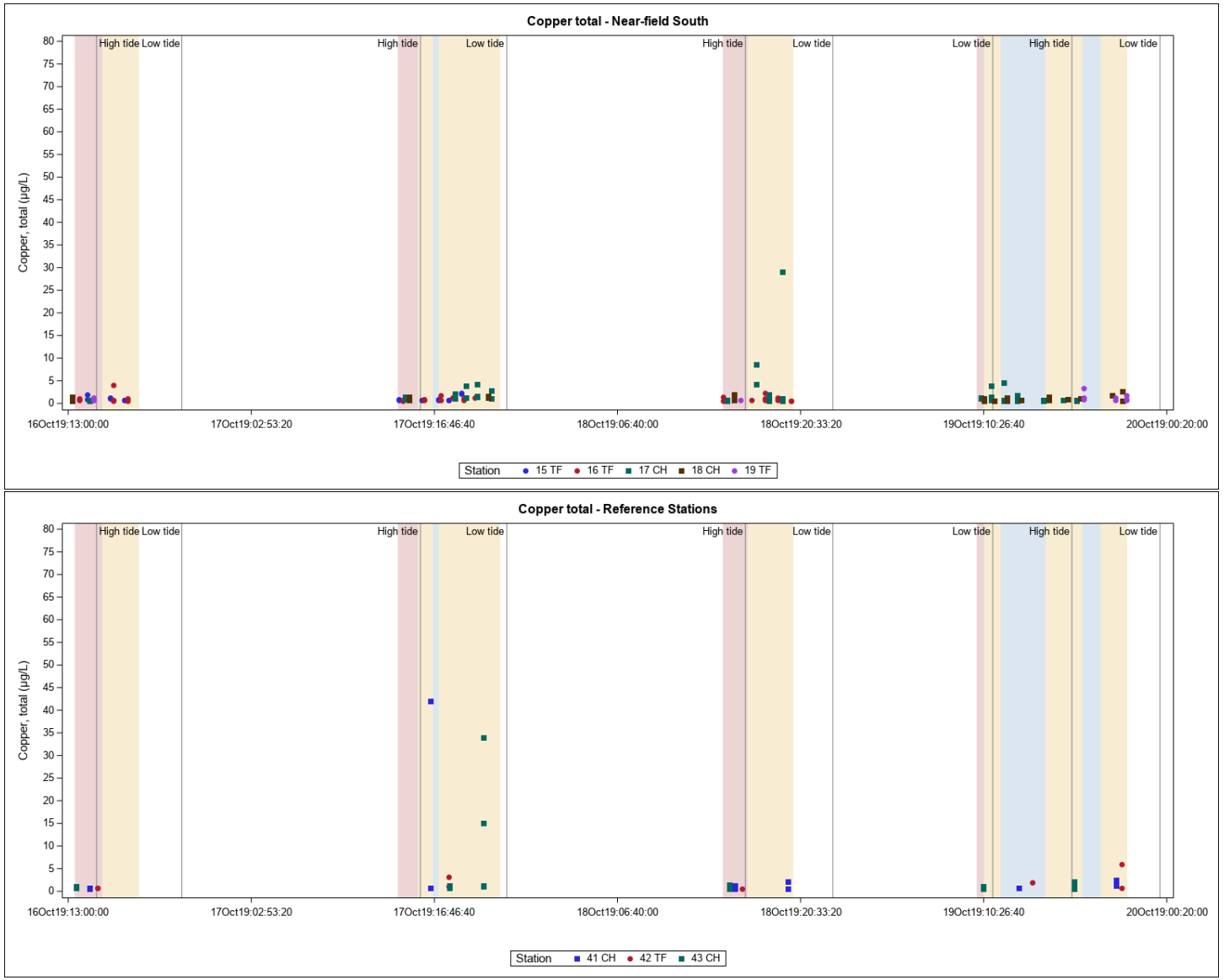
Copper, total (µg/L)		17 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	1.2	1.2			0.7	0.7	0.8	0.9	0.7	0.7	0.8	1
	11	0.6	0.6			0.7	0.7	0.7	1.1	0.6	1	0.5	6.3
	12	0.6	0.6	1	1	2	2	0.6	1.4	1	1.4	0.6	15
	13							1.2	7.1	1.3	1.6	1.1	1.5
Nearfield South	15	0.8	0.8			0.9	0.9	0.7	0.8			0.8	2.3
	16	0.6	0.6			0.7	0.7	0.8	1.3			0.8	1.7
	17	0.9	0.9			1.4	1.4	1.2	4.2	1.1	3.8	1.1	2.2
	18	0.9	0.9	1.4	1.4	0.8	0.8	1.6	1.6	1.2	1.2	1.3	1.3
Reference Stations	41							42	42	0.8	0.8	0.8	0.8
	42							3.1	3.1			1.1	1.1
	43							1	1.3	1.3	15	0.8	34

Copper, total (µg/L)		18 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	11	1.2	1.2			1	1	0.9	4.7			0.6	5.8
	12	0.6	0.6	1.7	1.7	1.1	1.1	2.4	4.6	<0.5	0.7	1	16
	13	<0.5	<0.5	<0.5	<0.5	2.8	2.8	1.2	1.2	4.9	4.9	0.9	0.9
Nearfield South	16	0.6	0.6			1.4	1.4	<0.5	1.2			0.5	2.3
	17	0.5	0.5	0.7	0.7	0.8	0.8	0.6	4.3	1.1	8.6	<0.5	29
	18	2	2	0.7	0.7	1.4	1.4						
	19	0.7	0.7			<0.5	<0.5						
Reference Stations	41	1.3	1.3	0.5	0.5	0.6	0.6	0.5	0.5	2.1	2.1	0.6	0.6
	42	<0.5	<0.5	<0.5	<0.5	0.5	0.5						
	43	0.6	0.6	1.4	1.4	<0.5	<0.5						

Copper, total (µg/L)		19 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	25							1.5	1.5	5.1	5.1	1.2	1.2
Nearfield North	12	1.1	1.1	1.7	1.7	<0.5	<0.5	0.6	3.6	<0.5	22	<0.5	3.1
	13	0.6	0.6	0.7	0.7	2	2	<0.5	1.7	<0.5	3.5	<0.5	2.9
	14							0.8	1.3	<0.5	<0.5	0.5	0.9
Nearfield South	17	1.3	1.3	1.1	1.1	1.3	1.3	0.7	4.5	0.5	1.4	0.5	3.8
	18	0.6	0.6	<0.5	<0.5	1	1	<0.5	1.8	<0.5	2.7	<0.5	1.3
	19							0.7	3.3	0.9	1.2	<0.5	1.7
Reference Stations	41							<0.5	<0.5	0.8	2.5	<0.5	1.3
	42							<0.5	6			0.8	1.9
	43	0.6	0.6	1.1	1.1	0.8	0.8	<0.5	0.8	<0.5	2.2	<0.5	0.5



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



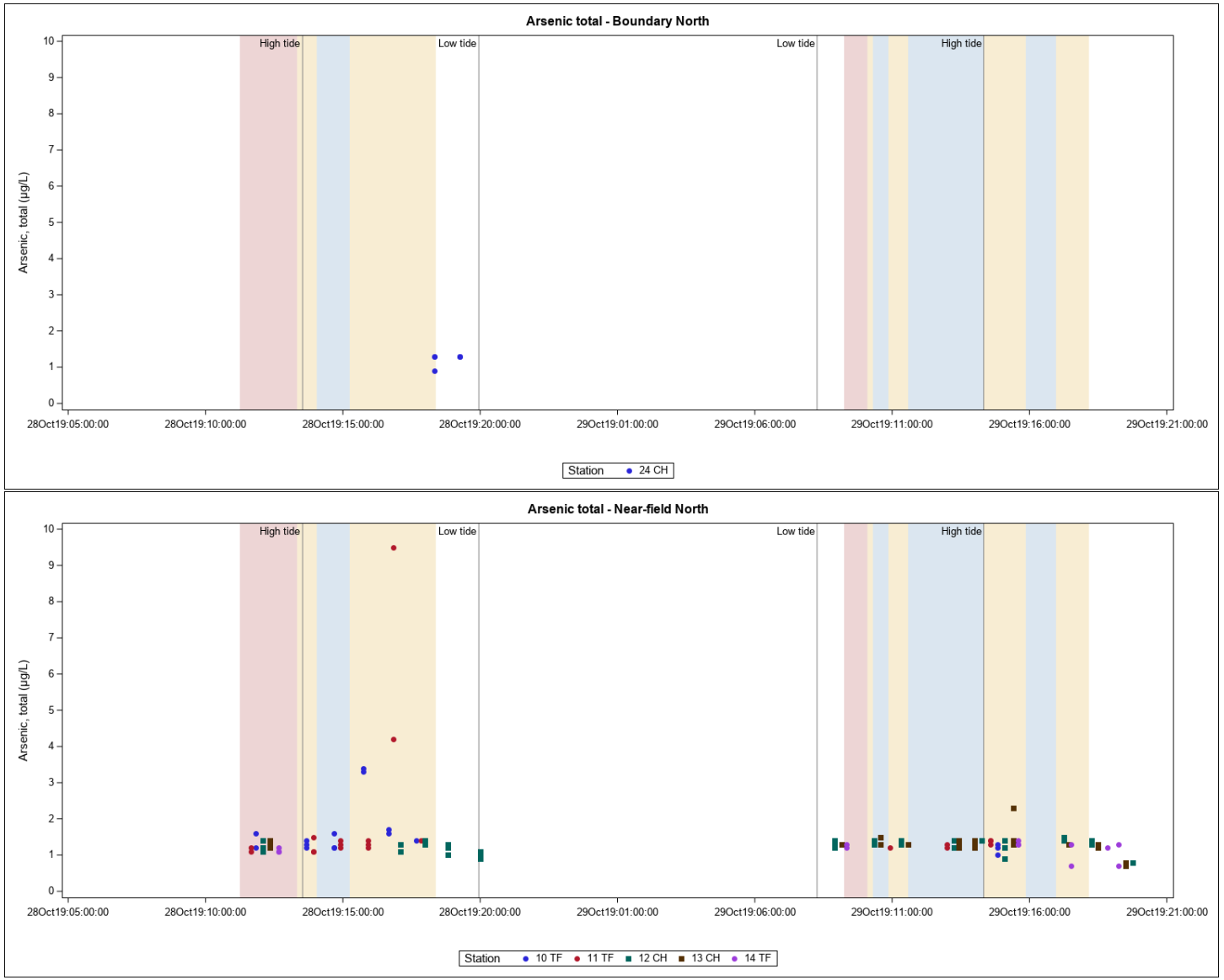
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 2

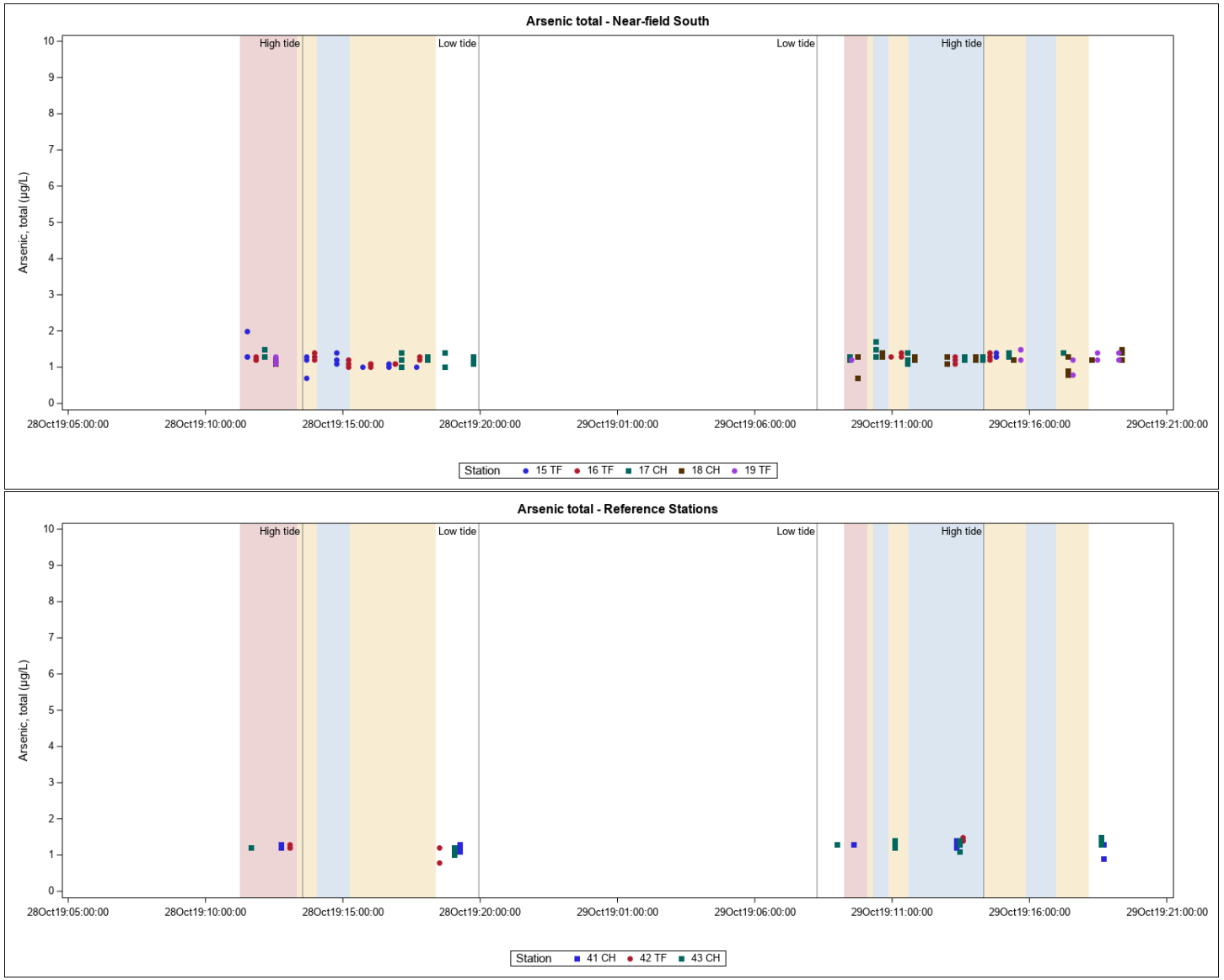
Total Arsenic

Arsenic, total (µg/L)		28 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	24							0.9	1.3	1.3	1.3	1.3	1.3
Nearfield North	10	1.6	1.6			1.2	1.2	1.2	3.4	1.2	1.4	1.2	3.3
	11	1.1	1.1			1.2	1.2	1.1	4.2	1.1	1.3	1.2	9.5
	12	1.1	1.1	1.4	1.4	1.2	1.2	1	1.4	0.9	1.3	1	1.3
	13	1.2	1.2	1.4	1.4	1.3	1.3						
	14	1.1	1.1	1.1	1.1	1.2	1.2						
Nearfield South	15	1.3	1.3	1.3	1.3	2	2	0.7	1.1	1.2	1.2	1	1.4
	16	1.2	1.2	1.2	1.2	1.3	1.3	1	1.4	1.1	1.3	1.1	1.3
	17	1.3	1.3	1.3	1.3	1.5	1.5	1	1.4	1	1.4	1	1.3
	18	1.1	1.1	1.2	1.2	1.2	1.2						
	19	1.1	1.1	1.2	1.2	1.3	1.3						
Reference Stations	41	1.3	1.3	1.2	1.2	1.3	1.3	1.2	1.2	1.3	1.3	1.1	1.1
	42	1.2	1.2	1.3	1.3	1.2	1.2	1.2	1.2			0.8	0.8
	43	1.2	1.2	1.2	1.2	1.2	1.2	1	1	1.1	1.1	1.2	1.2

Arsenic, total (µg/L)		29 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10							1.3	1.3	1.2	1.2	1	1
	11							1.2	1.3			1.3	1.4
	12	1.3	1.3	1.2	1.2	1.4	1.4	<0.5	1.5	0.8	1.4	0.8	1.4
	13	1.3	1.3	1.3	1.3	1.3	1.3	0.8	1.5	0.7	1.4	0.8	2.3
	14	1.2	1.2			1.3	1.3	<0.5	1.3	1.3	1.3	0.7	1.4
Nearfield South	15							1.3	1.3	1.3	1.3	1.4	1.4
	16							1.2	1.3	1.3	1.3	1.1	1.4
	17	1.3	1.3	1.2	1.2	1.3	1.3	1.1	1.5	1.2	1.7	1.3	1.4
	18	0.7	0.7	1.3	1.3	1.3	1.3	0.8	1.5	0.9	1.4	1.2	1.4
	19	1.2	1.2					1.2	1.4	1.5	1.5	0.8	1.5
Reference Stations	41	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3	0.9	1.3	0.9	1.4
	42							1.4	1.4	1.5	1.5	<0.5	1.4
	43	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.1	1.4	1.2	1.5



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



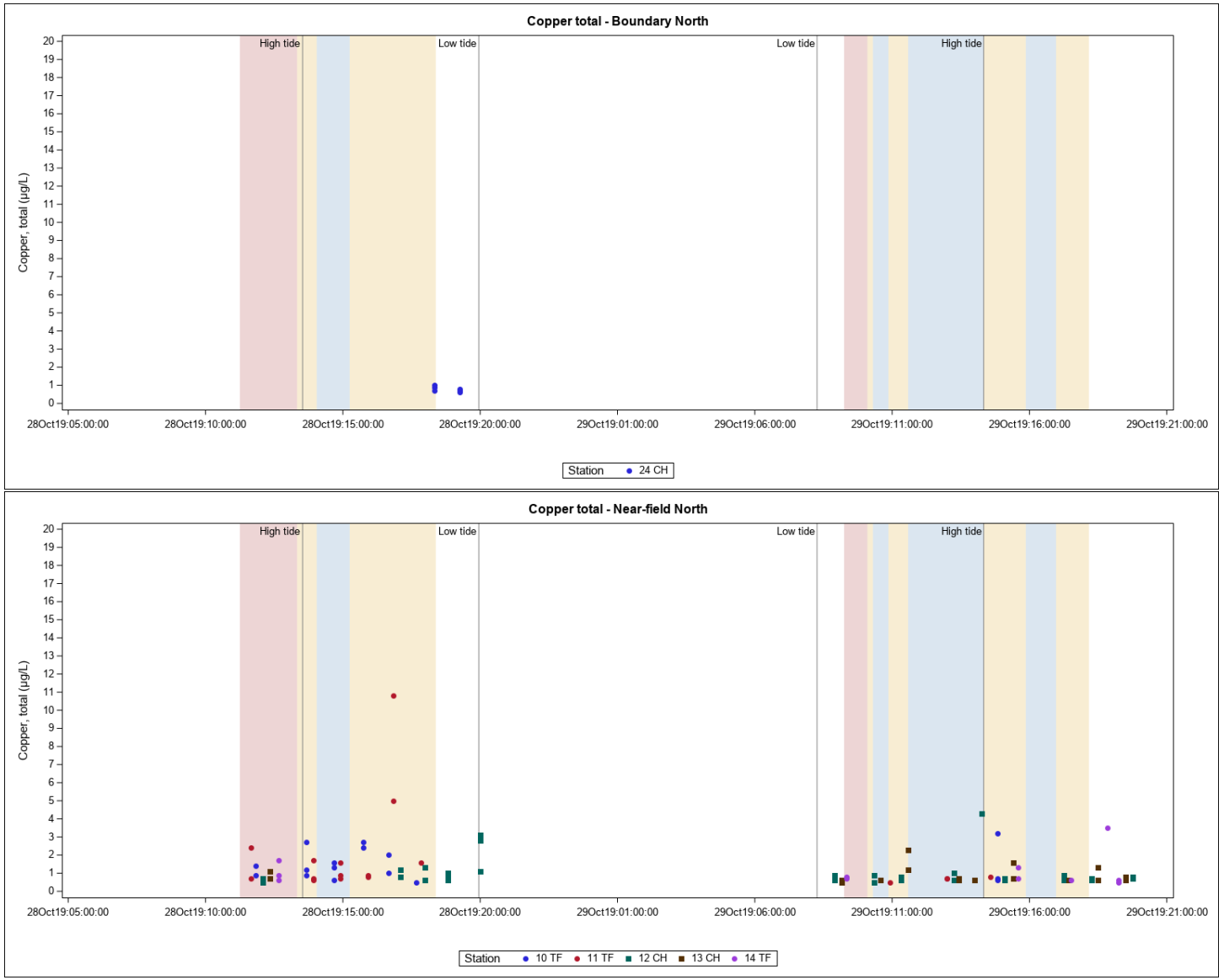
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 2

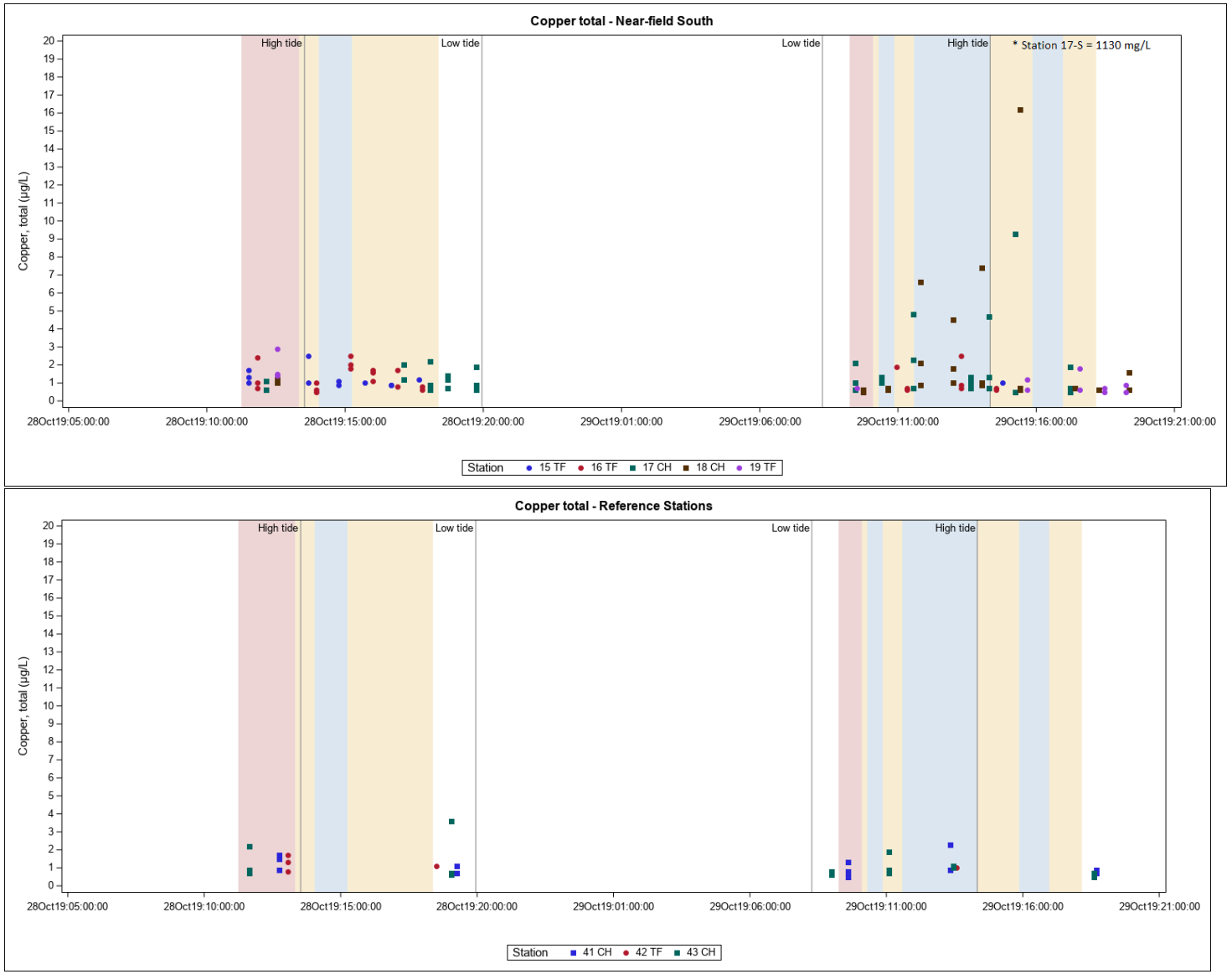
Total Copper

Copper, total (µg/L)		28 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	24							0.7	1	0.6	0.9	0.7	0.8
Nearfield North	10	0.9	0.9			1.4	1.4	0.5	2.4	1.2	1.3	1	2.7
	11	2.4	2.4			0.7	0.7	<0.5	5	1.6	1.7	0.7	10.8
	12	0.7	0.7	0.5	0.5	0.7	0.7	<0.5	3.1	0.7	2.8	0.6	1.2
	13	0.7	0.7	1.1	1.1	1.1	1.1						
	14	0.9	0.9	0.6	0.6	1.7	1.7						
Nearfield South	15	1	1	1.3	1.3	1.7	1.7	<0.5	1.2	0.9	1	<0.5	2.5
	16	2.4	2.4	0.7	0.7	1	1	0.5	2	1	2.5	0.6	1.8
	17	1.1	1.1	0.6	0.6	1.1	1.1	<0.5	2.2	0.6	1.9	0.9	2
	18	1.2	1.2	1.1	1.1	1	1						
	19	2.9	2.9	1.4	1.4	1.5	1.5						
Reference Stations	41	1.7	1.7	0.9	0.9	1.5	1.5	1.1	1.1	0.7	0.7	1.1	1.1
	42	1.7	1.7	0.8	0.8	1.3	1.3	1.1	1.1			<0.5	<0.5
	43	0.9	0.9	2.2	2.2	0.7	0.7	0.6	0.6	3.6	3.6	0.7	0.7

Copper, total (µg/L)		29 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10							0.6	0.6	3.2	3.2	0.7	0.7
	11							<0.5	0.7			<0.5	0.8
	12	0.9	0.9	0.6	0.6	0.6	0.6	<0.5	0.6	<0.5	0.8	0.6	4.3
	13	0.5	0.5	0.6	0.6	0.6	0.6	0.6	1.2	<0.5	1.3	0.6	2.3
	14	0.8	0.8			0.7	0.7	<0.5	0.6	0.7	0.7	<0.5	3.5
Nearfield South	15							<0.5	<0.5	<0.5	<0.5	1	1
	16							<0.5	0.7	0.6	0.6	0.7	2.5
	17	2.1	2.1	1	1	0.6	0.6	0.5	1130	0.7	9.3	0.5	4.8
	18	0.5	0.5	0.6	0.6	0.6	0.6	0.6	1.8	0.6	7.4	<0.5	16.2
	19	0.7	0.7					0.5	1.8	<0.5	<0.5	0.5	0.7
Reference Stations	41	0.5	0.5	1.3	1.3	0.8	0.8	0.7	2.3	0.9	0.9	<0.5	0.8
	42							<0.5	<0.5	<0.5	<0.5	<0.5	1
	43	0.8	0.8	0.7	0.7	0.6	0.6	0.5	1.9	<0.5	1	0.7	1.1



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

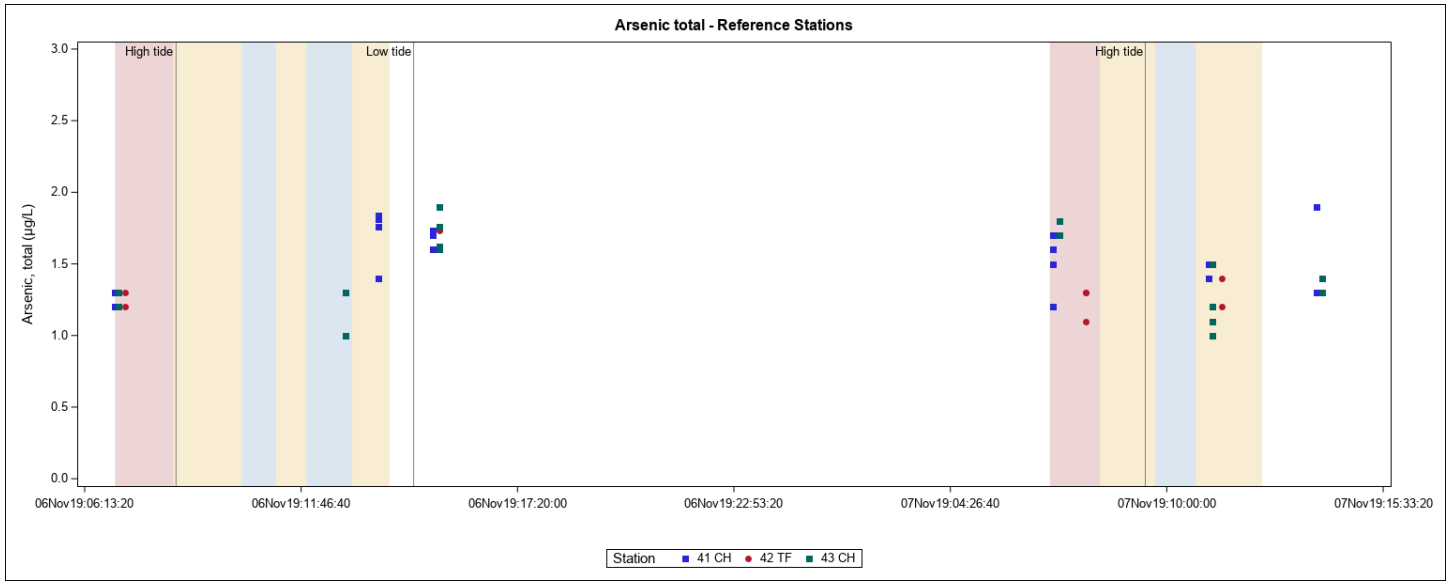
Cable 3

Total Arsenic

Arsenic, total (µg/L)		06 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.5	<0.5			<0.5	<0.5	<0.5	1.5			1.1	2.8
	11	1	1			2.2	2.2	1.3	1.8			<0.5	2.3
	12	<0.5	<0.5	<0.5	<0.5	1.3	1.3	<0.5	1.8	1.2	1.8	<0.5	1.9
	13	2.3	2.3	1.3	1.3	1.2	1.2	<0.5	1.7	1.2	1.9	1.3	2.4
	14	1.2	1.2	1.3	1.3	2.1	2.1	1.7	1.7	1.7	1.7	1.7	1.7
Nearfield South	15	2.1	2.1			1.2	1.2	1.2	1.2			<0.5	1.1
	16	1.1	1.1			1.2	1.2	1.1	1.2			<0.5	1.8
	17	2.2	2.2	1.2	1.2	2.5	2.5	<0.5	1.8	<0.5	1.7	1.2	2
	18	<0.5	<0.5	<0.5	<0.5	2.6	2.6	1.5	2	1.4	1.8	1.7	1.9
	19	2	2	<0.5	<0.5	1.3	1.3						
Reference Stations	41	<0.5	<0.5	1.3	1.3	1.2	1.2	1.4	1.6	1.7	1.8	1.7	1.8
	42	1.2	1.2			1.3	1.3	1.7	1.7				
	43	1.3	1.3	1.2	1.2	<0.5	<0.5	1.3	1.6	1	1.9	1.3	1.8

