Narragansett Bay Commission
2016 Data Report

Prepared by the Staff of the Environmental Monitoring & Data Analysis Section

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Narragansett Bay Commission

Figures

Tables

Introduction

The Narragansett Bay Commission

The NBC owns and operates the state's two largest WWTFs and provides quality wastewater collection and treatment services to about 360,000 persons and 7,700 commercial and industrial customers located in Providence, North Providence, Johnston, Pawtucket, Central Falls, Cumberland, Lincoln, the northern portion of East Providence, and small sections of Cranston and Smithfield.

The Narragansett Bay Commission (NBC) was created in 1980 by the Rhode Island General Assembly to reduce the amount of pollutants Providence's Field's Point Wastewater Treatment Facility (WWTF) was discharging into Narragansett Bay and its tributaries. At that time, nearly 65 million gallons of untreated sewage flowed into Rhode Island's waterways every day, resulting in temporary and permanent closures of shellfishing beds in upper Narragansett Bay, violations of federal laws, and most importantly, a serious threat to public health and the region's environmental and economic well-being.

The NBC acquired the facility from the City of Providence in 1982 and with statewide voter approval of an $87.7 million bond referendum, transformed this dilapidated facility, the third oldest WWTF in the nation, into a state-of-the-art award-winning facility. As the largest secondary WWTF in Rhode Island and the second largest in New England, the Field's Point WWTF provides preliminary and primary treatment for up to 200 million gallons per day (MGD) of wastewater, secondary treatment for up to 91 MGD, and had an average daily flow to the facility of 38.1 MGD in 2016. Construction of biological nutrient removal upgrades were completed in 2013 at Field's Point, and a new seasonal May through October total effluent nitrogen limit of 5.0 mg/L went into effect in May 2014. The seasonal May through October total nitrogen average for 2016 was 3.5 mg/L.

In 1992, the Rhode Island General Assembly expanded the NBC's mission by placing it in charge of the Bucklin Point WWTF in East Providence. This facility is designed to provide preliminary and primary treatment for up to 116 MGD, secondary treatment for up to 46 MGD, and had an average daily flow to the facility of 15.9 MGD in 2016. In 1999, supervisory management of this plant was privatized to Professional Services Group (PSG) and was managed by Suez Environment/United Water. On July 1, 2015, NBC resumed full management and operations of the facility.

The plant has since undergone major upgrades to include new screening and grit facilities, wet weather facilities capable of providing primary treatment and disinfection, new fine bubble-diffusion aeration system, nutrients removal facilities, and ultraviolet disinfection of wastewater, eliminating the need to add chemicals to disinfect and dechlorinate wastewater prior to discharge. Biological nutrient removal upgrades were completed in 2014 at Bucklin Point in order to meet a seasonal May through October permit limit of 5.0 mg/L total effluent nitrogen, which went into effect on July 14th, 2014. The seasonal May through October total effluent nitrogen average for 2016 was 3.2 mg/L.

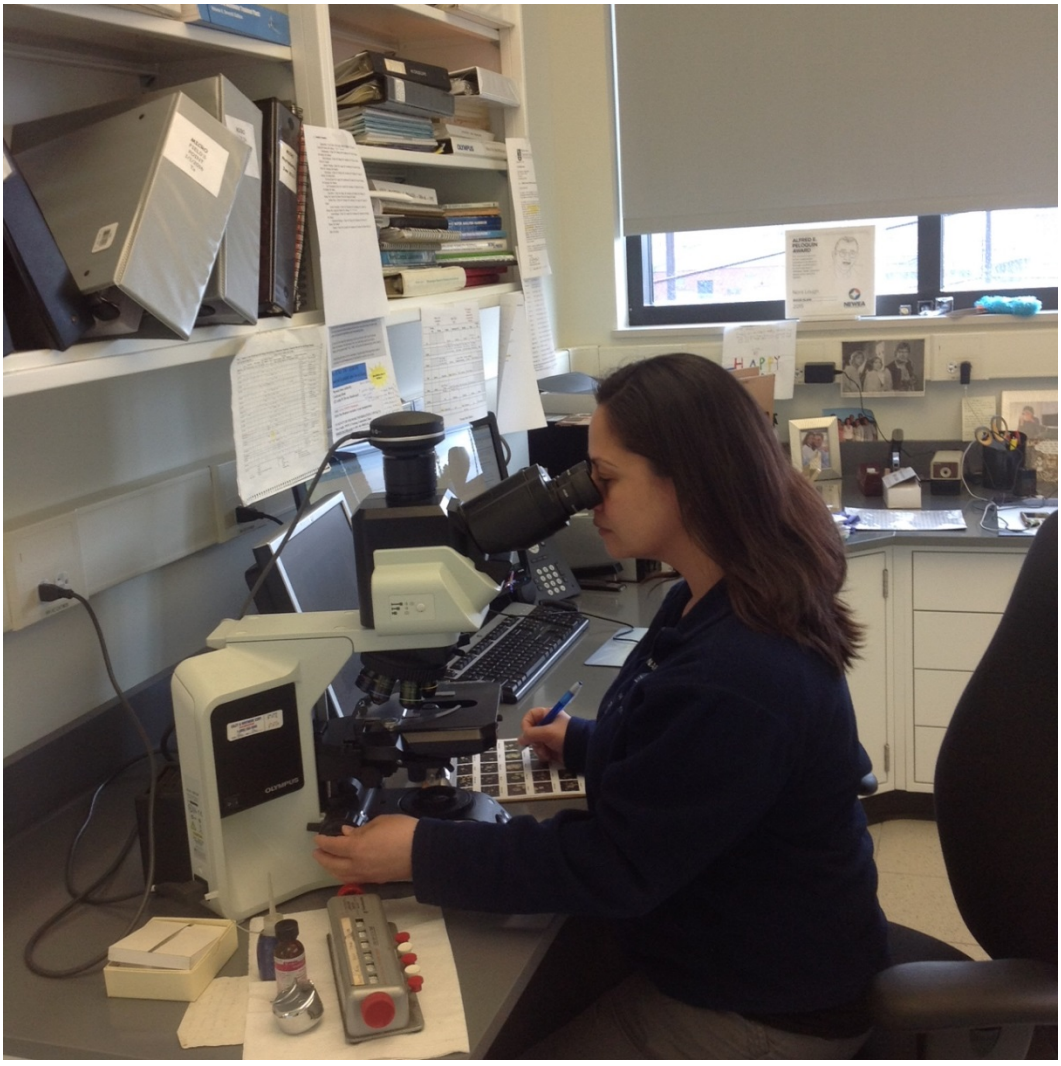
Environmental monitor collecting a sample at the Bucklin Point WWTF

Environmental Monitoring and Data Analysis Program Overview

The Environmental Monitoring and Data Analysis (EMDA) section evolved from the Pretreatment section, where prior to 1992, two Engineering technicians, assisted by Pretreatment staff, implemented the industrial and manhole monitoring activities. With the acquisition of the Bucklin Point WWTF in 1992, there were two separate and distinct Pretreatment programs, one for each treatment facility. Shortly thereafter, the two Pretreatment programs were united and the EMDA section was created within the NBC Planning, Policy and Regulation Division. Over the years, the EMDA section has evolved and is now responsible not only for industrial and manhole monitoring activities, but for all aspects of environmental monitoring for the NBC, outlined further below. EMDA staff also conducts many sampling initiatives to evaluate effectiveness of new technologies, such as nutrient removal and ultraviolet disinfection.

In 2002, the NBC was awarded a grant from the United States Environmental Protection Agency (EPA) to develop a website to provide real-time data of the upper Bay receiving waters of the NBC plant outfalls. A fixed-site station was constructed at an abandoned pier at Phillipsdale Landing in East Providence, and a state-of-the-art monitoring buoy was acquired and deployed at Bullock Reach, just north of Conimicut Point in upper Narragansett Bay. In 2005, these sites

became permanently funded by the NBC. These sites continue to provide invaluable data to the Rhode Island Department of Environmental Management (DEM) and the scientific community over the past several years and played a key role to these stakeholders in their investigation to understand the August 2003 fish kills associated with hypoxic events in Narragansett Bay. In order to maximize the utility of the NBC monitoring program to area stakeholders, the NBC frequently works with members of the DEM, several universities, environmental groups, and is also a valuable contributing member of the Rhode Island Environmental Monitoring Collaborative, an organization formed by the Governor in 2004. The NBC coordinates monitoring activities with other agencies performing monitoring statewide, and as a result the NBC EMDA section's role in environmental monitoring and compliance issues continues to expand as compliance issues become ever more complex.



NBC biologist looking at microscopic organisms

In 2016, the EMDA section and the NBC laboratory section moved into a centralized building, the Water Quality Science Building (WQSB), featuring state of the art laboratory space to continue and expand the numerous sampling and data analysis duties of the NBC. The WQSB is able to accommodate all sampling, monitoring, and analysis needs of the NBC.

The EMDA Section continues to perform the following monitoring activities:

- Daily sampling of NBC's two WWTFs to satisfy Rhode Island Pollutant Discharge Elimination System (RIPDES) requirements;
- Sampling of each Significant Industrial User at least twice annually to satisfy and exceed EPA Pretreatment Program mandates;
- Weekly monitoring of surveillance manholes to satisfy EPA mandates;
- Monitoring of sanitary manholes to obtain data required for local limits development;
- Weekly sampling of the urban rivers for bacteria analysis;
- Sampling of 19 locations in the NBC receiving waters (i.e., the Providence and Seekonk Rivers) for bacteria analysis;
- Bimonthly sampling of rivers entering the upper Bay from Massachusetts and Rhode Island for nutrients;
- Sampling of 7 locations at surface and bottom in the Providence and Seekonk Rivers for nutrients;
- Mapping of the Providence and Seekonk Rivers for chlorophyll, dissolved oxygen (DO), temperature, and salinity;
- Video surveys of the upper Bay benthos to track changes in algae growth, species occurrences and other indicators of environmental health;
- Special project sampling for the NBC Engineering, Operations and other sections to assist in facilities planning, improvements to plant operations, etc.;
- Routine maintenance of the Fixed-Site Water Quality Monitoring buoy and land-based dock station to ensure accurate data for state partners and the public.

The NBC EMDA section has always done an excellent job of implementing monitoring initiatives; however, in the past, the public has had to specifically request data results of the NBC's sampling activities. The first EMDA annual report was published in 2005 to summarize the 2004 monitoring data and activities and provide statistical analyses to discern trends and fluctuations in the data over time. Due to the size and effort required to produce such a report on an annual basis, a more streamlined presentation of the data was created for monitoring results for each year since 2007 in order to get the data to the public in a timelier manner. This report serves as a format for public dissemination of all 2016 EMDA monitoring data.

Acknowledgements

This report has been prepared by the staff of the EMDA section, under the general direction of Thomas P. Uva, Director of Planning, Policy and Regulation (PP&R). This report is a summation of the collective efforts by the Environmental Monitors and Monitoring Field Supervisors that collected 31,421 samples during 2016. It represents the countless hours of processing, compiling, analyzing and interpreting all the data by the Environmental Scientists and Assistant Manager, and data entry and general assistance by clerical staff.

The laboratory staff analyzed all of the samples collected by the EMDA section. In total, during 2016, the laboratory generated 113,165 analyses from the samples it received. A special acknowledgement and thank you to the NBC EMDA, Laboratory, and other PP&R staff that made this report possible:

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Field's Point and Bucklin Point WWTF
Sample Collection Methodology and Practices

Introduction

It is the Narragansett Bay Commission's (NBC) mission to protect and enhance the water quality of Narragansett Bay and its tributaries through careful collection and treatment of wastewater from residences, businesses, and industries in the NBC District. The Environmental Monitoring and Data Analysis (EMDA) section's primary objective is to perform routine and adequate sampling of a wide variety of parameters to ensure that both the Field's Point and Bucklin Point wastewater treatment facilities (WWTF) are effectively meeting operational and Rhode Island Pollutant Discharge Elimination System (RIPDES) permit requirements. An extensive sampling schedule employing composite and grab samples within the two WWTFs at the raw influent, primary influent, primary effluent, mixed liquor, return activated sludge, final sludge, and final effluent are necessary to keep abreast of what is introduced to and discharged from each plant, and the removal efficiencies of all conventional and non-conventional pollutants. Synthesis of these data is a continuous and ongoing process with monthly evaluations required for RIPDES discharge monitoring reports as well as periodic evaluation of the local limits that the Pretreatment section uses to regulate industrial and commercial users and ensure that no upset, pollutant pass-through, process interference, or discharge permit limit violations occur. Clean sampling and sample-handling techniques, high quality laboratory measurements, and ease of access to data are the necessary ingredients to quickly identify potential problems within the plants, and to routinely reassess the removal efficiency of pollutants. All sample collection, preservation, and storage at the Field's Point and Bucklin Point WWTFs are performed with strict adherence to United States Environmental Protection Agency (EPA) protocols.

NBC's continuing goal is to improve receiving water quality by limiting the impact of WWTF effluent on Narragansett Bay. The NBC has analyzed and tracked the toxic pollutant loading trends at its treatment facilities since the creation of the agency. EMDA works in conjunction with the Pretreatment, Laboratory, Operations, and Engineering sections of NBC to conduct sampling of wastewater from its sources, throughout its collection and treatment systems, and ultimately to its final fate as either sludge or as effluent discharged to Narragansett Bay. In support of NBC's mission and RIDPES requirements, the EMDA section collected 31,421 samples and the NBC lab analyzed these samples for 113,165 parameters during 2016. WWTF sampling data for 2016 are attached and can be found in Tables 1–37. Table numbers are also referred to in each section below.

Collection of Samples at Field's Point and Bucklin Point

Samples collected to evaluate the WWTF processes are either composite samples collected over a particular time period or grab samples. Composite samples are formed by combining discrete samples taken at periodic points in time. Refrigerated ISCO autosamplers are used throughout Field's Point and Bucklin Point to collect composite samples on a regular predetermined basis. All refrigerated autosamplers are kept at 4°C. Grab samples are discrete samples collected at particular time periods but placed into separate sample bottles and analyzed as individual

samples. Samples are assigned to a sample date based on the “flow-day”, which are generally from 07:00 to 06:59 the following day, except as described in the following paragraph. Composite sampling therefore includes some sample water from the following calendar day.

The differences in sampling between Field’s Point and Bucklin Point mainly exist in the influent sampling at the interceptors into the facility and in the retention time used to determine when influent and effluent samples are collected. Field’s Point influent samples are collected on a time-paced basis at the single interceptor that feeds the facility, after bar screening and prior to grit removal tanks. When samples are collected for metals or nutrient analysis, the effluent samples are delayed by 12 hours with the goal of sampling the same parcel of water as it enters the plant for treatment and after treatment to evaluate the performance of the plant. For biological oxygen demand (BOD) and total suspended solids (TSS), the influent and effluent samples are collected without any time offset. Bucklin Point influent samples are collected on a time-paced basis from the two interceptors that feed the facility, the Blackstone Valley Interceptor (BVI) and the East Providence Interceptor (EPI). Composite samples are collected

Environmental monitor sampling at the Field’s Point WWTF

from both interceptors and mixed flow-proportionally. Influent samples are collected 17 hours earlier than the effluent with the goal of sampling the same parcel of water as it enters the plant for treatment and after treatment to evaluate the performance of the plant. At both facilities, final effluent sample collections are time-paced and downstream of all treatment processes. The final effluent represents wastewater after complete treatment just prior to entering the receiving waters of the Providence or Seekonk River. Collection of the final effluent sample at Field's Point takes place after chlorination and dechlorination of the wastewater, in the outfall channel downstream of the chlorine contact tank. The final effluent sample at Bucklin Point is collected downstream of the UV chamber in the UV building. The following are more detailed descriptions of composite sampling at both WWTFs.

Composite Sampling at Field's Point

Composite sampling at Field's Point is done on a time-paced basis. All composite samplers sample the waste stream at 30-minute intervals and take a volume of 100 mL. The samples are combined into 24-hour composites of the wastewater at the sampling location. EMDA uses refrigerated ISCO 3700, ISCO 4700, and ISCO 6712 programmable autosamplers throughout Field's Point. The samplers are located at the influent/grit building, primary influent, primary effluent, mixed liquor east and mixed liquor west, wet weather tank influent and effluent, and final effluent. Temperatures of the samplers are maintained at 4°C (acceptable range is 1-6°C).

Two types of suction tubing are used for composite sampling at the Field's Point WWTF. Influent and effluent peristaltic samplers collecting trace metals samples use suction tubes lined with Teflon®. Teflon® has characteristics that enable it to be cleaned to trace-metal grade. Extra care is required in handling this tubing to prevent cracking due to its brittle nature. Peristaltic samplers not collecting trace metals samples use Tygon® tubing as suction lines. This tubing is much more resilient and pliable. The Teflon® and Tygon® suction lines both measure ½-inch in outer diameter and ⅜-inch in inner diameter. Sampler suction lines are changed semi-annually and pump tubing changed every month. A dilute sodium hypochlorite solution is used to clean both the Teflon® and Tygon® suction line and pump tubing of the autosamplers weekly. This procedure takes place at the autosampler collection site. The Teflon® tubing is also acid washed monthly.

The EPA released a report in 1994 assessing historically-used trace metals sampling procedures. The report found that the levels of contamination from the sampling/vessel cleaning process resulted in metals levels higher than the bodies of water being sampled. Following the report, the EPA developed a series of recommended techniques for clean sampling that EMDA follows specifically. For influent/grit building and final effluent autosamplers that collect wastewater analyzed for trace metals and nutrients, these clean sampling methods are used to reduce contamination. The method requires acid cleaning of composite containers prior to use, and acid cleaning of suction and pump tubing. Blanks are collected to monitor and verify proper cleaning. A Nalgene® polyethylene carboy is used to collect composite samples for analyses of these parameters.

Composite Sampling at Bucklin Point

Composite sampling at Bucklin Point is time-paced. The autosamplers sample the waste stream at 30-minute intervals and take a volume of 100 mL. The samples are combined into 24-hour composites of the wastewater at a sampling location.

All autosamplers used at the Bucklin Point WWTF are refrigerated peristaltic pump samplers. Autosamplers used include the ISCO sampler models 3700, 4700, 6712, and Sigma sampler model 9000. These samplers are located at BVI, EPI, primary influent, primary effluent, mixed liquor, final effluent, and wet weather effluent. Influent composite samples from the BVI and EPI are combined flow-proportionally and analyzed together for all parameters. All sample locations use the ISCO samplers, except for the primary effluent which uses the Sigma sampler. Temperatures of the refrigerated samplers are maintained at 4°C (acceptable range is 1-6°C) and their temperature is documented three times per day by EMDA staff. Each composite carboy container has been marked with a permanent marker to identify the sampling location at which it is used.

Influent and effluent peristaltic samplers collecting samples for trace metals use special suction tubes lined with Teflon®. Teflon® has characteristics that enable it to be cleaned to trace-metal grade. Extra care is required in handling this tubing to prevent cracking due to its brittle nature. Peristaltic samplers not collecting trace metals samples use Tygon® tubing as suction lines. This tubing is much more resilient and pliable. The Teflon® and Tygon® suction lines both measure ½-inch in outer diameter and ⅜-inch in inner diameter. Sampler suction lines are changed semi-annually and pump tubing changed every month. A dilute sodium hypochlorite solution is used to clean both the Teflon® and Tygon® suction line and pump tubing of the autosamplers weekly. This procedure takes place at the autosampler collection site. The Teflon® tubing is also acid washed monthly.

As mentioned above for Field's Point, Bucklin Point also uses the EPA-recommended clean sampling techniques for sample collection of wastewater for metals and nutrients analyses. The clean sampling method requires acid cleaning of composite containers prior to use and acid cleaning of suction and pump tubing. Blanks are collected to monitor and verify proper cleaning. A Nalgene® polyethylene carboy is used to collect composite samples for analyses of these parameters. Cleaning and handling of samplers, pump and suction tubing, and composite carboys are also outlined in the following sections under the specific parameters analyzed.