Arsenic, total (µg/L)		07 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	1.2	1.2			1.1	1.1						
	11	1.2	1.2			1.2	1.2						
	12	1.5	1.5	1.8	1.8	1.4	1.4	1.5	1.6	1.4	1.7	1.2	1.7
	13	1.7	1.7	1.2	1.2	1.2	1.2	1.3	1.9	1.3	1.7	1.5	1.8
	14	1.2	1.2	1.2	1.2	1.3	1.3	1.2	1.5	1.4	1.4	1.3	1.4
Nearfield South	15	1.1	1.1			1.2	1.2						
	16	1.2	1.2			1.1	1.1						
	17	1.3	1.3	1.8	1.8	1.3	1.3	1.2	1.5	1.3	1.8	1.4	1.7
	18	1.7	1.7	1.1	1.1	1.3	1.3	1.1	1.7	1.2	1.6	1.2	2.4
	19	1.7	1.7	1.5	1.5	1.7	1.7	1.2	1.7	1.2	1.4	1.3	1.7
Reference Stations	41	1.6	1.6	1.2	1.2	1.5	1.7	<0.5	1.4	1.5	1.9	1.3	1.4
	42	1.1	1.3			1.3	1.3	1.2	1.2			1.4	1.4
	43	1.7	1.7	1.8	1.8	1.7	1.7	1	1.4	1.1	1.5	1.2	1.3

Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



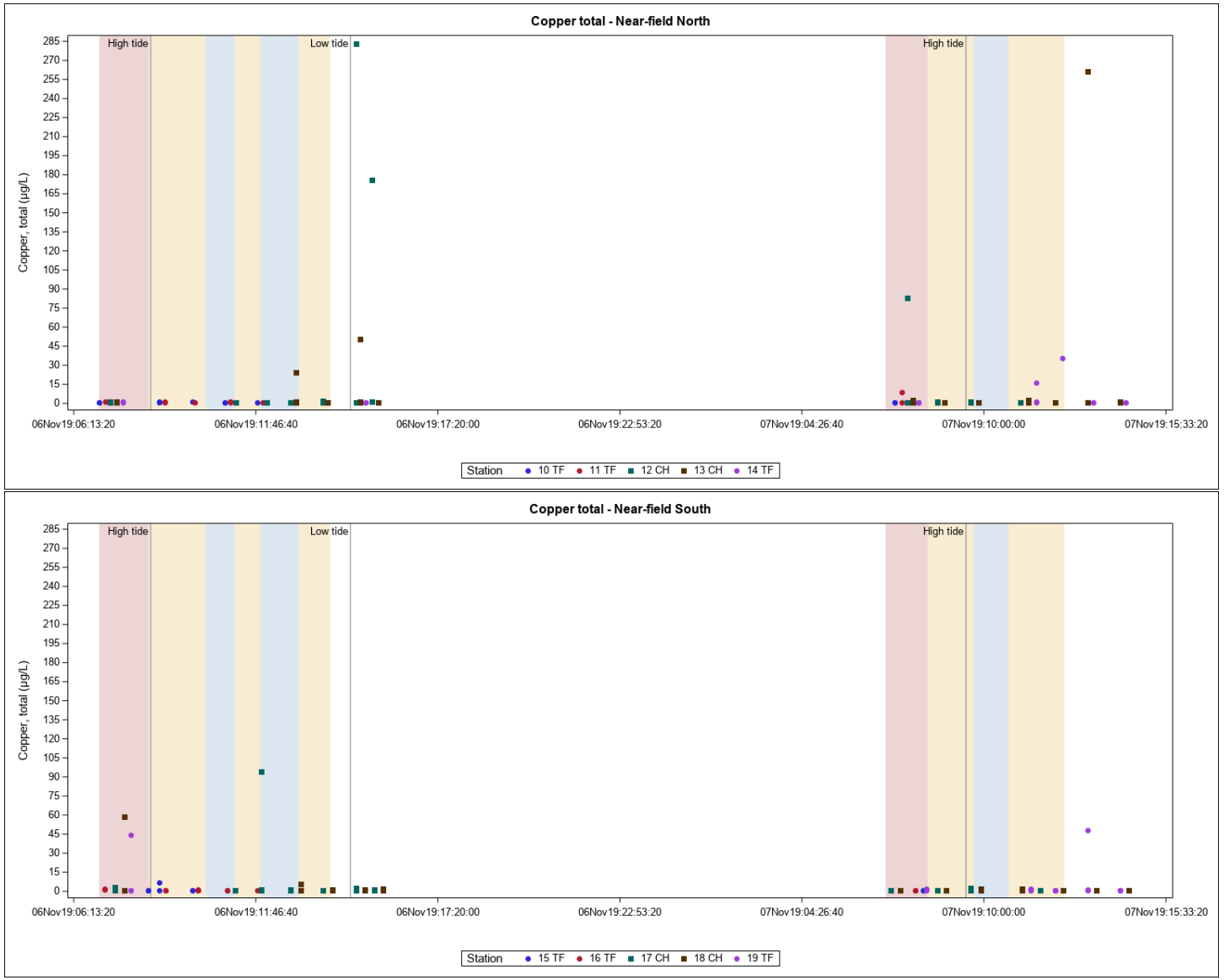
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 3

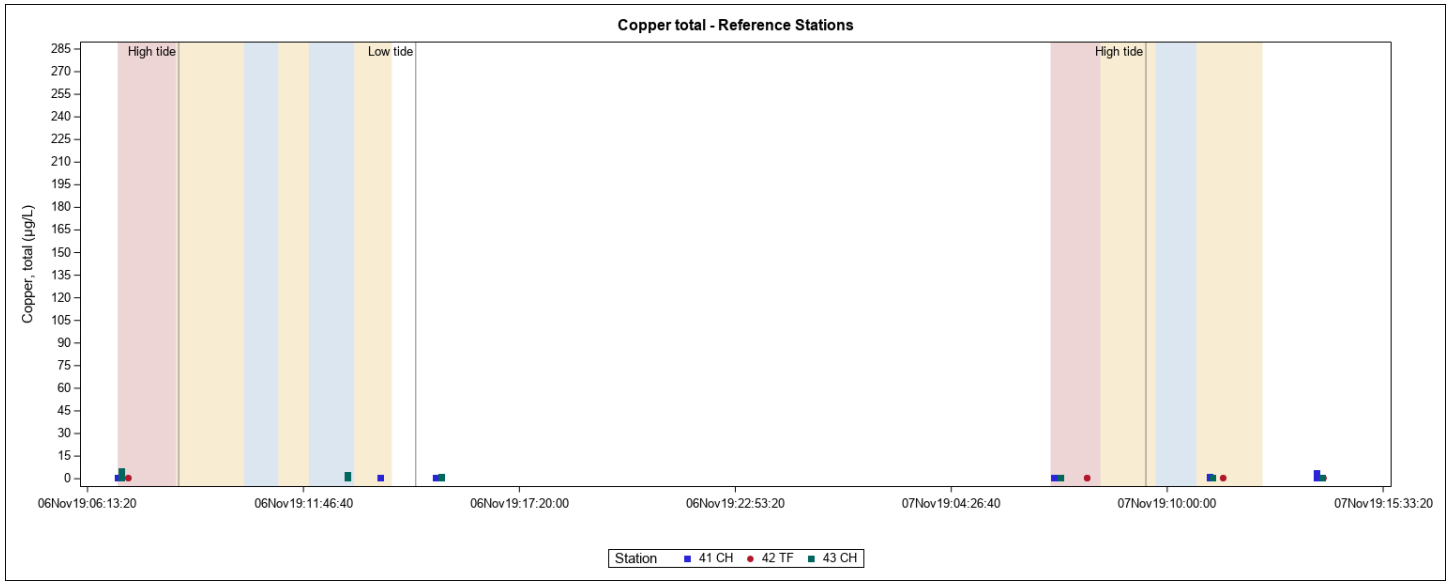
Total Copper

Copper, total (µg/L)		06 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	0.8	0.8			0.8	0.8	<0.5	0.7			0.5	1.4
	11	1.1	1.1			1.1	1.1	0.9	1			<0.5	1.6
	12	0.5	0.5	0.6	0.6	1.1	1.1	<0.5	176	<0.5	1	0.5	283
	13	1	1	0.9	0.9	1.2	1.2	0.6	0.8	<0.5	50.7	<0.5	1.3
	14	1.2	1.2	1.2	1.2	0.9	0.9	0.9	0.9	0.9	0.9	1	1
Nearfield South	15	1	1			0.5	0.5	0.6	6.8			0.6	0.6
	16	1.9	1.9			1.1	1.1	0.5	0.7			0.6	1.1
	17	1.2	1.2	0.9	0.9	3.3	3.3	0.5	1.4	0.6	2.4	<0.5	94
	18	0.9	0.9	0.7	0.7	58.5	58.5	<0.5	2.2	0.7	1.3	0.7	5.5
	19	44.5	44.5	0.7	0.7	0.9	0.9						
Reference Stations	41	0.6	0.6	0.9	0.9	0.9	0.9	0.6	0.7	0.6	1	<0.5	<0.5
	42	1	1			1	1	<0.5	<0.5				
	43	5.2	5.2	0.6	0.6	0.6	0.6	0.8	1.7	0.6	1.2	0.9	2.5

Copper, total (µg/L)		07 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	0.8	0.8			0.7	0.7						
	11	0.6	0.6			8.8	8.8						
	12	0.8	0.8	0.8	0.8	83	83	0.6	1.4	0.6	1.2	0.5	1.3
	13	0.9	0.9	0.6	0.6	2.3	2.3	0.5	0.9	0.6	2.5	0.7	261
	14	0.5	0.5	0.6	0.6	0.6	0.6	0.6	35.7	0.6	0.6	0.6	1.4
Nearfield South	15	0.6	0.6			0.6	0.6						
	16	0.6	0.6			0.6	0.6						
	17	0.8	0.8	0.8	0.8	0.6	0.6	0.6	0.7	0.7	2.4	0.7	1
	18	1	1	0.8	0.8	0.6	0.6	0.6	1.3	0.6	0.7	0.6	2.2
	19	1.7	1.7	1.2	1.2	0.8	0.8	0.5	48	0.5	2.1	0.6	1.3
Reference Stations	41	0.8	0.8	<0.5	<0.5	0.8	0.8	0.6	0.9	0.5	0.8	1.1	3.7
	42	0.6	0.8			0.7	0.7	0.6	0.6			0.5	0.6
	43	0.8	0.8	0.8	0.8	0.7	0.7	0.6	0.6	<0.5	0.6	0.6	0.6



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

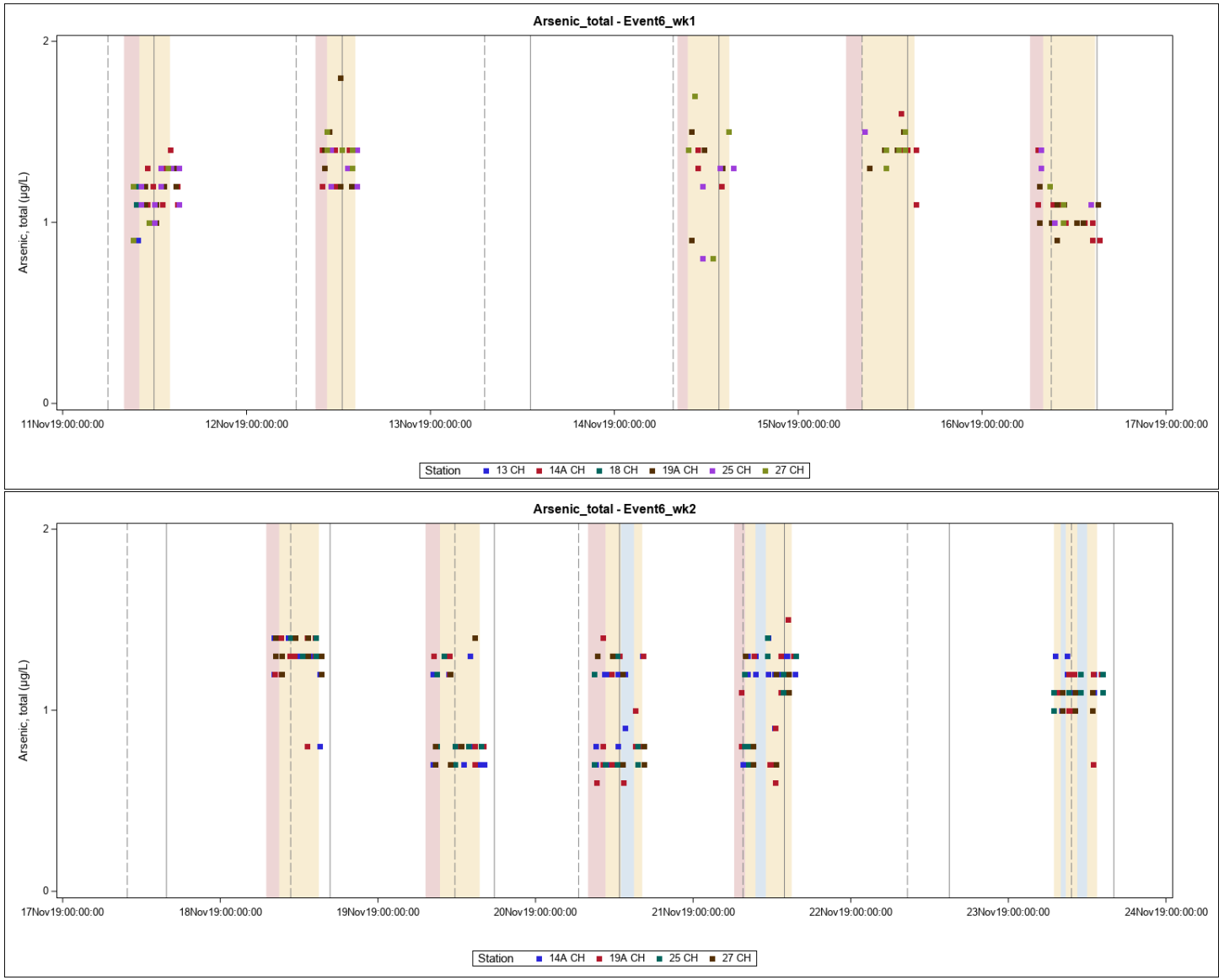


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Hand Jet

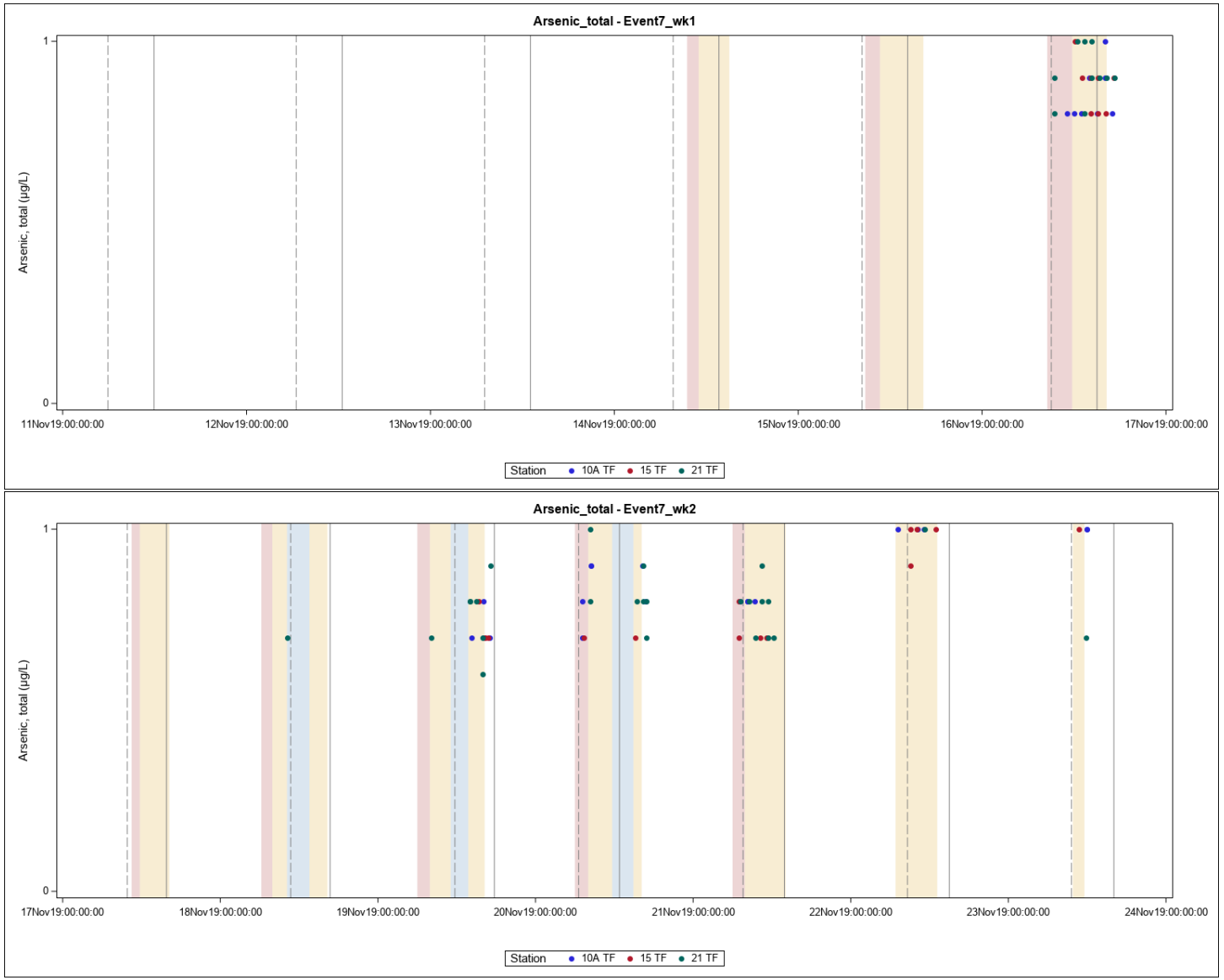
Total Arsenic

Arsenic, total (µg/L)		11 NOV 2019 – 18 DEC 2019											
						Before Start of Jet Plow				During Jet Plowing			
		Surface		Bottom		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Turbidity Profiles	50	<0.5	1.6	1.2	3.3					1.9	1.9	2	2
	55	<0.5	<0.5	1.3	1.4					1.2	1.2	1.3	1.3
West Side Boundary	10A					0.8	1.3	0.7	1.4	<0.5	2.5	<0.5	2.5
	11							<0.5	<0.5				
	15					<0.5	1.2	<0.5	1.4	<0.5	2.3	<0.5	2.6
West Side Reference	21					<0.5	1.5	<0.5	1.4	<0.5	2.4	<0.5	2.6
East Side Boundary	13					0.9	0.9	<0.5	<0.5				
	14A					<0.5	1.4	<0.5	1.4	<0.5	2.5	<0.5	2.4
	18					1.2	1.2	1.1	1.1				
	19A					<0.5	2.3	<0.5	1.6	<0.5	1.5	<0.5	1.8
East Side Reference	25					<0.5	1.5	<0.5	1.5	<0.5	2.4	<0.5	2.6
	27					<0.5	1.6	<0.5	1.4	<0.5	2.7	<0.5	1.7

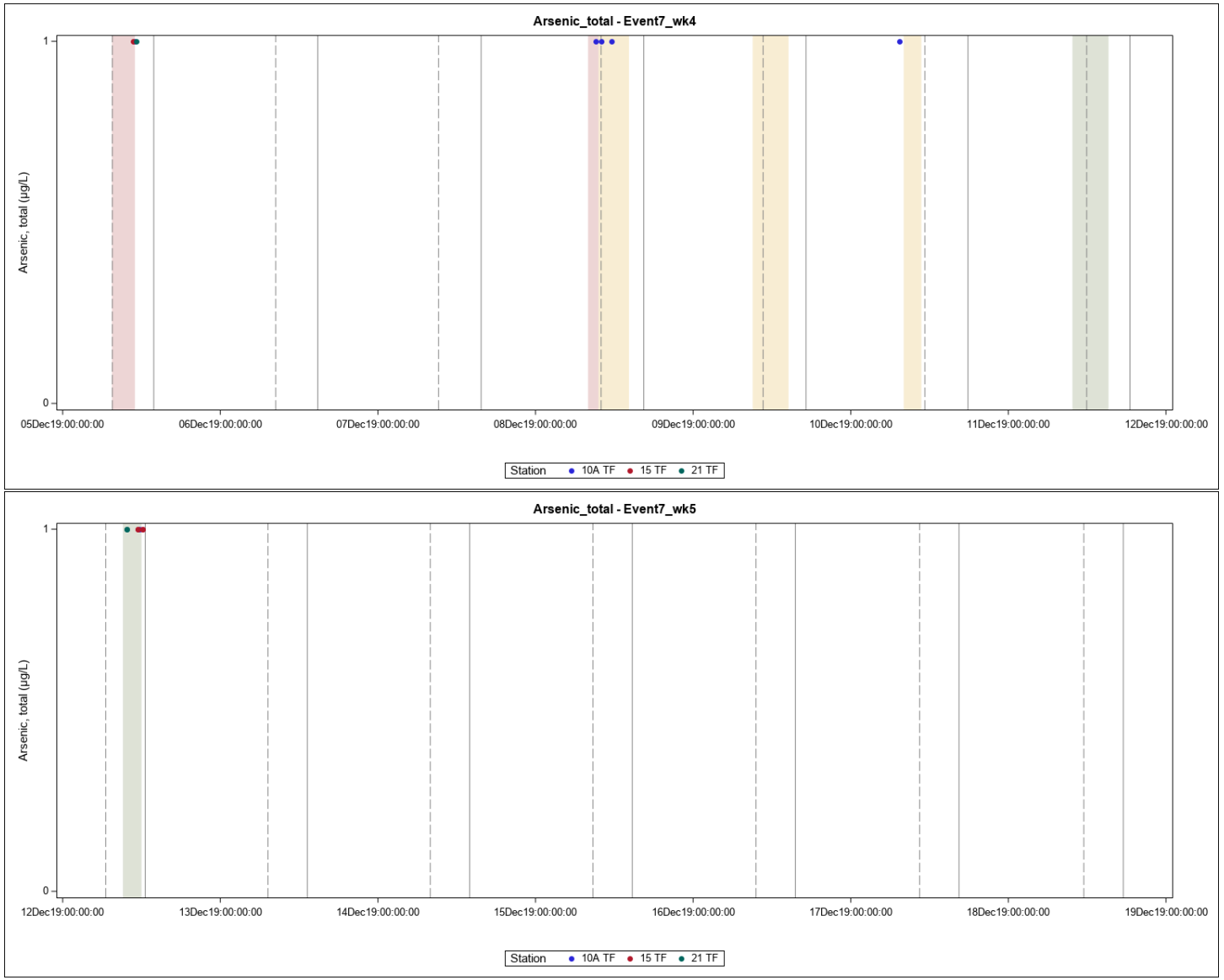


Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

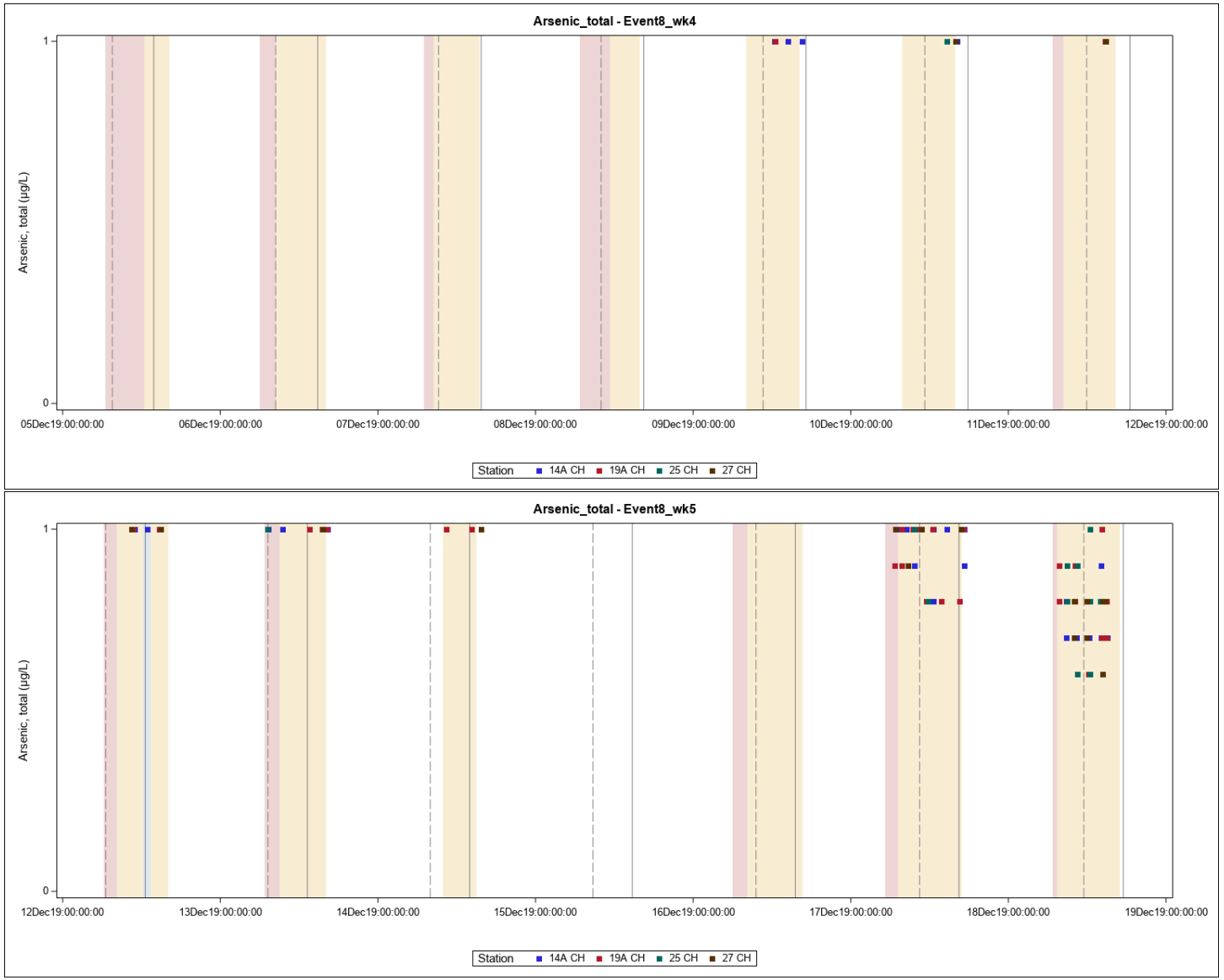
Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation; green shading indicates turbidity barrier removal. Vertical lines indicate high and low slack tides.