Sample Collection for Total Suspended Solids (TSS), Biological Oxygen Demand (BOD) and Fecal Coliform Analyses at Field's Point and Bucklin Point

NBC's RIPDES permits require sampling of TSS and BOD daily using 24-hour composites at both the influent and effluent. As stated above, the influent and effluent samplers collect samples from the waste stream at 30-minute intervals. Carboys with collected sample water are brought to the NBC laboratory for analysis every morning around 08:00. EMDA staff clean sample carboys used for TSS and BOD collections in the dishwasher after each use, and carboys are replaced as necessary.

At the Field's Point WWTF, two grab samples are taken at the effluent per flow day for fecal coliform bacteria analyses. EMDA staff takes the first fecal coliform sample at 08:00; operations staff takes the second sample in the time frame of 03:00-05:00. The final fecal coliform value for that day is a geometric mean of the two grab samples as well as any duplicate samples or extra samples collected that day. At the Bucklin Point WWTF, four effluent grab samples are taken throughout the day for fecal coliform analysis. A geometric mean is then determined from these results and any duplicate or extra samples and is assigned as the fecal coliform value for that day. The procedure for fecal coliform sampling at both WWTFs is as follows:

- Wearing new, clean nitrile gloves, place sample container in sampling device (an open-ended PVC cylinder with the bottle held in place by a small screw running through the cylinder body. A line is attached to the cylinder body for lowering into the water).
- Open the sterile 250-ml container. Do not use if seal is broken before opening. Make sure that the sodium thiosulfate pellet remains in the bottle throughout the collection process. This chemical neutralizes residual chlorine if present.
- Place sampling device into the center of the stream, 6 inches below surface, to collect sample.
- Container must be filled to the "EPA FILL LINE".
- Remove coliform bottle from the sampling device and close container.
- Secure and seal the sample cover.
- Place label on container with time, date, collector's initials, and the operator-collected TRC value in ppm.
- Place sample in cooler with ice and transport directly to NBC laboratory.

In 2010, based upon information from the Rhode Island Department of Environmental Management (DEM) that our next RIPDES permits are likely to include effluent limitations for enterococci rather than fecal coliform, a study was initiated to analyze every plant bacteria sample for both fecal coliform and enterococci in order to evaluate plant performance against the expected new permit limits of 35 MPN/100 mL monthly geometric mean and 276 MPN/100 mL daily maximum geometric mean. Since 2011, a subset of grab samples for fecal coliform continues to be analyzed for enterococci. TSS, BOD, and fecal coliform daily geometric mean data for 2016 can be found in the attached Tables 1 and 2. Enterococci and fecal coliform sample results can be found in Tables 3 and 4.

Sample Collection for Trace Metals and Cyanide Analyses at Field's Point and Bucklin Point

Toxic pollutant monitoring requirements include 24-hour composite sample collections for the analysis of copper, mercury, nickel, silver, zinc, and cyanide at Field's Point and copper, lead, mercury, nickel, silver, zinc, hexavalent chromium, and cyanide at Bucklin Point. Other metals that are analyzed for but are not required by the RIPDES permits include arsenic, aluminum, cadmium, iron, selenium, molybdenum, and tin. Metals and cyanide measurements are required twice-weekly at both plants except for selenium and molybdenum which are collected once per week in the influent and once per month in the effluent. Metals and cyanide data for 2016 can be found in the attached Tables 5-12.

The current method for collection of cyanide at both Field's Point and Bucklin Point mandates nine grab samples to be collected over a 24-hour period, separated by a minimum of two hours. The autosamplers collect discrete samples for cyanide analysis into one-liter containers that are pre-preserved with sodium hydroxide. These samplers collect a 300 mL sample every two hours for 48 hours, once per week. At Bucklin Point, composite samples for cyanide and metals at the influent are collected from both interceptors, the BVI and EPI, and are composites of nine separate grab samples at each location. These samples are then mixed flow-proportionally. At both plants, nine of the twelve grab samples from the twenty-four hour sampling period are composited into a 2-liter HDPE bottle. The pH is tested to ensure it is greater than 12 standard units (s.u.) before compositing. The composite is poured off into a 500-mL brown HDPE bottle.

For influent and final effluent autosamplers that collect wastewater analyzed for trace metals, a special clean sampling method is used to reduce contamination. The method requires acid cleaning of composite containers prior to use, and acid cleaning of suction and pump tubing. Blanks are collected to monitor and verify proper cleaning. A 15-liter Nalgene® polyethylene carboy is used to collect composite samples. Carboy cleaning procedures and quality assurance measures are in place to ensure clean and proper sampling. Acid-washed carboys are put into place twice weekly at the influent and effluent to collect samples to be tested for trace metals and nutrients; this is in conjunction with the samples collected for cyanide. Monthly post-cleaning blanks are collected from the acid-washed carboys to ensure the success of the cleaning procedure. These blanks are collected by adding deionized (DI) water to a cleaned carboy, swirling the DI water in the carboy, and letting it sit overnight refrigerated. The DI water is then poured off into pre-labeled, pre-cleaned containers for analysis of parameters of interest.

Field blanks are taken each time a sample is collected for mercury at both Field's Point and Bucklin Point. The procedure for collecting a field blank consists of transporting sufficient DI water into the field and collecting a sample using identical sampling and preserving procedures that are used in collecting the mercury sample.

Sample Collection for Nutrients Analysis at Field's Point and Bucklin Point

Permit requirements for nutrients were modified by the DEM in 2005 as part of new permit limits issued to reduce the amount of nitrogen discharged to Narragansett Bay. The permit requirements mandated monitoring of nitrate, nitrite, and total Kjeldahl nitrogen (TKN) three times per week. Ammonia monitoring permit requirements remained at twice weekly, but NBC has sampled all nutrient parameters three times per week since August 1, 2005. Seasonal effluent discharge limits of 5.0 ppm for total nitrogen were proposed in the 2005 RIPDES permit modification. In June 2006, a consent agreement was signed, which imposed a seasonal interim effluent permit limit of 18.2 ppm for total effluent nitrogen at Field's Point and 10.0 ppm for Bucklin Point. In May 2009, the DEM modified the consent agreement for Bucklin Point to impose a seasonal interim total effluent nitrogen limit of 8.5 ppm. NBC worked diligently to maximize nitrogen removal at Bucklin Point and achieved significant reductions in nitrogen loading. However, NBC determined that additional modifications were required to achieve compliance with the nitrogen limit of 5 mg/L as set forth in the consent agreement. Major facility upgrades and renovations were necessary to implement biological nutrient removal (BNR)

technology at each plant. Field's Point completed these upgrades in 2013, and the consent agreement effluent total nitrogen limit of 5.0 mg/L went into effect on May 1st, 2014; Bucklin Point completed upgrades and began operations under this limit on July 14th, 2014.

Nutrients are analyzed from 24-hour composite influent and effluent samples. Sample collection carboys are dishwasher cleaned, acid washed, and DI water rinsed before they are placed at their sampling location. Equipment blanks are collected every other month from the acid-washed carboys and pump tubing and are used to verify the absence of sample contamination.

All nutrient samples are analyzed by the NBC laboratory. The nutrients analyzed are TKN, nitrite, nitrate, ammonia, and total phosphorus. TKN comprises the ammonia nitrogen and organic nitrogen in a sample. The organic nitrogen component is necessary to determine and monitor total nitrogen. Nitrate is determined by difference from a combined nitrite/nitrate measurement and a nitrite measurement. A nutrient autoanalyzer acquired by NBC's laboratory in 2004 showed improved analysis efficiency for nutrient measurements, and analytical results with better precision and accuracy than previous analyses. NBC's laboratory continues to update their techniques and equipment to ensure high-quality data; the nutrient autoanalyzers currently online and in use were acquired in 2009, 2012, and 2013. WWTF nutrients data for 2016 can be found in Tables 13 and 14.

Sample Collection for Oil and Grease Analysis at Field's Point and Bucklin Point

The NBC RIPDES permits require effluent sampling for oil and grease by three grab samples collected over the course of a 24-hour period, with one grab per shift, once per month at each facility. The grabs are analyzed separately and the maximum is reported on the monthly DMRs, though the RIPDES permit does not set a discharge limit. The NBC conducts similar sampling of the influent for oil and grease at each facility as well, though these data are not reported on the monthly DMR.

Oil and grease samples are collected using a pre-cleaned bottle, which is labeled with collection time and date, site, and the parameter to be analyzed. The cap is removed, taking care to avoid contamination, and the sampler is lowered just below the surface. The bottle is filled and then recapped. Oil and grease grabs are preserved with hydrochloric acid to a pH less than 2 s.u. by EMDA staff as soon as possible after collection. These samples are then brought to the NBC lab for analysis. Oil and grease average results for 2016 can be found in the attached Table 15.

Sample Collection for Effluent Dissolved Metals Analysis at Field's Point and Bucklin Point

In 2000, the NBC began a study to monitor the dissolved fraction of metals in the effluent discharged to the receiving waters of the Providence and Seekonk Rivers. During 2016, monthly samples were taken in the Field's Point and Bucklin Point effluent and were analyzed for dissolved metals. The NBC and DEM use these data to better understand the fate, effect, and physical partitioning of metals discharged from the WWTFs. Metals in the dissolved form are more readily absorbed by marine life than metals associated with particles, therefore the EPA

and DEM have established fresh and saltwater water quality criteria for dissolved metals concentrations. However, WWTFs are permitted for total metals only. Therefore, the DEM must use a "metal translator conversion factor" to set appropriate total metals limits for a WWTF, based upon the dissolved metals water quality criteria. By conducting monthly sampling for both total and dissolved metals, the NBC will be able to better assess the phase partitioning of metals in its effluent and in the receiving waters and better inform the use of metal translators.

Effluent dissolved metals samples are split from the effluent total metals composite sample on the first Tuesday of each month. The effluent total metals sample is a 24-hour composite sample taken after treatment of the wastewater is complete, just before entering the Providence River. As part of a quality assurance plan, the NBC lab analyzes laboratory equipment blank samples along with the dissolved metals to ensure accurate results. Effluent dissolved metals data results for 2016 can be found in Tables 16 and 17.

Collection of Final Effluent for Quarterly Bioassay Analyses

The two NBC WWTFs are required to conduct quarterly bioassay studies to determine whole effluent toxicity (WET) to test organisms. These bioassays use the response of organisms to effluent at varying dilutions to detect and measure the potential impact of substances, wastes, or environmental factors, alone or in combination as they exist in the effluent. NBC met the quarterly bioassay sampling frequency requirements during 2016 for both facilities. Effluent samples are collected only in dry weather, defined as no rain 48 hours prior to or during sampling. These samples are 195 mL composites of wastewater collected every 30 minutes over the course of 24 hours. The back-up automatic composite samplers are used for this sampling and are cleaned and maintained in the same way as those collecting samples for TSS and BOD, with sample carboys cleaned in the dishwasher after each use and replaced yearly.

Two bioassay tests are performed as required by the NBC RIPDES permits. An acute toxicity test is conducted to examine survival of test organisms, the mysid shrimp *Americamysis bahia*, in varying concentrations of effluent. The second test is a chronic toxicity test which examines the effect of effluent on fertilization success in eggs of the sea urchin *Arbacia punctulata*. Both tests are conducted in five concentrations of effluent plus a control: 100% effluent, 50% effluent, 25% effluent, 12.5% effluent, and 6.25% effluent. Natural seawater is used for both the control treatment and dilutions of effluent.

Acute toxicity test results are summarized using the LC_{50} and the A-NOEC statistics. The LC_{50} result is defined as the concentration of wastewater that causes mortality to 50% of the test organisms, *A. bahia*; the permit requirement of 100% or greater is defined as a sample which is composed of 100% effluent. A-NOEC or Acute-No Observable Effect Concentration is defined as the highest concentration of the effluent in which 90% or more of the test animals survive, and is monitored though there is no permit limit. The chronic test results are summarized using the C-NOEC or Chronic-No Observed Effect Concentration statistic. The permit limit for Bucklin Point is 50% or greater for this parameter while at Field's Point the permit requires only monitoring.

The WET tests are designed to supplement effluent monitoring to determine whether the combination of chemical species present in a WWTF's effluent is toxic to test organisms. The monitoring for individual pollutants is targeted towards ensuring that the concentrations of the individual pollutants are at levels which do not pose harm to aquatic organisms. The WET tests are an attempt to determine the synergistic impact of NBC effluent on organisms in the receiving waters. All bioassay analyses are performed by third party laboratories contracted by NBC and are conducted in accordance with protocols listed in most recent edition of the EPA document: Cornelius I. Weber, et al., 1991, Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms. Bioassay data results for 2016 can be found in attached Tables 18 and 19.

Sample Collection for Sludge Analysis at Field's Point and Bucklin Point

Sludge from Field's Point WWTF is collected daily; sludge from Bucklin Point WWTFs is collected Monday through Saturday only, as the contractor processing the sludge is closed on Sundays. Sludge from each plant is analyzed for total solids (TS) and volatile solids (VS). Sludge samples are also analyzed one to two times per month for metals and cyanide. The Field's Point WWTF sludge is handled by an outside contractor. Grab samples are taken throughout the day by the contractor and composited in one 4-L container. EMDA staff then pours part of this composite into a 16-oz. container for delivery to the lab by 08:00 the next day. These containers are disposed of after a single use. At the Bucklin Point WWTF, an outside contractor also processes the sludge. Similar to Field's Point, the contractor staff takes grab samples throughout the day and composites these into a 4-L container at the end of the day. This is stored in the refrigerator until EMDA picks up the sample the next morning. EMDA staff mix the sample and pour off approximately 500 mL into a smaller container to bring to the lab for analysis. Data results from sludge sampling for 2016 can be found in attached Tables 20-23.

Sample Collection for EPA Priority Pollutants: Volatile Organic Compounds (VOCs)

Grab samples are collected monthly at influent and effluent locations to be analyzed for volatile organic compounds (VOC), a subset of the EPA Priority Pollutants. The same type of glass jars used for oil and grease samples are used for the grab collection of VOCs. The glass jar is fastened to the end of a pole and dipped into the wastewater to collect the sample. This sample is then poured off into three pre-preserved 40-mL glass vials. The glass vials have each been pre-preserved with 3 drops of hydrochloric acid before collection. The glass vials are then transported to the laboratory for analysis. VOC data results for 2016 can be found in attached Tables 24 and 25.

Sanitary Manhole Sampling

EPA and RIPDES permit regulations require the NBC Pretreatment Program to reevaluate local discharge limitations every five years. In order to complete this task, the NBC must monitor sanitary manholes to evaluate pollutant loadings from residential sources upstream of any industrial or commercial facilities. These background loadings are outside the realm of

regulatory control by the NBC Pretreatment Program; however, NBC must understand these loadings in order to determine acceptable loading limits for industrial users to maintain effective pollutant removal at the treatment facilities. These samples reveal the composition of what is being introduced into the collection system in a more site-specific way than the influent composite samples. The NBC began sanitary sewer manhole sampling in 1993, and in 2000, EMDA began to make these collections using EPA-approved clean sampling techniques. As laboratory detection limits continue to decrease due to improved clean sampling techniques, these data become a more precise measure of the amount of uncontrolled toxic chemicals that enter the NBC collection system from residential, non-industrial sources.

To collect these samples, automated sampling devices are suspended in the sanitary manholes and are programmed to collect 100 mL of wastewater every fifteen minutes for 24-hours, starting in the early morning on a weekday. The aliquots collect into a 10-L acid-washed Nalgene® jug, and the composite sample is later poured off into specified containers for each analytical parameter including total metals, cyanide, TSS and BOD, and mercury.

Sanitary manhole sample collection

The initial pH of the composite is taken and recorded on a chain-of-custody document, and for those parameters that require preserving, the preservative used is marked and the final pH is recorded. After every use, the automated sampling device tubing and jug are acid cleaned, rinsed with DI water, and a cleaning blank is produced.

BOD, TSS, cadmium, chromium, copper, lead, nickel, molybdenum, silver, zinc, cyanide, mercury, arsenic, selenium, and tin were measured in both Field's Point and Bucklin Point district sanitary manholes in 2016.

In addition to informing the calculation of local limits that the NBC imposes on its industrial users, sanitary manhole data is essential for providing a point of comparison and screening of collection system data to determine problem areas within the collection system. Sanitary manhole testing results for 2016 can be found in Table 26.

Significant Industrial User (SIU) Sampling

The EPA requires that all significant industrial users (SIU) be sampled at least once every twelve months. NBC has established a more stringent goal to sample each SIU twice per year. Information regarding industrial flows to NBC facilities is gathered through SIU and industrial manhole sampling, in addition to required user self-monitoring. The industrial manhole sampling is an additional means to track chemical spills or concentrated discharges, as well as to ensure that industrial users are in compliance with the limits set by the NBC. The NBC collected 3,879 individual samples from SIUs within both service districts during 2016. These samples were analyzed for numerous parameters and resulted in 154 sets of SIU results. SIU data for 2016 can be found in Tables 27A and 27B.

Industrial manhole sampling activities are designed to isolate a specific business within the collection system to surreptitiously determine the typical discharge from the business. Samples are taken upstream and downstream of a significant user’s discharge point via manholes. The upstream sample serves to establish a background concentration with which to compare the results from the industry, as well as confirm that the source of any contaminants is from the permitted user, not additional sources. The distance between these two sampling locations is typically 150 feet, depending on the location of the nearest manhole. Sampling of industrial manholes resulted in 58 sets of data, with 2,184 individual parameters analyzed within both service districts.

As with sanitary manhole sampling, autosamplers are programmed to collect samples from each manhole location every 15 minutes for 24 hours, thereby providing a composited representation of the average discharge over that time period. Autosamplers can dispense the water collected into up to 24 sample bottles, thereby allowing for an intensive analysis of the variations within the upstream and downstream sample locations, if necessary.

A Tygon® suction line with a stainless-steel strainer attached at the end is used to collect samples from the middle of the waste stream. Samples are immediately checked for sulfides and chlorides using lead acetate and potassium iodide indicator paper, respectively, as these chemicals can interfere with cyanide measurements.

Cyanide sample pH is adjusted using sodium hydroxide to a pH above 12 s.u., while metals samples are acidified using trace metal grade nitric acid to a pH of less than 2 s.u. Samples are analyzed for cadmium, chromium, copper, lead, nickel, silver, zinc, and cyanide. All metals were analyzed by Inductively Coupled Plasma (ICP) at the NBC laboratory.

The implementation of clean sampling techniques at the NBC has provided additional means of confirming that industrial discharges do not exceed treatment capacity. The EMDA SIU sampling supplements self-monitoring activities of each industrial user, providing a means for enforcing local limits for pollutants.

Septage Sampling

The NBC receives septage waste (waste pumped out of septic tanks) at the Lincoln Septage Receiving Station in Lincoln, RI. The Lincoln Station input point is within the Bucklin Point service district, approximately 11 miles from the Bucklin Point facility. The septage is routinely monitored by the EMDA section for toxic constituents to ensure that the material received does not contain toxics in concentrations that exceed NBC's Pretreatment Industrial Discharge Limitations for the Bucklin Point WWTF, to which the waste ultimately discharges. This sampling also helps NBC evaluate the percent of metals loading received from septage into the Bucklin Point WWTF. Grit removal at the septage facility removes a portion of the metals loading prior to its introduction to the sewer system and the treatment plant. Prior to septage samples being collected, Interceptor Maintenance (IM) staff sample and screen each septage truck's waste delivery for quality by looking at the physical characteristics and by measuring pH during the pump-out at the septage facility. Septage samples are collected from each delivery

Septage station sample collection

truck after the sample port is flushed thoroughly, usually after the load has discharged for approximately one minute. The sample from an individual truck is screened for pH, odor, and other unusual characteristics. If any anomaly is observed, the sample is targeted for individual analysis; otherwise, it is composited with samples from each of the septage truck deliveries that day and sent to the laboratory for analysis.

Septage samples are collected daily Monday-Saturday. All six daily composite samples are kept refrigerated until they are picked up by EMDA staff on Mondays at the Lincoln Septage Station and are brought to the NBC lab that same day, barring unforeseen circumstances. Three daily samples are chosen at random and analyzed by the NBC laboratory for trace metals each week.