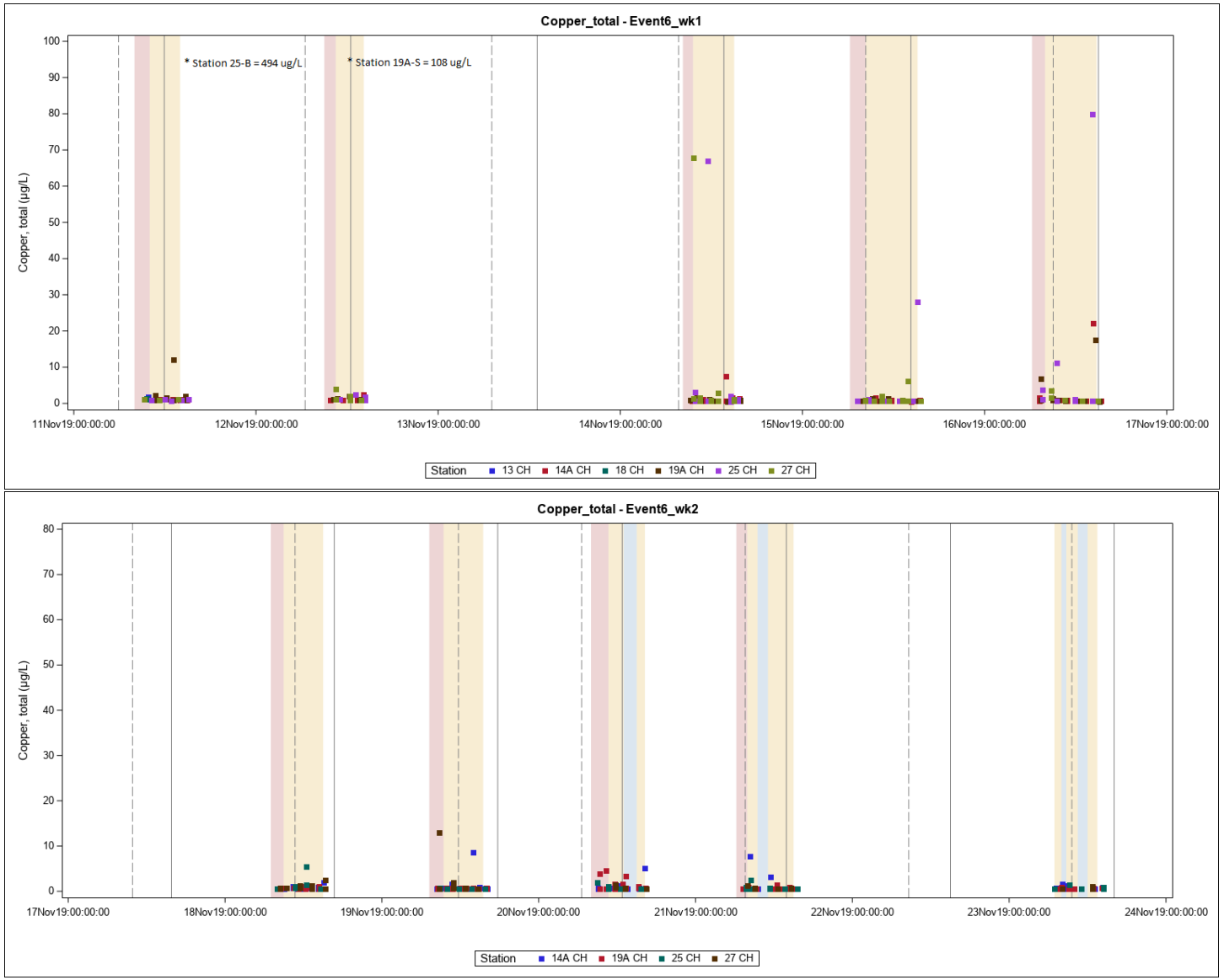


Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

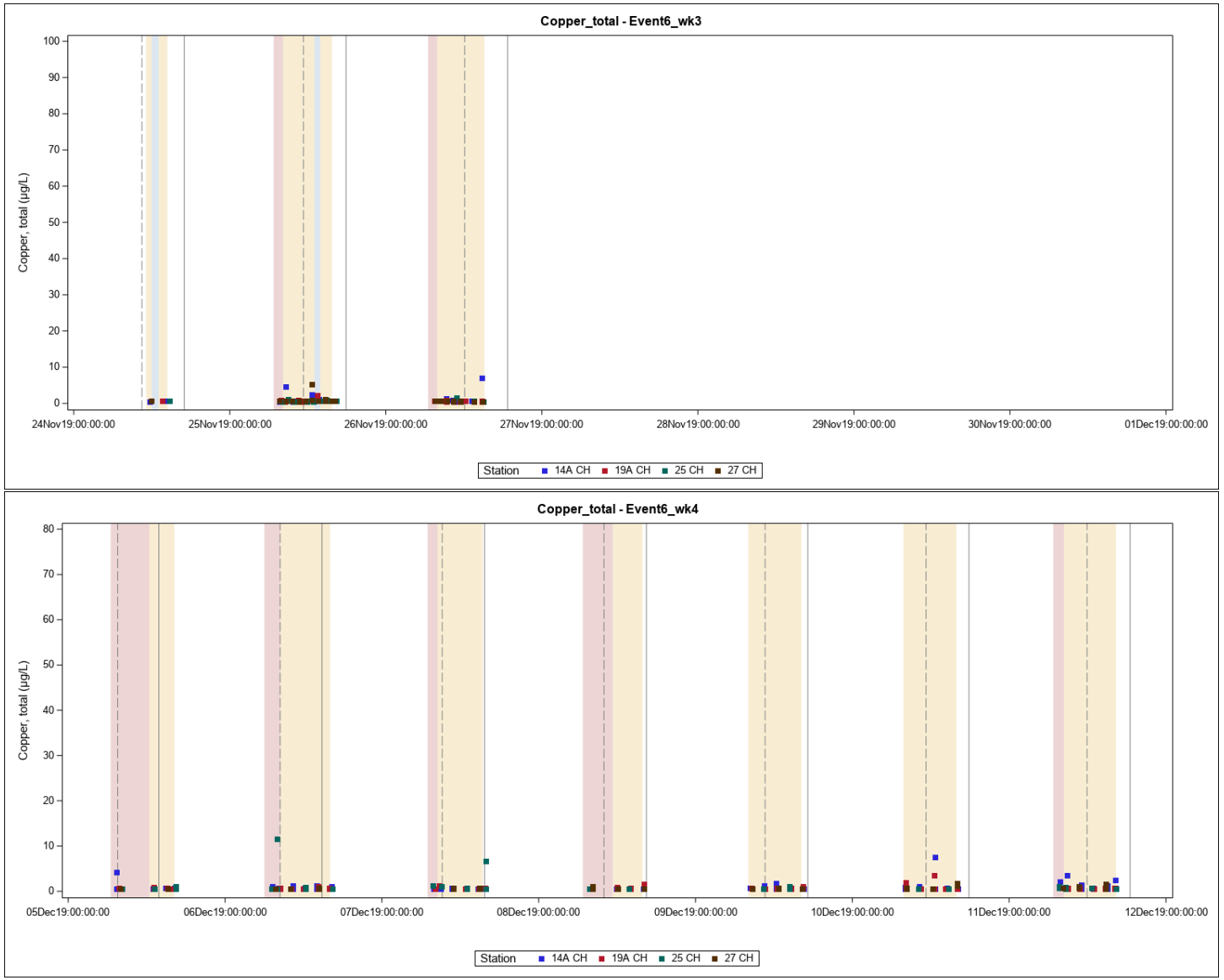
Hand Jet

Total Copper

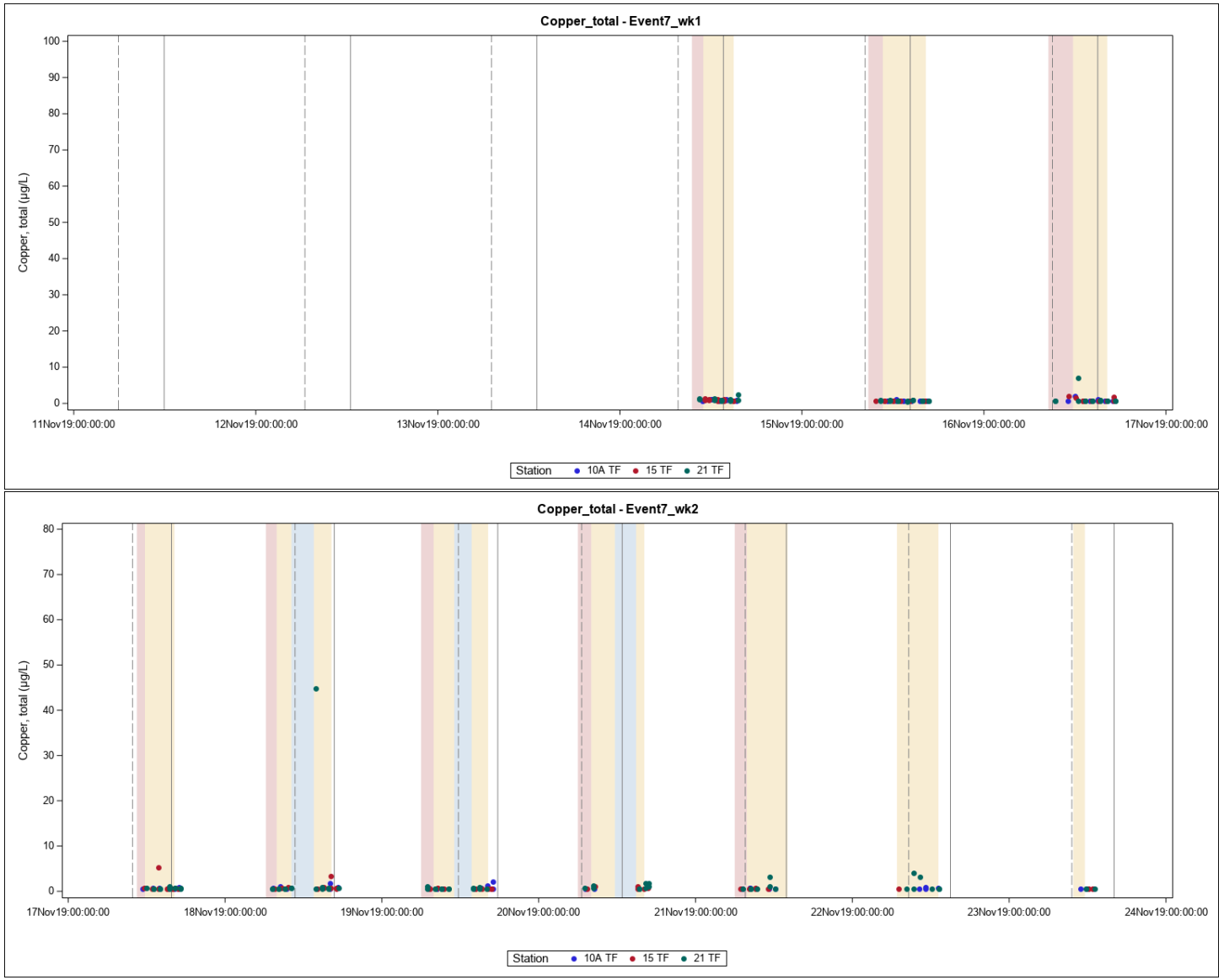
Copper, total (µg/L)		11 NOV 2019 – 18 DEC 2019											
						Before Start of Jet Plow				During Jet Plowing			
		Surface		Bottom		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Turbidity Profiles	50	<0.5	10.6	1.4	7.3					1.9	1.9	4.6	4.6
	55	0.5	0.7	0.6	0.7					0.5	0.5	4.9	4.9
West Side Boundary	10A					0.5	0.8	0.5	1.2	<0.5	1.7	<0.5	8
	11							0.8	0.8				
	15					<0.5	0.6	<0.5	17	<0.5	2	<0.5	5.2
West Side Reference	21					<0.5	1.4	<0.5	1.2	<0.5	44.9	<0.5	7
East Side Boundary	13					<0.5	<0.5	1.7	1.7				
	14A					<0.5	1.6	<0.5	4.2	<0.5	8.6	<0.5	22.2
	18					1.2	1.2	1.3	1.3				
	19A					<0.5	3.9	<0.5	6.9	<0.5	108	<0.5	12
East Side Reference	25					<0.5	11.6	<0.5	3.7	<0.5	28.1	<0.5	494
	27					<0.5	1.6	<0.5	13	<0.5	6.1	<0.5	67.9



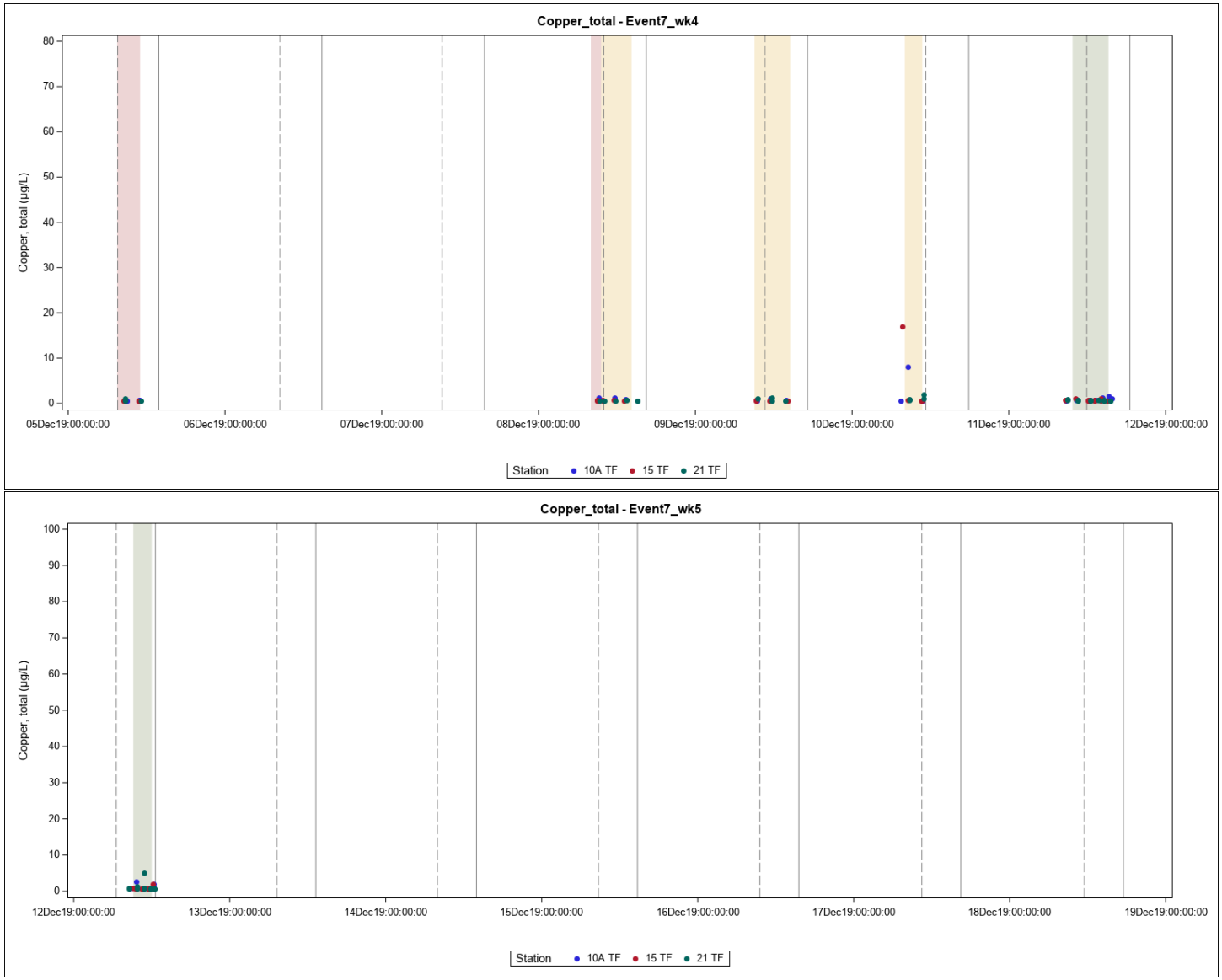
Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation; green shading indicates turbidity barrier removal. Vertical lines indicate high and low slack tides.

Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

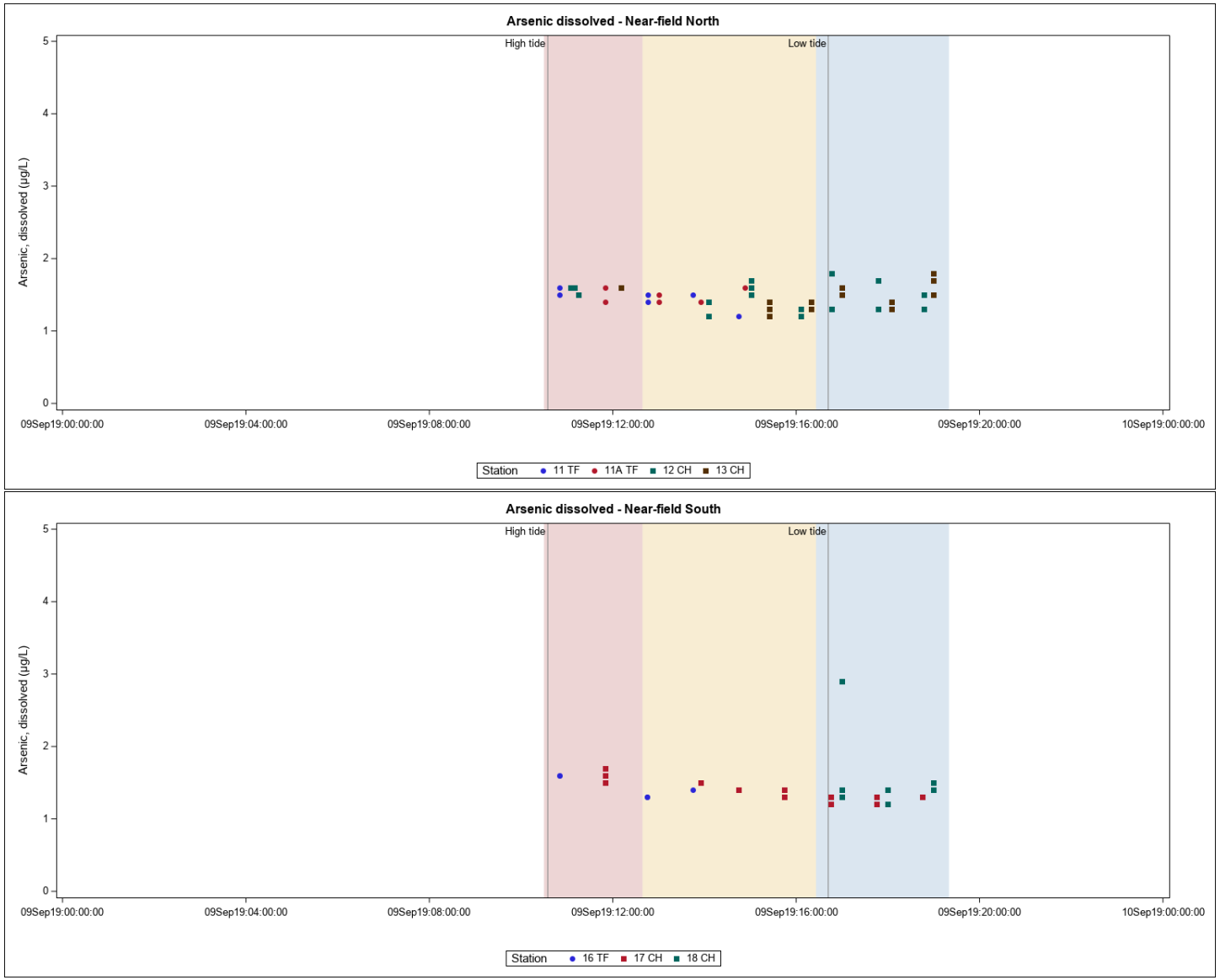
Appendix N
Dissolved Metal Plots and Tables

Jet Plow Trial

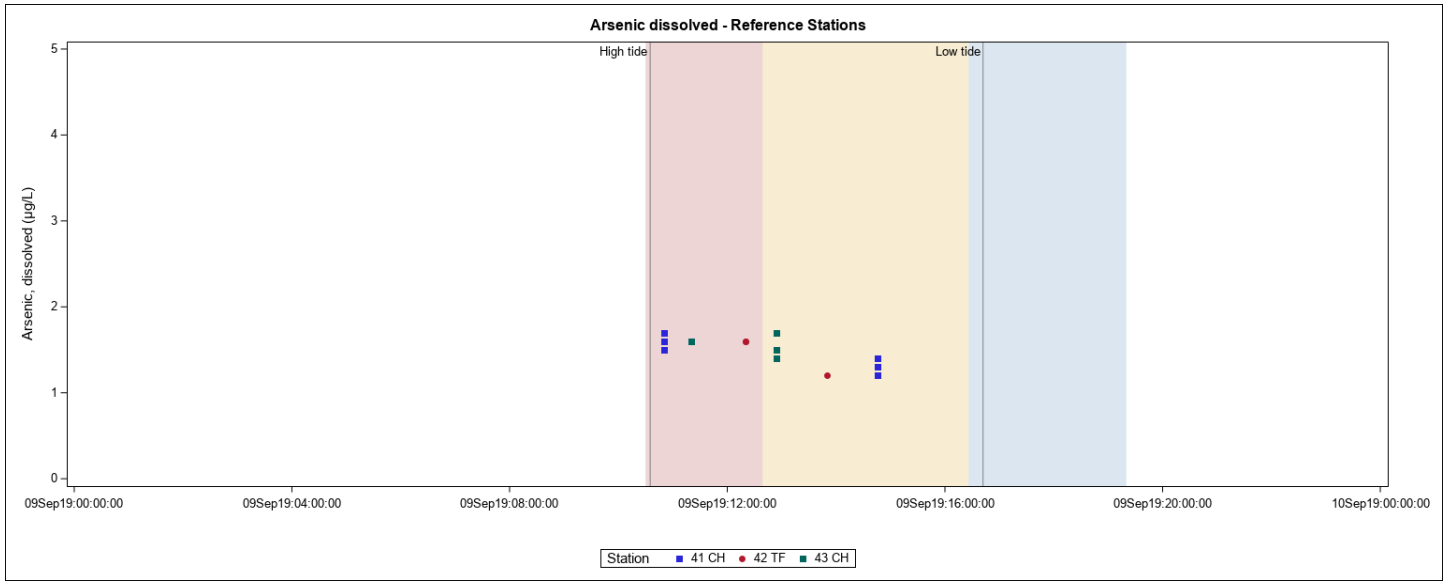
Dissolved Arsenic

Arsenic, dissolved (µg/L)		09 SEP 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6	1.5	1.5	1.5	1.6
	23	1.6	1.6			1.5	1.5	1.5	1.5			1.5	1.6
	24	1.6	1.6	1.6	1.6	1.5	1.5	1.2	1.7	1.2	1.8	1.3	1.9
	25	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.8	1.4	1.7	1.4	1.6
Boundary South	27							1.3	1.8	1.3	1.7	1.3	1.7
	28							1.5	1.7	1.4	1.5	1.4	1.5
	29							1.4	1.7	1.4	1.8	1.4	1.8
Nearfield North	11	1.6	1.6			1.5	1.5	1.4	1.4			1.2	1.5
	11A	1.6	1.6			1.4	1.4	1.5	1.5			1.4	1.6
	12	1.6	1.6	1.6	1.6	1.5	1.5	1.2	1.8	1.2	1.8	1.2	1.7
	13	1.6	1.6	1.6	1.6	1.6	1.6	1.2	1.6	1.3	1.8	1.3	1.7
Nearfield South	16	1.6	1.6			1.6	1.6	1.3	1.3			1.3	1.4
	17	1.5	1.5	1.6	1.6	1.7	1.7	1.3	1.5	1.3	1.5	1.2	1.5
	18							1.2	2.9	1.3	1.5	1.2	1.4
Reference Stations	41	1.6	1.6	1.5	1.5	1.7	1.7	1.4	1.4	1.2	1.3	1.3	1.3
	42	1.6	1.6			1.6	1.6					1.2	1.2
	43	1.6	1.6	1.6	1.6	1.6	1.6	1.4	1.4	1.7	1.7	1.5	1.5

Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

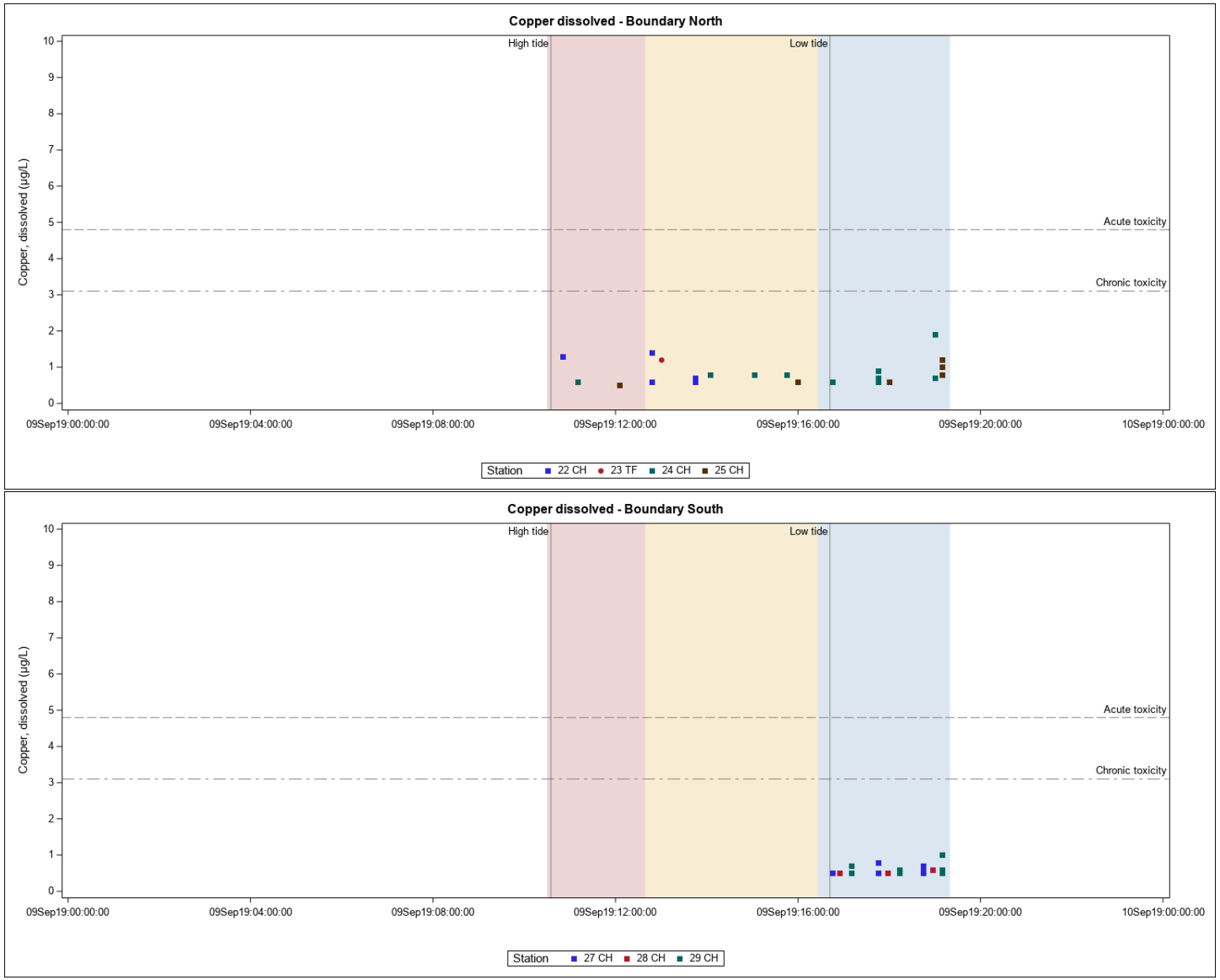


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

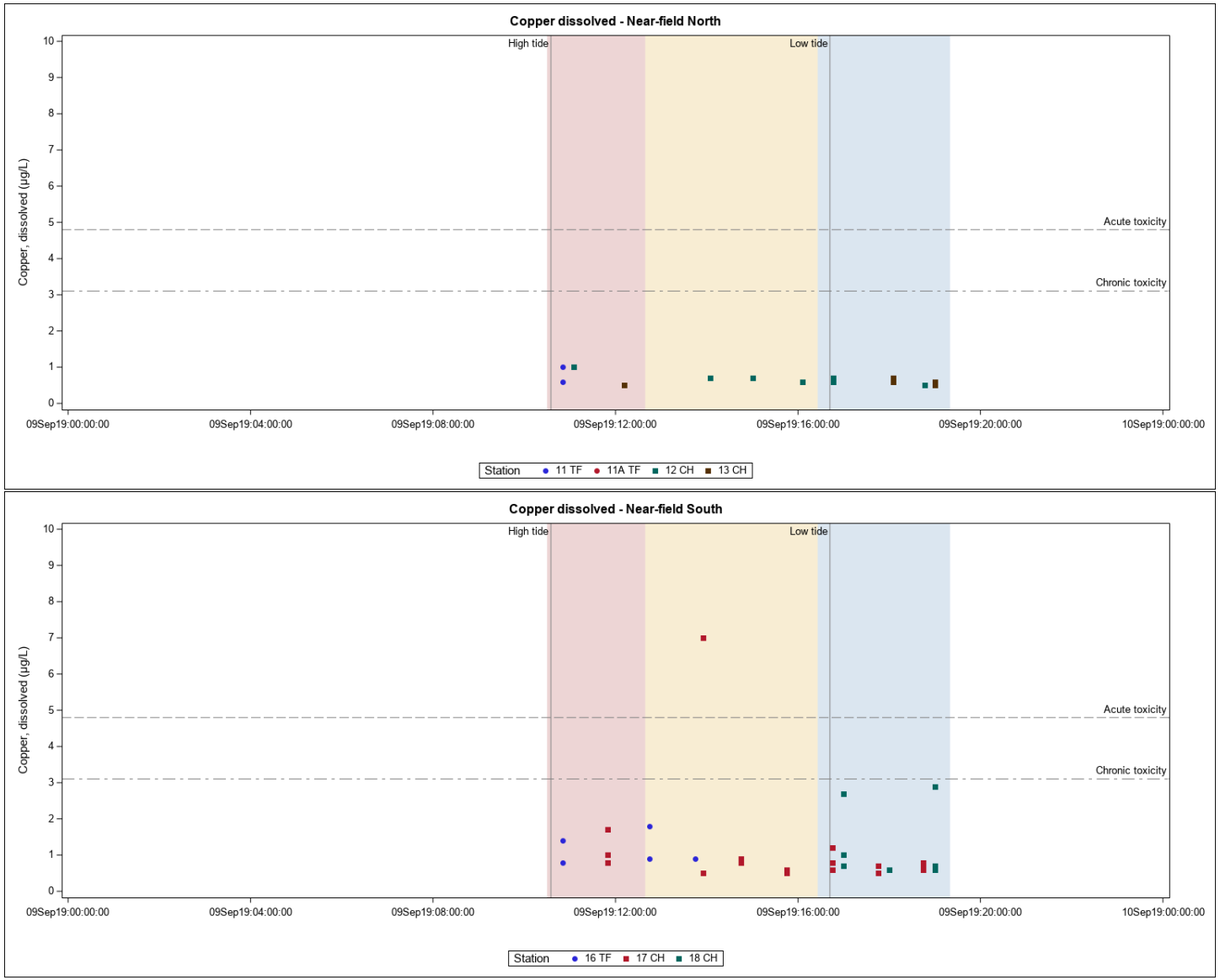
Jet Plow Trial

Dissolved Copper

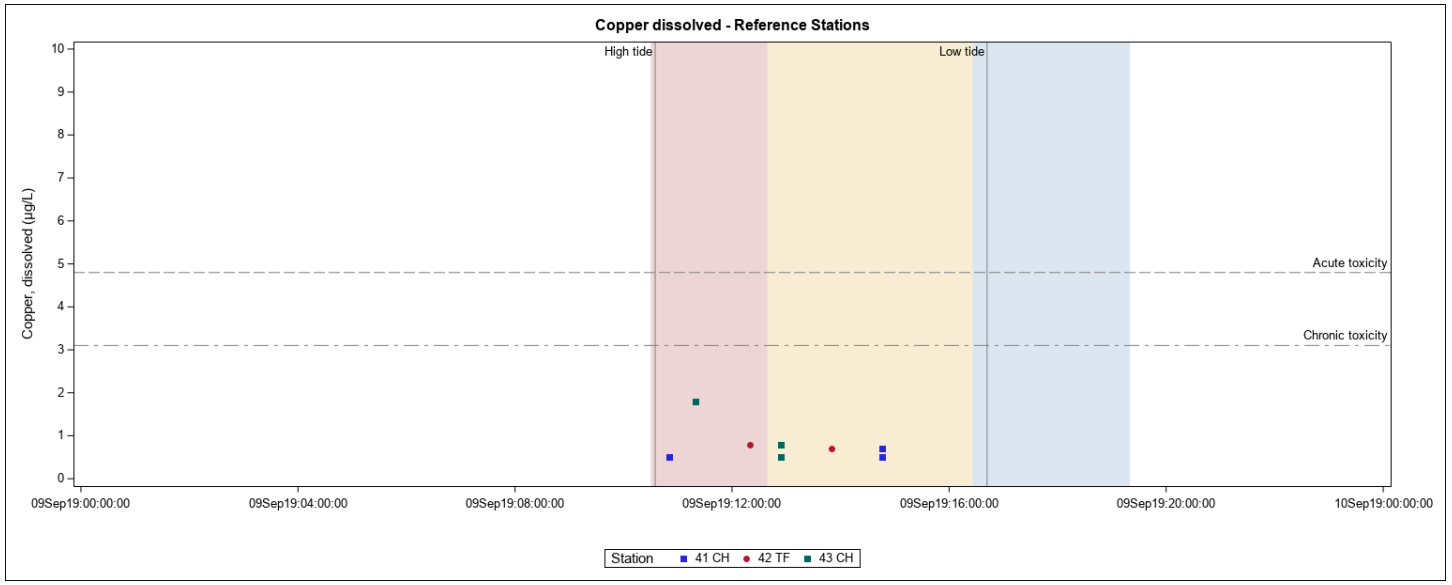
Copper, dissolved (µg/L)		09 SEP 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	22	1.3	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.4	<0.5	<0.5
	23	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	1.2
	24	0.6	0.6	<0.5	<0.5	<0.5	<0.5	0.6	1.9	<0.5	0.7	<0.5	0.7
	25	0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	1	<0.5	1.2
Boundary South	27							0.5	0.7	<0.5	0.6	0.5	0.8
	28							<0.5	0.5	<0.5	0.5	<0.5	0.6
	29							<0.5	0.6	0.5	0.6	0.5	1
Nearfield North	11	0.6	0.6			1	1	<0.5	<0.5			<0.5	<0.5
	11A	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	<0.5
	12	1	1	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	0.6	<0.5	0.7
	13	0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	0.5	<0.5	0.7
Nearfield South	16	1.4	1.4			0.8	0.8	1.8	1.8			0.9	0.9
	17	1.7	1.7	0.8	0.8	1	1	<0.5	0.8	<0.5	0.8	0.5	7
	18							0.6	2.7	<0.5	2.9	0.6	1
Reference Stations	41	0.5	0.5	<0.5	<0.5	<0.5	<0.5	0.5	0.5	<0.5	0.7	0.5	0.5
	42	<0.5	<0.5			0.8	0.8					0.7	0.7
	43	<0.5	<0.5	<0.5	<0.5	1.8	1.8	0.8	0.8	0.5	0.5	<0.5	<0.5



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 1

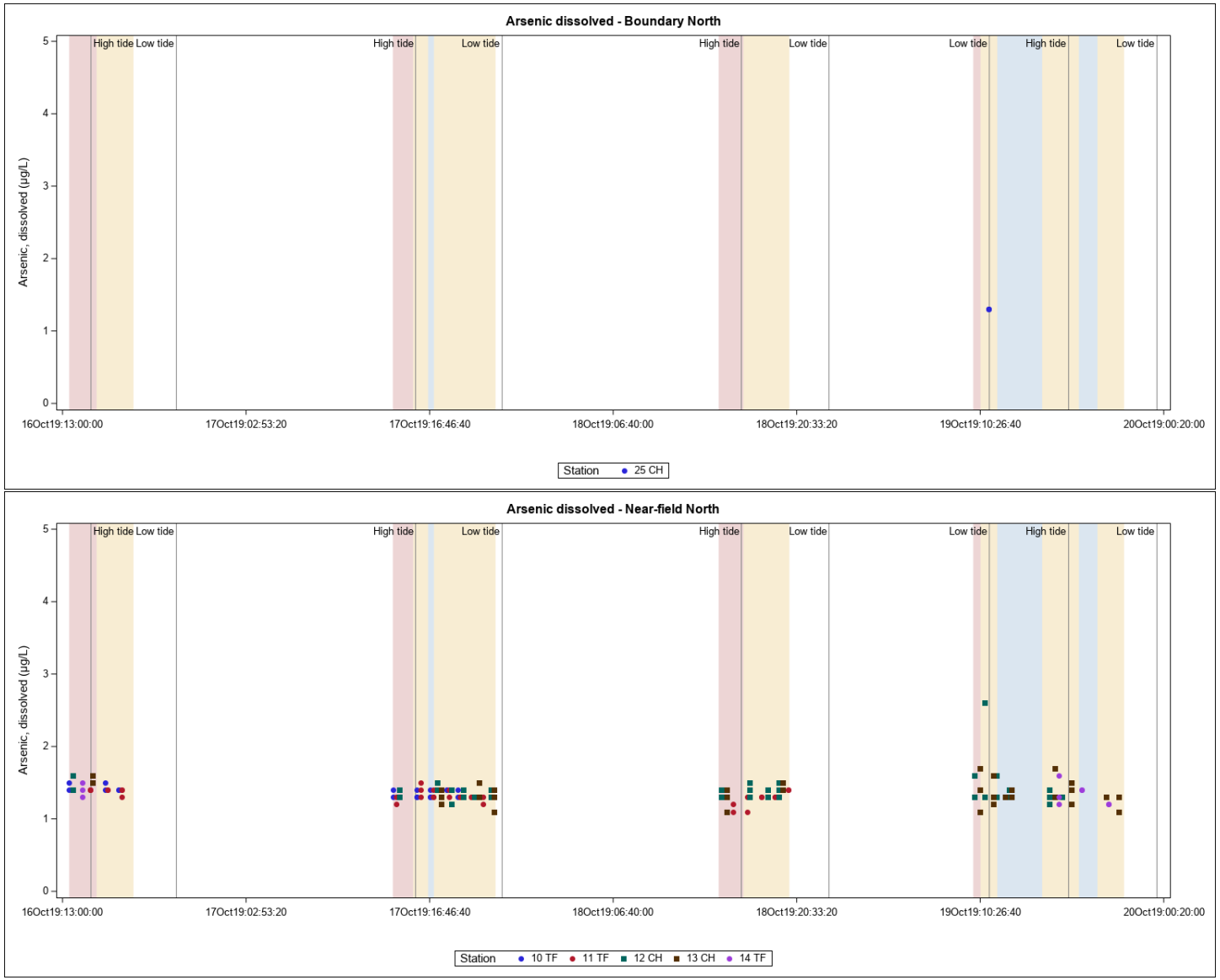
Dissolved Arsenic

Arsenic, dissolved (µg/L)		16 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	1.5	1.5			1.4	1.4	1.4	1.4			1.4	1.5
	11	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.4			1.4	1.4
	12	1.4	1.4	1.6	1.6								
	13	1.5	1.5	1.5	1.5	1.6	1.6						
	14	1.4	1.4	1.3	1.3	1.5	1.5						
Nearfield South	15	1.4	1.4			1.4	1.4	1.4	1.5			1.3	1.5
	16	1.5	1.5			1.5	1.5	1.4	1.6	1.5	1.5	1.4	1.4
	17	1.6	1.6	1.5	1.5	1.3	1.3						
	18	1.4	1.4	1.5	1.5	1.4	1.4						
	19	1.6	1.6	1.4	1.4	1.5	1.5						
Reference Stations	41	1.3	1.3	1.5	1.5	1.5	1.5						
	42	1.5	1.5			1.5	1.5						
	43	1.4	1.4	1.3	1.3	1.5	1.5						

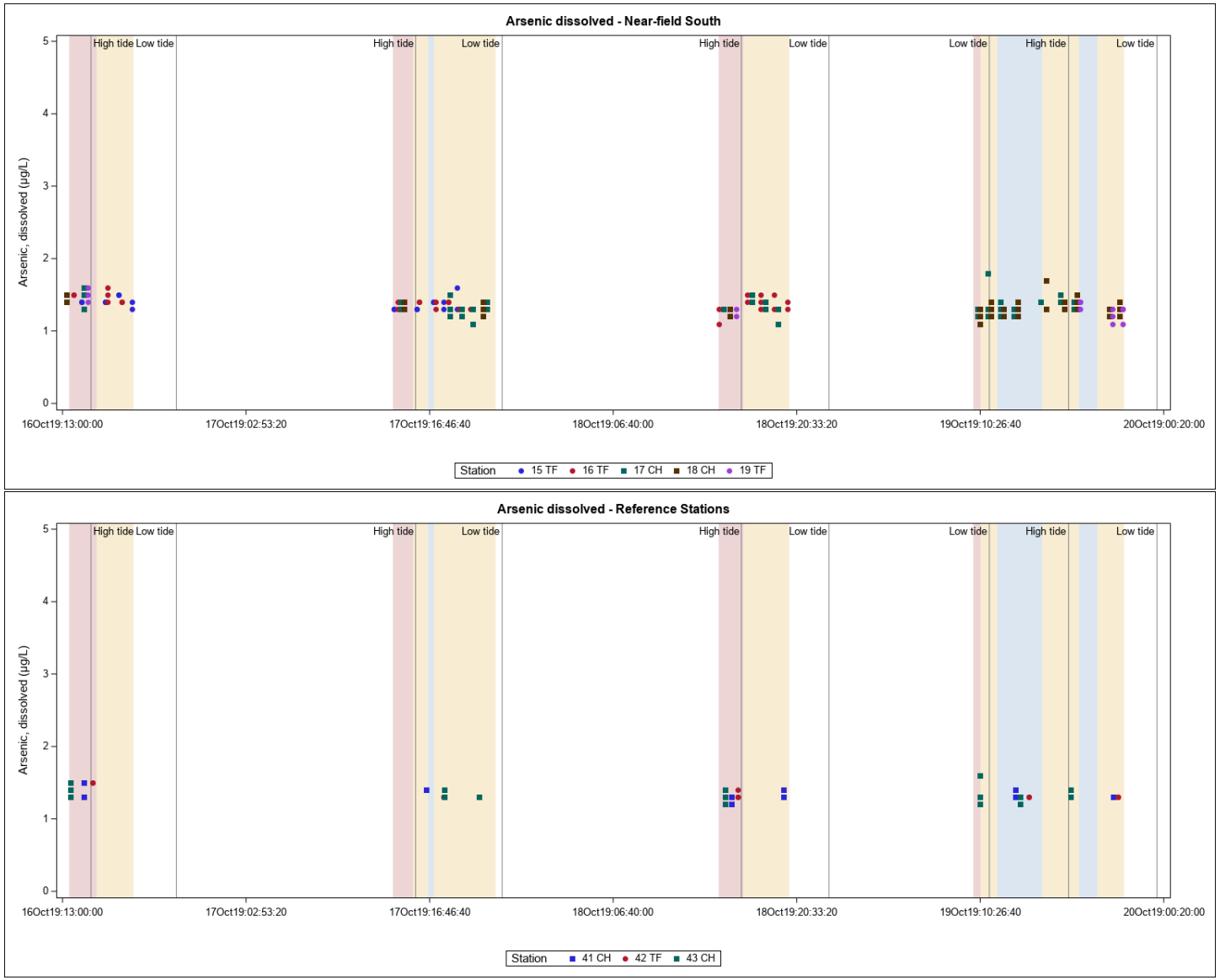
Arsenic, dissolved (µg/L)		17 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	1.4	1.4			1.3	1.3	1.3	1.4	1.3	1.3	1.3	1.4
	11	1.3	1.3			1.2	1.2	1.3	1.5	1.3	1.3	1.2	1.4
	12	1.4	1.4	1.3	1.3	1.4	1.4	1.3	1.5	1.2	1.4	1.2	1.5
	13							1.1	1.5	1.3	1.3	1.2	1.4
Nearfield South	15	1.3	1.3			1.3	1.3	1.3	1.4			1.3	1.6
	16	1.3	1.3			1.4	1.4	1.3	1.4			1.3	1.4
	17	1.4	1.4			1.3	1.3	1.2	1.4	1.1	1.5	1.3	1.3
	18	1.4	1.4	1.3	1.3	1.4	1.4	1.2	1.2	1.4	1.4	1.3	1.3
Reference Stations	41							1.4	1.4	1.4	1.4	1.4	1.4
	42							1.3	1.3			1.3	1.3
	43							1.3	1.3	1.3	1.3	1.3	1.4

Arsenic, dissolved (µg/L)		18 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	11	1.2	1.2			1.1	1.1	1.1	1.4			1.3	1.4
	12	1.3	1.3	1.3	1.3	1.4	1.4	1.3	1.5	1.4	1.4	1.3	1.5
	13	1.1	1.1	1.4	1.4	1.3	1.3	1.5	1.5	1.4	1.4	1.4	1.4
Nearfield South	16	1.1	1.1			1.3	1.3	1.3	1.5			1.3	1.5
	17	1.3	1.3	1.3	1.3	1.3	1.3	1.1	1.5	1.3	1.4	1.3	1.4
	18	1.2	1.2	1.2	1.2	1.3	1.3						
	19	1.2	1.2			1.3	1.3						
Reference Stations	41	1.3	1.3	1.2	1.2	1.2	1.2	1.3	1.3	1.4	1.4	1.3	1.3
	42	1.4	1.4	1.3	1.3	1.3	1.3						
	43	1.3	1.3	1.2	1.2	1.4	1.4						

Arsenic, dissolved (µg/L)		19 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	25							1.3	1.3	1.3	1.3	1.3	1.3
Nearfield North	12	1.3	1.3	1.6	1.6	1.3	1.3	1.3	2.6	1.3	1.6	1.2	1.4
	13	1.4	1.4	1.1	1.1	1.7	1.7	1.1	1.3	1.3	1.7	1.3	1.5
	14							1.2	1.4	1.2	1.2	1.2	1.6
Nearfield South	17	<0.5	<0.5	1.2	1.2	1.3	1.3	1.2	1.5	1.2	1.8	1.2	1.4
	18	1.1	1.1	1.3	1.3	1.2	1.2	1.2	1.4	1.2	1.7	1.2	1.4
	19							1.1	1.4	1.2	1.4	1.1	1.3
Reference Stations	41							1.3	1.3	1.3	1.4	1.3	1.3
	42							1.3	1.3			1.3	1.3
	43	1.3	1.3	1.2	1.2	1.6	1.6	1.2	1.3	1.3	1.4	1.3	1.3



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 1

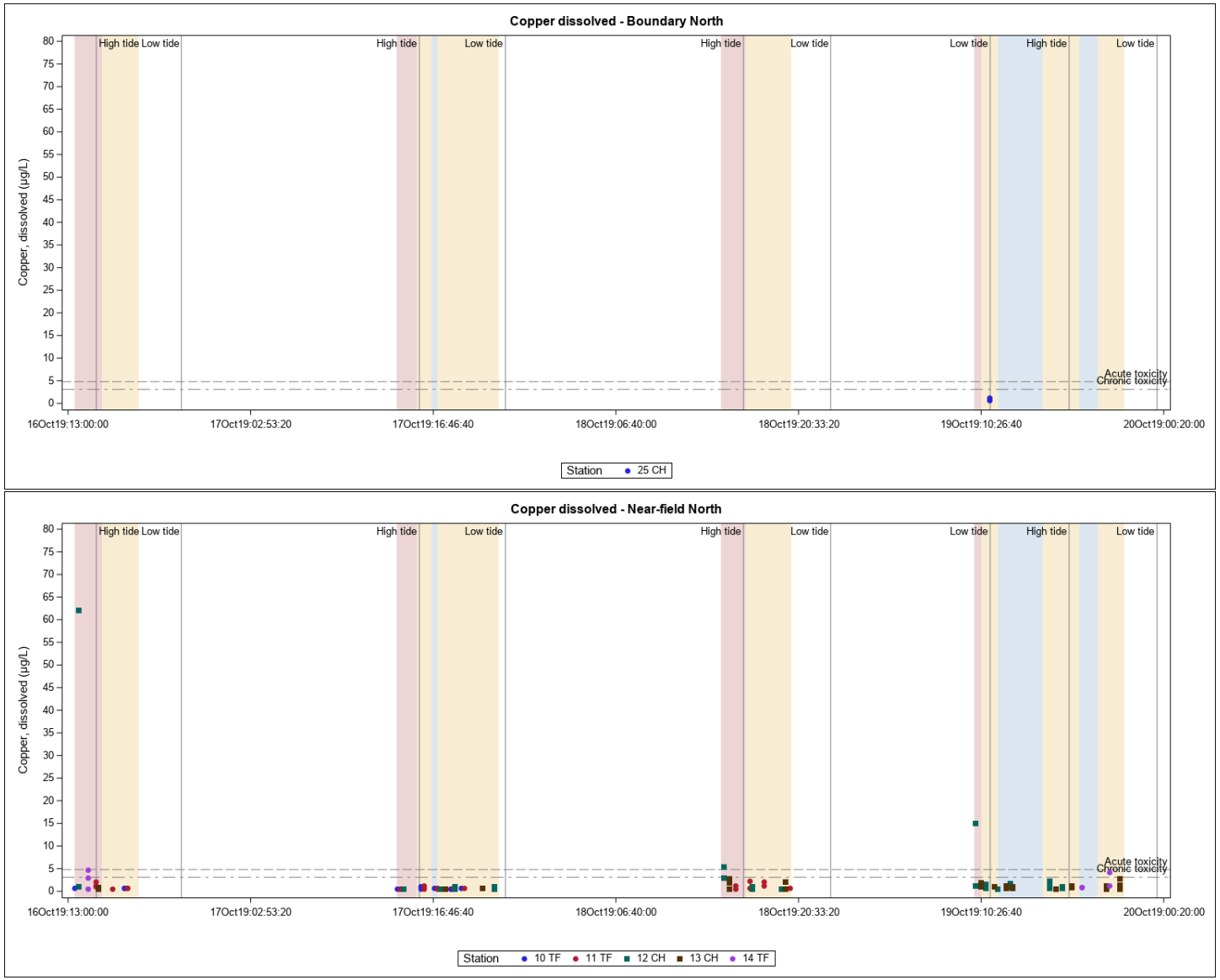
Dissolved Copper

Copper, dissolved (µg/L)		16 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	0.7	0.7			<0.5	<0.5	<0.5	0.7			<0.5	0.7
	11	2.2	2.2	1.2	1.2	1.1	1.1	<0.5	0.8			<0.5	0.7
	12	62.1	62.1	1.1	1.1								
	13	0.9	0.9	0.6	0.6	<0.5	<0.5						
	14	3	3	0.5	0.5	4.7	4.7						
Nearfield South	15	0.7	0.7			<0.5	<0.5	<0.5	2.3			0.7	1.8
	16	0.7	0.7			0.7	0.7	1	2.7	<0.5	<0.5	<0.5	6.8
	17	<0.5	<0.5	<0.5	<0.5	0.7	0.7						
	18	4	4	0.6	0.6	0.6	0.6						
	19	0.7	0.7	0.9	0.9	0.5	0.5						
Reference Stations	41	0.7	0.7	<0.5	<0.5	<0.5	<0.5						
	42	2.5	2.5			4.1	4.1						
	43	2.3	2.3	5.5	5.5	5.7	5.7						

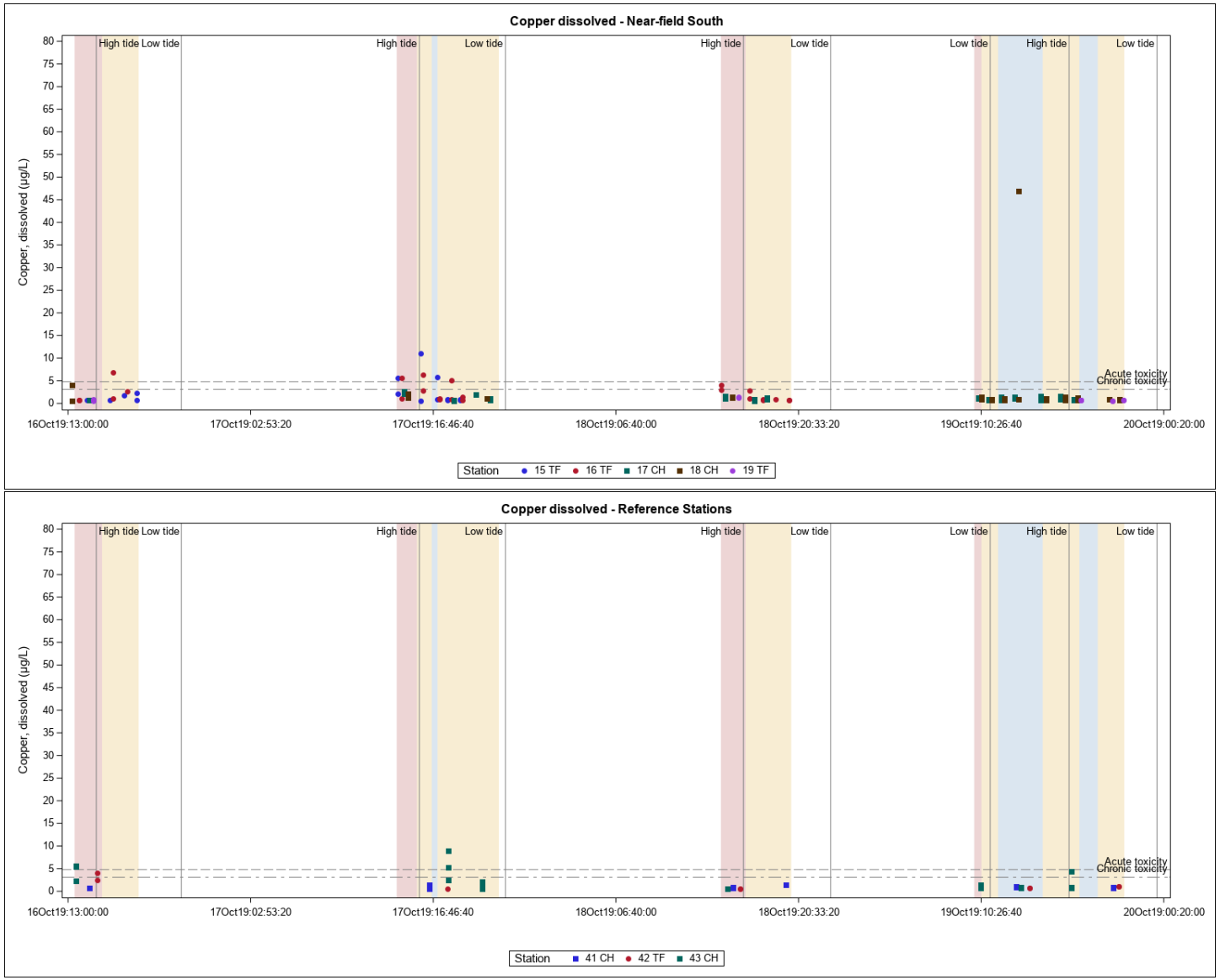
Copper, dissolved (µg/L)		17 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	0.5	0.5			<0.5	<0.5	0.5	1	<0.5	1.1	<0.5	0.6
	11	0.6	0.6			0.6	0.6	<0.5	1.2	<0.5	0.8	<0.5	0.5
	12	0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5	0.6	<0.5	1.1
	13							<0.5	0.8	<0.5	0.5	<0.5	<0.5
Nearfield South	15	5.6	5.6			2.2	2.2	0.6	0.9			0.7	11
	16	1	1			5.6	5.6	0.8	5.1			<0.5	6.4
	17	2.6	2.6			2.1	2.1	<0.5	2	<0.5	0.8	<0.5	1.1
	18	2	2	1.2	1.2	2.2	2.2	<0.5	<0.5	1	1	<0.5	<0.5
Reference Stations	41							0.6	0.6	1.4	1.4	0.6	0.6
	42							<0.5	<0.5			0.6	0.6
	43							2.2	9	0.6	5.3	1.6	2.4

Copper, dissolved (µg/L)		18 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	11	1.2	1.2			0.6	0.6	<0.5	2.3			<0.5	1.3
	12	3	3	<0.5	<0.5	5.5	5.5	<0.5	0.5	<0.5	<0.5	<0.5	1
	13	0.6	0.6	2.9	2.9	1.9	1.9	0.5	0.5	2.2	2.2	0.5	0.5
Nearfield South	16	4	4			3	3	<0.5	1			<0.5	2.9
	17	1.2	1.2	1	1	1.6	1.6	<0.5	1.1	<0.5	0.9	<0.5	1.3
	18	1.3	1.3	1.5	1.5	1.4	1.4						
	19	1.4	1.4			1.3	1.3						
Reference Stations	41	0.7	0.7	0.9	0.9	0.7	0.7	<0.5	<0.5	1.5	1.5	<0.5	<0.5
	42	<0.5	<0.5	0.6	0.6	0.5	0.5						
	43	0.5	0.5	0.5	0.5	0.5	0.5						

Copper, dissolved (µg/L)		19 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	25							0.8	0.8	1.3	1.3	0.7	0.7
Nearfield North	12	15	15	<0.5	<0.5	1.2	1.2	0.6	1.8	0.5	2.3	<0.5	1.5
	13	2	2	1.1	1.1	<0.5	<0.5	<0.5	1.5	0.5	1.2	<0.5	2.9
	14							<0.5	4.2	<0.5	<0.5	<0.5	1.2
Nearfield South	17	<0.5	<0.5	1.3	1.3	1	1	0.8	1	<0.5	1.1	0.8	1.6
	18	0.9	0.9	0.9	0.9	1.5	1.5	<0.5	47	<0.5	1.1	<0.5	1.2
	19							0.5	0.8	<0.5	0.8	<0.5	0.8
Reference Stations	41							0.7	1	<0.5	0.9	0.9	0.9
	42							0.8	1			0.7	1
	43	1.4	1.4	1.5	1.5	0.7	0.7	0.8	4.4	0.8	0.9	0.8	0.9



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



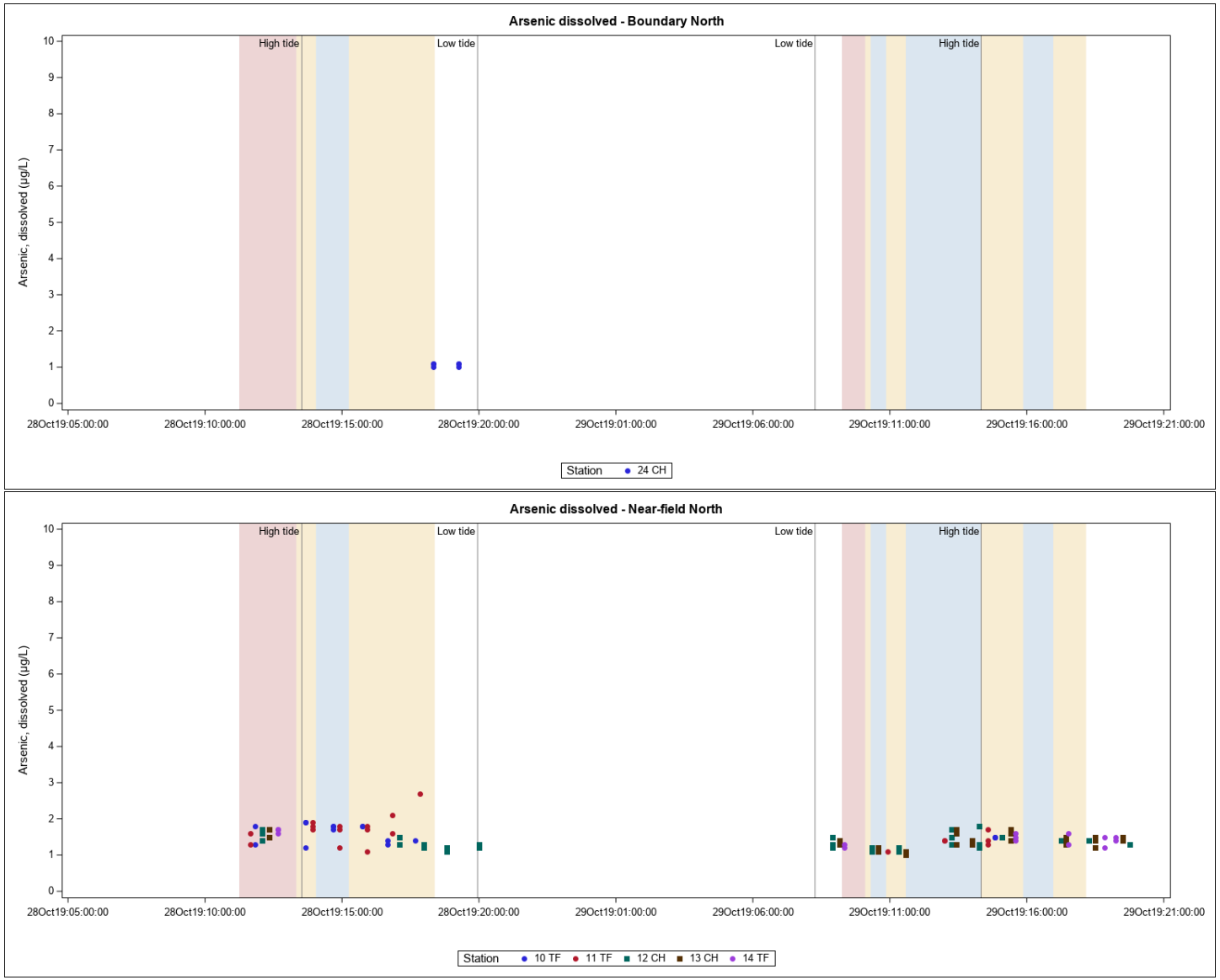
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 2

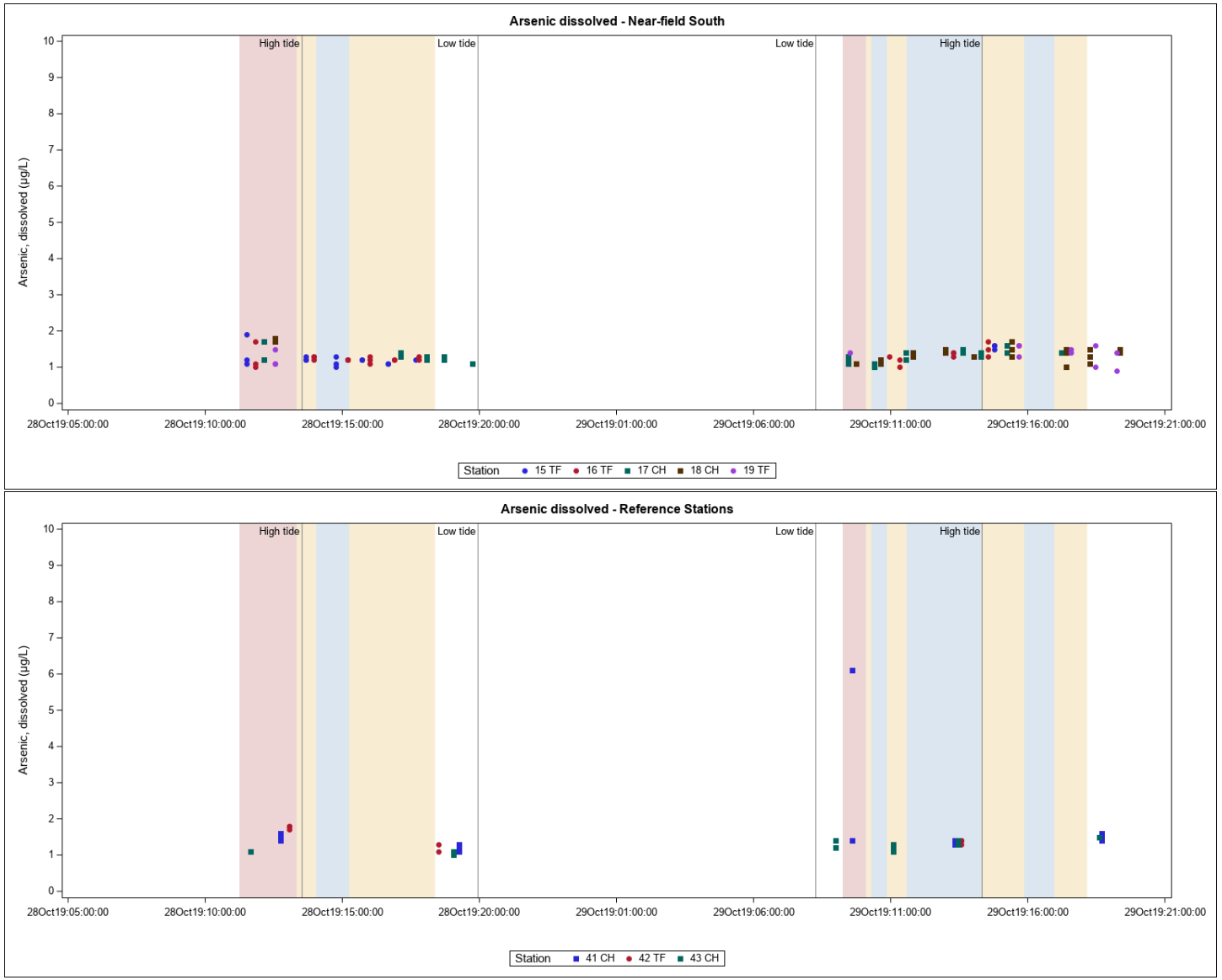
Dissolved Arsenic

Arsenic, dissolved (µg/L)		28 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	24							1.1	1.1	1.1	1.1	1	1
Nearfield North	10	1.8	1.8			1.3	1.3	1.2	1.8	1.8	1.9	1.4	1.9
	11	1.3	1.3			1.6	1.6	1.1	2.7	1.2	1.7	1.7	2.1
	12	1.4	1.4	1.6	1.6	1.7	1.7	1.2	1.3	1.1	1.3	1.2	1.5
	13	1.7	1.7	1.5	1.5	1.7	1.7						
	14	1.7	1.7	1.6	1.6	1.7	1.7						
Nearfield South	15	1.1	1.1	1.2	1.2	1.9	1.9	1.1	1.3	1.2	1.3	1	1.2
	16	1.7	1.7	1.1	1.1	1	1	1.2	1.3	1.2	1.2	1.1	1.3
	17	1.2	1.2	1.7	1.7	1.2	1.2	1.1	1.4	1.1	1.4	1.1	1.3
	18	1.7	1.7	1.7	1.7	1.8	1.8						
	19	1.1	1.1	1.1	1.1	1.5	1.5						
Reference Stations	41	1.5	1.5	1.6	1.6	1.4	1.4	1.3	1.3	1.2	1.2	1.1	1.1
	42	1.7	1.7	1.8	1.8	1.8	1.8	1.3	1.3			1.1	1.1
	43	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1	1

Arsenic, dissolved (µg/L)		29 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10							1.5	1.5	1.5	1.5	1.5	1.5
	11							1.1	1.4			1.4	1.7
	12	1.3	1.3	1.5	1.5	1.2	1.2	<0.5	1.5	1.1	1.8	1.1	1.7
	13	1.3	1.3	1.4	1.4	1.3	1.3	1	1.4	1	1.7	1.1	1.6
	14	1.2	1.2			1.3	1.3	1.2	1.6	1.5	1.5	1.3	1.6
Nearfield South	15							1.6	1.6	1.6	1.6	1.5	1.5
	16							1	1.5	1.3	1.3	1.2	1.7
	17	1.2	1.2	1.3	1.3	1.1	1.1	1	1.6	1	1.4	1.1	1.5
	18	<0.5	<0.5	1.1	1.1	1.1	1.1	1	1.5	1.1	1.5	1.2	1.7
	19	1.4	1.4					1.3	1.6	1.6	1.6	0.9	1.6
Reference Stations	41	1.4	1.4	6.1	6.1	1.4	1.4	1.3	1.6	1.4	1.4	1.4	1.5
	42							1.3	1.3	1.4	1.4	1.4	1.4
	43	1.4	1.4	1.2	1.2	1.2	1.2	1.1	1.5	1.1	1.5	1.2	1.5