Revised septage sample collection techniques and equipment were introduced in June of 2004. The new equipment allowed for easier, in-line sampling during septage delivery and has helped to more quickly locate potential toxic inputs to the collection system. These more representative sampling techniques may partially explain the observed increase in septage metal loadings since 2004.

During 2016, 156 septage samples were analyzed for trace metals. Septage sample results for 2016 can be found in Tables 28 and 29.

NBC Receiving Waters Monitoring Activities

Introduction

The NBC not only monitors wastewater from the sources (e.g., industries and manholes) to the WWTFs and throughout the plant process, but also monitors the receiving waters, where treated effluent and combined sewer overflows (CSOs) enter. Receiving waters monitoring includes sampling the surrounding urban rivers and upper Narragansett Bay as well as some of the rivers that enter the upper Bay from Massachusetts. This monitoring is vital to determining the impact of NBC effluent on the river and bay ecosystems. The data are useful in evaluating the success of the CSO Abatement Project in the upper Bay and provide insight into the response of the receiving waters to WWTF upgrades. The EMDA section's role in environmental monitoring and compliance issues also continues to expand as compliance issues become ever more complex.

In 2016, EMDA continued sampling for nutrients at several locations in Narragansett Bay and within the watershed at both local river stations and at river stations on the MA/RI border. These measurements are aimed at effectively characterizing the magnitude, composition, and distribution of nutrient inputs to these rivers, and comparing these results to previous years to examine factors influencing nitrogen loading into the Bay. The characterization of nutrient loading dynamics is integral to understanding nutrient pollution issues. Determination of background loadings, effluent discharge impacts, and fate of nutrients from the NBC facilities are necessary components of a sound environmental policy. This initiative was undertaken to gain greater insight into the nutrient cycling within the rivers, and to help quantitatively define the amount of nitrogen that the WWTFs can safely discharge without adversely impacting water quality.

In addition to nutrient sampling, the NBC conducts routine field sampling for bacteria in the local freshwater rivers and the estuarine waters of the Providence and Seekonk Rivers. Specifically, fecal coliform is monitored as it is widely accepted as a good indicator of pathogens (disease-causing organisms) in waterbodies. Although fecal coliform (comprising a number of similar species of bacteria) does not necessarily contain disease-causing organisms, it is used as an indicator of the *possible* presence of pathogens. Generally, if fecal coliform counts are elevated, there is a high potential for the presence of pathogens that could be harmful to both humans and wildlife. Raw, undiluted sewage contains high levels of fecal coliform bacteria because this type of bacteria is found in the feces of all warm-blooded animals, including humans. The wastewater treatment process at NBC's facilities eliminates almost all of these bacteria after the waste stream passes through primary and secondary treatment and, ultimately, disinfection via chlorination or ultraviolet light. Final effluent wastewater discharged from the Field's Point and Bucklin Point WWTFs has very low levels of fecal coliform bacteria.

Environmental monitor collecting a bacteria sample

When necessary during large rain events, the two treatment facilities use special wet weather treatment tanks to treat and disinfect the higher volumes of combined rainwater and sewage. However, during intense rain events, the NBC's CSOs can send untreated stormwater and sewage that the collection system cannot contain directly into the freshwater rivers and upper Bay. In recognizing the need to assess the impact that the NBC facilities can have on these waters, fecal coliform bacteria are measured at a number of locations.

Water Quality Regulations published by the DEM in July 2006, contained a change in the water quality criteria for bacteria. Measurements for enterococci bacteria, considered a more accurate metric for potential human health impacts from primary contact, were adopted to replace fecal coliform as the primary bacteriological indicator for both fresh and saline waters. Fecal coliform criteria are only applied when enterococci data are not available. Therefore, the NBC also conducted enterococci sampling at five of the bay stations. The NBC has been conducting fecal coliform sampling in the urban rivers and upper Bay for several years and with such a historical database we believe it is important to continue these measurements for as long as possible and as long as it takes to determine if there is a consistent relationship between enterococci and fecal coliform results. Shellfishing standards continue to be based on fecal coliform bacteria levels; therefore, it is also important to continue fecal coliform sampling to compare to these criteria.

EMDA also conducts monitoring of particular CSOs during wet weather events that cause these outfalls to discharge. The NBC has embarked on an historic public works project to eliminate the

negative impact that CSOs can have on water quality, with a three phase CSO Abatement Project of which Phase I began operation in the fall of 2008. Phase II systems were completed and online as of the beginning of 2015.

As part of investigating the overall health of the Bay, the NBC also maintains two water quality monitoring stations located at a dock at Phillipsdale Landing in the Seekonk River and a buoy at Bullock Reach in the Providence River. The monitoring sites are continuously collecting data on the conditions of the water such as temperature, dissolved oxygen, salinity, pH, chlorophyll, and turbidity.

River and Bay Nutrient Monitoring

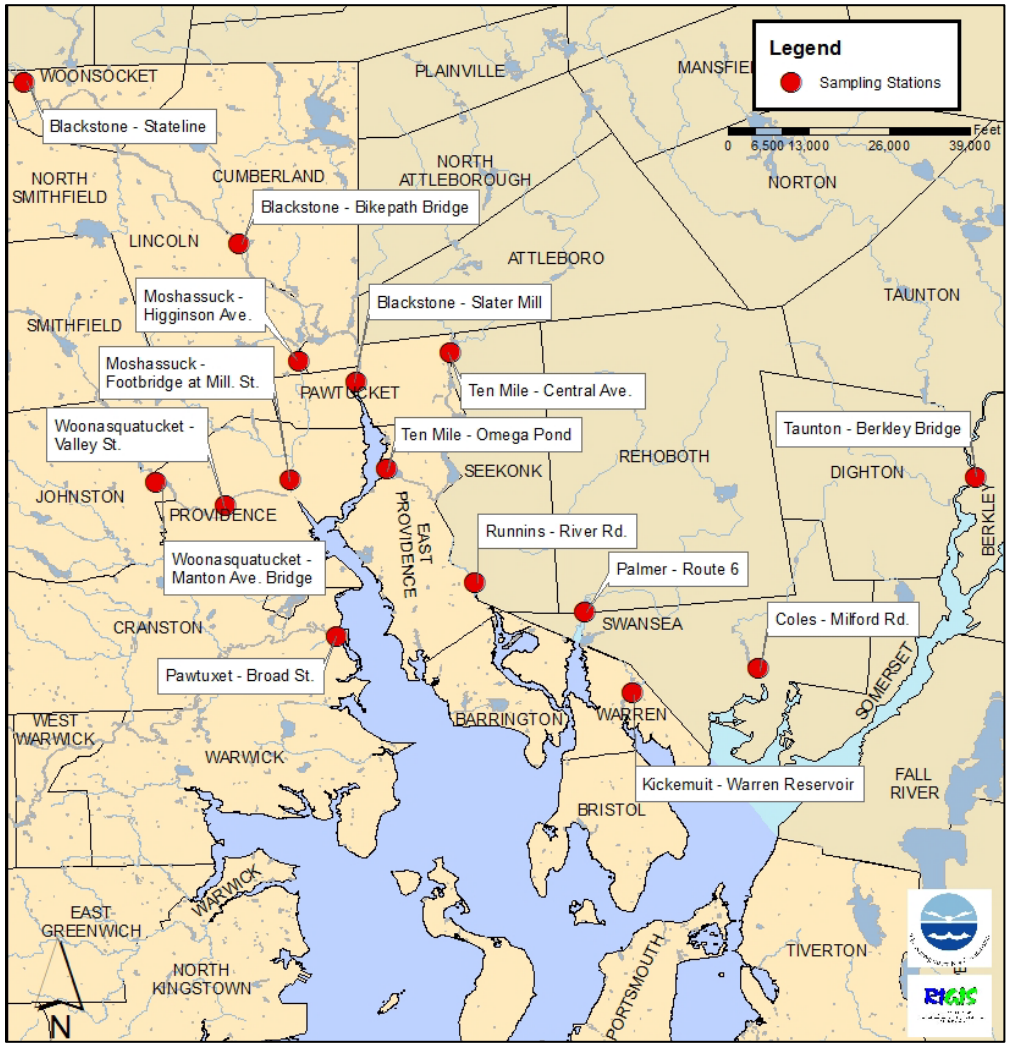
The NBC has been proactive in responding to the environmental concerns of Narragansett Bay and the state of Rhode Island. As a part of a continuing effort to both address and understand the magnitude of the impacts that facility operations have on our receiving waters, an intensive sampling program of the urban and local rivers that are part of the Narragansett Bay watershed has been developed for nutrient analysis and loading determination. This sampling program was designed to encompass two components: an evaluation of the loadings from the urban rivers that empty into Narragansett Bay just upstream of tidal influence, and an evaluation of the nutrients entering Narragansett Bay from Massachusetts. Both components are important to accurately determine the nutrient inputs to Narragansett Bay as well as a means of determining the impact of sources outside of the NBC service district. By determining the magnitude and relative importance of these loads, the NBC will be able to more accurately determine the impact of biological nutrient removal (BNR) systems as well as planned future facility upgrades at both the Bucklin Point and Field's Point facilities. These data will also contribute to developing a thorough understanding of nutrient fluxes to Narragansett Bay.

The NBC initiated nutrient monitoring of the local urban rivers in 2005, and expanded the sampling locations and increased the frequency of sampling in 2006. An additional station was added on the Ten Mile River in December 2011 to get a better representation of nutrient loadings from Massachusetts into this river. In 2016, there were fifteen sample stations monitored one to two times per month. In the beginning of the program in 2005 and 2006, sample splits were also submitted to both the NBC and the University of Rhode Island Graduate School of Oceanography Marine Ecosystems Research Laboratory (URI GSO MERL) (MERL) facilities to assure data quality. The locations of sample stations can be found in Figure 1.

River nutrient samples are taken at a depth of approximately 0.5 to 1 meter below the surface using a peristaltic pump, Tygon® tubing, and new plastic sample bottles. All tubing and sample bottles are acid washed and then rinsed with DI water before the sampling event, and tubing is rinsed with DI water between sample stations. DI water field blanks, equipment blanks, and duplicates are collected in order to determine the accuracy and reproducibility of sampling methods and sample handling techniques. In addition to sampling QA/QC measures, the NBC laboratory has a rigorous analytical QA/QC program in place for all nutrient samples.

To measure any direct changes in nutrients in the upper Bay as a result of WWTF upgrades and the CSO Abatement Project, the NBC began sampling for nutrients in the Providence and Seekonk River estuaries during the summer of 2005. The direct water column nutrient measurements provide an important look at the amount of nutrients in the upper Bay from all sources, including river loading, surrounding WWTFs, atmospheric deposition, groundwater, runoff, failing septic systems, and nutrients from the middle and lower Bay area as well as from offshore. Original bay sampling stations in 2005 included five surface stations and one bottom station. These bay stations included Conimicut Point, Edgewood Yacht Club, Pomham Rocks, and India Point Park at the surface and Phillipsdale Landing at the surface and bottom. In July 2006, one additional bay station was added as well as bottom samples at all bay stations. The new bay station was located at the Bullock Reach Buoy, where the NBC fixed-site continuous water quality monitoring buoy is located. In August of 2012, a seventh site was added in Pawtuxet Cove, near the mouth of the Pawtuxet River, at the channel marker of Red Can #6. This site was added to observe the effects of the Pawtuxet River on upper Narragansett Bay. As seen in Figure 2, the Conimicut Point, Bullock Reach Buoy, Pawtuxet Cove, Edgewood Yacht

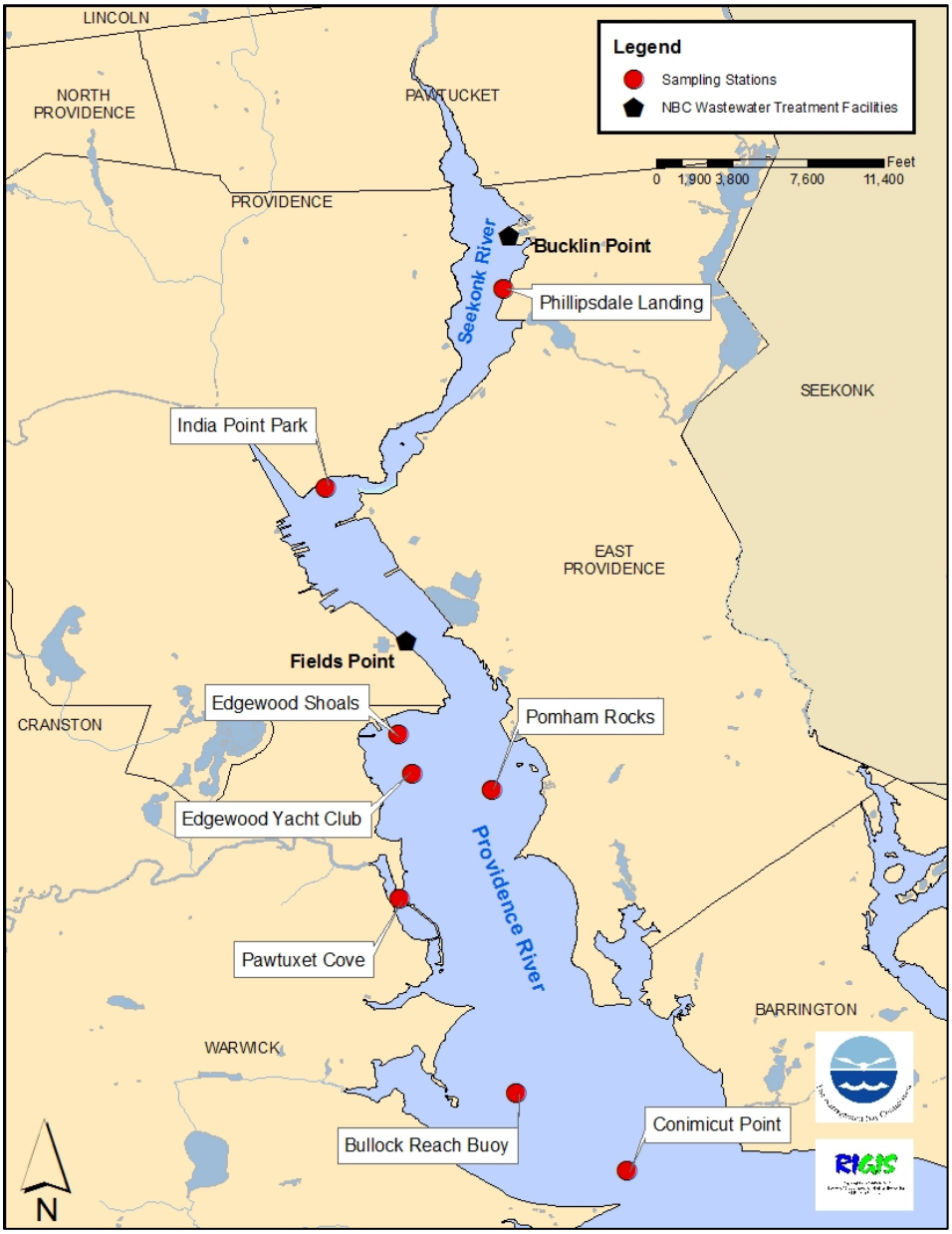
Figure 1: NBC River Nutrient Sampling Stations



Club, and Pomham Rocks stations are located in the Providence River. The Phillipsdale Landing station is located in the Seekonk River at our fixed continuous water quality monitoring dock site, and the India Point Park station is located near the mouth of the Seekonk River estuary.

All surface collections in bay waters are made at a depth of approximately 0.5 to 1 meter below the surface. Bottom collections were made approximately 0.5 to 1 meter above the sediment. Samples were collected using either an acid-washed and DI water-rinsed Niskin sampler attached to the boat davit or a portable peristaltic pump with Tygon® tubing placed approximately six inches below the water surface. The pump would direct the sample into an acid washed bottle. If

Figure 2: NBC Bay Nutrient Sampling Stations



the Niskin sampler was used, the sample water was poured off into a sample bottle. All tubing and sample bottles are acid washed and then rinsed with DI water before the sampling event, and tubing is rinsed with DI water between sample stations. DI water field blanks, equipment blanks, and duplicates are collected in order to determine the accuracy and reproducibility of sampling methods and sample handling techniques. In addition to sampling QA/QC measures, the NBC laboratory has a rigorous analytical QA/QC program in place for all nutrient samples. Bay samples were collected, filtered, and preserved on-board the NBC research vessel, the *R.V. Monitor*.

The NBC laboratory analyzes both freshwater and saltwater nutrient samples for nitrite/nitrate, nitrite, total dissolved nitrogen, ammonia, orthophosphate, silicate, and total nitrogen. All nutrient samples, except for the total nitrogen, were filtered prior to analysis; therefore, these results are measurements of the dissolved (or soluble) phase. Grab samples for TSS and chlorophyll are also taken at the same time as nutrient samples and analyzed by the NBC

Environmental monitor collecting a nutrient sample from the Niskin sampler

laboratory. The instrument the laboratory acquired in 2005 to measure nutrient parameters in saltwater could only measure nutrients in the dissolved phase; a new instrument was acquired in 2012 to allow the lab to analyze fresh and saltwater samples for total nitrogen. All data from 2016 River and Bay Nutrient sampling can be found in the attached Table 30.

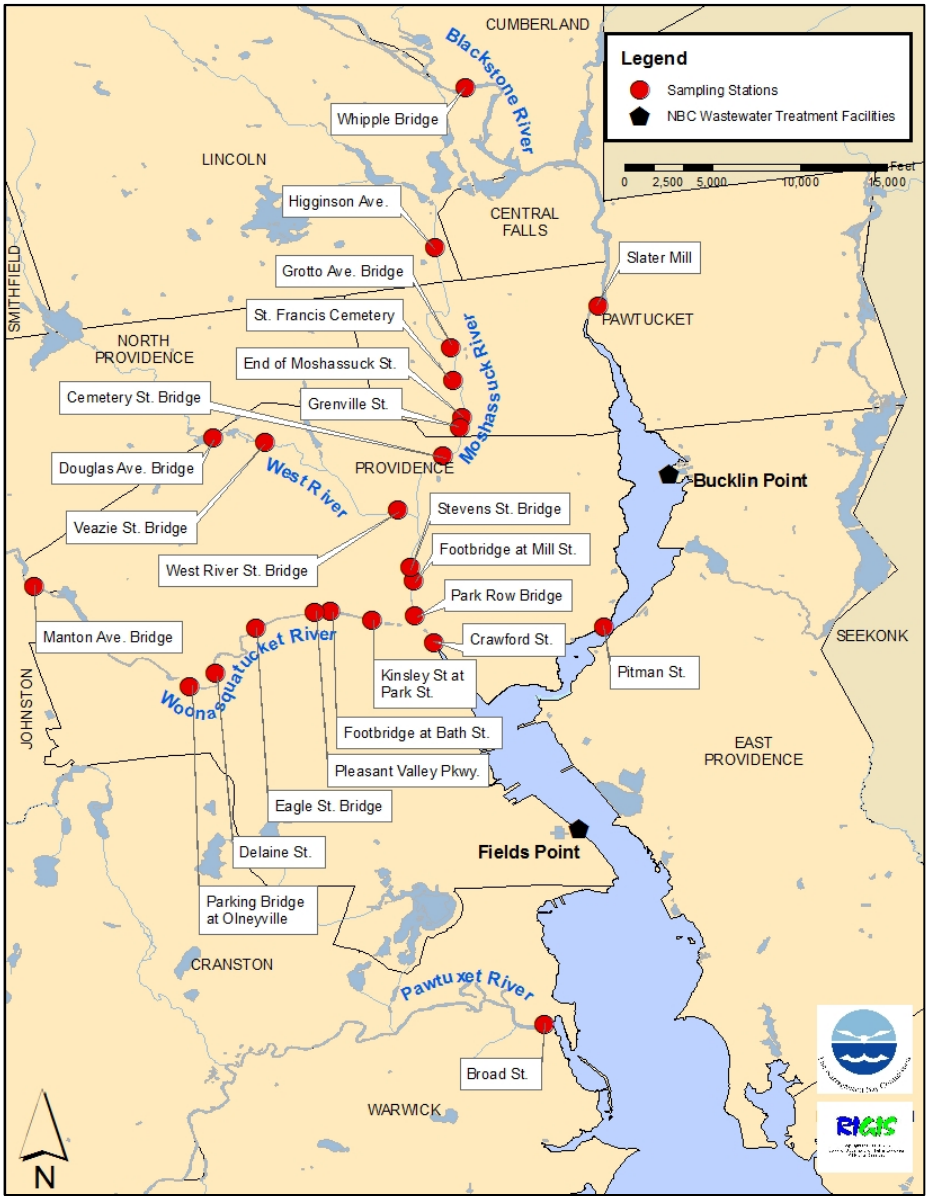
Urban River Pathogen Monitoring

Consistent NBC monitoring for fecal coliform in the Providence area urban rivers began in 1997 and became the responsibility of EMDA in 1998. It was developed in conjunction with the CSO remediation stakeholder process and has developed as a tool of the IM section to check for potential problems occurring at any of the 67 CSOs the NBC owns, operates, and maintains. Routine sample collections for analysis of fecal coliform are made each week, with stations on the Blackstone, Woonasquatucket, Moshassuck, Seekonk, Providence, and Pawtuxet Rivers sampled on Mondays and stations on the West, Woonasquatucket, Moshassuck, and Providence Rivers on Tuesdays. In the event of a holiday or any other unforeseen circumstance arising that would prevent sampling under the regular schedule, the sampling routine will begin the next day sampling is possible. Samples are collected by EMDA staff in the morning and delivered to the lab at Field's Point no later than 11:30 the day of sampling. All stations sampled on the same river on the same day are collected within a two-hour interval. NBC's IM, Construction, EMDA, and Engineering sections determine locations to be added or omitted as needed.

Samples are collected regularly from six sites on the Woonasquatucket River, two sites on the Blackstone River, seven sites on the Moshassuck River, three sites on the West River, and one site each on the Pawtuxet, Providence, and Seekonk Rivers. The locations of these sites are shown in Figure 3; special sampling events may include sampling at additional sites not shown. After the Woonasquatucket River flooded in April of 2010, the sample location at Atwells Avenue had to be replaced with a location on Eagle Street due to bridge damage at the original location. Two site changes were made during 2016. Due to site safety concerns, the St. Francis Cemetery (M4D) and End of Moshassuck St. (M4B) sites on the Moshassuck River were discontinued in October 2016. They were replaced by sites at Grotto Ave. Bridge (M4C) and Grenville St. (M4A), respectively. Sampling at these new sites was initiated in September 2016. During 2016, a total of 1,701 river bacteria samples were collected and analyzed.

In order to improve NBC's identification of dry weather overflow (DWO) discharges and to identify other sources of bacterial contamination in the rivers, in 2002 EMDA began resampling weekly river collections when DWOs are suspected. Rivers are not resampled when collections have occurred in times of wet weather, because analytical results are expected to be high due to the normal functioning of CSOs. When results from collections are high (greater than 1,000 MPN per 100 mL) and there has been dry weather (i.e., less than 0.1 inches of rain in the preceding four days), EMDA will resample those stations a second time within the week. Resampling will also occur when results are very high (i.e., greater than 10,000 MPN/100 mL) when no rain has occurred in the preceding two days. These general resampling criteria are subject to change based on river flow, fecal bacteria level at background stations, and staff availability.

Figure 3: NBC River Bacteria Sampling Stations



Water samples for fecal coliform analysis are collected from the center of a bridge or from a riverbank. A sterile, 120-mL sample container is used for the sample collection. Collections from bridges are conducted by placing the sample container in an open-ended PVC cylinder and holding it in place with a small screw running through the cylinder body. A rubber handle extends from the top of the cylinder with a line attached for lowering it into the water stream being sampled. Each sampler can hold up to 4 bottles. Samples being collected from a riverbank are taken by dipping the sample container in the water stream by hand. The sample is taken as close to the center of the water stream as possible.

Once the sample has been collected, the sample container is sealed, and a label with site ID, sample number, date and time of collection, preservation techniques used, and collector's initials is placed on the container. The samples are held at 4°C in a portable cooler with ice packs for transfer to the lab. All samples are brought to the laboratory within the 8-hour holding time. If samples exceed the holding time, they are discarded and not analyzed.

As part of EMDA's quality assurance for this program, collection and analysis of duplicate fecal bacteria samples occurs on all regular sampling days. These collections and analyses are used to help determine analytical and sampling precision. The sampling locations that have been chosen as replicate sites are Eagle St. Bridge (W7C) in Providence on the Woonasquatucket River, the Footbridge at Mill St. (M5) in Providence on the Moshassuck River, and the End of Moshassuck St. (M4B) in Pawtucket on the Moshassuck River. As noted above, in October of 2016, the End of Moshassuck St. site was discontinued due to access safety concerns; it was replaced with the Grenville St. site (M4A), located approximately 165 m downstream on the Moshassuck River. Duplicate sampling is now conducted at this new site. The Eagle St. Bridge sampling is conducted from a bridge in the center of the main current flow. The Footbridge at Mill Street site sampling is conducted from the center of the main current flow from the private footbridge near Mill Street. Sampling at the End of Moshassuck Street and now the Grenville St. site is conducted from the riverbank in the center of the main current flow. The duplicate samples are taken simultaneously with the sampling device. Fecal and enterococci data for the sampling stations located in the Woonasquatucket, West, Providence, and Seekonk Rivers can be found in the attached Table 31. Data for the Blackstone, Moshassuck, and Pawtuxet Rivers can be found in the attached Table 32. For the purpose of this report, duplicate sample results are shown as the geometric mean of the two samples.

Another element of EMDA's quality assurance for this program is the collection and analysis of field blanks. Sample blanks are taken in the field during each fecal coliform sampling day to measure the ability of staff to maintain clean sampling techniques, and to rule out any potential contaminants from normal "open-air" exposure. These blanks are taken using DI water in place of river water, with the same handling techniques as the actual river samples. The detection limit for these samples was 30 MPN/100 mL. The analytical method used by the NBC laboratory is the 24-hour Fecal Coliform Determination by Multiple Tube Fermentation, using A-1 broth or media. The Standard Methods reference number is 9221E for this EPA approved methodology. Positive and negative controls are routinely run in the laboratory; in addition, tubes of uninoculated, freshly prepared media are incubated and analyzed in order to confirm the sterility of the media. The NBC laboratory is Rhode Island Department of Health certified. All samples are properly preserved prior to analysis at 4°C.

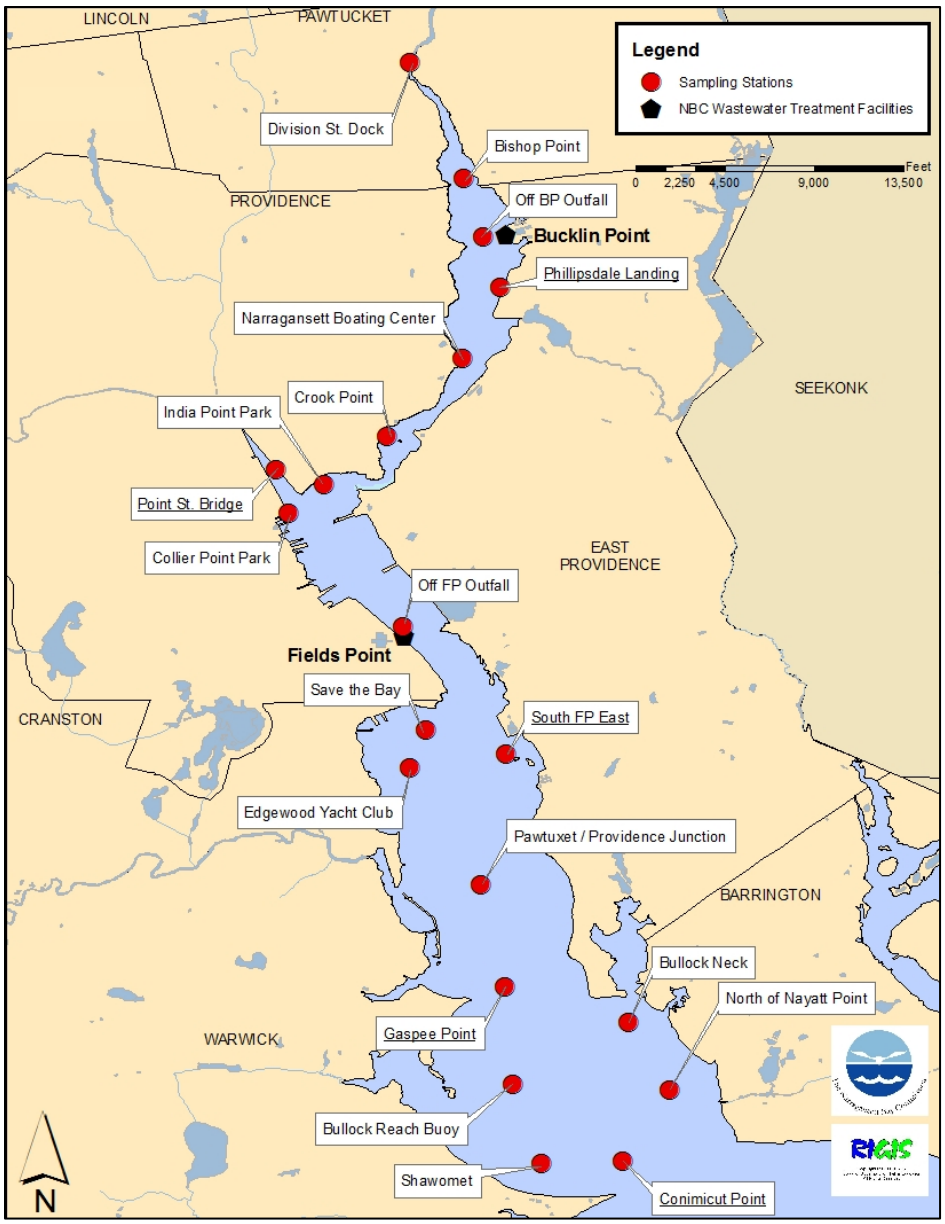
Bay Pathogen Monitoring

Fecal coliform sampling in the Providence and Seekonk Rivers began in 2003 in response to the need to understand the spatial and temporal impacts that discharges within these waterbodies have on Narragansett Bay as a whole. Routine sample collections for the analysis of fecal coliform are made every other week, usually on Wednesdays or Thursdays, throughout the year, dependent on weather. All station samples are collected within a three-hour interval on the same day. In the event of a holiday or any other unforeseen circumstance arising that would prevent

sampling under the regular schedule, the sampling will resume on the next regular work day. Samples are collected by EMDA staff and delivered to the lab at Field's Point no later than 12:00 on the day of sampling.

Bay fecal samples are collected from the NBC research vessel the *R/V Monitor* at six sites in the Seekonk River, four sites in the Providence River north of Field's Point WWTF, and ten sites in the Providence River south of Field's Point WWTF; these sampling locations are shown in Figure 4. During special events, including after some heavy rainfalls, special sampling may take

Figure 4: NBC Bay Bacteria Sampling Stations. Underlined stations are sampled for both fecal coliform and enterococci. All other stations are sampled only for fecal coliform.



place that includes collecting bay fecal samples consecutively over several days in the Seekonk and/or Providence River as well as in the conditional shellfishing areas just south of the Providence River. Depending on the event, the sample stations may include all or some of the usual stations and/or additional stations further down the bay.

Water samples for bacteria analysis are collected from the port or starboard side of the EMDA research vessel. A sterile, 120-mL sample container is used for the sample collection. Collections are made by placing the sample container in an open-ended plastic cylinder which is held in place with a small screw running through the cylinder body. A metal handle extends from the top of the cylinder with a vinyl line attached for lowering it into the water being sampled. Once the sample has been collected, the sample container is sealed, and a label with site ID, sample number, date, and time of collection, and preservation techniques is placed on the container. The samples are held at 4°C in a portable cooler with ice packs or a portable refrigerated cooler for transfer to the lab. All samples are brought to the laboratory for analysis within the 8-hour holding time period. If samples exceed the holding time, they are discarded and not analyzed. Duplicate samples are taken at the Conimicut Point and Phillipsdale Landing stations. The duplicate samples for each site are collected simultaneously using a second 120-mL sample bottle. A blank sample using DI water is also taken and brought to the lab along with the bacteria samples for quality assurance purposes. In addition to fecal coliform monitoring, five sites are analyzed for enterococci bacteria. During 2016, 500 bay fecal coliform samples and 147 enterococci samples were collected and analyzed. 2016 bay fecal coliform and enterococci data are shown in the attached Tables 33 and 34, respectively.

Combined Sewer Overflow Monitoring

In implementing NBC's policy of protection of Narragansett Bay and its tributary rivers, and to fulfill the requirements of the EPA and DEM Nine Minimum Controls Program, the EMDA staff sampled CSO wet weather overflows from three different CSOs for one rain event in 2016. The aim of such wet weather sampling events is to characterize the impact of CSO discharges and to evaluate the success of the NBC Pretreatment and Pollution Prevention programs at controlling the discharge of pollutants through CSOs. The CSO Abatement Project, once fully implemented, will effectively eliminate 98% of CSO discharges. Until both the CSO Abatement Project and the EPA's Capacity, Management, Operations, and Maintenance program for the NBC are fully implemented, all other feasible controls of CSO discharge are expected to be utilized. The 2016 wet weather sampling was conducted on December 29th, with 0.83 inches of rainfall as measured by the National Weather Service at T.F. Green Airport (1.10 inches measured at Field's Point). Outfall 218 and 220 are both located in the Bucklin Point service district and discharge into the Seekonk River and Moshassuck River, respectively. Outfall 054 is located in the Field's Point service district and discharges into the Woonasquatucket River.

The sampling plan was designed to collect three samples at each outfall throughout the overflow event. The first sample is collected during the initial overflow, or first flush, stage and is expected to contain wastewater with the least degree of rain water dilution and the highest concentrations of materials washed from street and land surfaces into the combined sewer system. A second sample is then taken during the stage of highest overflow rate and a third sample taken near the conclusion of the event. Due to the nature of the rainfall event on

December 29th, a full set of three samples was only collected at Outfall 220, while Outfall 218 was sampled at only two discrete times. Outfall 054 was sampled once; however, the NBC believes this sample contained river water or stormwater or a combination of both, not combined sewage. Each sample was tested for BOD, TSS, metals, and nutrients. The data for CSO 218 can be found in Table 35 and data for CSO 220 can be found in Table 36. It was determined that the sample from CSO 054 was not representative of combined sewage flow, therefore these data are not reported here.

Benthic Video Monitoring

In 2011, the NBC purchased an underwater video camera for the purposes of viewing and monitoring the benthic conditions in the Providence River in relation to plant upgrades and improved effluent water quality coming out of the WWTFs. A specialized sled mount was created to enable smooth towing of the camera and provide a consistent field of view for observations. In late 2014 the NBC designated three permanent transects to target in benthic surveys to be conducted monthly, weather permitting. The locations of these transects can be seen in Figure 5.

In 2016, the NBC collected approximately nine hours of underwater footage along these three transects, continually improving field methods and refining this monitoring initiative. These videos revealed a diverse community of estuarine organisms living in the Providence River including fish (e.g., summer flounder, juvenile black sea bass, Atlantic menhaden), crustaceans (e.g., mantis shrimp, spider crabs, hermit crabs), horseshoe crabs, sea stars, tube-building worms, and mollusks (e.g., soft-shelled clams, mud snails, slipper snails). In addition, variable habitat types were documented, including mudflats, zones covered in shell hash and shell rubble, and extensive growth of macroalgae. Equipment modifications and other adjustments to these relatively-new survey techniques continued throughout 2016 as the NBC works to improve the data produced.

Video footage collected along these transects will increase the NBC's understanding of changes to the biological conditions in the upper Bay in relation to changes in effluent and related receiving waters monitoring. Summaries of each survey, with screenshot of interesting observations, are available to the public via the NBC's Snapshot webpage.

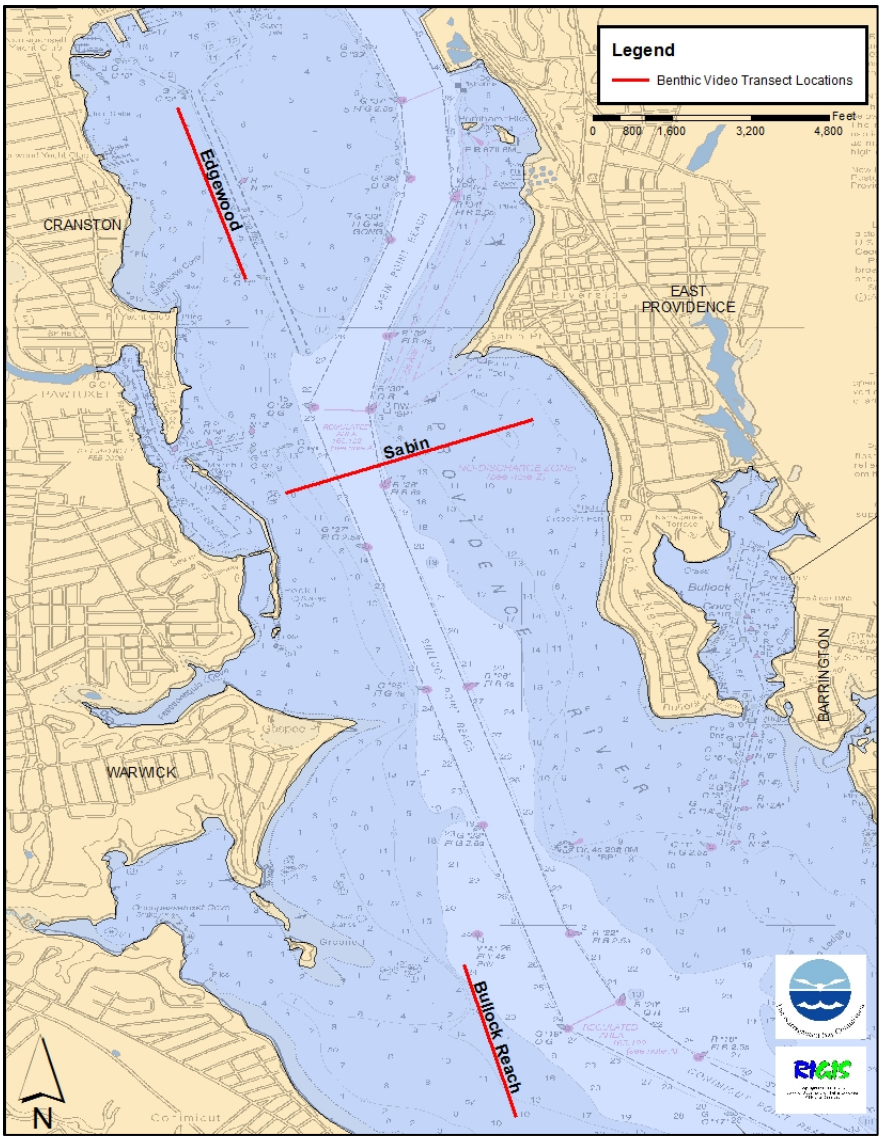
Narragansett Bay Fixed-Site Water Quality Monitoring

The NBC maintains two fixed-site water quality monitoring stations, one in the Providence River and one in the Seekonk River. These stations were created in 2000 as part of a formerly EPA-grant funded "Environmental Monitoring for Public Access and Community Tracking" (EMPACT) Project. NBC has maintained full funding of these sites since federal grant funding ceased in 2002. The stations have been established in proximity to the Field's Point and Bucklin Point wastewater treatment plant outfalls. The Bullock Reach station is a floating buoy located between Gaspee Point and Conimicut Point in the Providence River and the Phillipsdale Landing station is affixed to a dock located in the Seekonk River in East Providence. A third site was monitored in 2014 and 2015 in the area of Edgewood Shoals, consisting of a small float, but was not deployed in 2016. The locations of these sites are shown in Figure 6. These monitoring stations directly benefit Narragansett Bay research by allowing for continuous, real-time water

quality monitoring in the more urbanized portions of the upper Bay allowing, Bay researchers to consistently track changes in the estuaries from remote locations. These data also provide a baseline of water quality across seasons and reveal yearly trends. These two locations are part of a larger, bay-wide monitoring network of water quality instruments deployed and maintained by other agencies.