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



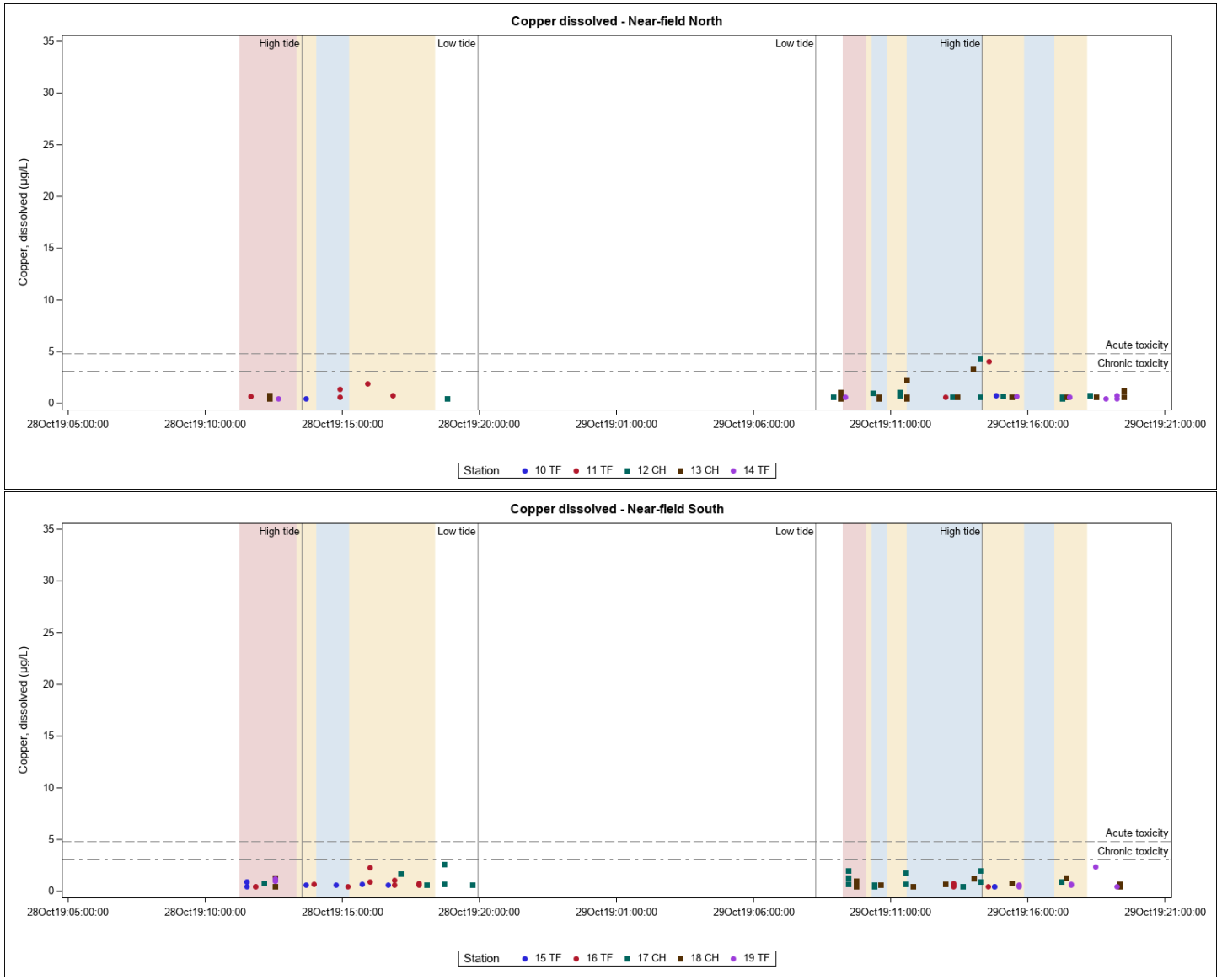
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 2

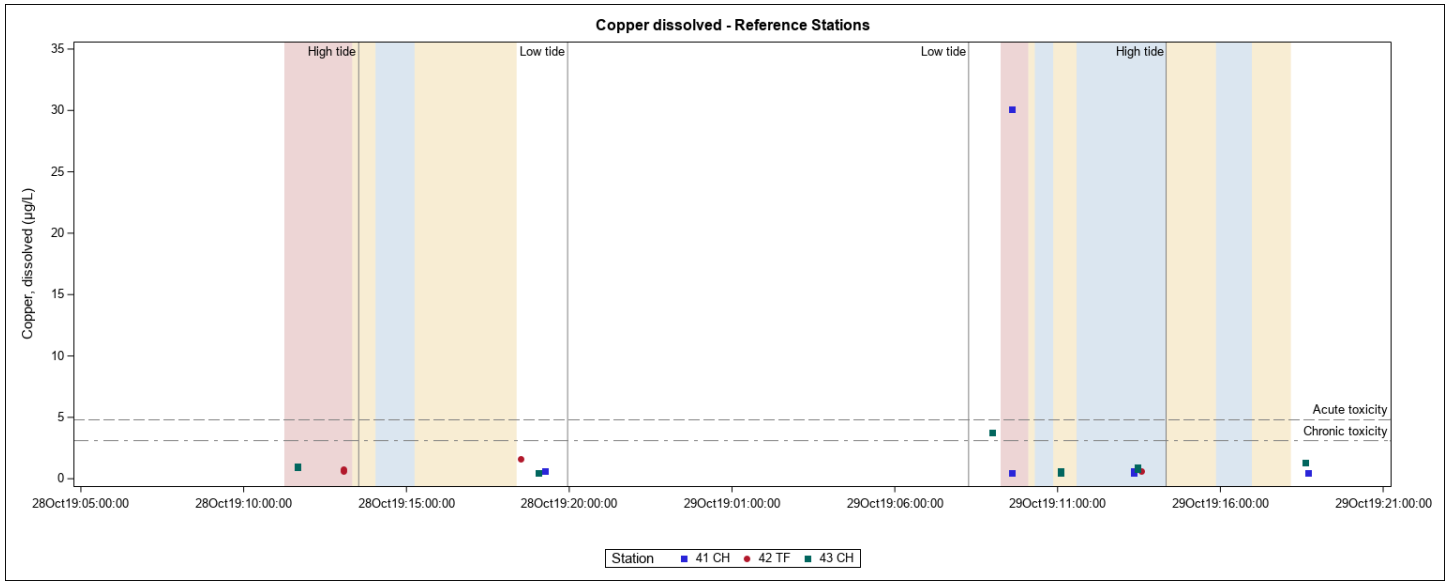
Dissolved Copper

Copper, dissolved (µg/L)		28 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Boundary North	24							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nearfield North	10	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5
	11	<0.5	<0.5			0.7	0.7	<0.5	0.6	<0.5	1.4	<0.5	1.9
	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5
	13	0.8	0.8	0.6	0.6	0.5	0.5						
	14	0.5	0.5	<0.5	<0.5	<0.5	<0.5						
Nearfield South	15	0.9	0.9	0.9	0.9	0.5	0.5	<0.5	0.6	<0.5	0.6	<0.5	0.7
	16	0.5	0.5	0.5	0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	2.3
	17	<0.5	<0.5	<0.5	<0.5	0.8	0.8	<0.5	1.7	<0.5	2.6	<0.5	0.7
	18	1.3	1.3	0.5	0.5	0.5	0.5						
	19	1.2	1.2	1	1	1	1						
Reference Stations	41	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	0.6	0.6	0.6	<0.5	<0.5
	42	<0.5	<0.5	0.8	0.8	0.6	0.6	1.6	1.6			<0.5	<0.5
	43	0.9	0.9	1	1	<0.5	<0.5	0.5	0.5	0.5	0.5	0.5	0.5

Copper, dissolved (µg/L)		29 OCT 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10							<0.5	<0.5	<0.5	<0.5	0.8	0.8
	11							<0.5	<0.5			<0.5	4.1
	12	<0.5	<0.5	0.6	0.6	<0.5	<0.5	<0.5	1.1	<0.5	4.3	<0.5	0.6
	13	0.5	0.5	0.6	0.6	1.1	1.1	<0.5	0.6	<0.5	3.4	<0.5	2.3
	14	0.6	0.6			<0.5	<0.5	<0.5	0.6	0.7	0.7	<0.5	0.8
Nearfield South	15							0.5	0.5	0.5	0.5	<0.5	<0.5
	16							<0.5	0.8	<0.5	<0.5	<0.5	0.6
	17	2	2	0.7	0.7	1.3	1.3	<0.5	2	<0.5	0.9	<0.5	1.8
	18	1	1	0.5	0.5	0.5	0.5	<0.5	1.2	<0.5	0.8	<0.5	1.3
	19	<0.5	<0.5					<0.5	0.6	0.5	0.5	<0.5	2.4
Reference Stations	41	0.5	0.5	30.1	30.1	<0.5	<0.5	<0.5	0.5	<0.5	0.6	0.5	0.5
	42							<0.5	<0.5	<0.5	<0.5	<0.5	0.6
	43	3.8	3.8	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	1.3	<0.5	0.6



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



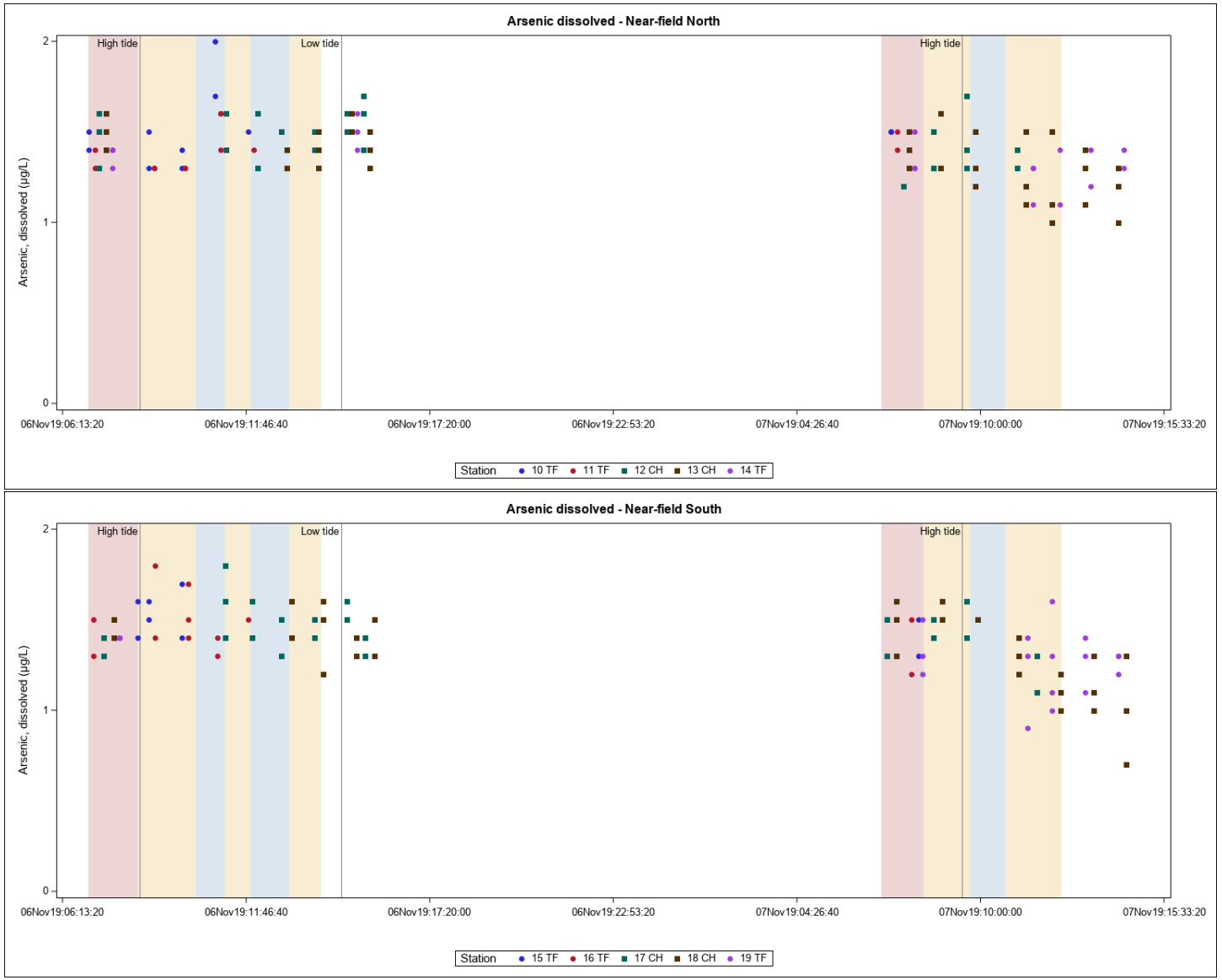
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 3

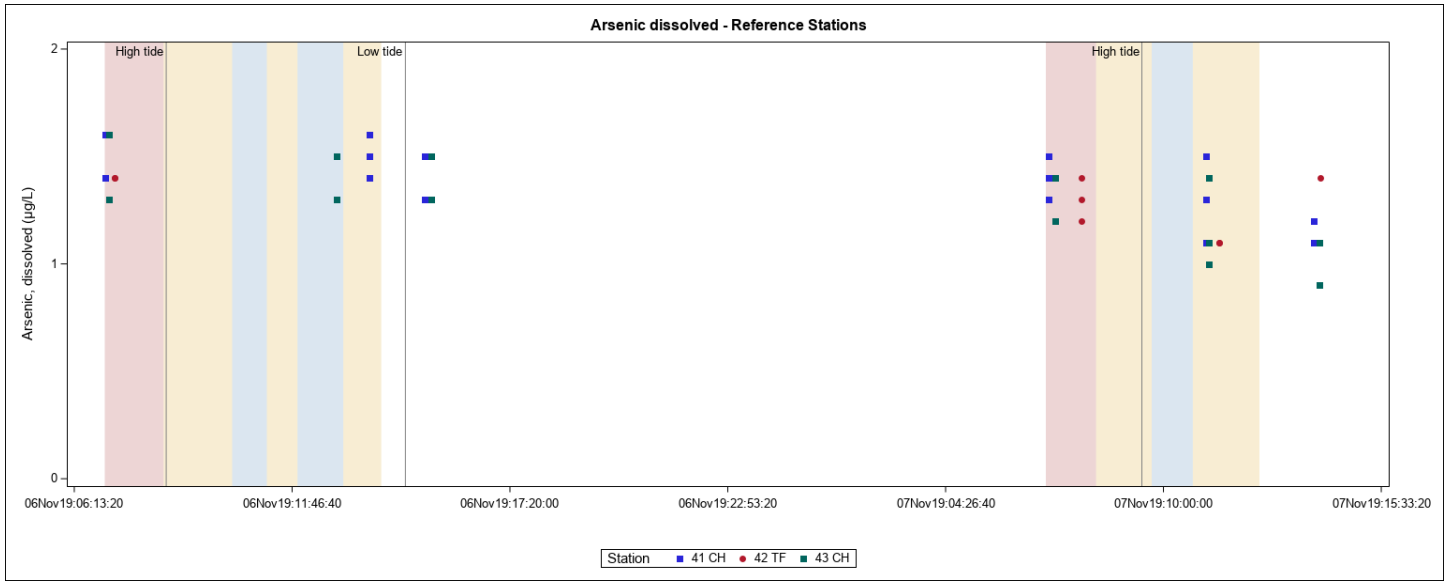
Dissolved Arsenic

Arsenic, dissolved (µg/L)		06 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	1.4	1.4			1.5	1.5	1.3	2			1.4	1.7
	11	1.3	1.3			1.4	1.4	1.3	1.6			1.3	1.6
	12	1.3	1.3	1.6	1.6	1.5	1.5	1.3	1.6	1.4	1.7	1.4	1.6
	13	1.6	1.6	1.4	1.4	1.5	1.5	1.3	1.6	1.4	1.5	1.3	1.5
	14	1.4	1.4	1.3	1.3	1.4	1.4	1.5	1.5	1.6	1.6	1.4	1.4
Nearfield South	15	1.6	1.6			1.4	1.4	1.4	1.6			1.5	1.7
	16	1.5	1.5			1.3	1.3	1.4	1.8			1.3	1.7
	17	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.6	1.3	1.5	1.3	1.8
	18	1.4	1.4	1.5	1.5	1.5	1.5	1.3	1.5	1.2	1.5	1.3	1.6
	19	1.4	1.4	1.4	1.4	1.4	1.4						
Reference Stations	41	1.6	1.6	1.6	1.6	1.4	1.4	1.3	1.4	1.5	1.6	1.3	1.5
	42	1.4	1.4			1.4	1.4	1.5	1.5				
	43	1.6	1.6	1.3	1.3	1.3	1.3	1.3	1.5	1.3	1.5	1.3	1.5

Arsenic, dissolved (µg/L)		07 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	1.5	1.5			1.5	1.5						
	11	1.4	1.4			1.5	1.5						
	12	1.2	1.2	1.2	1.2	2.1	2.1	1.3	1.7	1.3	1.4	1.3	1.4
	13	1.3	1.3	1.5	1.5	1.4	1.4	1	1.4	1.1	1.3	1.3	1.6
	14	1.3	1.3	1.5	1.5	1.3	1.3	1.1	1.4	1.3	1.3	1.1	1.4
Nearfield South	15	1.5	1.5			1.3	1.3						
	16	1.5	1.5			1.2	1.2						
	17	1.5	1.5	1.3	1.3	1.5	1.5	1.1	1.6	1.3	1.4	1.3	1.5
	18	1.6	1.6	1.5	1.5	1.3	1.3	1.1	1.5	0.7	1.6	1	1.6
	19	1.2	1.2	1.3	1.3	1.5	1.5	1.3	1.4	1.1	1.6	0.9	1.3
Reference Stations	41	1.4	1.4	1.3	1.3	1.3	1.5	1.1	1.5	1.1	1.2	1.2	1.3
	42	1.2	1.3			1.4	1.4	1.1	1.1			1.1	1.4
	43	1.2	1.2	1.2	1.2	1.4	1.4	1	1.1	0.9	1.4	1.1	1.1



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



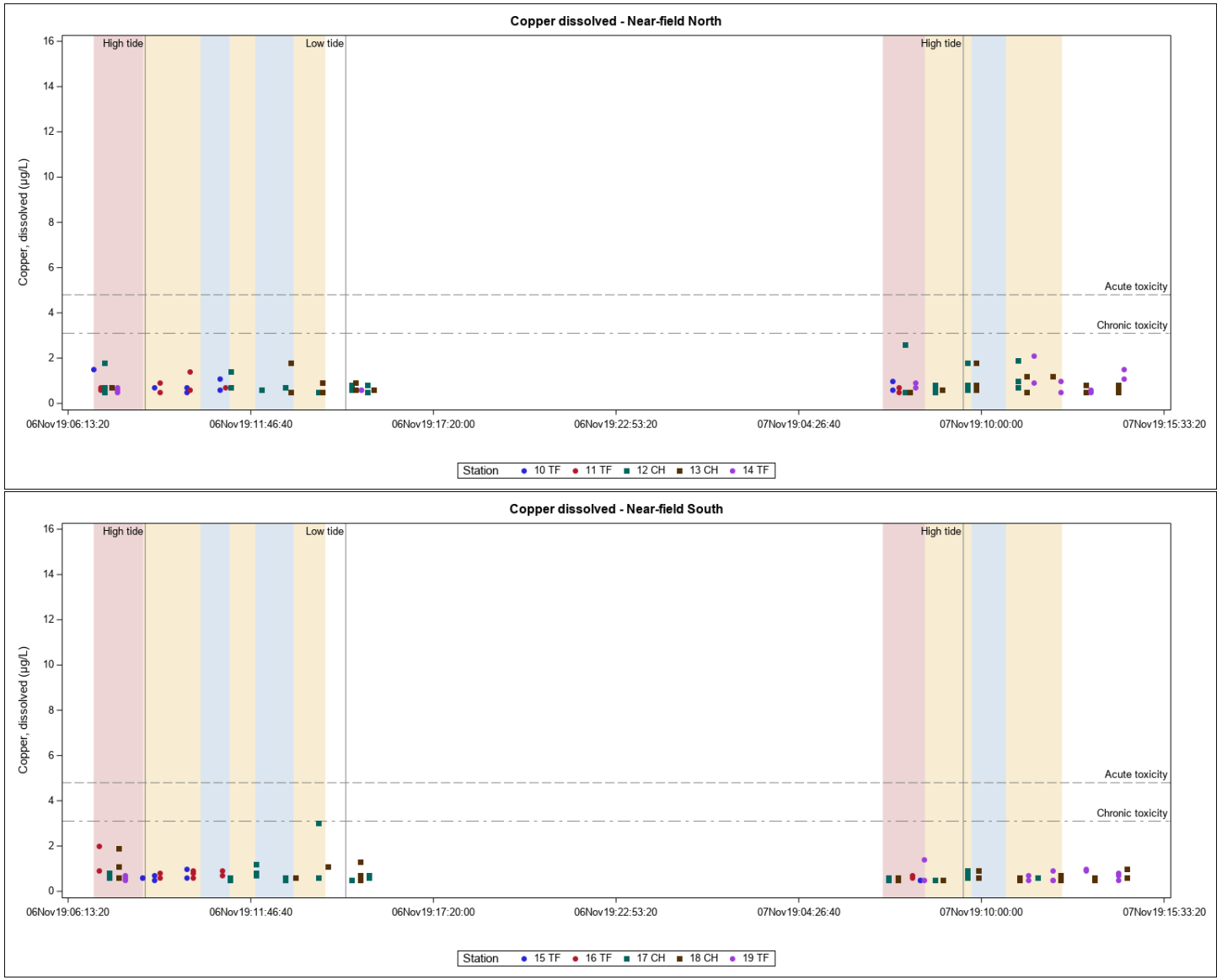
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 3

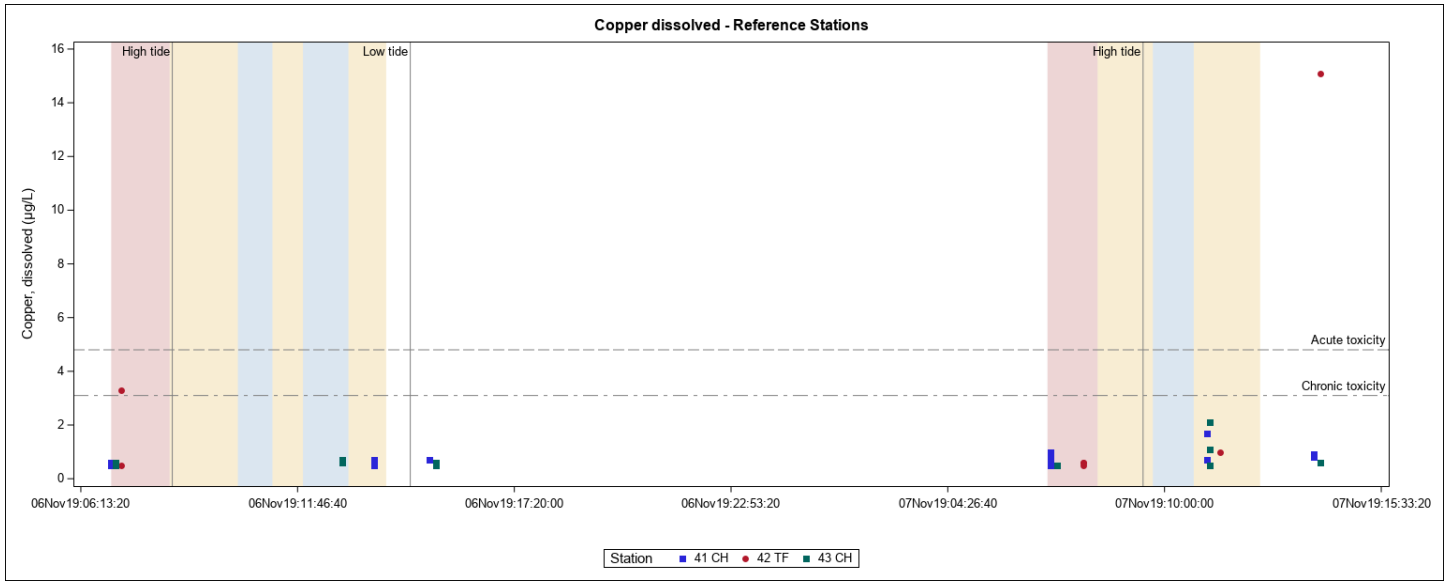
Dissolved Copper

Copper, dissolved (µg/L)		06 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	<0.5	<0.5			1.5	1.5	0.7	1.1			<0.5	0.6
	11	0.6	0.6			0.7	0.7	0.7	1.4			<0.5	0.6
	12	1.8	1.8	0.5	0.5	0.7	0.7	0.5	0.8	<0.5	1.4	<0.5	0.8
	13	0.7	0.7	<0.5	<0.5	0.7	0.7	<0.5	1.8	<0.5	0.6	<0.5	0.9
	14	0.7	0.7	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	<0.5	<0.5
Nearfield South	15	0.6	0.6			0.6	0.6	0.7	1			0.5	0.6
	16	2	2			0.9	0.9	0.6	0.9			<0.5	0.9
	17	0.6	0.6	<0.5	<0.5	0.8	0.8	<0.5	0.7	0.5	1.2	<0.5	3
	18	1.1	1.1	1.9	1.9	0.6	0.6	<0.5	0.7	<0.5	1.1	<0.5	1.3
	19	0.6	0.6	0.5	0.5	0.7	0.7						
Reference Stations	41	0.5	0.5	0.5	0.5	0.6	0.6	<0.5	0.5	<0.5	0.6	0.7	0.7
	42	3.3	3.3			0.5	0.5	<0.5	<0.5				
	43	0.6	0.6	0.6	0.6	0.5	0.5	<0.5	0.6	<0.5	0.7	<0.5	0.5

Copper, dissolved (µg/L)		07 NOV 2019											
		Before Start of Jet Plow						During Jet Plowing					
		Surface		Mid		Bottom		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Nearfield North	10	0.6	0.6			1	1						
	11	0.5	0.5			0.7	0.7						
	12	0.5	0.5	<0.5	<0.5	2.6	2.6	0.7	1.8	0.5	1.9	<0.5	0.8
	13	<0.5	<0.5	0.5	0.5	<0.5	<0.5	<0.5	1.8	<0.5	1.2	<0.5	0.8
	14	0.9	0.9	0.7	0.7	<0.5	<0.5	0.5	1.5	<0.5	<0.5	0.6	2.1
Nearfield South	15	0.5	0.5			0.5	0.5						
	16	0.7	0.7			0.6	0.6						
	17	0.6	0.6	0.6	0.6	0.5	0.5	<0.5	0.8	<0.5	0.6	<0.5	0.9
	18	0.6	0.6	0.6	0.6	0.5	0.5	<0.5	0.9	<0.5	0.6	<0.5	1
	19	0.5	0.5	<0.5	<0.5	1.4	1.4	0.5	0.9	<0.5	0.9	<0.5	1
Reference Stations	41	0.5	0.5	1	1	0.7	0.8	0.7	0.9	0.8	1.7	<0.5	<0.5
	42	0.5	0.6			0.6	0.6	<0.5	<0.5			1	15.1
	43	0.5	0.5	<0.5	<0.5	0.5	0.5	<0.5	1.1	0.5	2.1	<0.5	<0.5