The NBC uses water quality instruments, to collect measurements of depth, temperature, salinity, pH, dissolved oxygen, turbidity, and fluorescence (a proxy for chlorophyll and phytoplankton activity). From the start of the program in 2002 until 2015, the NBC relied on YSI sondes for the collection of this data. In 2016, the NBC converted the Bullock Reach buoy over to new instruments and communications from SeaBird Scientific, called Hydrocat EP (HCEP). YSI equipment was deployed alongside the new HCEPs to duplicate data collection during this first

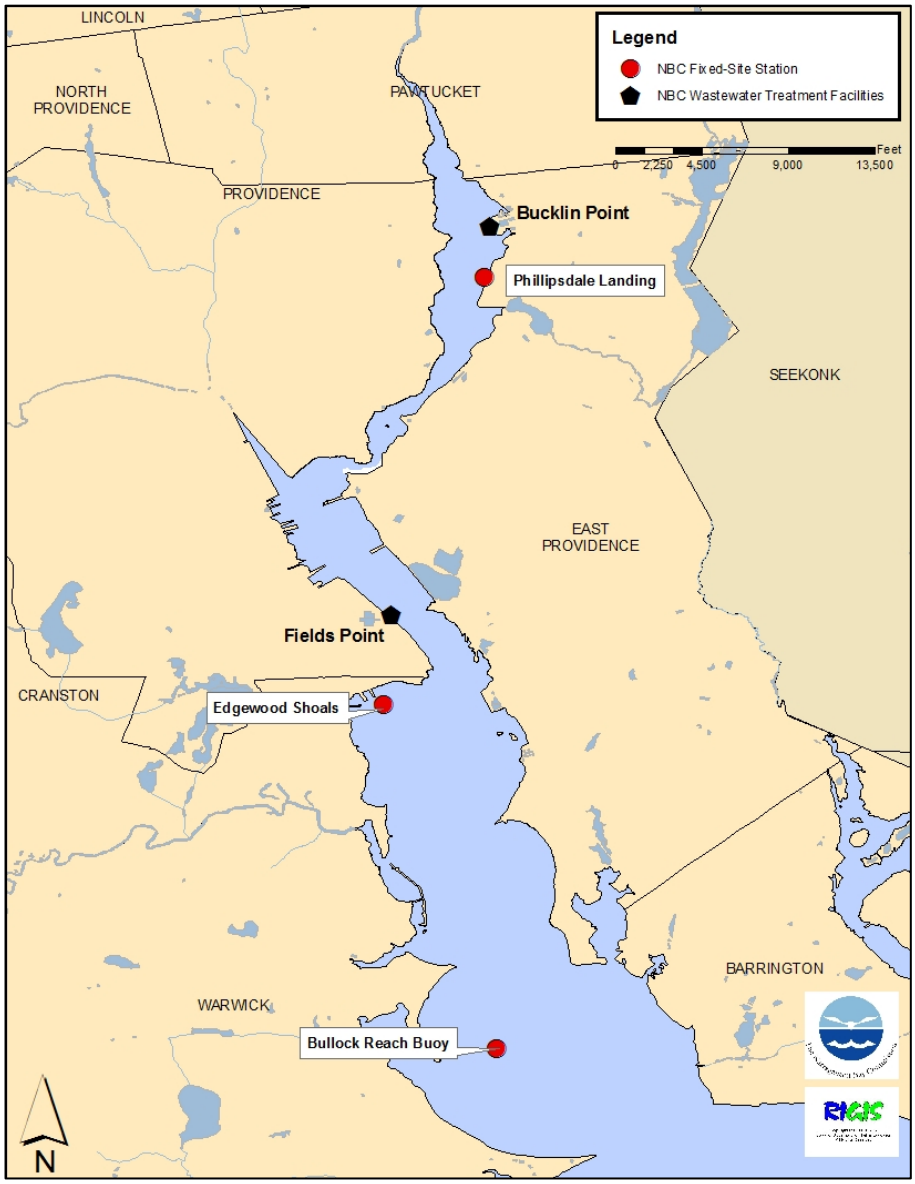
Figure 5: NBC Benthic Video Transect Locations



season with the new instrumentation. Several problems were encountered with the HCEPs and the new communications that staff attempted to fix with the help of SeaBird technicians. There was minimal data loss since the YSI instruments were also collecting data.

Data collected by the water quality instruments at both the Bullock Reach buoy and Phillipsdale Landing stations are recorded every 15 minutes and are transmitted via cell-phone communications from Bullock Reach and via LAN-line connection from Phillipsdale Landing to a base station at Field's Point every hour. During the initial phase of the project in 2001 and 2002, EMDA and URI-GSO worked together to service and maintain the Bullock Reach buoy. Since 2003, the NBC has assumed all maintenance activities at both the Bullock Reach buoy as

Figure 6: NBC Fixed-Site Station Locations



well as the Phillipsdale Landing dock site. The EMDA staff is continually making improvements to equipment, infrastructure and QA/QC protocols to ensure the reliability of data collected.

As part of a statewide monitoring network collectively known as the Narragansett Bay Fixed-Site Water Quality Monitoring Network (Fixed-Site Network), EMDA currently works in partnership with the DEM, URI, and Narragansett Bay National Estuarine Research Reserve (NBNERR) to uphold standard operating procedures for calibration and maintenance of the sondes as well as data handling to maintain consistency between organizations. The DEM maintains a website which allows easy access to data from all of these fixed sites in one central location. This can be accessed at http://www.dem.ri.gov/bart/stations.htm. The DEM Bay Awareness and Response Team (BART) website currently displays a map showing station locations, weekly summaries of data from all network sites, monthly graphs of summer data, and all Fixed-Site Network data in raw, edited, and corrected formats. In addition to the DEM BART website, the NBC also maintains a website dedicated to the dissemination of NBC monitoring data called Snapshot of Upper Narragansett Bay (http://snapshot.narrabay.com/app/). Data from the two water quality monitoring stations are available near real-time in an easy-to-use and easy-to-understand format, including graphs and downloadable data tables.

As WWTFs reduce nitrogen input into the bay, nitrogen that is often associated with eutrophication and hypoxia, monitoring water quality can help researchers better understand the response of the bay to these reductions. Hypoxia is the condition that occurs when dissolved oxygen concentrations in water fall below a critical level, negatively affecting marine organisms. As part of the larger network of agencies continuously monitoring water quality in the bay, the NBC supports the understanding of the overall health of NBC's receiving waters and contributes to monitoring the response of these waters to nitrogen reductions from WWTFs. The water quality instruments (sondes) that NBC and the other agencies use at these fixed sites are continuously monitoring dissolved oxygen via optical sensors.

With the NBC receiving the data real-time from its two fixed sites, NBC staff can immediately determine when hypoxia is occurring and for how long. These data are extremely helpful for the NBC, DEM and other organizations in studying the dynamics of these events and how the organisms in the Bay respond.

Data from 2016 were sent to the DEM biweekly during the critical summer months to keep them updated on the water quality status at the Bullock Reach site. Throughout the years, data from the Bullock Reach buoy have been useful in DEM's analysis of water quality changes in the upper Bay, and for periodic fish kills occurring in the upper Bay and rivers. The data from these sondes are also being used in a joint NBC-URI hydrodynamic modeling project that will provide information on currents, flushing, and predicted tracks of WWTF effluent in the Providence and Seekonk Rivers.

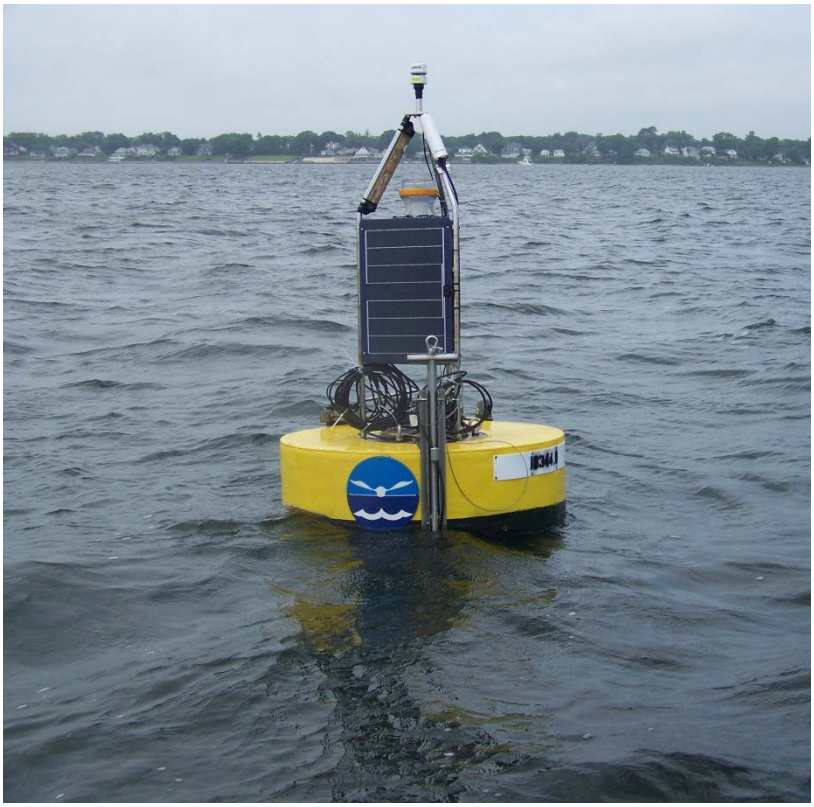
Phillipsdale Landing Dock Site

The Phillipsdale Landing site is located on the east side of the channel of the estuarine Seekonk River in East Providence. The monitoring location is very close to large freshwater river sources and is also open to the tidal estuarine Providence River. Therefore, it receives seawater flushing during the tidal cycle and the transport of saltier bottom waters in the form of a salt wedge. This

makes the Seekonk River a tidal estuary, defined as a place of fresh and saltwater mixing, in the truest sense. The freshwater rivers feeding the Seekonk River include the Blackstone River, which is north of the Phillipsdale Landing site and feeds directly into the Seekonk River as its major source, and the Ten Mile River, which enters the Seekonk River just south of the Phillipsdale Landing station. The Phillipsdale Landing site is located in about 3.5 meters (11.5 feet) of water, just south of the Bucklin Point WWTF. Two YSI sondes collect water quality data from two depths, one located near the surface and one just off the bottom. With these instruments fastened to a dock, staff has easy access to the water quality instruments from shore, allowing them to get to the instruments quickly in the event of any problems.

Bullock Reach Site

The Bullock Reach site is situated on a floating buoy that is anchored near the edge of the shipping channel in the southern section of the Providence River. This location is in deeper, more saline waters than the Phillipsdale Landing station and is less proximate to freshwater sources. The nearest freshwater source is the Pawtuxet River located to the northwest of the buoy site. The position of the buoy is to the northwest of Conimicut Point in about 8 meters (26 feet) of water, west of the Providence River channel and south of the Field's Point WWTF. There are three water quality instruments at this site. The buoy was retrofitted during the off season to accommodate the new SeaBird Hydrocat EPs and a new communications platform. The surface HCEP was placed in a stainless steel tube that is attached to the side the buoy that allows protected but free-flowing access to the surface water. The YSI sonde was placed in a PVC tube



The Bullock Reach fixed-site buoy

that in integrated into the buoy. The bottom and mid-depth sondes are attached to the buoy on one line with a mushroom anchor at the bottom and a float just above the sonde to keep it in an upright position; the HCEPs and the YSI sondes were placed together on the same line at both the mid and bottom depths. Power to the buoy is maintained by a solar-powered battery.

Edgewood Shoals Site

In June 2014, the EMDA began collecting water quality data at a site known as Edgewood Shoals, using a portable buoy system to support the ongoing ROMS modeling project. This location is in an area of recurring hypoxic waters, thought to be affected by a gyre observed with the ROMS hydrodynamic model. ROMS model simulations show this area receives freshwater inputs potentially from the Field's Point WWTF, the Pawtuxet River, and the Blackstone/Seekonk River. The gyre may trap a parcel of water and therefore nutrients in this area for up to ten days or more. The sondes were deployed via a line, mushroom anchor and subsurface float system. Monitoring of this location continued occurred during 2014 – 2015, but was not deployed in 2016.

Data Collection

The three water quality instruments at three depths: with the surface sonde at an approximate depth of 1.0 meters, a mid-depth sonde at approximately 5.4 meters, and sonde at the bottom at an approximate depth of 8.0 meters. The surface and mid-depth sondes measure depth (m), water temperature (°C), specific conductance (salinity; mS/cm and ppt), pH (s.u.), dissolved oxygen (% and mg/L), chlorophyll a (µg/L), and fluorescence (%). The bottom sonde also measures the same parameters with the exception of chlorophyll which is replaced by turbidity (NTU). This data are recorded every 15 minutes from all three depths. The buoy is serviced via NBC's research vessel the *R/V Monitor*. Data from the buoy are transferred to a computer in the Field's Point Operations Building via cell-phone communications every hour and are then viewed by EMDA personnel. For the 2015 season, the buoy was deployed in the water in early June and data began being collected on June 15th until they were removed for the season on November16th.

The continuous monitoring site at Phillipsdale Landing collects water quality data from two depths, ~0.7 m below the surface and at the bottom, at an average depth of 1.9m, in 15 minute intervals. The surface sonde measures depth, water temperature, specific conductance (salinity), pH, dissolved oxygen, chlorophyll a, and fluorescence. The bottom sonde measures depth, water temperature, pH, and dissolved oxygen. As with the Bullock Reach data, Phillipsdale Landing data are transferred to a computer in the Field's Point Operations Building via LAN line and are then viewed by EMDA personnel utilizing YSI software. For the 2016 season, the sondes began collecting data on March 24th and continued collecting data the rest of the year until they were removed from the water on January10th, 2017 due to concerns of ice buildup at the site.

Lab and Field Procedures

YSI sondes are calibrated generally the day before deployment for each site at the lab in the EMDA office. All sondes are calibrated using YSI-recommended methods in the YSI Operations Manual as well as agreed upon protocols from the Fixed-Site Network. All calibrations use YSI standards and are conducted by trained NBC EMDA staff in the EMDA laboratory. Sondes are

designated for each specific site, deployed, and then retrieved after approximately two weeks in the water. Upon returning to the EMDA lab, sondes undergo post-deployment checks, which consist of testing each parameter on the instrument for any issues with performance. The post-deployment check involves placing the sonde probes in each calibration solution, as done during calibration, to check readings in that solution of known concentration. These data can be used in assessing how closely the sonde is reading to the actual solution levels, and therefore how far it has drifted from the original calibration or if there has been a probe failure. After the post-calibration check, sondes are cleaned and re-calibrated just before the next deployment period. Calibration and post-calibration results are recorded and kept for reference and data editing purposes. The HCEPs do not need to be calibrated as often, though the sensors do need to be field checked. However, since many issues arose during the 2016 season, a regular maintenance protocol was not able to be established.

Once at the deployment site, a vertical profile is done using another YSI sonde instrument that measures depth, water temperature, pH, and dissolved oxygen. This instrument can be lowered to the approximate depths of the sondes and can display readings for the parameters on a small handheld computer. These measurements can be compared to the newly deployed sonde to ensure the sonde is taking proper readings. Once the sondes are in the water, data can be viewed regularly back at the EMDA offices while the sondes are deployed. If any problems are observed in the data, an attempt is made to troubleshoot and replace the sonde if necessary. Summer deployments are kept to a maximum of two weeks in the water due to fouling concerns. All field work information is recorded on a Field Sheet to aid in any troubleshooting during data editing.

Data Management

Currently, the Bullock Reach and Phillipsdale Landing sites are programmed to transmit data every hour to a computer at NBC. The data can be uploaded and viewed by EMDA staff anytime in order to assess and troubleshoot problems. The data are also available hourly to the public on the NBC Snapshot website: http://snapshot.narrabay.com/app/. Data files are also downloaded from sondes once back in the lab. A cursory review of the data is made until all data are synthesized at the end of the season, except when particular instances of hypoxia occur that warrant immediate and further evaluation. For Edgewood Shoals, data are not available on the NBC Snapshot website but can be requested directly from the NBC scientists.

During the summer months, the raw unedited data are also sent to the Fixed-Site Network coordinator to determine if the Bay is experiencing hypoxic conditions and to be posted on the DEM's BART website. At the conclusion of the season, all data is the Fixed-Site Network coordinator for further editing and correcting.

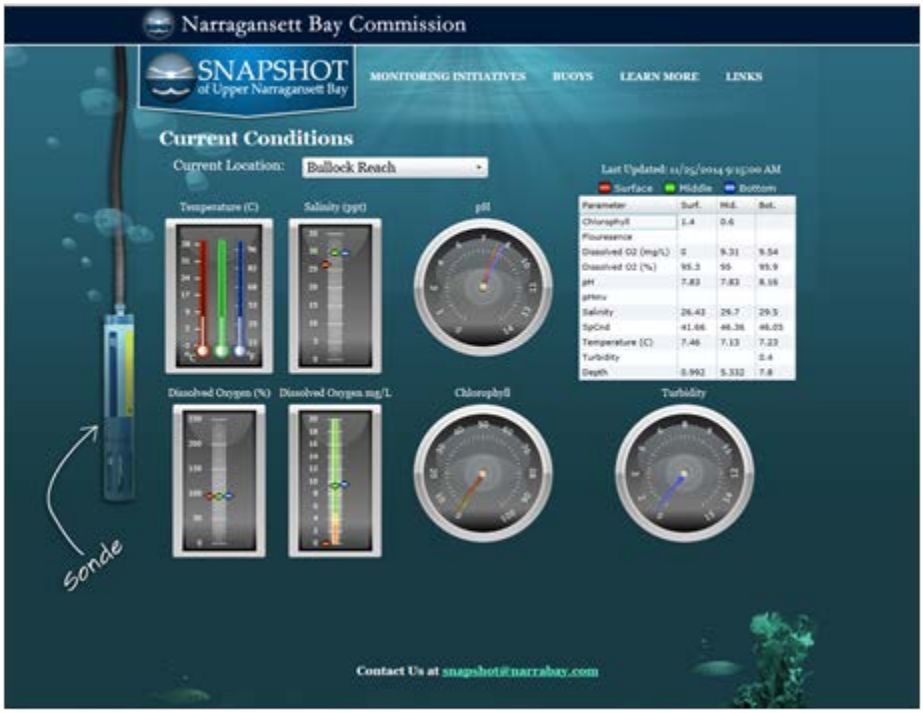
Fixed-site data are not included in paper format with this report as with the other tables due to the extensive nature of this sampling.

NBC Snapshot of Upper Narragansett Bay Website

In 2011, a webpage was created by the NBC called "Snapshot of Upper Narragansett Bay" (http://snapshot.narrabay.com/app/) which was continually updated through 2016 with the most recent data from the receiving waters monitoring program. The webpage includes information

and data for all of the NBC receiving waters monitoring, including a blog that is updated weekly with the most recent results of sampling events. Sampling procedures and charts showing data trends are presented for each monitoring initiative and tables with up-to-date monitoring results can be downloaded. The most recent data at the fixed water quality monitoring stations is displayed through dials and gauges as shown in Figure 7 below. This display allows users to quickly assess current water quality conditions. An interactive chart wizard also allows users to choose which fixed-site water quality parameters to chart and display, and users can also choose parameters to display in table format, which can then be downloaded. The NBC Snapshot website represents a comprehensive look at water quality in upper Narragansett Bay by providing the general public with near real-time data and a wide range of information regarding water quality in Narragansett Bay. In 2012, the NBC received a National Association of Clean Water Agencies (NACWA) National Environmental Achievement Award for Excellence in Public Information and Education for the Snapshot website. NACWA's Public Information and Education Awards are presented for outstanding programs in video, printed publications, educational programs, or e-media.

Figure 7: NBC's Snapshot of Upper Narragansett Bay Website



Field's Point 2016 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform Bacteria (MPN/100mL)	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
1/1/2016	4.0	36.04	94.67	157.96	2.89	4.86
1/2/2016	2.0	33.65	103.33	176.94	4.00	4.46
1/3/2016	2.0	34.76	107.33	158.87	3.22	5.09
1/4/2016	2.0	35.05	132.00	174.94	2.97	4.70
1/5/2016	2.8	30.82	142.00	179.67	4.07	4.49
1/6/2016	2.0	31.67	152.00	182.25	3.30	5.09
1/7/2016	10.2	30.61	162.00	186.24	3.57	4.93
1/8/2016	2.8	34.12	146.67	194.80	2.63	4.86
1/9/2016	2.0	32.43	176.00	189.06	3.43	5.22
1/10/2016	2.0	71.27	133.33	107.94	4.80	8.49
1/11/2016	2.0	65.41	94.00	111.79	4.77	5.62
1/12/2016	2.0	63.20	93.33	100.76	4.00	4.80
1/13/2016	2.0	55.48	80.00	114.07	4.80	4.39
1/14/2016	2.0	38.70	93.33	142.13	3.03	4.28
1/15/2016	2.0	40.83	122.67	174.59	2.80	4.18
1/16/2016	2.8	66.33	83.33	110.92	5.60	5.55
1/17/2016	2.0	55.18	71.33	111.60	4.17	4.37
1/18/2016	2.0	39.15	108.00	145.10	6.00	4.92
1/19/2016	2.0	38.69	120.67	165.39	5.60	4.78
1/20/2016	2.0	38.06	118.67	149.62	3.78	3.59
1/21/2016	2.0	38.36	111.33	139.98	3.67	3.51
1/22/2016	2.0	35.94	121.33	155.02	2.73	3.02
1/23/2016	2.0	38.91	117.33	164.71	3.51	3.01
1/24/2016	2.0	36.14	99.33	170.89	3.29	3.14
1/25/2016	2.0	38.99	140.67	174.66	3.38	4.21
1/26/2016	2.0	41.37	138.00	179.06	2.77	3.98
1/27/2016	2.0	35.79	113.33	142.69	3.43	3.37
1/28/2016	2.0	38.14	120.67	148.06	2.97	3.26
1/29/2016	2.0	34.88	138.67	191.31	4.33	3.43
1/30/2016	2.0	35.93	126.67	207.20	3.33	3.22
1/31/2016	2.0	34.69	140.00	204.91	4.09	3.68
2/1/2016	2.8	36.90	129.33	177.63	3.23	3.92
2/2/2016	2.0	35.99	140.00	180.26	2.50	3.32
2/3/2016	2.0	53.75	186.00	148.83	5.13	4.65
2/4/2016	2.8	68.52	83.33	125.89	5.30	4.75
2/5/2016	2.8	64.42	85.33	134.66	4.87	3.74
2/6/2016	2.0	48.68	98.67	136.11	5.67	3.61
2/7/2016	2.0	43.06	99.33	135.68	4.58	3.78
2/8/2016	2.0	42.86	115.33	123.49	4.84	3.29
2/9/2016	2.0	45.55	140.00	126.55	3.82	2.82
2/10/2016	2.0	41.04	130.67	141.46	4.36	3.21
2/11/2016	2.0	39.93	117.33	135.95	5.73	4.31
2/12/2016	2.0	40.75	110.00	166.75	3.63	3.39
2/13/2016	2.0	41.69	127.33	170.99	4.84	3.28
2/14/2016	2.0	39.01	132.00	155.44	5.51	4.25

Table 1: Field's Point TSS, BOD, and Fecal Coliform Data

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Date	Fecal Coliform Bacteria (MPN/100mL)	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
2/15/2016	2.0	44.37	161.33	149.37	5.07	3.58
2/16/2016	2.0	71.18	178.67	106.04	15.40	8.88
2/17/2016	2.5	61.67	100.00	116.55	7.00	4.20
2/18/2016	2.0	64.37	78.67	105.09	5.23	3.57
2/19/2016	2.0	44.02	102.00	143.33	2.87	2.99
2/20/2016	2.0	43.14	100.67	157.12	2.93	2.68
2/21/2016	2.0	44.55	102.00	139.29	3.56	2.82
2/22/2016	2.0	42.24	123.33	143.70	5.13	3.38
2/23/2016	2.0	46.31	145.33	157.89	4.67	2.92
2/24/2016	2.0	64.60	142.00	140.14	9.00	7.62
2/25/2016	2.0	61.27	86.00	109.42	5.83	3.84
2/26/2016	2.0	62.58	88.67	117.04	6.00	3.52
2/27/2016	2.0	58.49	88.67	117.73	5.40	3.94
2/28/2016	2.0	43.57	82.67	123.83	3.47	2.86
2/29/2016	2.0	45.18	84.00	142.10	3.42	3.00
3/1/2016	2.0	46.60	133.33	152.13	3.91	2.95
3/2/2016	2.0	49.65	84.00	123.54	3.33	3.12
3/3/2016	2.0	41.11	83.33	124.09	3.60	2.72
3/4/2016	2.0	40.19	113.33	153.35	2.90	2.45
3/5/2016	2.0	42.48	80.00	136.16	3.20	2.56
3/6/2016	2.0	39.72	126.67	145.56	2.60	2.65
3/7/2016	2.0	40.63	106.00	150.32	3.23	3.26
3/8/2016	2.0	41.09	116.67	151.47	2.80	2.86
3/9/2016	2.0	38.67	135.33	164.07	2.77	3.53
3/10/2016	2.0	40.30	173.33	170.75	2.73	3.00
3/11/2016	2.0	39.72	136.67	163.69	2.80	3.17
3/12/2016	2.0	37.05	110.67	173.64	3.47	3.28
3/13/2016	2.0	38.82	122.00	165.83	3.82	3.51
3/14/2016	2.0	56.83	159.33	176.17	8.13	5.32
3/15/2016	2.0	57.80	74.67	122.46	7.47	4.97
3/16/2016	2.0	48.22	109.33	149.36	4.49	3.13
3/17/2016	2.0	41.17	136.67	155.32	4.00	3.60
3/18/2016	2.0	41.67	128.00	154.34	3.82	3.21
3/19/2016	2.0	37.96	113.33	172.79	3.96	2.71
3/20/2016	2.0	37.88	113.33	148.69	3.38	2.52
3/21/2016	2.0	43.78	116.00	164.92	4.04	4.26
3/22/2016	2.0	37.31	115.33	155.00	3.00	2.42
3/23/2016	2.0	37.78	115.33	174.66	2.87	2.41
3/24/2016	2.0	39.14	118.00	158.31	2.70	2.31
3/25/2016	2.0	36.08	134.67	194.01	2.17	2.53
3/26/2016	2.0	35.03	140.00	169.30	<2.00	2.43
3/27/2016	2.0	37.96	134.00	158.49	2.67	2.65
3/28/2016	2.0	45.81	141.33	162.39	3.67	3.18
3/29/2016	2.0	35.20	120.00	165.11	2.37	2.55
3/30/2016	2.0	35.88	123.33	173.54	3.38	2.86
3/31/2016	2.0	39.50	146.67	182.63	2.80	3.38
4/1/2016	2.0	36.48	127.33	151.56	2.77	3.74

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4/2/2016	2.0	55.09	134.00	139.64	3.30	3.67
4/3/2016	2.0	65.18	62.00	92.32	5.91	4.61
4/4/2016	2.0	54.58	96.67	132.24	3.07	2.79
4/5/2016	2.0	45.73	100.67	140.99	3.03	3.26
4/6/2016	2.0	46.98	110.67	142.82	3.56	4.32
4/7/2016	2.0	71.28	110.67	114.10	3.42	4.73
4/8/2016	2.0	68.65	90.00	108.23	5.69	3.78
4/9/2016	2.0	70.88	61.00	97.92	4.03	3.73
4/10/2016	2.0	71.24	54.33	77.03	3.07	3.96
4/11/2016	2.0	51.52	104.67	136.28	2.47	4.00
4/12/2016	2.0	51.93	100.67	130.36	3.23	3.48
4/13/2016	2.9	51.54	98.00	130.65	2.30	3.79
4/14/2016	2.0	42.72	119.33	144.53	2.17	3.70
4/15/2016	2.0	43.34	118.67	144.36	2.57	3.76
4/16/2016	2.0	42.65	104.00	145.23	3.03	4.36
4/17/2016	2.0	41.85	121.33	155.82	2.27	4.60
4/18/2016	2.0	41.89	116.00	163.80	2.50	4.78
4/19/2016	2.0	40.94	115.33	160.30	2.67	5.55
4/20/2016	2.0	39.90	112.67	167.17	2.43	4.24
4/21/2016	2.0	40.71	123.33	166.05	2.23	5.56
4/22/2016	2.0	47.68	180.00	179.23	2.93	6.17
4/23/2016	2.0	48.35	93.33	141.18	2.20	3.87
4/24/2016	2.0	37.99	94.67	156.17	2.33	3.38
4/25/2016	2.0	39.82	108.67	157.48	2.10	3.62
4/26/2016	2.0	42.24	120.00	162.43	2.00	2.72
4/27/2016	2.0	36.56	114.67	170.27	<2.00	3.54
4/28/2016	2.0	36.17	130.00	155.69	2.03	2.72
4/29/2016	2.0	38.23	132.00	154.62	2.57	2.94
4/30/2016	2.0	37.55	116.67	182.55	2.70	4.20
5/1/2016	2.0	38.51	138.67	153.43	2.57	3.18
5/2/2016	2.0	46.00	176.67	185.70	2.90	3.72
5/3/2016	2.0	44.76	92.00	153.27	2.73	3.46
5/4/2016	3.2	48.50	122.67	148.24	3.20	2.99
5/5/2016	2.0	44.67	110.00	156.46	2.33	2.62
5/6/2016	2.0	57.01	104.67	138.72	7.67	4.30
5/7/2016	2.0	41.17	100.67	169.48	<2.00	2.66
5/8/2016	2.0	39.21	109.33	164.66	2.43	2.65
5/9/2016	2.0	36.07	128.00	186.45	2.93	3.21
5/10/2016	2.0	37.50	126.67	180.55	<2.00	3.17
5/11/2016	2.0	36.02	143.33	217.88	2.30	3.73
5/12/2016	2.0	37.97	130.67	287.34	2.03	3.68
5/13/2016	2.0	42.49	148.00	196.81	3.47	3.44
5/14/2016	2.0	35.85	117.33	196.62	2.57	3.57
5/15/2016	2.0	36.85	137.33	194.88	2.63	2.83
5/16/2016	2.0	35.31	129.33	191.90	3.03	3.06
5/17/2016	2.8	35.72	123.33	210.68	2.63	3.10

Table 1: Field's Point TSS, BOD, and Fecal Coliform Data

Field's Point 2016 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform Bacteria (MPN/100mL)	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
5/18/2016	2.5	33.69	143.33	256.56	2.50	3.17
5/19/2016	2.0	37.97	162.67	214.35	2.37	3.10
5/20/2016	2.0	33.57	128.00	208.65	2.50	3.04
5/21/2016	2.0	33.65	126.00	199.92	2.33	3.32
5/22/2016	2.0	36.02	165.33	213.52	2.50	2.75
5/23/2016	2.0	35.36	153.33	224.25	2.90	3.34
5/24/2016	2.0	37.91	161.33	197.59	3.03	2.77
5/25/2016	2.0	32.26	141.33	212.97	2.40	3.55
5/26/2016	5.1	36.52	132.67	199.92	2.67	3.68
5/27/2016	2.0	33.55	139.33	221.39	<2.00	3.71
5/28/2016	2.0	32.76	116.67	215.58	<2.00	3.57
5/29/2016	2.0	37.84	146.00	206.28	3.10	3.00
5/30/2016	2.8	55.68	128.00	164.59	4.80	3.96
5/31/2016	2.8	59.65	85.33	118.80	3.27	3.69
6/1/2016	2.0	58.51	86.67	146.21	2.83	3.65
6/2/2016	2.0	40.97	120.00	206.88	2.34	3.44
6/3/2016	2.0	33.16	115.33	175.22	3.00	3.16
6/4/2016	2.0	35.83	156.00	198.86	3.37	3.50
6/5/2016	2.0	52.78	172.67	182.10	5.47	4.52
6/6/2016	2.0	51.10	94.00	143.53	3.17	4.76
6/7/2016	2.0	34.78	126.67	162.62	2.80	3.32
6/8/2016	2.0	33.99	86.67	206.10	2.40	3.17
6/9/2016	2.0	33.99	130.67	212.26	2.63	3.07
6/10/2016	2.0	31.99	138.00	200.01	2.63	3.59
6/11/2016	2.0	40.38	138.67	186.55	5.20	4.23
6/12/2016	2.0	41.39	105.33	158.34	3.73	4.00
6/13/2016	2.8	31.56	172.00	217.96	3.43	3.34
6/14/2016	4.0	34.51	164.67	234.43	3.30	3.80
6/15/2016	2.0	30.43	171.33	229.42	3.70	4.72
6/16/2016	5.7	33.54	150.67	226.94	3.03	4.07
6/17/2016	2.0	30.93	143.33	204.30	3.00	3.86
6/18/2016	2.0	30.87	151.33	237.44	2.70	3.93
6/19/2016	3.7	32.20	150.67	198.60	3.47	3.17
6/20/2016	4.0	34.76	182.00	249.29	3.13	3.52
6/21/2016	29.7	41.15	165.33	216.30	3.03	4.74
6/22/2016	5.0	30.83	153.33	231.09	2.27	3.59
6/23/2016	5.3	31.47	147.33	215.92	<2.00	3.17
6/24/2016	2.0	29.43	170.67	253.77	2.67	4.36
6/25/2016	2.0	30.92	142.67	225.31	<2.00	3.99
6/26/2016	2.0	31.34	172.00	218.09	<2.00	4.03
6/27/2016	4.0	29.73	219.33	276.97	<2.00	4.18
6/28/2016	2.0	42.11	216.67	271.67	3.03	5.02
6/29/2016	10.9	46.60	130.00	163.80	3.23	5.34
6/30/2016	2.0	39.55	132.67	188.43	<2.00	5.53
7/1/2016	2.0	32.55	147.33	215.89	<2.00	5.22
7/2/2016	2.0	30.04	131.33	219.25	<2.00	5.10

Table 1: Field's Point TSS, BOD, and Fecal Coliform Data

Field's Point 2016 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform Bacteria (MPN/100mL)	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
7/3/2016	4.0	31.15	112.67	168.90	<2.00	6.40
7/4/2016	2.0	34.61	178.67	206.84	2.30	5.39
7/5/2016	2.8	43.53	134.67	172.92	<2.00	5.28
7/6/2016	2.5	32.03	160.00	218.86	<2.00	6.49
7/7/2016	2.8	32.55	208.67	227.87	2.80	5.39
7/8/2016	2.0	29.34	143.33	252.69	<2.00	5.23
7/9/2016	2.0	30.40	149.33	239.40	2.53	4.19
7/10/2016	2.8	34.11	176.00	209.52	2.03	4.60
7/11/2016	2.8	29.94	184.67	279.26	2.50	4.82
7/12/2016	2.0	30.04	140.00	208.44	2.27	6.56
7/13/2016	2.0	30.41	170.00	212.88	<2.00	5.75
7/14/2016	2.0	36.79	261.33	227.94	3.57	6.11
7/15/2016	2.0	41.06	110.67	184.82	<2.00	5.41
7/16/2016	4.0	30.03	127.33	196.43	<2.00	5.76
7/17/2016	16.1	45.11	161.33	165.12	4.57	6.68
7/18/2016	5.8	37.80	146.67	206.55	<2.00	3.78
7/19/2016	2.8	29.60	154.67	217.72	<2.00	2.68
7/20/2016	2.0	29.03	151.33	214.86	2.10	3.83
7/21/2016	2.0	30.60	171.33	218.87	2.13	4.97
7/22/2016	2.0	31.59	187.33	230.05	2.00	6.34
7/23/2016	2.0	27.84	129.33	244.74	<2.00	7.57
7/24/2016	2.0	30.48	164.00	210.33	2.03	6.58
7/25/2016	2.0	30.64	170.67	227.32	2.33	6.16
7/26/2016	2.8	30.36	132.00	207.69	<2.00	7.78
7/27/2016	3.2	29.66	170.67	215.68	2.70	7.07
7/28/2016	2.8	30.68	168.67	254.40	<2.00	6.65
7/29/2016	2.0	28.70	203.33	262.27	<2.00	6.51
7/30/2016	2.0	29.13	138.00	209.72	2.87	7.35
7/31/2016	2.0	30.13	132.00	188.35	<2.00	6.96
8/1/2016	2.0	28.20	202.67	291.86	2.20	4.10
8/2/2016	8.2	42.59	161.33	176.09	2.87	3.82
8/3/2016	5.0	29.97	136.67	224.52	2.03	3.49
8/4/2016	2.0	28.90	144.67	235.02	2.77	4.46
8/5/2016	2.8	28.52	139.33	218.89	2.50	5.35
8/6/2016	2.0	31.15	177.33	243.73	2.17	6.47
8/7/2016	126.5	30.14	128.00	199.96	<2.00	6.49
8/8/2016	2.0	26.07	152.00	288.27	2.30	4.90
8/9/2016	4.0	26.48	151.33	204.90	2.50	4.33
8/10/2016	5.0	51.49	146.67	131.43	5.93	5.93
8/11/2016	4.7	43.86	112.00	139.51	3.07	6.45
8/12/2016	2.0	41.56	144.00	161.81	5.07	7.34
8/13/2016	5.7	42.25	167.33	151.67	3.37	6.54
8/14/2016	5.3	53.94	135.33	88.08	3.43	6.16
8/15/2016	2.8	34.72	155.33	156.67	3.00	5.23
8/16/2016	2.0	29.37	152.67	177.05	2.57	5.45
8/17/2016	4.0	29.14	144.00	185.79	2.67	5.54

Table 1: Field's Point TSS, BOD, and Fecal Coliform Data

Field's Point 2016 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform Bacteria (MPN/100mL)	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
8/18/2016	2.0	30.89	156.00	171.43	<2.00	5.57
8/19/2016	2.8	28.78	130.00	176.31	2.57	5.56
8/20/2016	3.5	27.33	117.33	183.47	2.33	5.30
8/21/2016	2.0	37.06	200.00	177.24	2.87	5.46
8/22/2016	9.6	48.00	112.00	144.11	4.03	4.88
8/23/2016	5.1	28.44	138.67	182.54	3.00	4.33
8/24/2016	3.2	29.45	173.33	226.08	3.10	4.72
8/25/2016	2.0	29.25	163.33	174.21	4.07	4.77
8/26/2016	4.7	29.44	192.00	273.80	2.80	4.70
8/27/2016	2.8	27.60	134.67	208.82	<2.00	4.50
8/28/2016	2.8	28.96	155.33	170.47	2.73	3.64
8/29/2016	2.0	27.26	161.33	209.70	2.70	3.90
8/30/2016	5.3	29.34	188.00	209.92	2.83	3.58
8/31/2016	5.7	28.93	174.67	221.23	2.40	3.86
9/1/2016	2.0	48.62	152.00	162.11	4.37	3.93
9/2/2016	6.2	29.71	119.33	180.57	2.30	3.27
9/3/2016	2.0	27.83	159.33	194.99	2.17	2.81
9/4/2016	3.7	29.94	146.00	196.08	3.63	3.28
9/5/2016	2.0	28.72	220.67	230.55	3.60	3.49
9/6/2016	2.0	29.54	172.67	198.15	3.77	3.28
9/7/2016	2.0	38.13	188.00	180.76	4.00	3.53
9/8/2016	2.0	30.44	171.33	183.14	3.27	3.18
9/9/2016	2.0	28.31	134.67	188.34	2.87	4.63
9/10/2016	2.0	29.23	142.00	212.51	3.03	3.25
9/11/2016	2.0	27.93	175.33	222.04	4.53	2.96
9/12/2016	2.8	28.27	179.33	227.76	3.77	3.29
9/13/2016	2.0	26.69	144.00	225.87	2.80	3.41
9/14/2016	2.0	28.61	166.67	230.99	3.30	3.25
9/15/2016	2.0	29.53	172.67	205.80	<2.00	2.43
9/16/2016	2.0	27.35	142.67	206.58	2.20	2.56
9/17/2016	2.0	27.84	180.00	249.19	3.69	2.51
9/18/2016	2.0	30.39	188.00	225.49	5.80	3.52
9/19/2016	2.8	37.32	198.00	206.16	5.20	3.11
9/20/2016	2.0	27.99	168.00	207.56	5.47	3.40
9/21/2016	2.0	28.04	170.67	199.61	4.09	2.60
9/22/2016	2.0	31.76	154.67	193.31	2.57	2.22
9/23/2016	2.0	30.41	192.67	219.42	2.43	2.47
9/24/2016	2.0	27.21	176.00	187.18	2.67	2.95
9/25/2016	2.0	29.62	156.00	181.23	2.73	3.15
9/26/2016	2.0	28.51	193.33	238.64	3.47	3.66
9/27/2016	12.6	36.29	184.00	208.74	3.77	3.64
9/28/2016	2.5	27.32	169.33	221.03	2.57	2.28
9/29/2016	2.0	26.84	156.67	224.24	3.20	2.82
9/30/2016	4.0	53.42	182.67	180.84	4.27	3.79
10/1/2016	2.0	51.51	104.67	136.14	2.53	2.38
10/2/2016	2.0	36.04	130.67	185.90	2.37	2.84