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

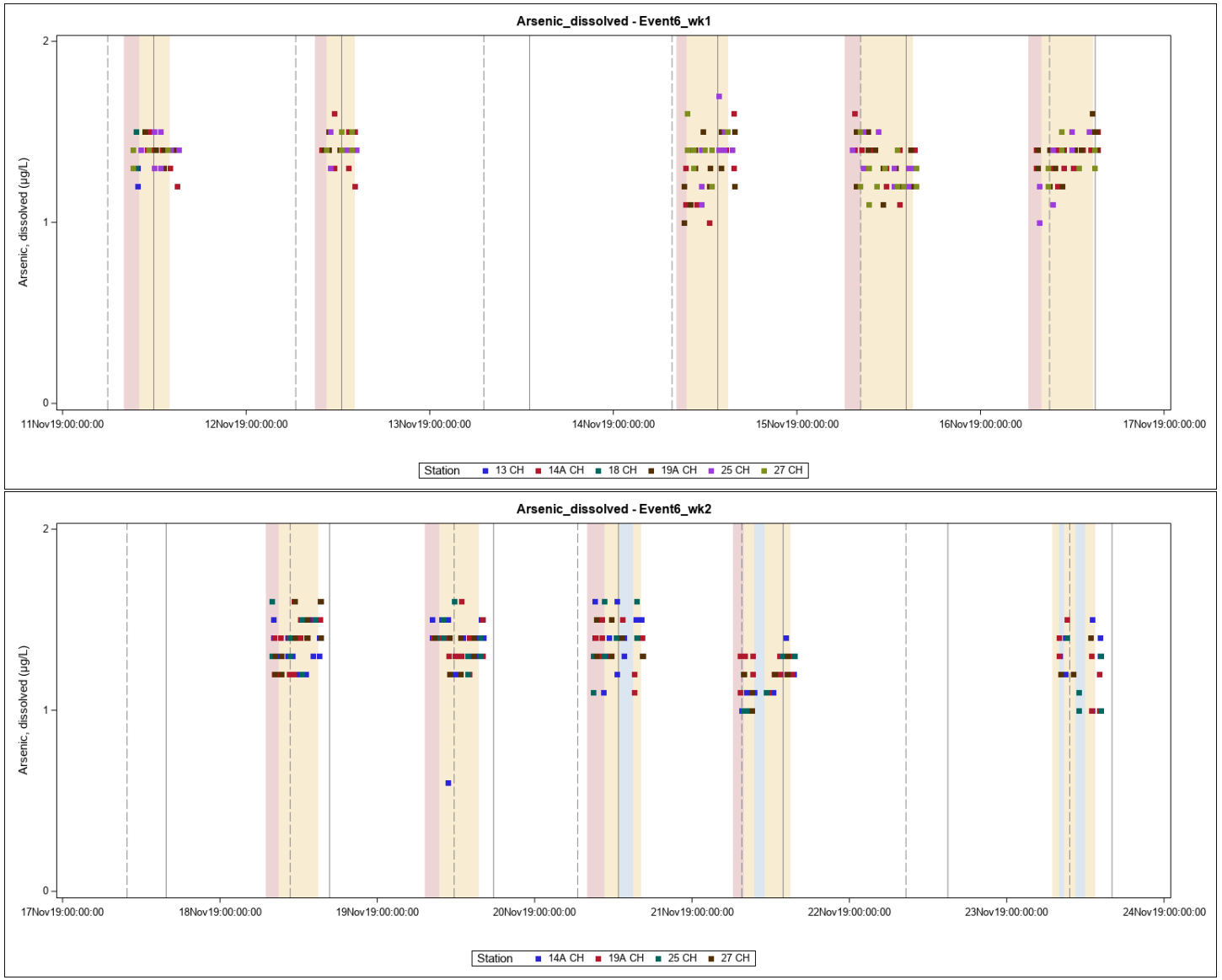


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

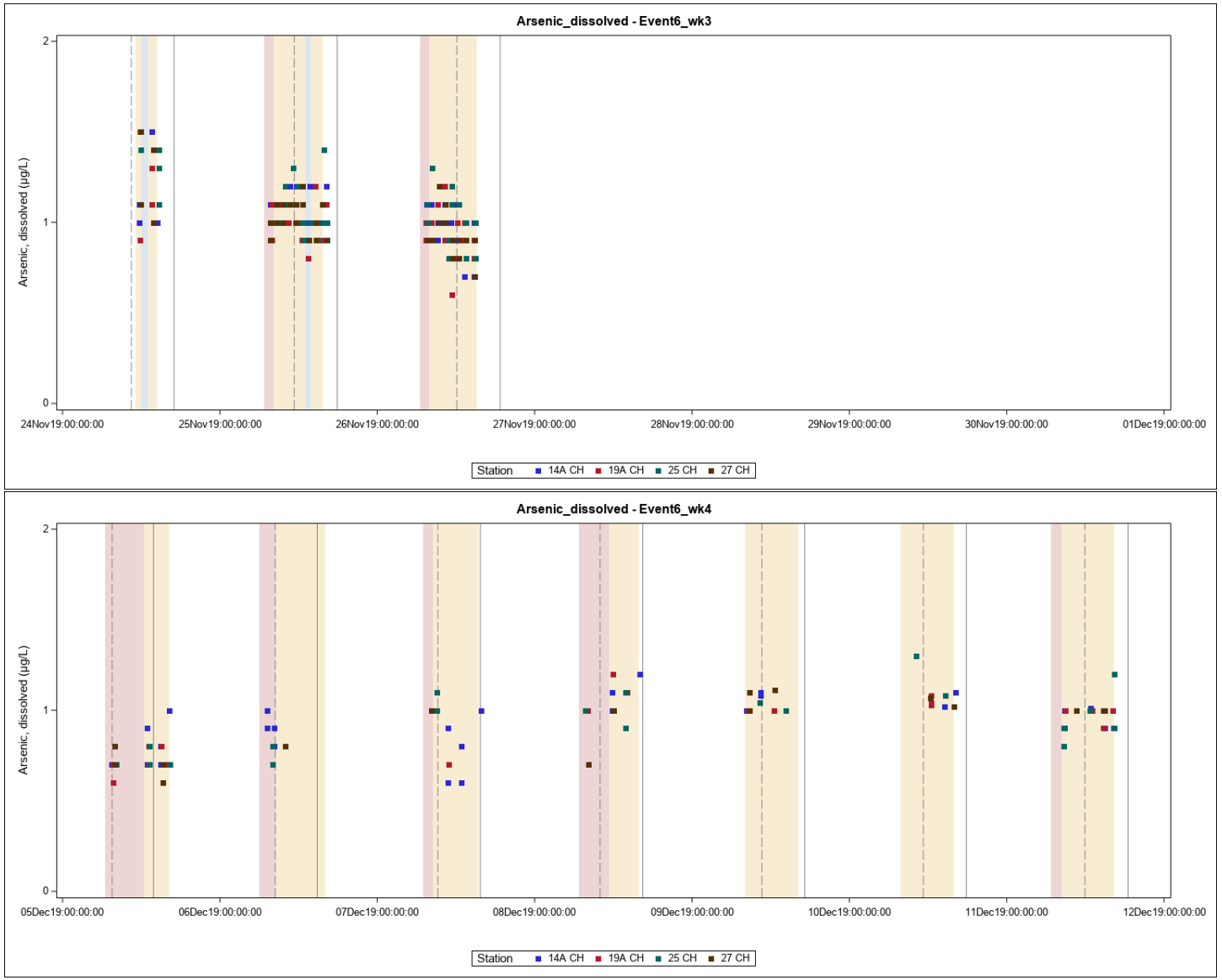
Hand Jet

Dissolved Arsenic

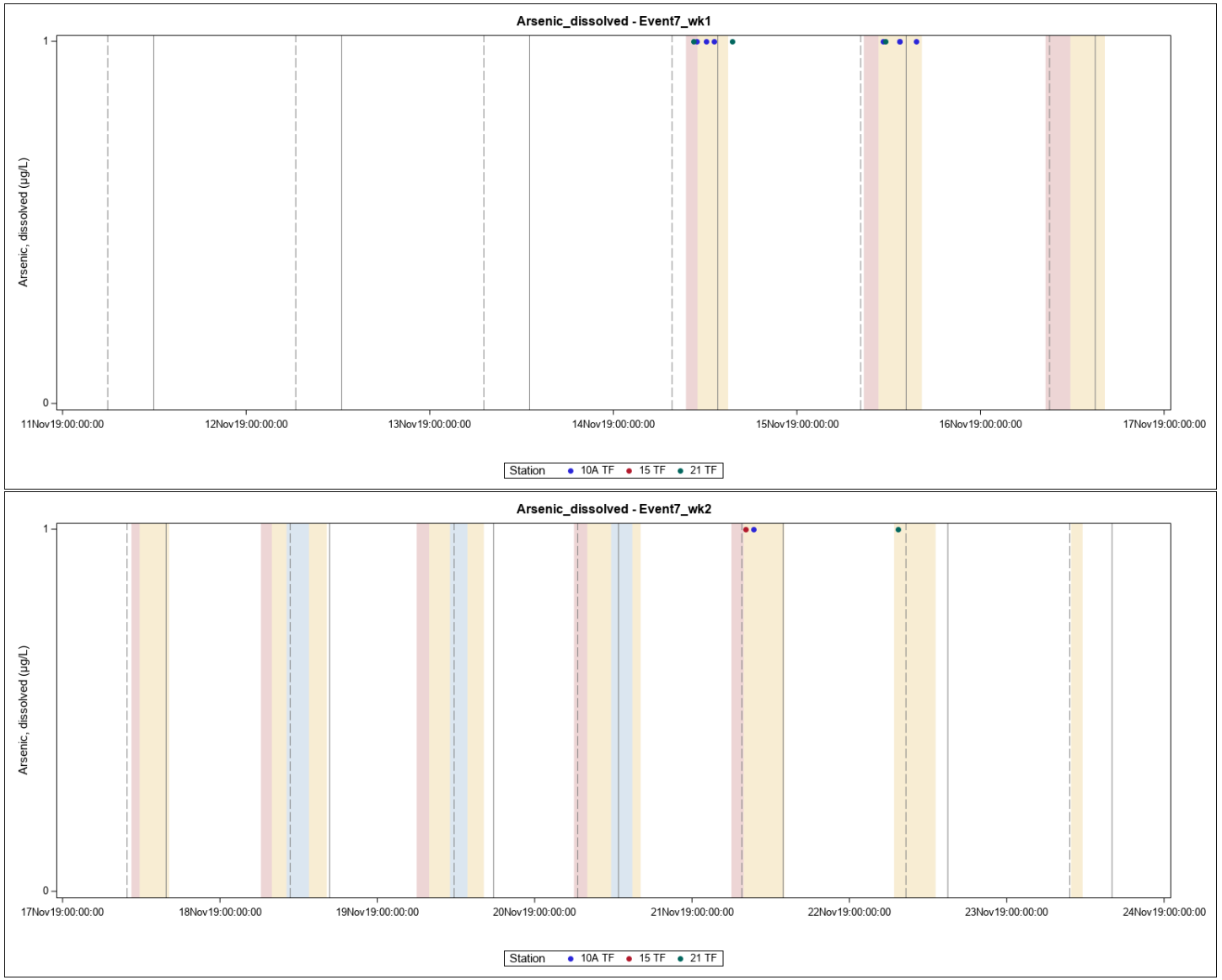
Arsenic, dissolved (µg/L)		11 NOV 2019 – 18 DEC 2019											
						Before Start of Jet Plow				During Jet Plowing			
		Surface		Bottom		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Turbidity Profiles	50	<0.5	1.9	1.1	3.3					1.4	1.4	1.5	1.5
	55	1.3	1.4	1.5	1.5					1.3	1.3	1.4	1.4
West Side Boundary	10A					<0.5	1.7	<0.5	1.6	<0.5	1.6	<0.5	1.6
	11							1.5	1.5				
	15					<0.5	1.4	<0.5	1.5	<0.5	1.6	<0.5	1.6
West Side Reference	21					<0.5	1.5	<0.5	1.5	<0.5	1.9	<0.5	1.7
East Side Boundary	13					1.3	1.3	1.2	1.2				
	14A					<0.5	1.6	<0.5	1.6	<0.5	1.5	<0.5	1.6
	18					1.5	1.5	1.3	1.3				
	19A					<0.5	1.5	<0.5	1.4	<0.5	1.6	<0.5	2.2
East Side Reference	25					<0.5	1.4	<0.5	1.6	<0.5	1.6	<0.5	1.7
	27					<0.5	1.5	<0.5	1.5	<0.5	1.6	<0.5	1.6



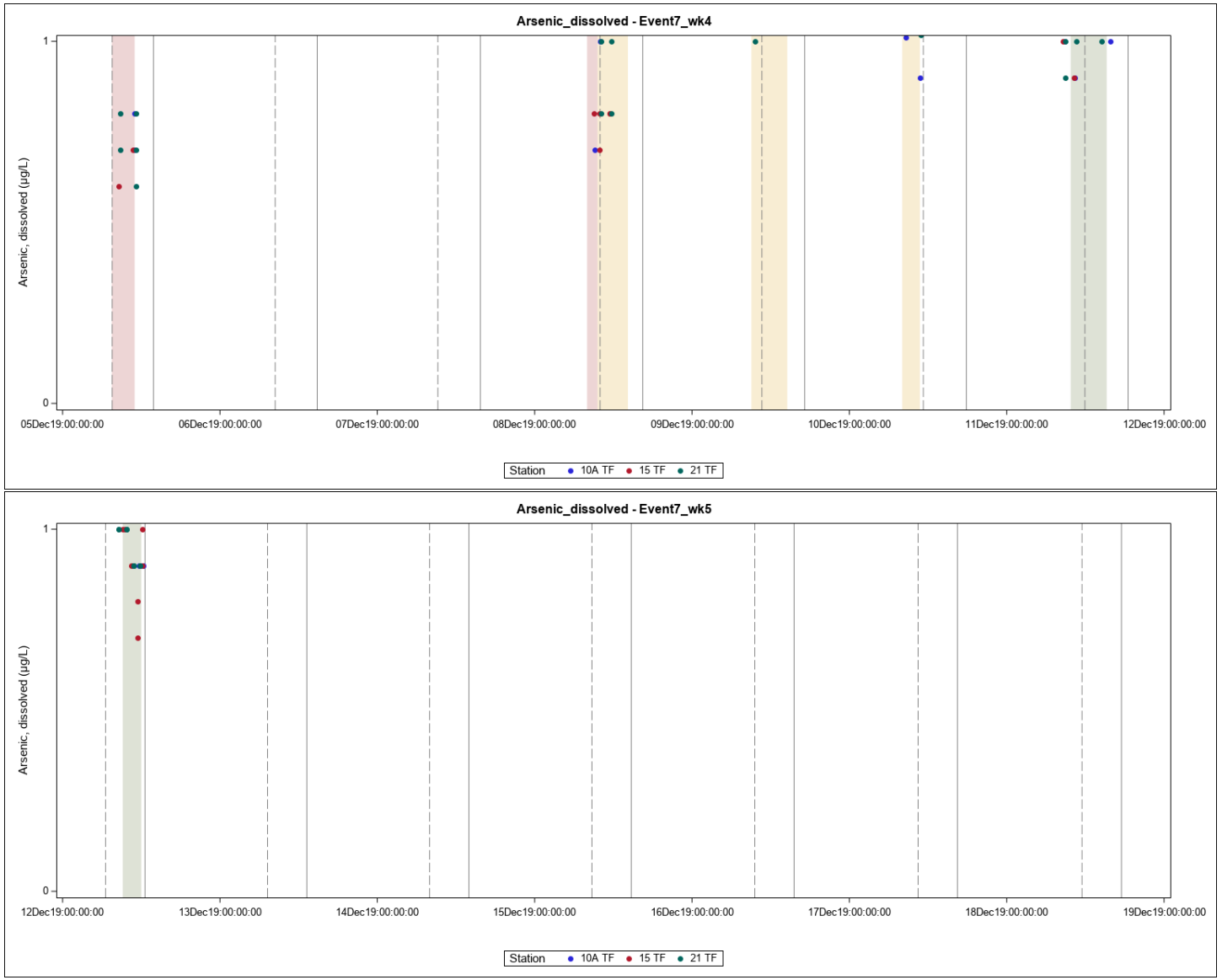
Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



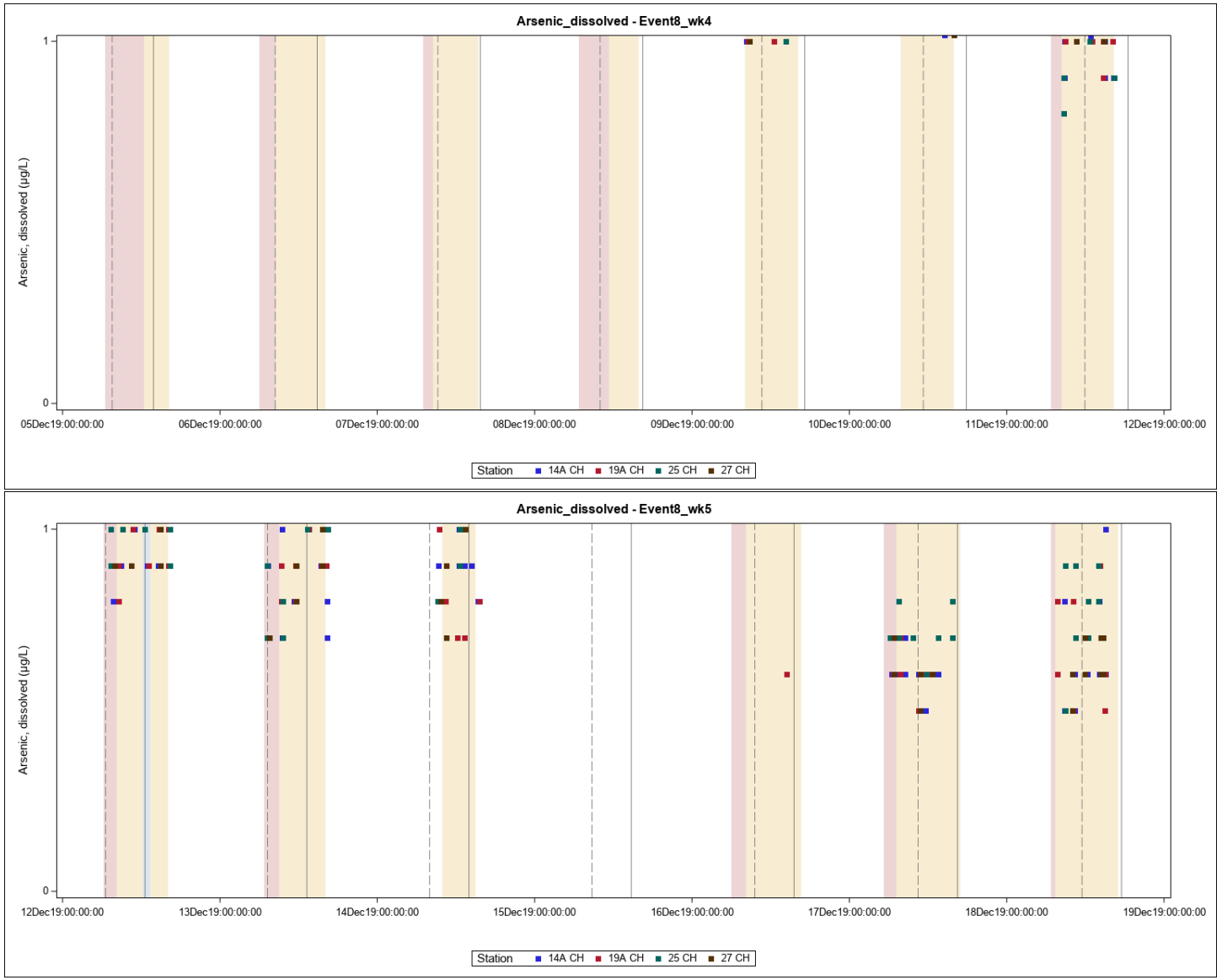
Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation; green shading indicates turbidity barrier removal. Vertical lines indicate high and low slack tides.

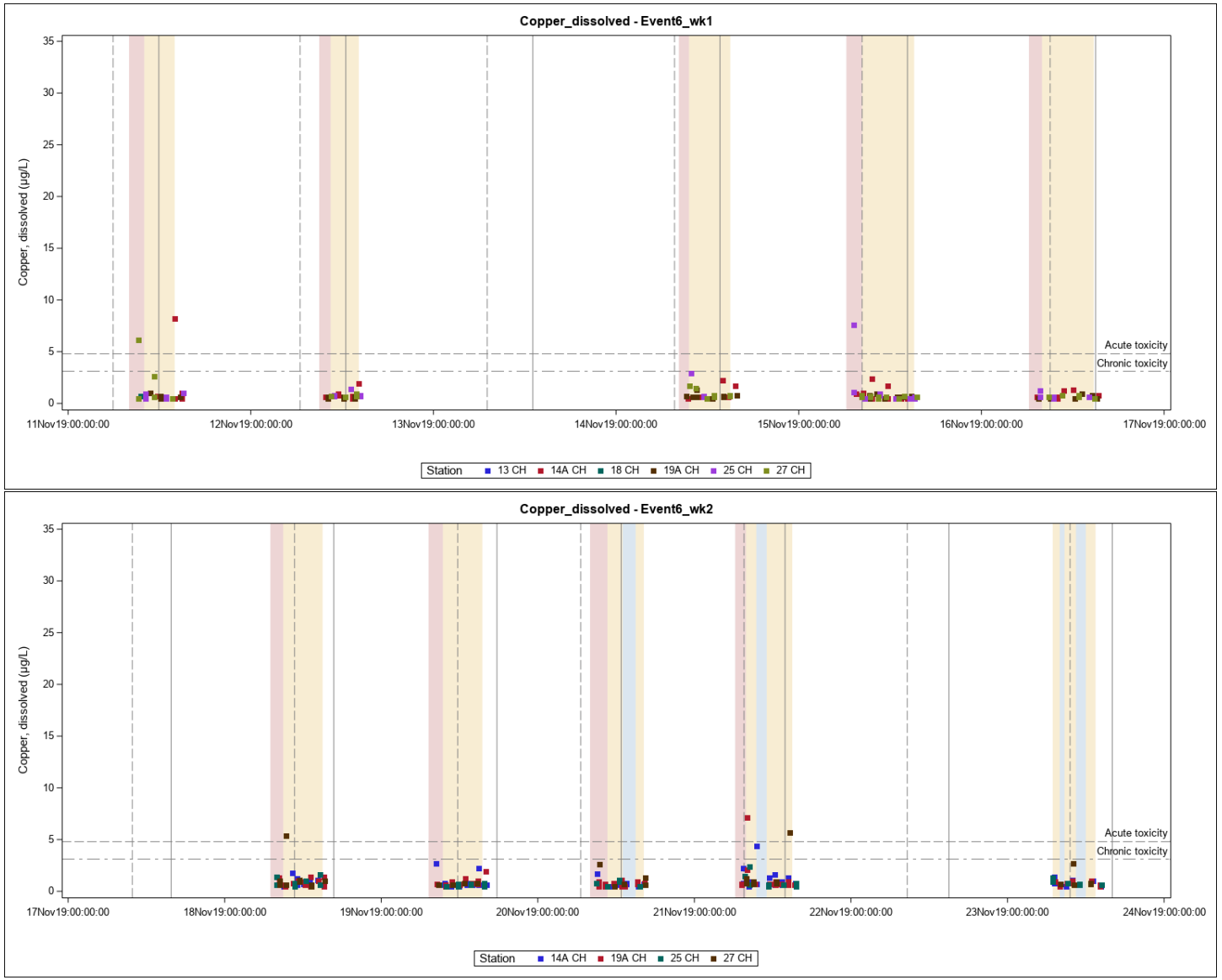


Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

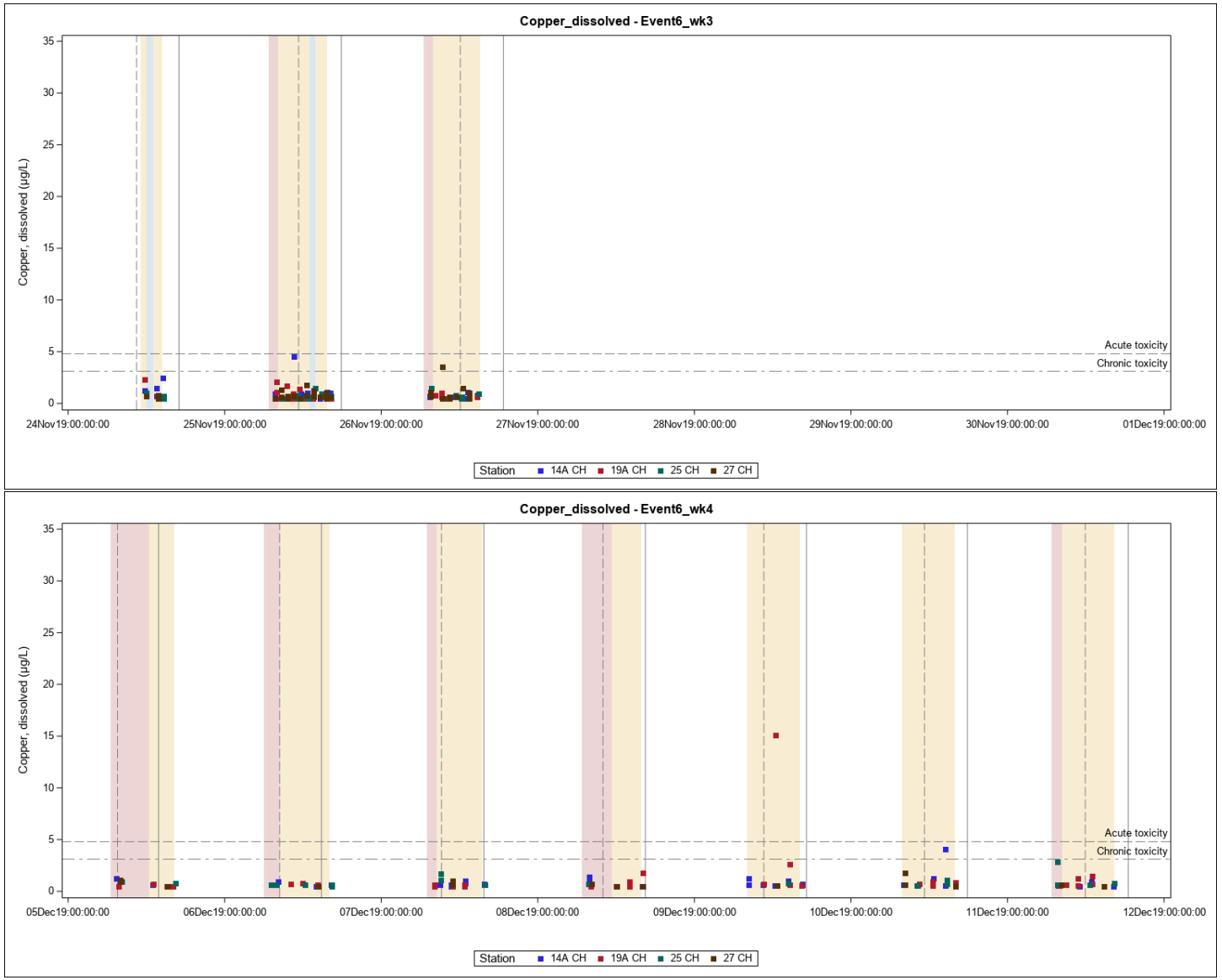
Hand Jet

Dissolved Copper

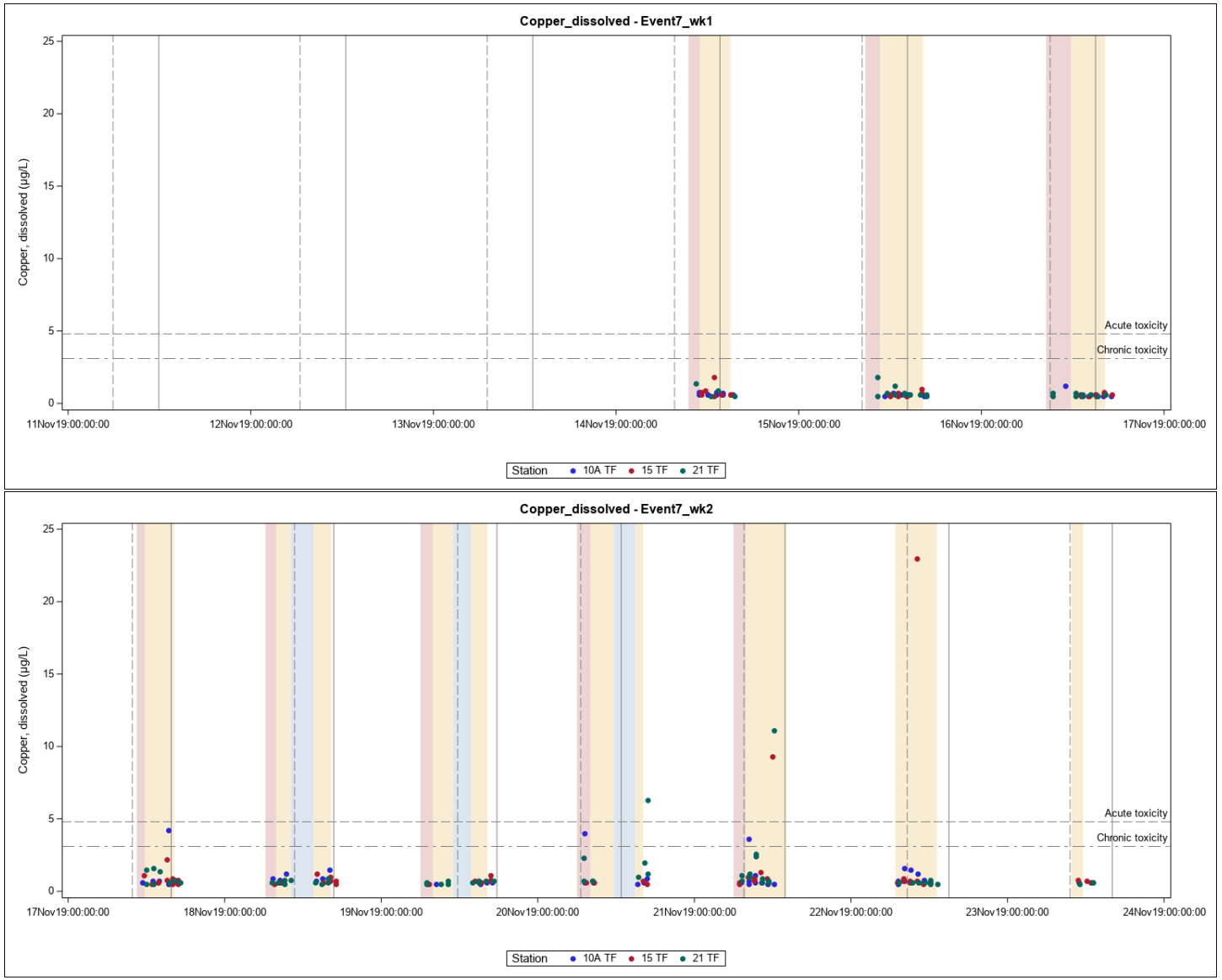
Copper, dissolved (µg/L)		11 NOV 2019 – 18 DEC 2019											
						Before Start of Jet Plow				During Jet Plowing			
		Surface		Bottom		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station												
Turbidity Profiles	50	<0.5	0.8	0.7	1.7					1	1	0.8	0.8
	55	1.3	1.6	<0.5	0.6					0.7	0.7	0.6	0.6
West Side Boundary	10A					<0.5	4	<0.5	1.41	<0.5	4.2	<0.5	3.6
	11							2.1	2.1				
	15					<0.5	1	<0.5	2.3	<0.5	23	<0.5	9.3
West Side Reference	21					<0.5	1.5	<0.5	2.3	<0.5	6.3	<0.5	11.1
East Side Boundary	13					<0.5	<0.5	0.7	0.7				
	14A					<0.5	2.7	<0.5	2.2	<0.5	8.2	<0.5	4.4
	18					0.7	0.7	0.7	0.7				
	19A					<0.5	2.1	<0.5	1.1	<0.5	15.1	<0.5	33.5
East Side Reference	25					<0.5	2.86	<0.5	7.6	<0.5	2.4	<0.5	2.9
	27					<0.5	1.1	<0.5	6.1	<0.5	5.7	<0.5	3.5



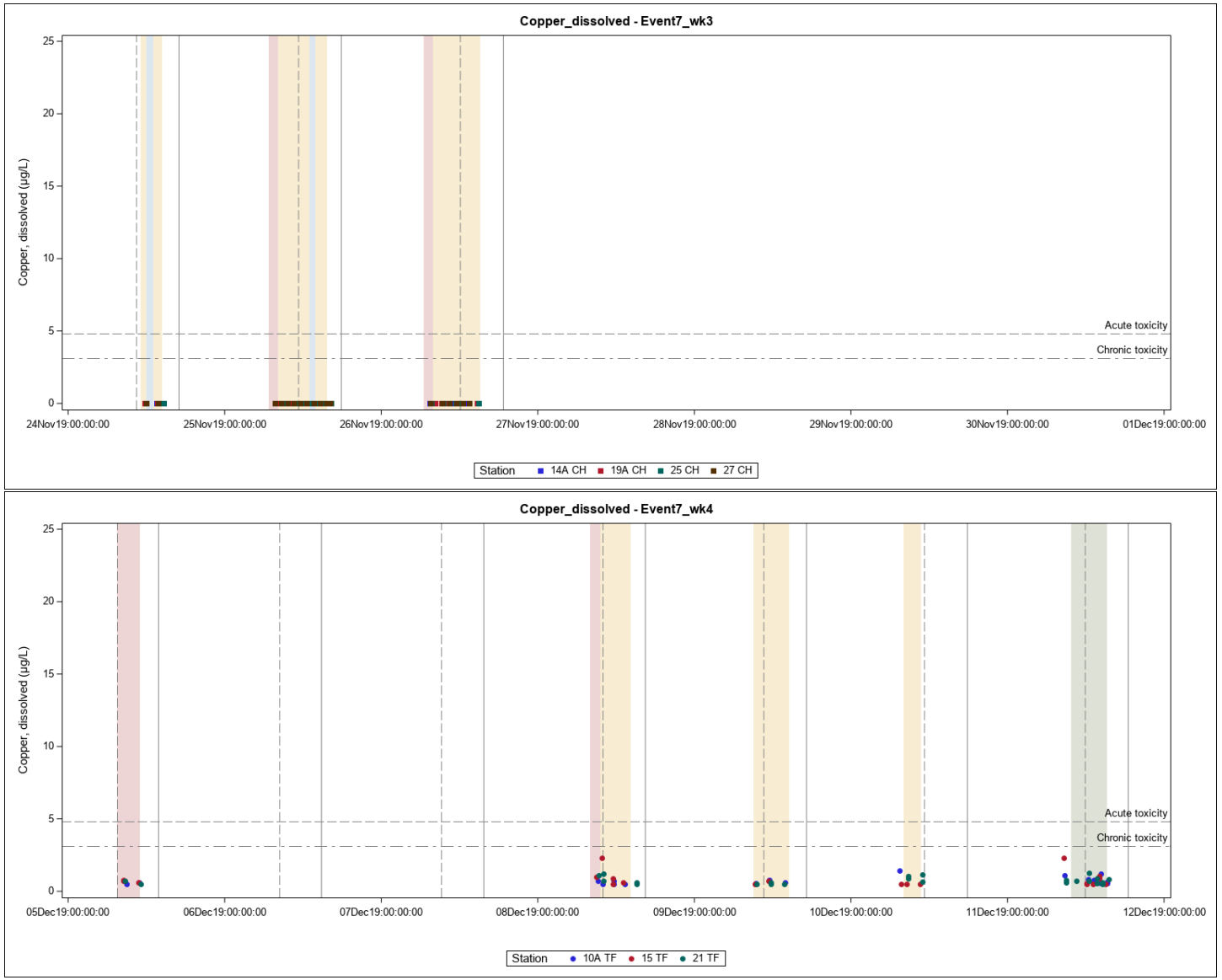
Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



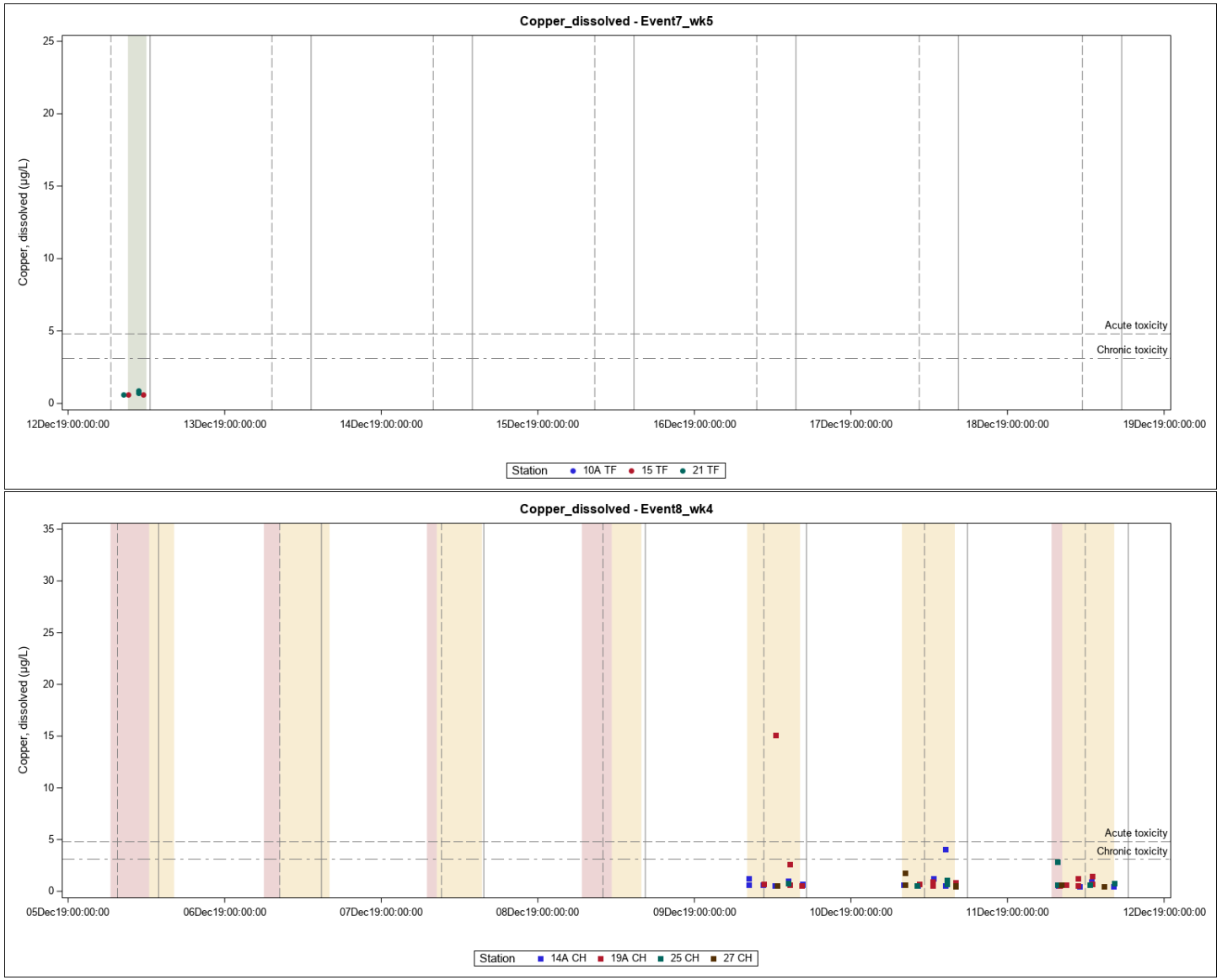
Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



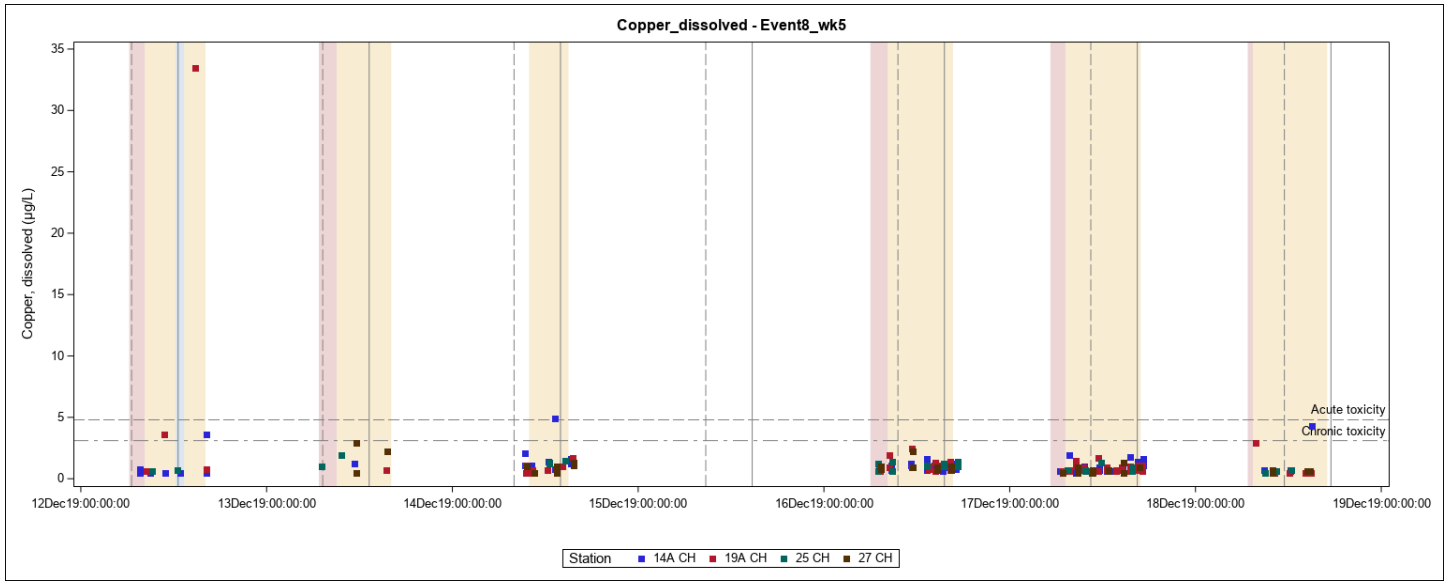
Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation; green shading indicates turbidity barrier removal. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation; green shading indicates turbidity barrier removal. Vertical lines indicate high and low slack tides.



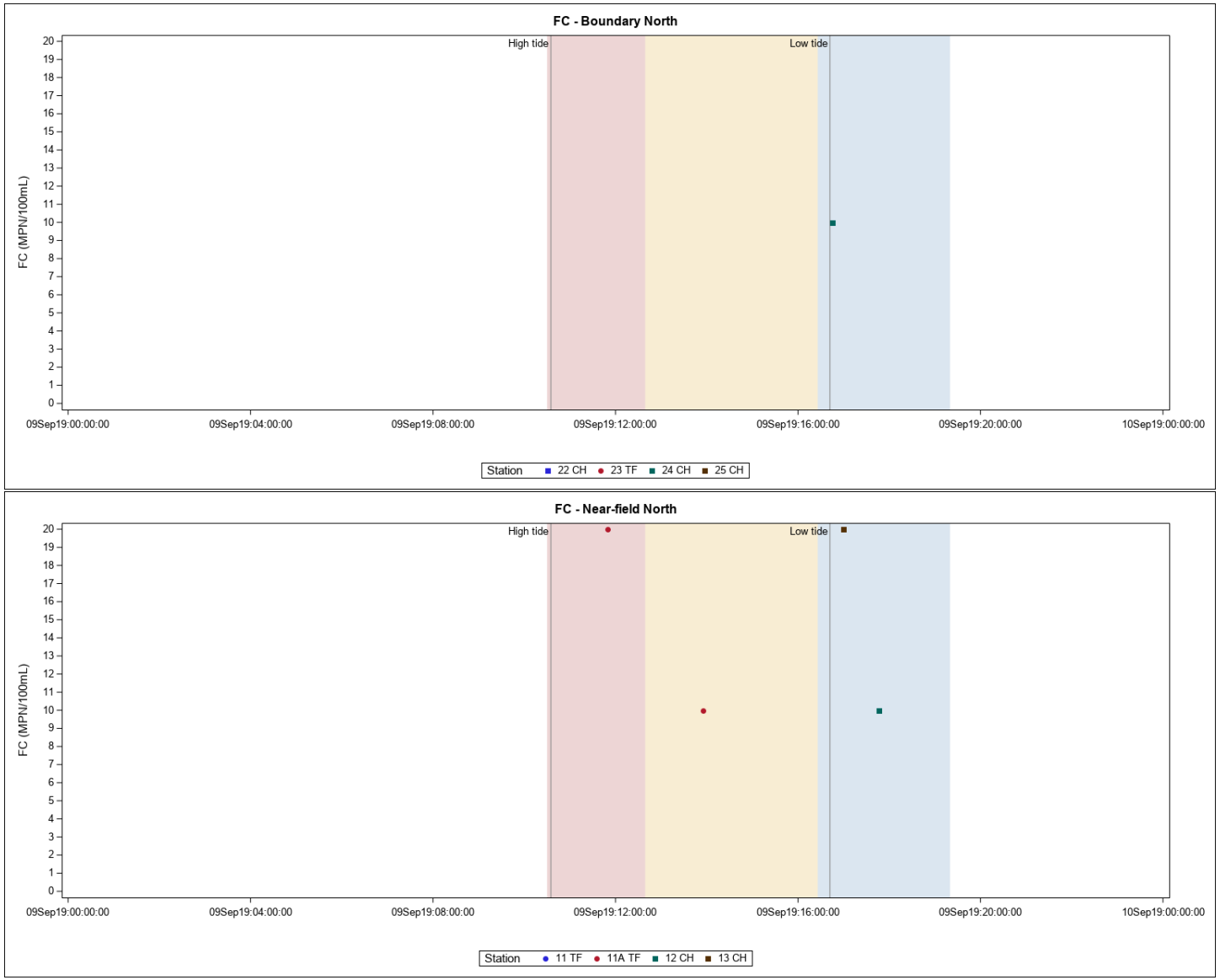
Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.

Appendix O
Fecal Coliform Plots and Table

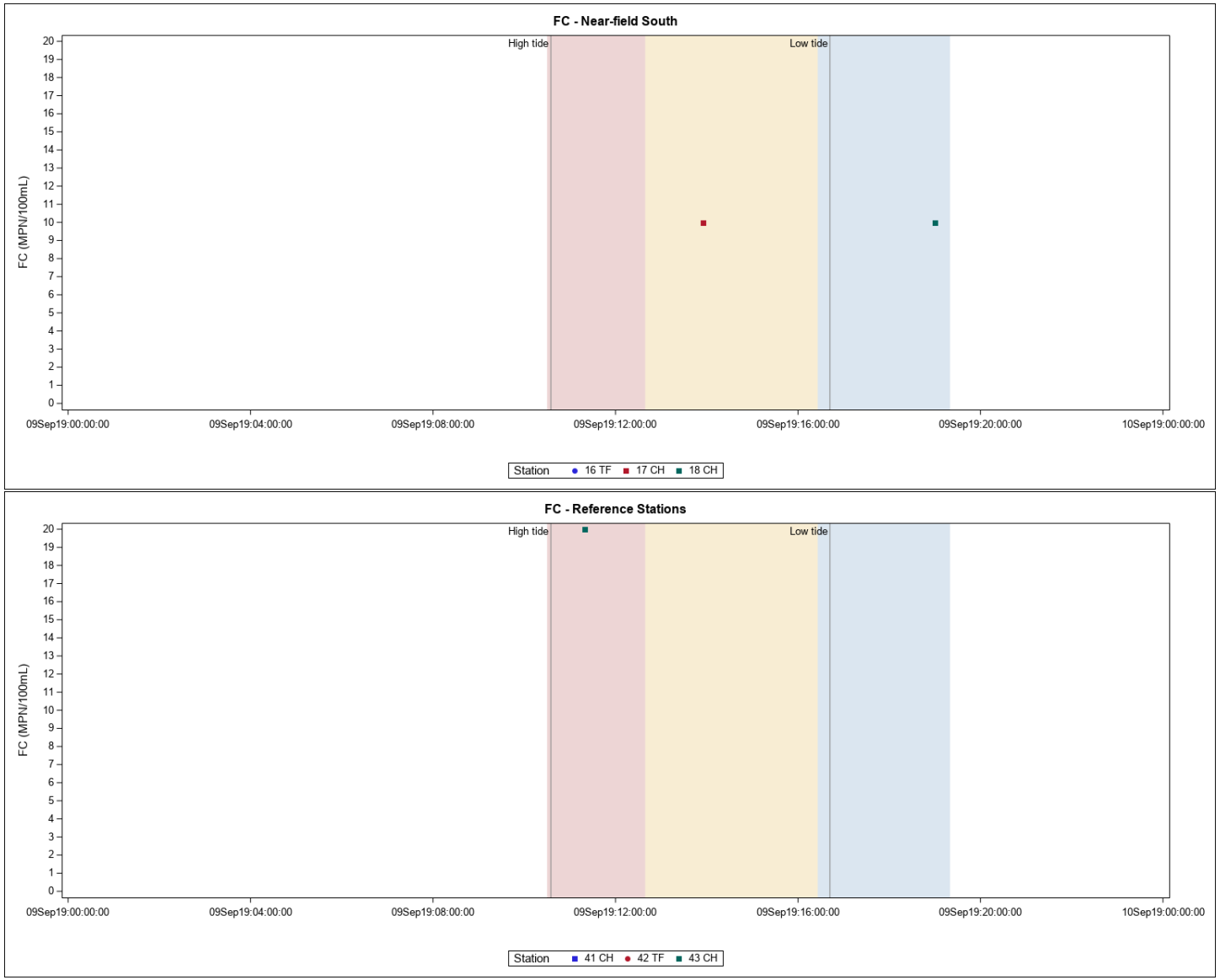
Jet Plow Trial

Fecal Coliform

FC (MPN/100mL)		09 SEP 2019							
		Before Start of Jet Plow		During Jet Plowing					
		Surface		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max
Location	Station								
Boundary North	22	<10	<10	<10	<10				
	23	<10	<10	<10	<10				
	24	<10	<10	<10	10				
	25	<10	<10	<10	<10				
Boundary South	27			<10	<10				
	28			<10	<10				
	29			<10	<10				
Nearfield North	11	<10	<10	<10	<10			<10	<10
	11A	20	20	<10	<10			<10	10
	12	<10	<10	<10	10				
	13	<10	<10	<10	20				
Nearfield South	16	<10	<10	<10	<10				
	17	<10	<10	<10	10				
	18			<10	10				
Reference Stations	41	<10	<10	<10	<10				
	42	<10	<10	<10	<10				
	43	20	20	<10	<10				



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 1

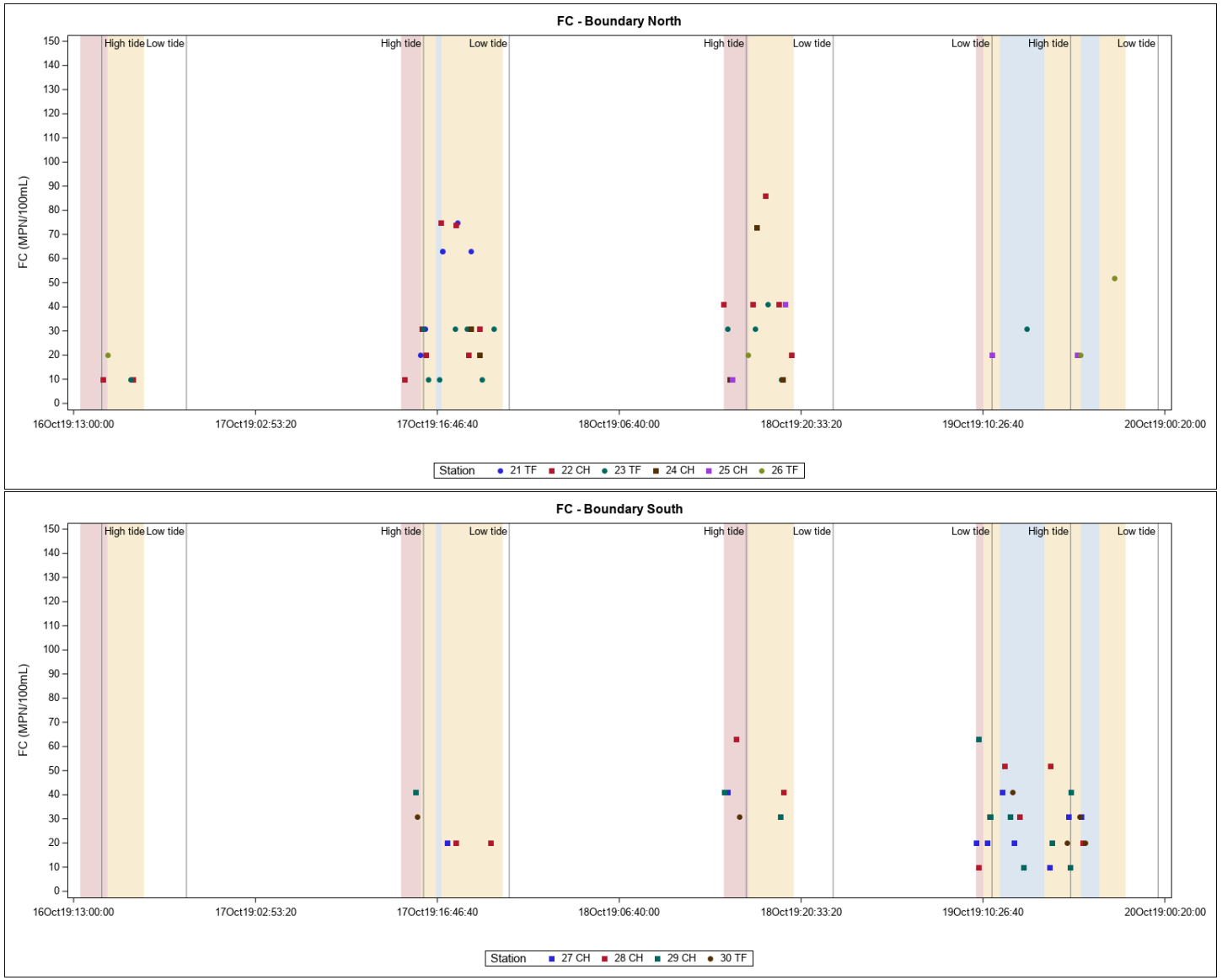
Fecal Coliform

FC (MPN/100mL)		16 OCT 2019			
		Before Start of Jet Plow		During Jet Plowing	
		Surface		Surface	
		Min	Max	Min	Max
Location	Station				
Boundary North	21	<10	<10	<10	<10
	22	10	10	<10	10
	23	<10	<10	<10	10
	24	<10	<10		
	25	<10	<10		
	26			20	20
Boundary South	27	<10	<10		
	28	<10	<10		
	29	<10	<10		
	30	<10	<10		
Nearfield North	10	<10	<10	<10	<10
	11	20	20	<10	20
	12	<10	<10		
	13	10	10		
	14	10	10		
Nearfield South	15	<10	<10	<10	20
	16	<10	<10	<10	<10
	17	<10	<10		
	18	10	10		
	19	<10	<10		
Reference Stations	41	<10	<10		
	42	10	10		
	43	<10	<10		

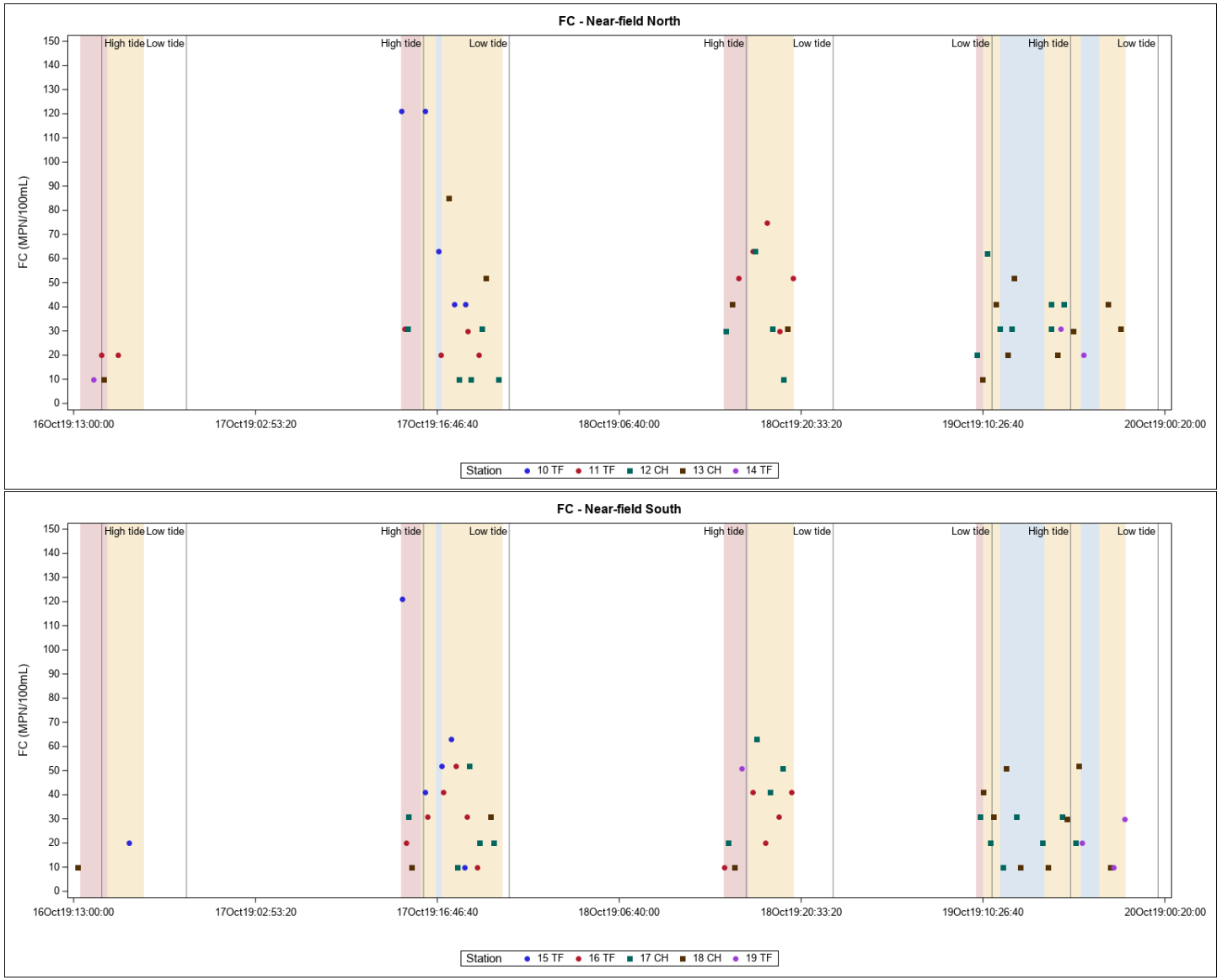
FC (MPN/100mL)		17 OCT 2019					
		Before Start of Jet Plow		During Jet Plowing			
		Surface		Surface		Bottom	
		Min	Max	Min	Max	Min	Max
Location	Station						
Boundary North	21	20	20	31	75		
	22	10	10	20	75		
	23	<10	<10	10	31		
	24			<10	31		
Boundary South	27			20	20		
	28			20	20		
	29	41	41				
	30	31	31				
Nearfield North	10	121	121	41	121		
	11	31	31	<10	30	<10	<10
	12	31	31	<10	31		
	13			<10	85		
Nearfield South	15	121	121	41	63	10	10
	16	20	20	31	52	10	10
	17	31	31	10	52		
	18	10	10	31	31		
Reference Stations	41			10	10		
	42			<10	<10		
	43			<10	10		

FC (MPN/100mL)		18 OCT 2019			
		Before Start of Jet Plow		During Jet Plowing	
		Surface		Surface	
		Min	Max	Min	Max
Location	Station				
Boundary North	22	41	41	20	86
	23	31	31	10	41
	24	10	10	<10	73
	25	10	10	41	41
	26	20	20		
Boundary South	27	41	41		
	28	63	63	41	41
	29	41	41	31	31
	30	31	31		
Nearfield North	11	52	52	30	75
	12	30	30	10	63
	13	41	41	31	31
Nearfield South	16	10	10	20	41
	17	20	20	41	63
	18	10	10		
	19	51	51		
Reference Stations	41	62	62	10	10
	42	31	31		
	43	31	31		

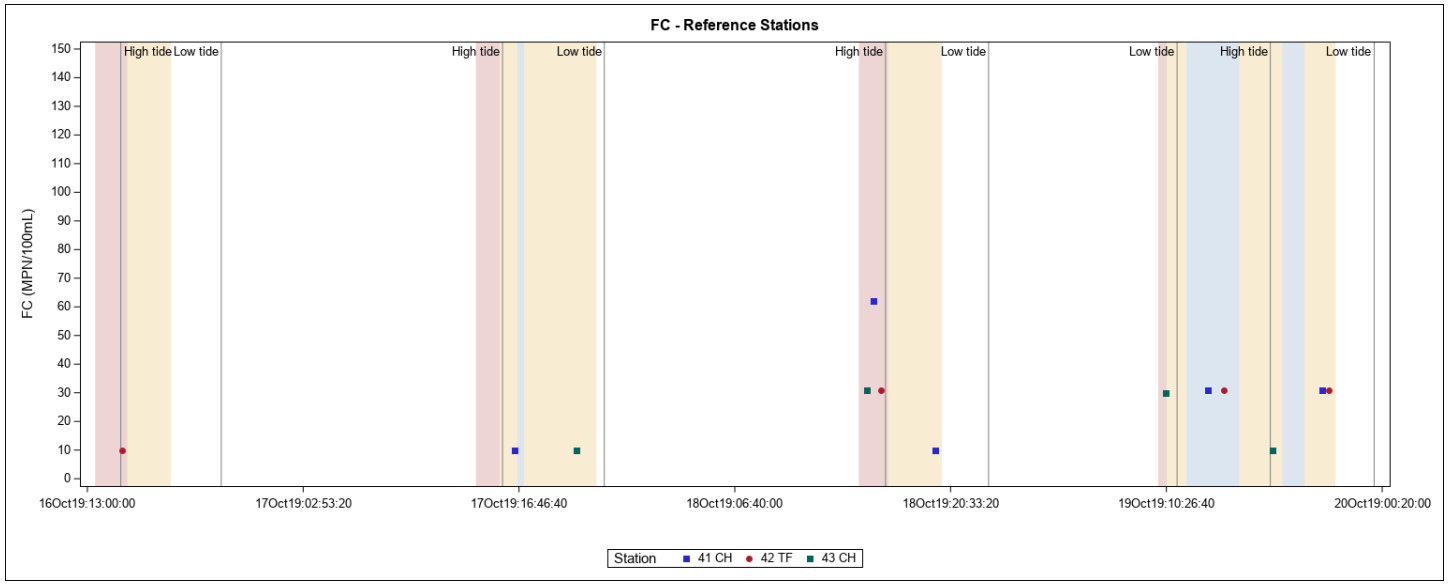
FC (MPN/100mL)		19 OCT 2019							
		Before Start of Jet Plow		During Jet Plowing					
		Surface		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max
Location	Station								
Boundary North	23			31	31				
	24			<10	<10				
	25			<10	20				
	26			20	20			52	52
Boundary South	27	20	20	10	41				
	28	10	10	<10	52				
	29	63	63	10	41				
	30			20	41				
Nearfield North	12	20	20	31	62				
	13	10	10	20	52				
	14			<10	31				
Nearfield South	17	31	31	10	31				
	18	41	41	<10	52				
	19			10	30				
Reference Stations	41			31	31				
	42			31	31				
	43	30	30	<10	10				



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



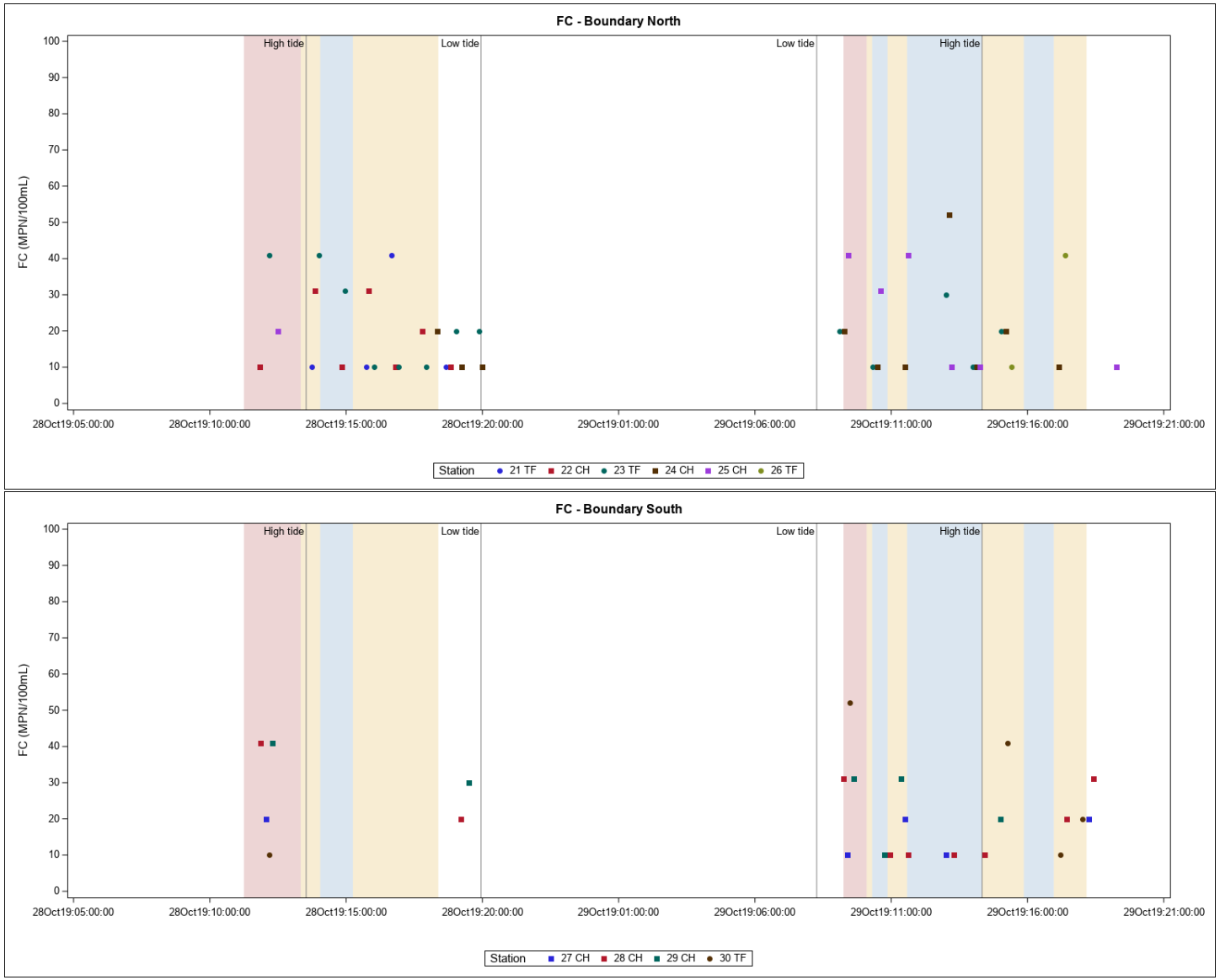
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 2