Table 1: Field's Point TSS, BOD, and Fecal Coliform Data

Field's Point 2016 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform Bacteria (MPN/100mL)	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
10/3/2016	2.0	29.25	158.67	218.14	<2.00	2.21
10/4/2016	3.7	27.92	168.00	206.47	<2.00	2.64
10/5/2016	2.0	28.68	148.67	210.22	<2.00	3.60
10/6/2016	2.0	29.83	154.00	199.48	<2.00	3.18
10/7/2016	2.0	27.43	163.33	215.79	2.13	2.92
10/8/2016	2.0	28.51	174.67	202.28	2.67	2.62
10/9/2016	2.8	60.11	82.67	94.11	5.47	2.42
10/10/2016	2.8	54.47	78.67	146.91	4.67	2.56
10/11/2016	4.0	42.01	104.67	152.39	3.47	2.69
10/12/2016	2.5	30.15	174.67	207.68	2.80	2.20
10/13/2016	4.0	30.23	161.33	216.49	2.37	2.40
10/14/2016	5.1	28.65	136.67	192.44	2.40	2.29
10/15/2016	2.0	29.58	175.33	217.79	2.27	2.33
10/16/2016	2.8	30.42	159.33	180.84	3.64	2.11
10/17/2016	2.0	28.91	152.00	204.41	2.33	2.46
10/18/2016	2.0	29.04	274.00	211.13	<2.00	2.01
10/19/2016	2.0	29.41	164.00	201.00	2.60	<2.00
10/20/2016	2.8	33.06	193.33	207.20	<2.00	<2.00
10/21/2016	2.0	47.87	200.67	179.56	5.67	2.60
10/22/2016	2.0	45.19	131.33	141.07	4.30	2.02
10/23/2016	2.8	32.03	110.00	158.07	2.67	2.02
10/24/2016	2.0	28.78	134.00	196.41	2.13	2.23
10/25/2016	4.0	28.76	134.67	204.85	2.00	2.13
10/26/2016	2.5	31.37	152.67	190.83	2.93	<2.00
10/27/2016	2.0	53.56	152.00	156.86	3.43	2.75
10/28/2016	2.8	52.37	80.67	125.92	5.02	2.49
10/29/2016	2.0	32.40	150.00	186.55	<2.00	2.38
10/30/2016	2.0	43.52	142.00	147.93	4.10	3.68
10/31/2016	4.0	34.37	132.00	168.42	2.57	<2.00
11/1/2016	2.8	29.52	170.67	153.20	3.13	2.41
11/2/2016	2.0	30.51	178.67	209.69	2.87	2.80
11/3/2016	2.0	31.67	175.33	178.48	2.60	2.22
11/4/2016	2.0	29.28	143.33	184.39	2.27	2.11
11/5/2016	2.0	28.96	142.00	182.54	2.43	<2.00
11/6/2016	2.0	33.44	168.67	186.52	2.77	2.26
11/7/2016	2.0	28.65	162.00	218.93	2.20	2.52
11/8/2016	2.0	29.40	174.00	185.00	3.17	2.80
11/9/2016	2.0	28.99	196.67	229.34	2.17	<2.00
11/10/2016	2.8	30.93	168.00	216.04	2.87	2.14
11/11/2016	2.0	28.17	173.33	216.67	2.93	<2.00
11/12/2016	2.0	28.42	157.33	230.56	2.00	2.02
11/13/2016	2.8	29.95	170.00	193.69	3.03	<2.00
11/14/2016	2.0	28.55	186.00	175.49	2.93	2.11
11/15/2016	2.0	52.12	192.67	167.11	4.70	2.68
11/16/2016	2.5	52.97	121.33	128.42	3.67	2.20
11/17/2016	4.0	29.50	135.33	173.72	2.90	<2.00

Table 1: Field's Point TSS, BOD, and Fecal Coliform Data

Field's Point 2016 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform Bacteria (MPN/100mL)	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
11/18/2016	2.8	29.48	160.00	203.63	3.00	<2.00
11/19/2016	2.0	30.55	138.00	222.42	2.17	2.15
11/20/2016	2.0	32.49	156.00	199.46	2.77	2.28
11/21/2016	2.0	29.43	144.00	199.74	3.27	2.18
11/22/2016	4.0	27.66	192.00	225.43	2.13	<2.00
11/23/2016	2.0	28.63	133.33	220.07	2.93	<2.00
11/24/2016	2.0	29.73	185.33	228.91	2.63	2.11
11/25/2016	2.0	30.19	221.33	205.74	<2.00	2.08
11/26/2016	2.0	26.09	108.67	192.39	<2.00	<2.00
11/27/2016	2.0	30.27	166.67	204.91	2.30	<2.00
11/28/2016	2.8	29.88	199.33	208.09	3.13	<2.00
11/29/2016	2.0	52.74	214.00	151.29	5.13	2.88
11/30/2016	2.0	64.57	112.00	114.68	5.64	2.20
12/1/2016	2.0	55.55	96.00	95.50	3.43	2.25
12/2/2016	2.0	38.42	123.33	154.42	2.40	2.74
12/3/2016	2.0	29.77	123.33	188.88	3.53	2.05
12/4/2016	2.0	33.26	141.33	179.49	3.20	2.17
12/5/2016	2.0	30.96	172.67	184.55	3.17	<2.00
12/6/2016	2.0	32.26	154.00	199.71	2.90	2.15
12/7/2016	2.0	31.65	154.00	199.42	2.40	<2.00
12/8/2016	2.0	33.51	144.67	185.20	2.80	<2.00
12/9/2016	2.0	29.29	140.00	195.89	2.83	<2.00
12/10/2016	2.0	29.95	166.00	233.27	2.27	2.24
12/11/2016	2.0	32.41	174.00	180.88	2.00	<2.00
12/12/2016	2.0	48.02	142.67	164.41	3.47	<2.00
12/13/2016	2.0	31.08	141.33	179.51	2.93	<2.00
12/14/2016	2.0	30.76	138.00	186.50	2.40	<2.00
12/15/2016	2.0	31.90	157.33	182.84	3.77	2.08
12/16/2016	2.0	30.37	172.67	200.49	3.53	2.09
12/17/2016	2.0	41.25	162.67	187.48	2.00	<2.00
12/18/2016	4.0	48.93	113.33	153.87	4.67	3.08
12/19/2016	2.0	30.81	123.33	193.34	2.80	2.66
12/20/2016	2.0	31.16	131.33	200.22	3.10	2.64
12/21/2016	2.0	29.83	137.33	223.41	2.17	2.32
12/22/2016	2.0	32.16	126.67	195.66	2.63	2.49
12/23/2016	2.0	29.32	141.33	205.90	2.67	2.62
12/24/2016	2.0	43.05	184.67	168.53	9.27	5.12
12/25/2016	2.0	33.20	127.33	152.68	2.40	2.10
12/26/2016	2.0	30.26	144.67	194.61	3.47	2.41
12/27/2016	2.0	30.44	129.33	205.71	2.97	2.42
12/28/2016	2.0	32.12	155.33	198.21	2.90	2.07
12/29/2016	2.0	51.51	158.67	142.03	8.49	4.91
12/30/2016	2.0	52.94	82.67	139.69	3.50	2.81
12/31/2016	2.0	42.97	114.00	166.55	3.73	2.25

Table 1: Field's Point TSS, BOD, and Fecal Coliform Data

Bucklin Point 2016 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform Bacteria (MPN/100 ml)	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
1/1/2016	2.0	15.40	132.67	200.37	4.56	2.39
1/2/2016	2.0	15.43	145.33	195.41	4.67	2.66
1/3/2016	2.0	15.46	147.33	201.04	4.44	2.72
1/4/2016	3.4	15.76	162.00	200.15	4.37	3.18
1/5/2016	4.0	15.07	188.67	225.89	4.57	3.11
1/6/2016	3.0	15.27	181.33	212.88	5.23	3.57
1/7/2016	4.0	15.22	187.33	222.69	5.13	3.66
1/8/2016	4.8	15.46	184.67	267.06	5.03	3.11
1/9/2016	2.4	15.36	186.67	243.41	4.00	2.85
1/10/2016	2.0	43.90	182.67	206.19	7.27	4.23
1/11/2016	2.0	18.23	125.33	117.54	5.97	3.28
1/12/2016	2.4	20.57	129.33	161.94	6.67	3.87
1/13/2016	3.0	17.20	135.33	158.54	4.90	3.31
1/14/2016	4.5	16.54	130.00	172.61	4.90	3.16
1/15/2016	3.8	16.92	145.33	197.11	6.47	3.92
1/16/2016	6.5	36.82	145.33	165.92	12.27	5.48
1/17/2016	3.4	18.06	111.33	144.33	6.80	3.70
1/18/2016	2.0	17.45	128.67	152.95	6.20	3.66
1/19/2016	2.8	17.15	150.00	207.16	6.80	3.93
1/20/2016	3.1	16.83	143.33	179.72	7.33	4.31
1/21/2016	2.4	16.37	144.00	180.56	6.00	3.56
1/22/2016	2.0	16.35	139.33	200.32	6.60	3.94
1/23/2016	2.8	16.68	158.00	204.71	3.69	3.87
1/24/2016	3.3	16.12	106.67	167.81	5.04	3.16
1/25/2016	2.0	15.88	133.33	183.85	5.33	3.95
1/26/2016	2.0	18.94	108.67	255.57	8.00	4.62
1/27/2016	3.0	16.11	155.33	226.59	6.67	4.25
1/28/2016	2.7	16.10	121.33	192.63	5.87	4.10
1/29/2016	2.4	16.12	167.33	289.03	6.87	4.49
1/30/2016	2.8	15.17	144.00	202.91	6.93	3.53
1/31/2016	2.0	15.50	160.67	256.34	7.13	3.82
2/1/2016	2.0	15.65	131.33	206.77	5.67	4.17
2/2/2016	2.7	14.83	189.33	229.97	6.07	2.77
2/3/2016	2.3	32.61	132.67	169.40	17.60	7.67
2/4/2016	2.4	20.61	205.33	158.46	15.00	7.04
2/5/2016	7.4	26.27	112.67	154.37	7.16	3.91
2/6/2016	3.4	19.74	100.00	199.97	7.87	4.22
2/7/2016	2.4	18.80	116.67	163.41	7.73	4.11
2/8/2016	2.8	18.74	123.33	162.67	6.87	4.04
2/9/2016	3.4	18.82	120.67	162.92	6.76	8.51
2/10/2016	3.2	19.00	141.33	193.31	5.87	5.60
2/11/2016	2.4	17.78	156.67	194.00	7.33	4.77
2/12/2016	2.4	17.38	141.33	180.27	6.13	4.69
2/13/2016	3.6	17.05	161.33	242.06	7.93	5.45
2/14/2016	2.4	16.50	147.00	167.90	8.73	4.23
2/15/2016	3.4	18.03	154.67	209.57	8.60	3.99
2/16/2016	2.4	50.31	158.67	133.51	26.13	11.45

Table 2: Bucklin Point TSS, BOD, and Fecal Coliform Data

Bucklin Point 2016 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform Bacteria (MPN/100 ml)	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
2/17/2016	3.0	20.83	119.33	88.26	8.53	4.52
2/18/2016	2.4	19.46	94.00	143.84	6.17	5.13
2/19/2016	4.5	19.36	110.00	152.74	6.13	4.19
2/20/2016	12.8	19.88	112.00	169.16	5.40	4.18
2/21/2016	25.1	19.17	120.00	151.70	5.42	4.29
2/22/2016	15.0	17.82	124.67	169.85	5.87	4.17
2/23/2016	10.9	18.95	170.00	194.14	10.27	5.64
2/24/2016	5.8	34.94	186.67	201.06	37.60	13.98
2/25/2016	8.6	33.34	132.00	122.78	6.50	5.15
2/26/2016	8.1	20.99	120.00	137.32	6.76	3.63
2/27/2016	2.4	20.32	126.00	172.81	5.20	3.31
2/28/2016	2.0	20.09	79.33	140.06	5.73	2.87
2/29/2016	2.8	20.53	50.00	111.14	7.67	3.49
3/1/2016	2.4	18.83	95.33	146.90	8.33	3.57
3/2/2016	3.7	25.09	104.67	128.75	23.20	13.86
3/3/2016	2.8	18.40	99.33	107.03	10.67	5.17
3/4/2016	2.8	19.28	92.67	136.24	6.71	5.81
3/5/2016	2.0	18.34	78.67	141.99	4.53	3.82
3/6/2016	2.0	17.65	74.00	129.21	6.36	3.86
3/7/2016	2.4	18.68	101.33	168.24	6.13	3.05
3/8/2016	2.0	17.61	146.67	184.24	5.93	3.90
3/9/2016	2.0	17.40	173.33	126.47	4.93	3.81
3/10/2016	2.4	17.56	155.33	155.91	5.90	3.86
3/11/2016	5.2	17.94	183.33	187.66	6.03	4.65
3/12/2016	2.0	17.11	113.33	153.35	5.80	3.89
3/13/2016	4.0	16.43	112.00	161.55	5.73	3.52
3/14/2016	2.0	21.70	112.00	180.00	8.87	4.46
3/15/2016	7.0	33.97	120.00	140.94	8.60	4.84
3/16/2016	2.0	18.90	135.33	166.69	7.13	5.02
3/17/2016	4.8	18.04	141.33	176.30	6.49	3.63
3/18/2016	2.4	17.76	146.67	192.44	6.13	3.64
3/19/2016	2.0	16.57	150.67	183.96	6.67	3.70
3/20/2016	5.2	16.82	85.33	164.89	7.33	3.81
3/21/2016	3.4	18.77	126.67	191.97	7.87	4.08
3/22/2016	2.8	16.49	137.33	162.10	6.07	5.09
3/23/2016	2.3	16.98	120.67	192.51	5.51	3.16
3/24/2016	2.8	16.74	109.33	196.06	6.31	3.48
3/25/2016	2.0	17.77	156.67	191.76	6.27	3.81
3/26/2016	2.8	16.57	185.33	216.38	12.72	8.08
3/27/2016	222.6	16.03	155.33	194.95	10.60	9.53
3/28/2016	22.6	23.46	168.67	188.41	8.25	8.57
3/29/2016	48.5	16.54	114.00	168.30	7.33	3.97
3/30/2016	2.3	15.87	144.67	188.63	6.18	3.55
3/31/2016	2.0	16.37	160.67	191.44	8.60	6.53
4/1/2016	10.4	16.76	142.67	192.80	7.80	4.84
4/2/2016	2.4	28.85	172.67	203.01	11.73	6.38
4/3/2016	5.6	39.26	100.67	122.74	33.44	12.57

Table 2: Bucklin Point TSS, BOD, and Fecal Coliform Data

Bucklin Point 2016 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform Bacteria (MPN/100 ml)	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
4/4/2016	127.0	19.10	110.00	163.05	7.80	5.58
4/5/2016	2.4	19.39	112.67	161.01	7.87	4.56
4/6/2016	3.0	18.95	128.67	181.96	8.27	4.12
4/7/2016	2.8	48.73	134.00	166.56	15.20	7.17
4/8/2016	2.4	24.78	111.33	109.36	7.67	4.05
4/9/2016	3.6	22.81	89.33	141.36	7.00	3.79
4/10/2016	3.4	20.88	99.33	136.69	7.40	4.22
4/11/2016	2.0	21.60	100.00	139.55	7.20	3.49
4/12/2016	2.0	27.65	134.67	135.74	9.67	4.83
4/13/2016	2.0	19.84	101.33	127.79	7.07	4.38
4/14/2016	2.3	19.49	103.33	148.35	5.53	3.42
4/15/2016	2.4	19.04	126.67	182.75	4.23	3.61
4/16/2016	2.0	18.87	108.67	172.79	5.07	2.57
4/17/2016	2.0	17.99	118.00	185.49	5.73	2.61
4/18/2016	2.0	18.30	133.33	167.87	5.02	3.51
4/19/2016	2.4	18.37	130.00	169.63	6.53	3.29
4/20/2016	2.3	17.32	138.00	180.49	6.13	3.05
4/21/2016	2.4	17.61	150.00	198.47	6.53	3.64
4/22/2016	2.0	17.51	168.67	185.23	7.53	4.81
4/23/2016	4.5	24.86	178.00	177.36	8.73	5.11
4/24/2016	2.7	17.26	117.33	173.44	9.60	5.73
4/25/2016	2.4	18.32	130.00	173.98	7.13	3.96
4/26/2016	2.8	21.83	148.67	199.07	7.82	4.25
4/27/2016	4.0	17.53	124.00	154.99	4.13	2.99
4/28/2016	2.0	17.42	152.00	163.96	5.07	2.28
4/29/2016	3.2	16.77	126.00	173.84	4.71	4.83
4/30/2016	2.0	15.95	145.33	237.59	4.53	4.45
5/1/2016	2.4	18.73	148.00	211.56	5.96	4.73
5/2/2016	2.4	22.06	170.00	193.20	5.64	3.26
5/3/2016	2.8	22.39	134.67	149.80	6.80	3.81
5/4/2016	2.6	29.12	147.33	175.80	6.62	3.45
5/5/2016	2.0	21.60	123.33	150.74	7.80	3.61
5/6/2016	2.0	21.28	122.67	180.60	5.67	3.20
5/7/2016	2.4	17.59	145.33	215.61	4.13	2.44
5/8/2016	2.4	17.77	131.33	205.63	4.40	2.49
5/9/2016	2.0	17.21	130.67	224.11	5.20	2.75
5/10/2016	2.0	16.37	143.33	215.38	3.10	2.54
5/11/2016	2.3	16.60	150.00	216.83	4.76	4.35
5/12/2016	2.4	16.53	166.00	313.20	4.76	2.80
5/13/2016	2.0	19.70	157.33	212.90	5.53	3.74
5/14/2016	4.0	16.39	168.00	188.78	3.56	2.99
5/15/2016	2.0	16.43	136.00	249.73	3.97	2.63
5/16/2016	2.0	16.24	130.00	204.83	4.30	2.45
5/17/2016	2.0	16.48	154.67	228.87	3.60	2.82
5/18/2016	2.0	15.99	166.67	225.62	3.93	2.82
5/19/2016	2.0	16.13	166.67	263.79	4.27	3.19
5/20/2016	2.0	15.96	180.67	211.49	3.53	2.91