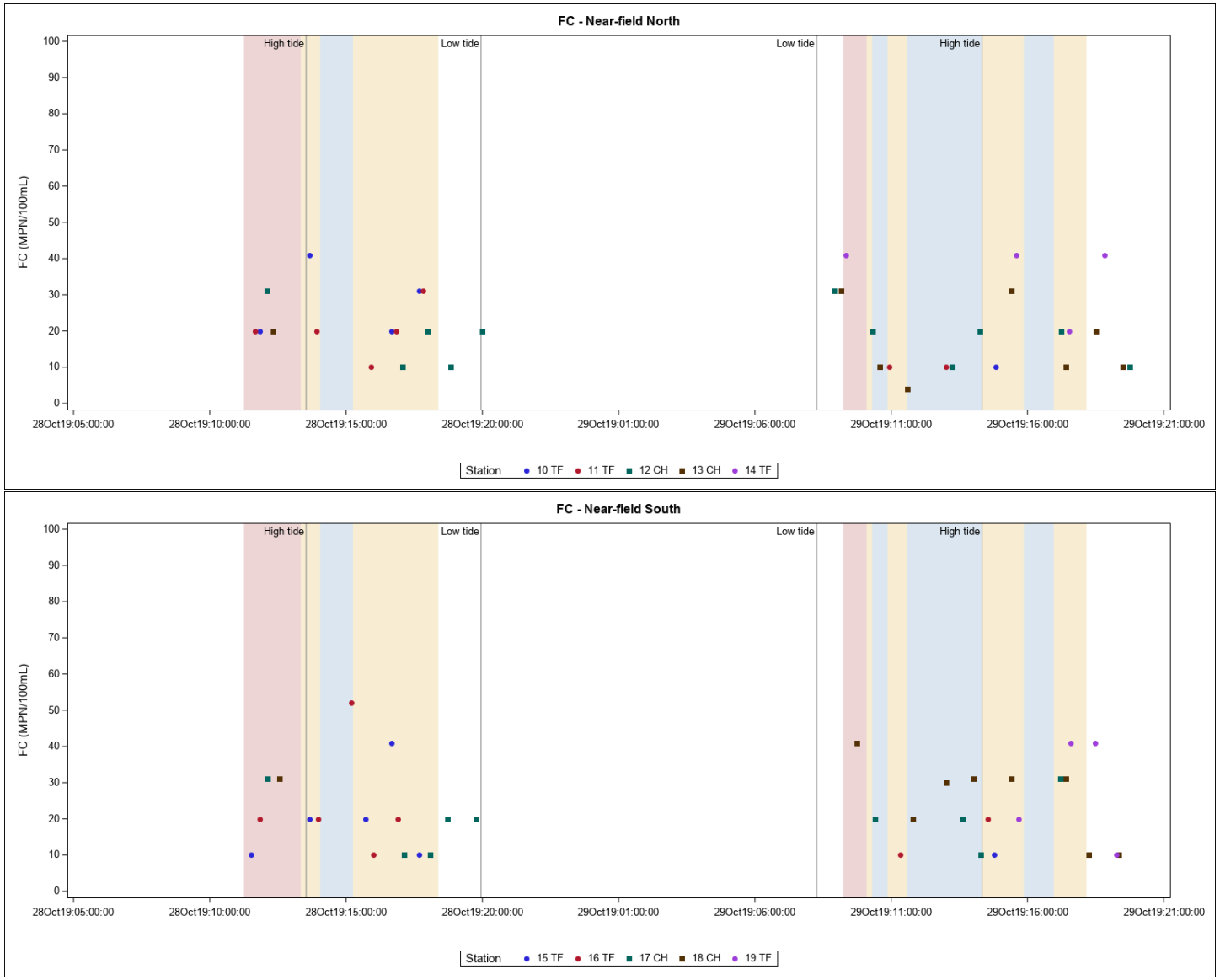
Fecal Coliform

FC (MPN/100mL)		28 OCT 2019					
		Before Start of Jet Plow		During Jet Plowing			
		Surface		Surface		Mid	
		Min	Max	Min	Max	Min	Max
Location	Station						
Boundary North	21	<10	<10	<10	41		
	22	10	10	<10	31		
	23	41	41	10	41		
	24	<10	<10	<10	20		
	25	20	20				
	26	<10	<10				
Boundary South	27	20	20	<10	<10		
	28	41	41	20	20		
	29	41	41	30	30		
	30	10	10				
Nearfield North	10	20	20	<10	41		
	11	20	20	<10	31		
	12	31	31	10	20		
	13	20	20				
	14	<10	<10				
Nearfield South	15	10	10	<10	41		
	16	20	20	<10	52		
	17	31	31	10	20		
	18	31	31				
	19	<10	<10				
Reference Stations	41	10	10	31	31		
	42	20	20	20	20		
	43	10	10	20	20		

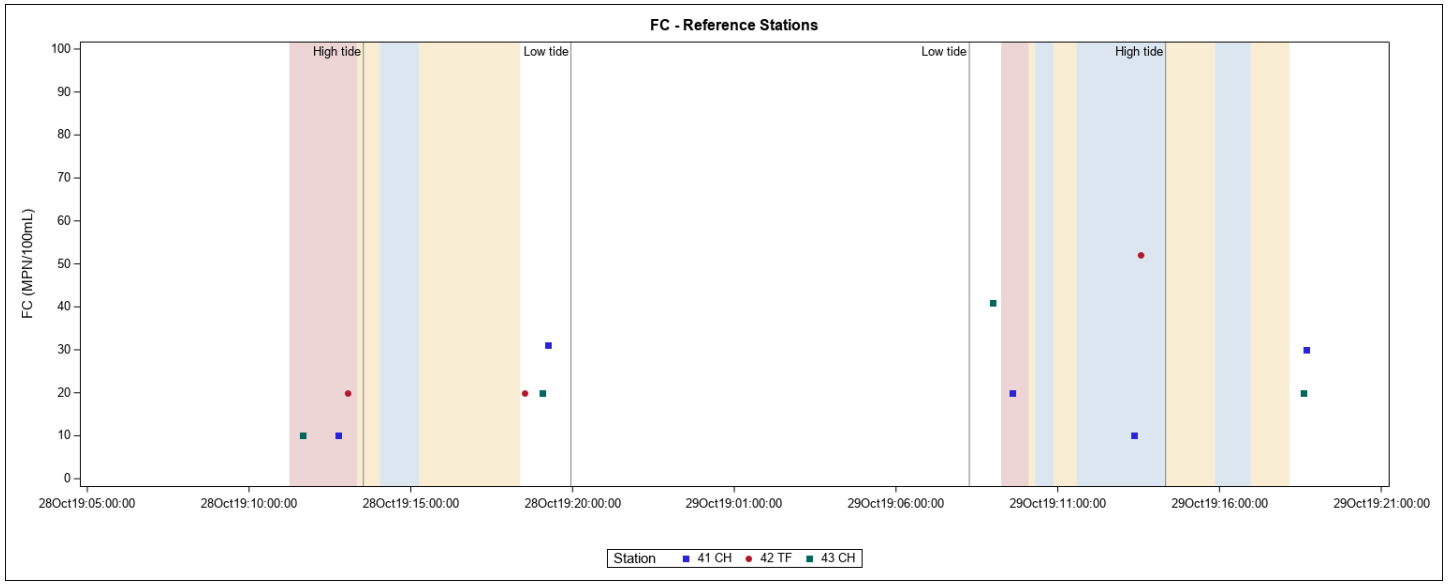
FC (MPN/100mL)		29 OCT 2019							
		Before Start of Jet Plow		During Jet Plowing					
		Surface		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max
Location	Station								
Boundary North	23	20	20	<10	30				
	24	20	20	10	52				
	25	41	41	<10	41				
	26			10	41				
Boundary South	27	10	10	<10	20				
	28	31	31	<10	31				
	29	31	31	<10	31				
	30	52	52	10	41				
Nearfield North	10			10	10				
	11			<10	10				
	12	31	31	<10	20				
	13	31	31	<10	31				
	14	41	41	<10	41				
Nearfield South	15			10	10				
	16			<10	20			<10	<10
	17	<10	<10	<10	31				
	18	41	41	10	31				
	19	<10	<10	10	41				
Reference Stations	41	20	20	10	30				
	42			52	52				
	43	41	41	<10	20				



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



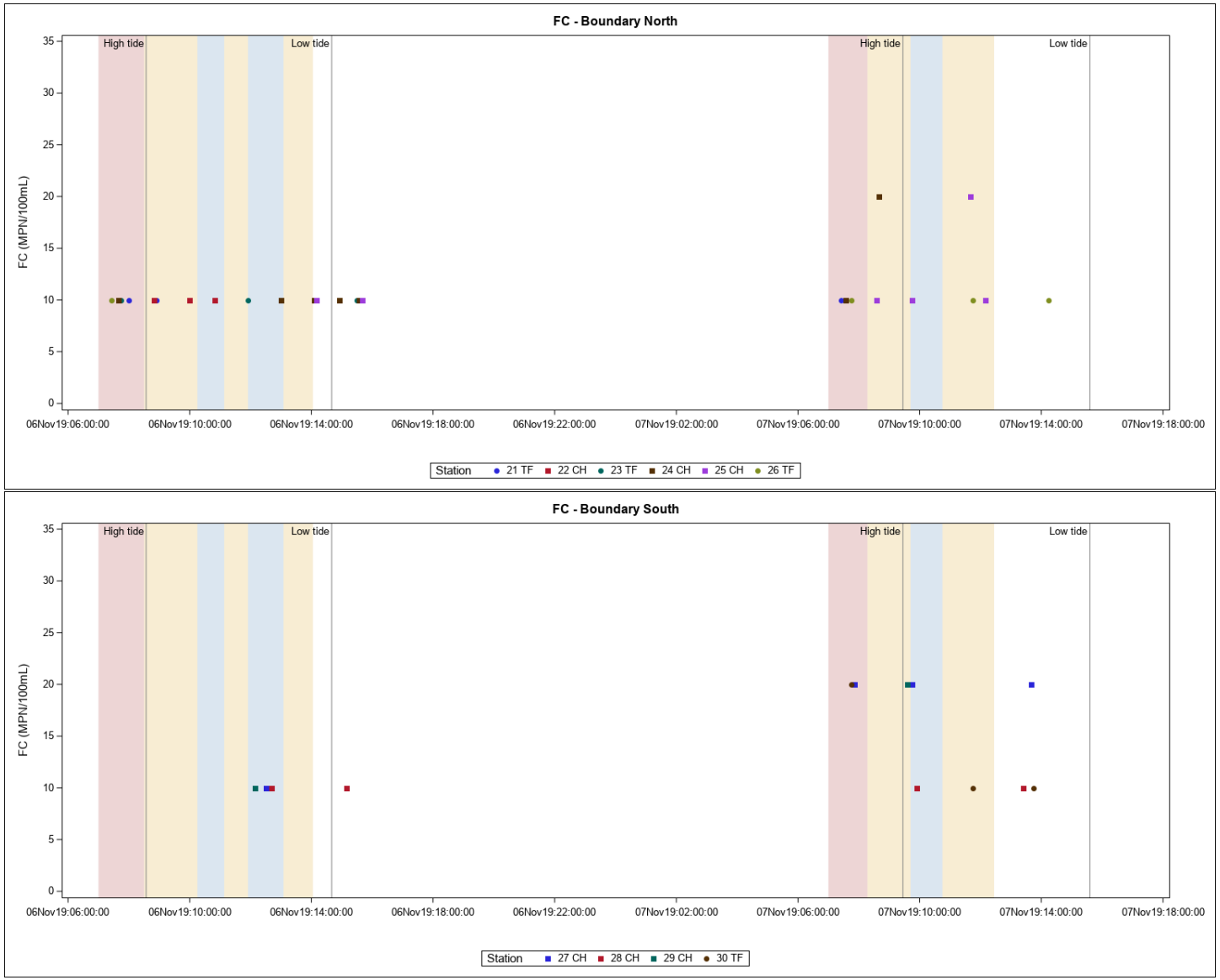
Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

Cable 3

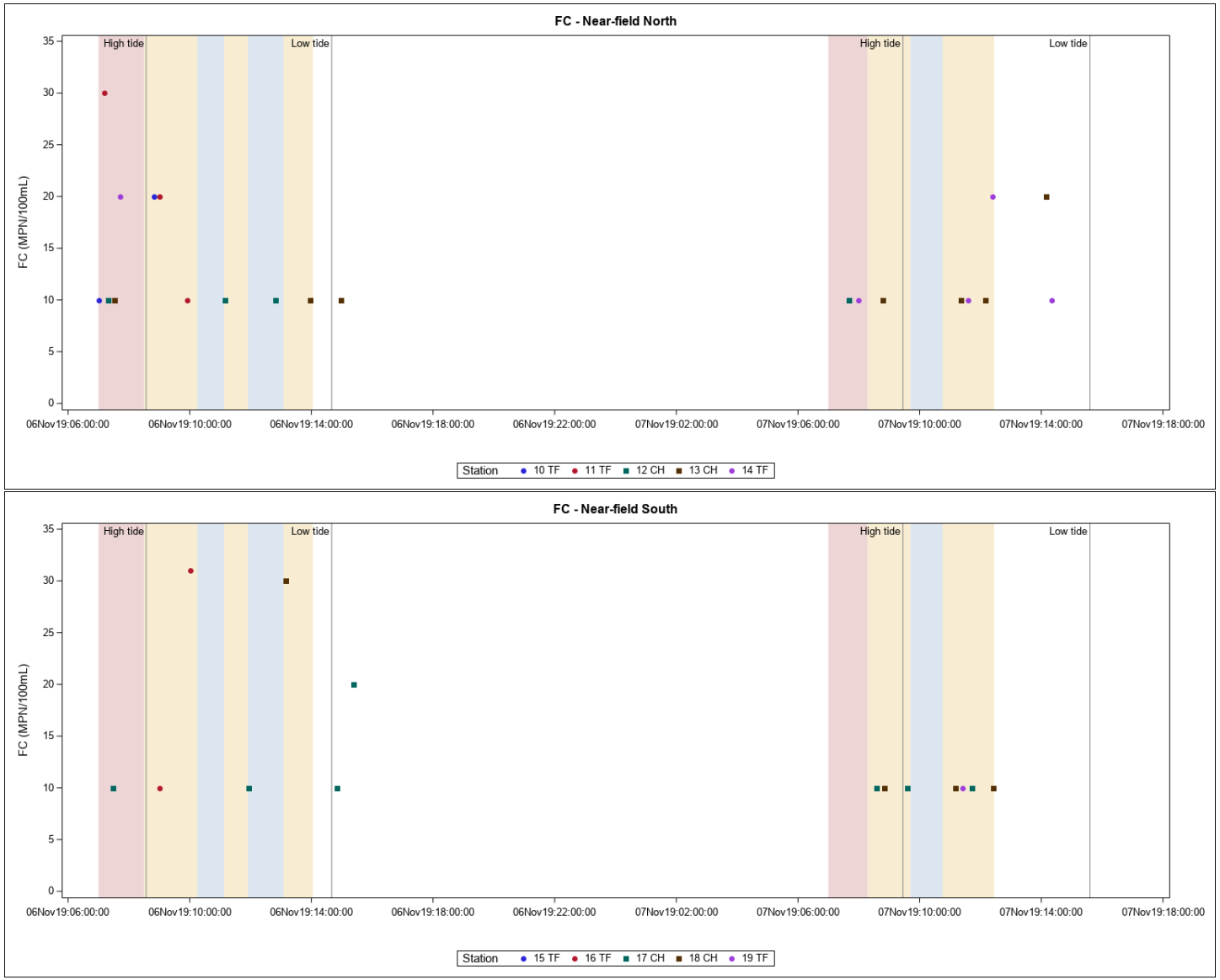
Fecal Coliform

FC (MPN/100mL)		06 NOV 2019							
		Before Start of Jet Plow		During Jet Plowing					
		Surface		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max
Location	Station								
Boundary North	21	10	10	<10	10				
	22	<10	<10	<10	10				
	23	10	10	<10	10				
	24	10	10	<10	10				
	25	<10	<10	<10	10				
	26	10	10						
Boundary South	27	<10	<10	<10	10				
	28	<10	<10	10	10				
	29	<10	<10	<10	10				
	30	<10	<10	<10	<10				
Nearfield North	10	10	10	<10	20				
	11	30	30	<10	20				
	12	10	10	<10	10				
	13	10	10	<10	10				
	14	20	20	<10	<10				
Nearfield South	15	<10	<10	<10	<10				
	16	<10	<10	<10	31			<10	<10
	17	10	10	<10	20				
	18	<10	<10	<10	30				
	19	<10	<10						
Reference Stations	41	<10	<10	<10	<10				
	42	10	10	<10	<10				
	43	20	20	<10	10				

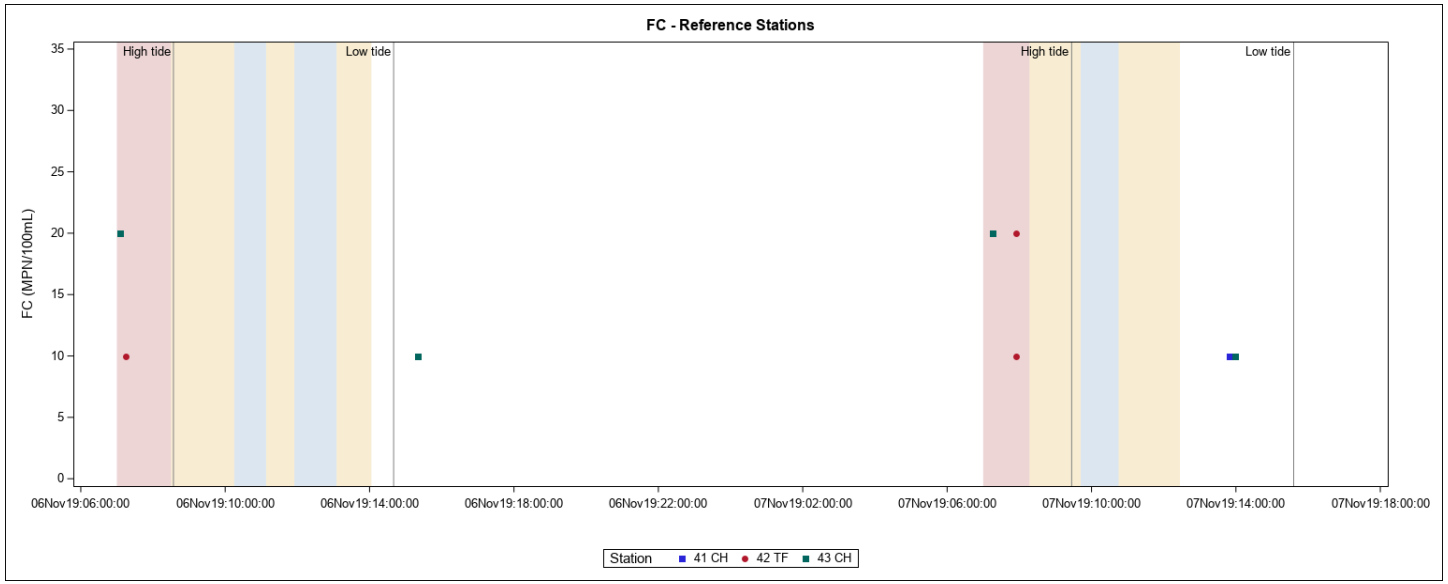
FC (MPN/100mL)		07 NOV 2019							
		Before Start of Jet Plow		During Jet Plowing					
		Surface		Surface		Mid		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max
Location	Station								
Boundary North	21	10	10						
	22	<10	<10						
	23	<10	<10						
	24	10	10	<10	20				
	25	<10	<10	<10	20				
	26	10	10	10	10			<10	10
Boundary South	27	20	20	<10	20				
	28	<10	<10	<10	10				
	29	<10	<10	<10	20				
	30	20	20	<10	10				
Nearfield North	10	<10	<10						
	11	<10	<10						
	12	10	10	<10	<10				
	13	<10	<10	<10	20				
	14	10	10	<10	20				
Nearfield South	15	<10	<10						
	16	<10	<10						
	17	<10	<10	10	10				
	18	<10	<10	<10	10				
	19	<10	<10	<10	10				
Reference Stations	41	<10	<10	<10	10				
	42	10	20	<10	<10			<10	<10
	43	20	20	<10	10				



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

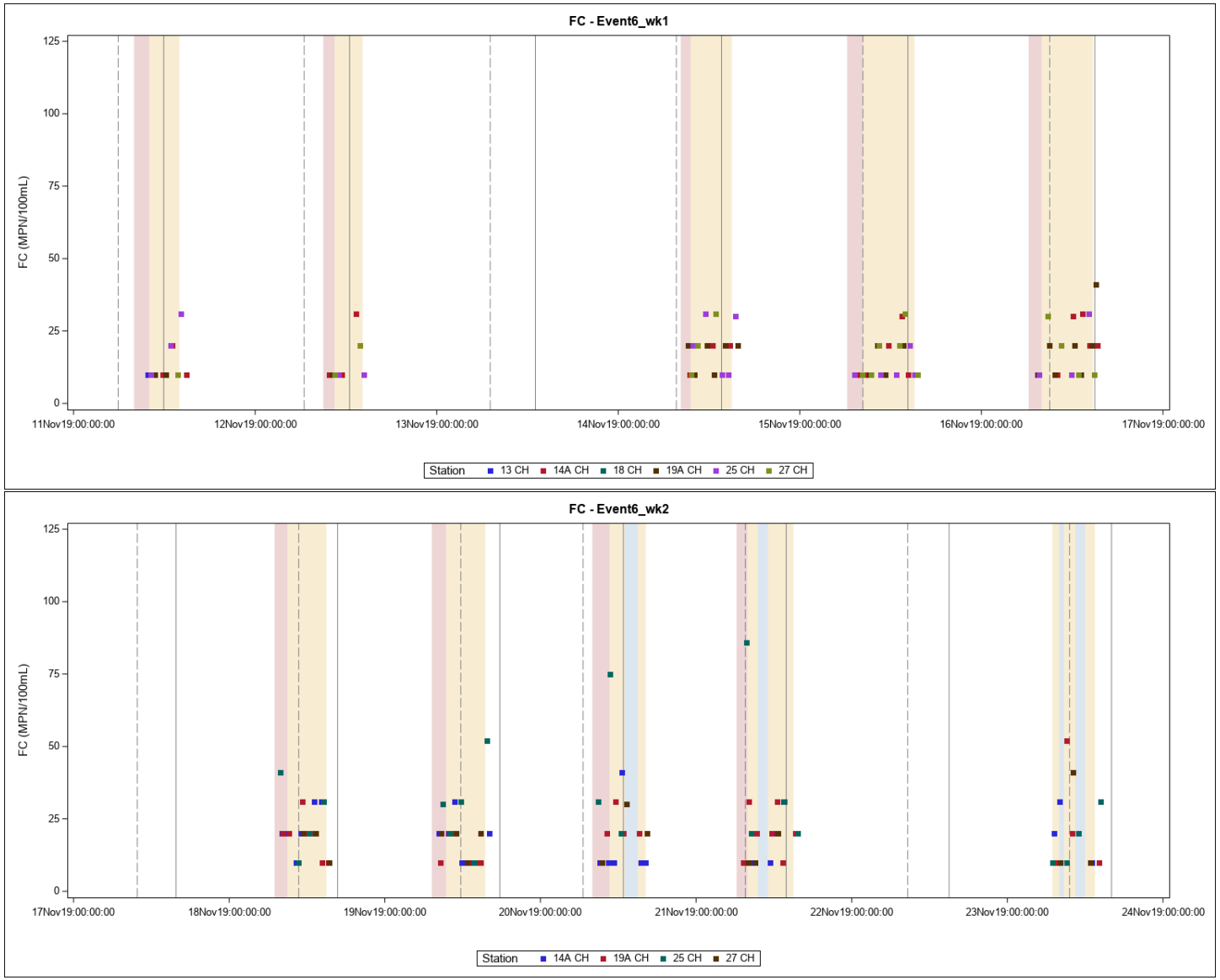


Pink shading indicates water quality monitoring prior to jet plowing; tan shading indicates active jet plowing; light blue shading indicates periods when jet plow was idling but not advancing. Vertical lines indicate high and low slack tides.

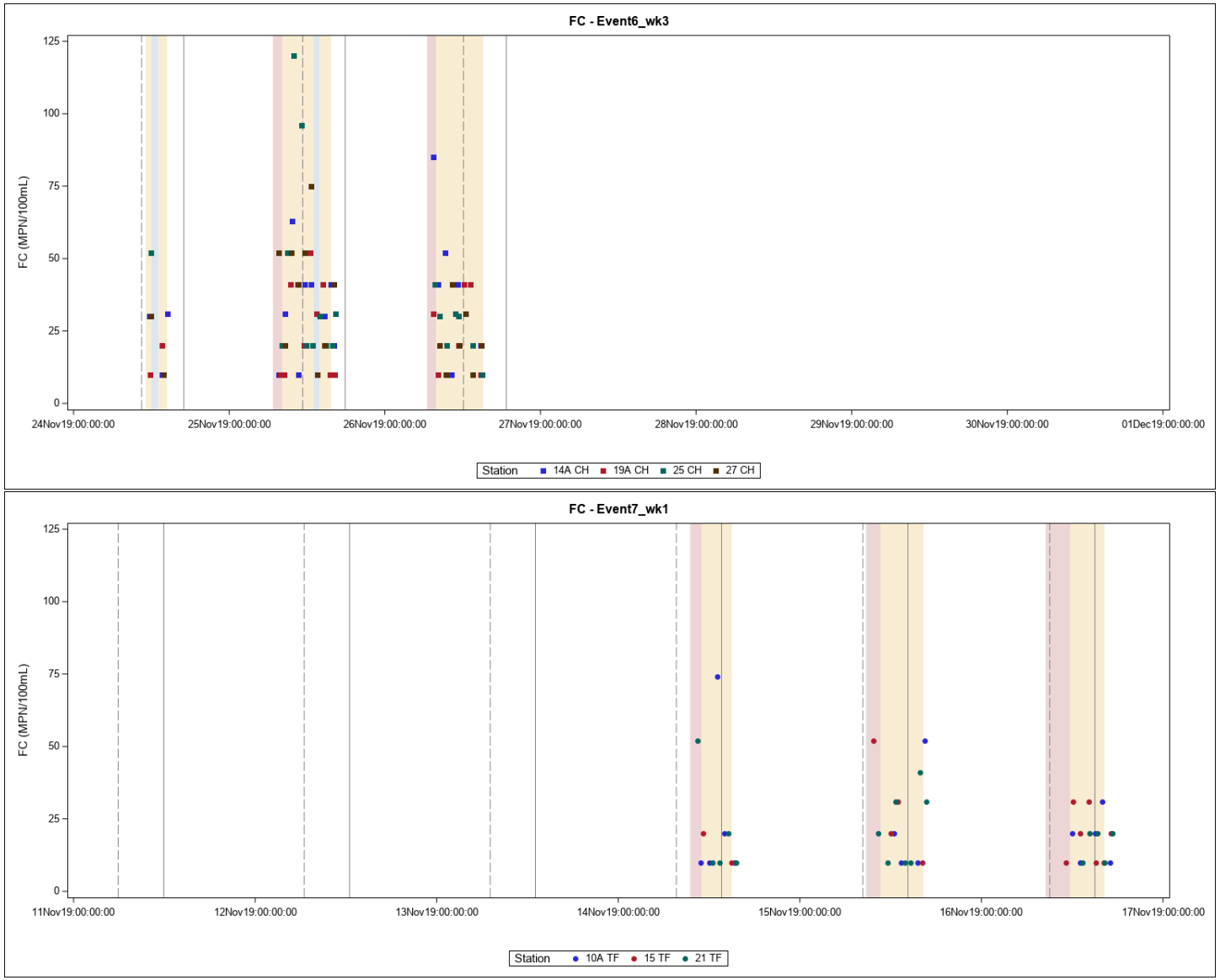
Hand Jet

Fecal Coliform

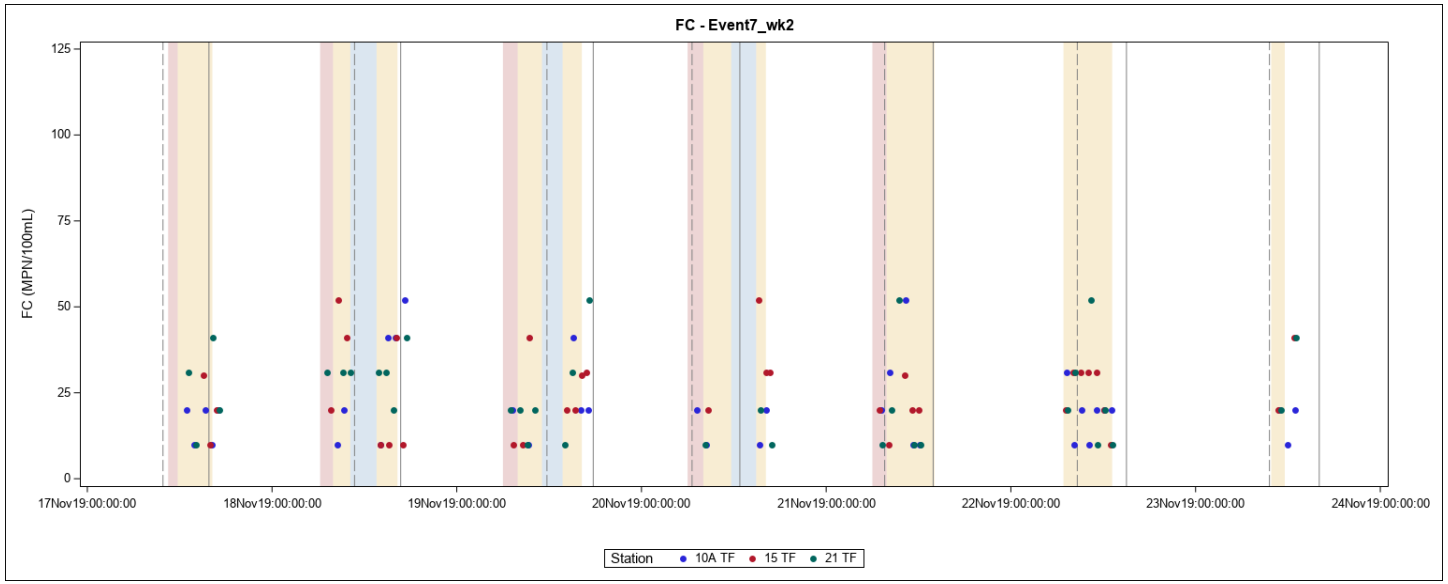
FC (MPN/100mL)		11 NOV 2019 – 18 DEC 2019									
				Before Start of Jet Plow				During Jet Plowing			
		Surface		Surface		Bottom		Surface		Bottom	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Location	Station										
Turbidity Profiles	50	<10	10					10	10		
	55	20	31					20	20		
West Side Boundary	10A			10	20	<10	<10	<10	74	<10	52
	11					108	108				
	15			<10	20	<10	52	<10	41	<10	52
West Side Reference	21			<10	52			<10	52		
East Side Boundary	13			10	10						
	14A			<10	85			<10	63		
	18			<10	<10						
	19A			<10	31			<10	52	20	20
East Side Reference	25			10	86			<10	120		
	27			<10	52			<10	75		



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.



Pink shading indicates water quality monitoring prior to cable installation; tan shading indicates active cable installation; light blue shading indicates pause in cable installation. Vertical lines indicate high and low slack tides.