Table 2: Bucklin Point TSS, BOD, and Fecal Coliform Data

Bucklin Point 2016 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform Bacteria (MPN/100 ml)	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
5/21/2016	2.0	15.18	172.67	250.95	3.87	3.16
5/22/2016	2.0	15.53	171.33	256.39	4.80	3.31
5/23/2016	2.0	15.73	157.33	237.01	6.93	4.55
5/24/2016	2.4	18.90	216.67	254.69	5.20	3.14
5/25/2016	2.0	14.77	169.33	240.78	3.90	3.24
5/26/2016	2.4	14.07	166.00	258.96	3.33	2.78
5/27/2016	2.0	14.42	175.33	302.34	3.80	2.63
5/28/2016	2.0	14.32	174.00	250.90	3.17	2.94
5/29/2016	2.0	13.20	143.33	255.47	4.44	3.56
5/30/2016	2.4	33.92	199.33	216.14	8.07	4.19
5/31/2016	2.8	15.41	130.67	217.50	5.47	3.44
6/1/2016	2.0	14.57	130.67	228.85	5.33	4.67
6/2/2016	5.0	14.89	162.67	249.06	6.76	6.15
6/3/2016	2.0	15.23	171.33	288.50	5.20	3.32
6/4/2016	2.0	14.23	146.00	235.26	5.00	3.61
6/5/2016	2.0	29.49	131.33	204.90	10.80	5.47
6/6/2016	2.0	16.11	129.33	173.29	7.47	4.47
6/7/2016	3.1	15.62	147.33	224.31	7.13	4.49
6/8/2016	2.0	15.15	129.33	230.61	7.73	4.29
6/9/2016	2.8	14.83	156.00	251.59	8.93	4.79
6/10/2016	3.7	14.19	168.00	285.23	9.20	5.25
6/11/2016	185.2	21.87	190.00	256.97	14.78	7.13
6/12/2016	262.7	14.95	150.67	223.65	11.33	5.80
6/13/2016	301.4	14.40	147.33	238.70	11.20	6.56
6/14/2016	18.5	13.90	168.00	254.94	11.20	5.92
6/15/2016	2.6	13.80	178.00	293.41	9.67	5.72
6/16/2016	19.6	12.66	170.67	260.07	11.13	6.20
6/17/2016	759.3	12.54	163.33	240.73	13.87	8.91
6/18/2016	3.4	12.11	157.33	252.06	13.47	12.32
6/19/2016	13.8	12.43	84.67	215.90	12.20	5.61
6/20/2016	6.8	12.69	199.33	271.83	14.33	6.65
6/21/2016	21.0	17.43	205.33	281.01	14.53	6.18
6/22/2016	2.6	12.91	166.67	318.37	18.27	6.94
6/23/2016	4.1	12.78	180.00	276.96	16.27	6.88
6/24/2016	2.8	12.21	176.00	286.56	13.87	6.23
6/25/2016	4.0	11.79	158.67	286.86	15.17	6.32
6/26/2016	2.4	11.73	181.33	238.20	11.07	6.78
6/27/2016	3.7	12.63	164.67	238.44	14.93	6.12
6/28/2016	3.6	12.83	192.67	271.07	15.73	6.98
6/29/2016	25.6	24.89	206.00	254.77	19.60	10.43
6/30/2016	4.3	12.31	158.67	210.03	17.20	6.25
7/1/2016	4.6	15.47	156.00	261.83	18.53	6.32
7/2/2016	4.0	12.40	158.67	244.15	16.27	7.03
7/3/2016	2.9	11.51	128.67	234.60	15.20	5.55
7/4/2016	2.7	11.64	138.00	211.83	11.33	5.32
7/5/2016	13.3	20.98	163.33	210.25	14.40	6.71
7/6/2016	5.3	12.13	194.00	233.30	9.53	5.30

Table 2: Bucklin Point TSS, BOD, and Fecal Coliform Data

Bucklin Point 2016 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform Bacteria (MPN/100 ml)	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
7/7/2016	27.9	12.67	192.00	255.03	9.60	4.97
7/8/2016	11.8	12.71	173.33	290.66	22.30	13.42
7/9/2016	3.4	12.87	176.67	295.51	6.07	3.08
7/10/2016	2.8	13.92	192.00	322.20	5.53	2.45
7/11/2016	2.0	12.60	162.67	279.77	8.14	3.10
7/12/2016	10.1	12.03	168.00	284.56	17.74	4.84
7/13/2016	2.6	12.09	190.00	270.29	3.96	2.60
7/14/2016	7.4	16.95	238.00	305.40	4.77	3.03
7/15/2016	13.4	12.46	192.67	258.20	3.43	2.74
7/16/2016	6.4	11.70	165.33	289.03	3.30	2.25
7/17/2016	8.0	11.84	182.00	265.97	3.67	2.77
7/18/2016	3.3	12.74	163.33	269.41	2.57	2.25
7/19/2016	4.3	11.95	188.00	330.00	3.43	2.04
7/20/2016	10.9	11.72	184.67	302.40	2.97	2.95
7/21/2016	15.6	11.81	182.67	329.23	2.67	2.25
7/22/2016	11.3	12.34	176.00	302.77	2.47	2.25
7/23/2016	3.3	11.46	176.00	324.60	2.40	2.81
7/24/2016	4.0	10.99	166.00	290.86	3.30	2.11
7/25/2016	2.4	12.08	188.67	279.63	4.00	<2.00
7/26/2016	3.3	11.36	166.00	242.43	3.51	2.12
7/27/2016	8.3	11.38	181.33	228.54	5.00	2.16
7/28/2016	10.5	11.66	181.33	266.10	3.56	2.11
7/29/2016	5.9	12.11	199.33	258.94	3.82	2.38
7/30/2016	9.5	11.47	190.00	290.96	5.27	2.26
7/31/2016	13.9	11.74	152.67	284.71	5.07	2.47
8/1/2016	21.4	12.10	175.33	238.97	4.73	2.80
8/2/2016	40.6	16.70	199.33	257.50	5.96	3.66
8/3/2016	82.8	11.65	173.33	285.26	4.58	2.43
8/4/2016	26.1	11.48	191.33	303.73	4.53	2.80
8/5/2016	20.6	11.72	176.67	277.63	4.58	2.66
8/6/2016	6.3	21.20	172.67	253.50	5.20	2.85
8/7/2016	11.4	11.87	140.00	181.44	3.91	2.78
8/8/2016	4.3	11.08	148.67	255.87	3.80	2.46
8/9/2016	8.4	11.37	168.67	109.21	3.78	4.16
8/10/2016	4.6	22.11	211.33	222.81	5.67	2.43
8/11/2016	7.4	12.20	152.00	188.12	3.77	<2.00
8/12/2016	5.8	15.94	173.33	209.68	3.93	<2.00
8/13/2016	35.0	11.52	124.67	186.02	2.77	<2.00
8/14/2016	11.6	18.71	136.67	156.64	2.50	<2.00
8/15/2016	2.7	11.49	150.00	198.49	2.27	<2.00
8/16/2016	13.4	12.39	180.00	196.89	8.73	2.74
8/17/2016	4.0	11.88	198.00	226.05	3.20	<2.00
8/18/2016	6.9	11.61	196.00	221.65	3.53	<2.00
8/19/2016	3.2	11.55	173.33	239.93	2.57	<2.00
8/20/2016	4.3	11.50	185.33	219.94	2.97	<2.00
8/21/2016	5.1	11.25	160.67	212.86	3.20	<2.00
8/22/2016	13.9	21.60	168.67	195.09	4.07	<2.00

Table 2: Bucklin Point TSS, BOD, and Fecal Coliform Data

Bucklin Point 2016 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform Bacteria (MPN/100 ml)	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
8/23/2016	6.5	11.70	179.33	195.76	2.63	<2.00
8/24/2016	5.3	11.70	204.00	218.23	3.47	<2.00
8/25/2016	4.0	12.07	202.67	217.98	4.39	<2.00
8/26/2016	8.5	11.67	190.67	231.41	2.47	<2.00
8/27/2016	4.6	11.13	158.67	280.24	<2.000	<2.00
8/28/2016	4.7	10.82	185.33	216.00	2.40	<2.00
8/29/2016	14.7	11.42	176.67	243.39	3.23	<2.00
8/30/2016	5.6	11.43	217.33	241.17	2.87	<2.00
8/31/2016	5.7	12.25	191.33	246.35	2.97	<2.00
9/1/2016	4.0	17.05	208.67	241.09	4.37	<2.00
9/2/2016	6.4	11.35	152.67	220.32	2.50	<2.00
9/3/2016	11.2	11.34	170.67	246.74	2.57	<2.00
9/4/2016	3.1	10.63	164.67	254.47	2.57	<2.00
9/5/2016	4.0	12.03	164.00	210.77	2.67	<2.00
9/6/2016	4.4	14.06	242.67	236.87	3.77	<2.00
9/7/2016	2.6	12.90	176.67	239.76	3.13	<2.00
9/8/2016	6.3	11.47	142.00	179.64	3.53	<2.00
9/9/2016	9.7	10.92	167.33	225.31	3.33	<2.00
9/10/2016	38.3	11.09	184.67	247.37	3.50	<2.00
9/11/2016	11.1	11.71	196.00	233.77	3.70	<2.00
9/12/2016	12.4	10.89	172.00	282.09	3.40	2.05
9/13/2016	10.3	11.30	182.00	264.91	5.53	2.50
9/14/2016	8.5	11.18	196.00	253.24	4.87	2.32
9/15/2016	3.4	10.81	202.00	242.76	4.50	2.33
9/16/2016	10.1	10.94	214.00	240.66	3.60	2.37
9/17/2016	3.7	11.09	196.67	222.60	3.67	2.60
9/18/2016	2.0	11.76	207.33	248.86	4.27	2.35
9/19/2016	3.2	17.35	214.67	250.54	5.33	2.27
9/20/2016	11.0	12.09	161.33	226.09	2.57	<2.00
9/21/2016	2.6	10.93	214.67	229.72	3.37	<2.00
9/22/2016	2.4	10.71	186.00	235.06	2.40	<2.00
9/23/2016	4.5	10.64	216.67	273.09	2.87	<2.00
9/24/2016	5.3	13.21	189.33	256.52	3.03	<2.00
9/25/2016	2.0	11.05	175.33	209.80	3.43	<2.00
9/26/2016	2.0	11.78	171.33	244.04	4.13	<2.00
9/27/2016	2.0	17.63	202.00	237.40	6.80	2.67
9/28/2016	2.6	12.50	179.33	228.49	3.03	<2.00
9/29/2016	2.0	11.91	167.33	246.47	3.33	<2.00
9/30/2016	2.0	21.73	172.00	246.52	6.80	2.48
10/1/2016	12.3	29.25	105.33	175.62	3.87	<2.00
10/2/2016	2.0	12.87	134.00	231.00	4.20	<2.00
10/3/2016	2.0	12.39	154.67	223.84	4.20	<2.00
10/4/2016	3.1	12.41	181.33	252.92	3.47	<2.00
10/5/2016	2.0	11.59	167.33	246.24	3.70	<2.00
10/6/2016	2.4	11.03	186.00	231.87	4.43	<2.00
10/7/2016	4.0	10.82	228.67	238.66	3.91	<2.00
10/8/2016	2.4	11.65	156.00	300.26	4.49	<2.00

Table 2: Bucklin Point TSS, BOD, and Fecal Coliform Data

Bucklin Point 2016 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform Bacteria (MPN/100 ml)	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
10/9/2016	2.0	49.50	119.33	242.02	67.73	12.48
10/10/2016	7.5	12.80	75.33	119.11	4.17	<2.00
10/11/2016	3.2	12.26	132.00	200.15	4.73	2.02
10/12/2016	26.9	11.99	185.33	221.02	4.84	<2.00
10/13/2016	21.3	12.65	178.67	240.23	5.10	2.37
10/14/2016	7.9	11.29	173.33	240.99	4.40	2.11
10/15/2016	5.8	11.24	172.00	269.71	4.18	2.08
10/16/2016	2.0	12.17	202.67	227.89	4.67	2.12
10/17/2016	5.2	12.10	172.00	238.64	3.37	2.12
10/18/2016	8.1	12.41	190.67	239.24	4.43	<2.00
10/19/2016	5.1	12.52	202.67	239.22	4.97	2.19
10/20/2016	5.5	13.11	178.67	203.04	4.17	2.10
10/21/2016	11.4	21.48	196.00	222.16	6.31	2.91
10/22/2016	3.9	19.12	162.67	191.92	5.40	2.46
10/23/2016	2.4	12.47	122.00	162.20	5.13	<2.00
10/24/2016	3.2	12.51	111.33	214.11	3.69	2.09
10/25/2016	2.8	12.12	138.00	209.66	10.76	5.04
10/26/2016	10.6	11.77	159.33	236.25	4.33	2.24
10/27/2016	3.4	26.49	163.33	218.34	7.56	3.04
10/28/2016	4.0	23.20	114.67	129.58	5.60	2.39
10/29/2016	2.4	13.01	164.00	214.99	5.40	2.59
10/30/2016	2.4	19.64	148.67	210.07	6.03	4.10
10/31/2016	4.0	13.07	140.00	168.36	3.93	2.13
11/1/2016	2.7	12.03	172.67	197.57	4.67	3.04
11/2/2016	4.0	12.34	182.00	212.22	2.80	<2.00
11/3/2016	4.3	12.78	169.33	242.31	2.40	<2.00
11/4/2016	2.8	11.84	160.00	251.33	3.82	<2.00
11/5/2016	2.0	12.17	171.33	222.60	3.87	<2.00
11/6/2016	2.0	12.17	173.33	231.01	3.78	2.27
11/7/2016	2.0	11.76	134.00	241.20	5.96	2.02
11/8/2016	3.2	11.72	214.00	201.10	4.04	2.17
11/9/2016	4.9	12.32	215.33	230.18	4.93	4.59
11/10/2016	2.4	11.34	173.33	246.44	4.93	4.19
11/11/2016	6.1	11.76	180.67	244.19	4.13	4.10
11/12/2016	2.4	11.66	160.00	238.43	5.07	2.75
11/13/2016	2.0	11.72	207.33	270.58	3.96	3.63
11/14/2016	2.0	11.92	200.67	220.79	4.31	4.57
11/15/2016	2.8	29.21	258.00	235.33	5.24	4.10
11/16/2016	4.5	13.28	156.00	165.36	5.38	3.36
11/17/2016	2.8	12.45	189.33	202.96	5.02	2.93
11/18/2016	2.0	11.90	160.00	195.14	4.13	2.85
11/19/2016	2.8	11.97	164.67	218.12	5.57	2.10
11/20/2016	3.1	12.93	160.67	224.85	3.73	2.82
11/21/2016	2.4	12.26	156.67	211.58	4.18	2.29
11/22/2016	3.4	11.79	173.33	263.58	3.87	3.05
11/23/2016	3.0	12.15	170.00	247.93	5.00	2.90
11/24/2016	2.8	13.05	185.33	236.21	4.13	3.19

Table 2: Bucklin Point TSS, BOD, and Fecal Coliform Data

Bucklin Point 2016 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform Bacteria (MPN/100 ml)	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
11/25/2016	2.8	13.34	170.67	262.42	3.96	3.02
11/26/2016	2.4	11.89	182.00	249.79	4.09	4.41
11/27/2016	2.4	11.82	165.33	281.08	4.53	5.97
11/28/2016	4.3	11.87	198.00	271.22	4.84	3.70
11/29/2016	5.8	34.39	220.67	225.12	9.73	8.79
11/30/2016	7.7	18.64	144.00	138.61	8.93	5.16
12/1/2016	12.4	22.60	119.33	134.36	4.44	3.32
12/2/2016	5.2	12.81	143.33	220.19	4.84	3.36
12/3/2016	3.4	12.59	148.67	250.46	4.76	4.25
12/4/2016	9.9	12.52	169.33	219.52	5.20	2.98
12/5/2016	3.6	13.88	162.00	216.66	5.11	2.76
12/6/2016	5.8	12.76	174.00	216.79	5.33	3.54
12/7/2016	6.5	15.27	185.33	212.48	3.73	3.05
12/8/2016	2.0	13.22	160.00	213.06	3.57	4.28
12/9/2016	10.5	12.29	171.33	249.79	3.87	4.65
12/10/2016	2.7	12.41	160.67	227.36	2.80	3.48
12/11/2016	3.4	12.77	110.00	223.70	3.56	2.67
12/12/2016	4.8	23.33	164.67	190.39	8.87	5.91
12/13/2016	5.2	13.16	144.67	206.85	4.44	3.13
12/14/2016	3.8	12.65	148.00	218.26	4.71	4.26
12/15/2016	3.6	12.52	176.00	212.80	3.96	3.13
12/16/2016	3.9	12.60	166.00	249.59	3.56	2.99
12/17/2016	2.8	14.26	168.67	197.45	2.70	2.92
12/18/2016	3.3	29.49	174.67	210.96	5.67	3.73
12/19/2016	2.8	12.85	140.67	219.10	4.10	3.49
12/20/2016	3.3	13.57	198.00	251.84	4.40	3.87
12/21/2016	3.5	13.34	180.00	259.07	4.22	4.43
12/22/2016	4.0	13.65	161.33	213.11	3.63	3.66
12/23/2016	4.3	13.27	196.67	242.60	3.96	3.17
12/24/2016	4.6	23.08	206.67	242.84	5.73	5.87
12/25/2016	4.3	12.51	124.00	176.33	4.49	4.34
12/26/2016	2.0	13.20	130.67	228.18	3.69	3.15
12/27/2016	2.0	13.68	155.33	228.25	3.73	3.58
12/28/2016	4.3	13.26	150.67	225.31	3.17	3.08
12/29/2016	4.3	33.69	189.33	220.25	4.43	3.08
12/30/2016	4.5	14.51	96.67	128.64	5.33	3.32
12/31/2016	2.8	14.66	100.00	236.04	5.20	3.78

Table 2: Bucklin Point TSS, BOD, and Fecal Coliform Data

Field's Point Bacteria Data 2016
all results are in MPN/100 mL

Date	Day of the Week	Fecal Coliform			Enterococci		
		Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)	Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)
1/1/2016	Friday	8		<2	3.1		
1/2/2016	Saturday	<2		2			
1/3/2016	Sunday	2		2			
1/4/2016	Monday	<2		<2			
1/5/2016	Tuesday	<2		4			5.2
1/6/2016	Wednesday	2	2	2	<1	1.0	4.1
1/7/2016	Thursday	8		13	1.0		1.0
1/8/2016	Friday	4		<2	1.0		
1/9/2016	Saturday	<2		<2			
1/10/2016	Sunday	2		2			
1/11/2016	Monday	2		<2			
1/12/2016	Tuesday	2		<2			30.1
1/13/2016	Wednesday	<2	<2	<2	9.6	7.4	<1
1/14/2016	Thursday	<2		<2	<1		9.6
1/15/2016	Friday	<2		<2	5.2		
1/16/2016	Saturday	4		2			
1/17/2016	Sunday	2		<2			3.0
1/18/2016	Monday	<2		<2	12.7		
1/19/2016	Tuesday	<2		2			
1/20/2016	Wednesday	<2	<2	2			18.5
1/21/2016	Thursday	<2		<2	13.5		5.2
1/22/2016	Friday	<2		<2	7.4		
1/23/2016	Saturday	<2		<2			
1/24/2016	Sunday	<2		<2			
1/25/2016	Monday	<2		<2			
1/26/2016	Tuesday	<2		<2			
1/27/2016	Wednesday	2	<2	2			4.1
1/28/2016	Thursday	2		<2	<1		7.5
1/29/2016	Friday	<2		<2	2.0		
1/30/2016	Saturday	<2		<2			
1/31/2016	Sunday	<2		<2			
2/1/2016	Monday	4		<2			
2/2/2016	Tuesday	<2		<2			6.3
2/3/2016	Wednesday	<2	<2	<2	5.1	4.1	9.7
2/4/2016	Thursday	<2		4	6.3		27.2
2/5/2016	Friday	4		<2	8.5		
2/6/2016	Saturday	<2		<2			
2/7/2016	Sunday	2		<2			
2/8/2016	Monday	<2		<2			
2/9/2016	Tuesday	<2		<2			21.3
2/10/2016	Wednesday	<2	<2	<2	8.5	7.4	9.6
2/11/2016	Thursday	2		<2	8.4		8.5
2/12/2016	Friday	<2		<2	3.0		
2/13/2016	Saturday	<2		<2			
2/14/2016	Sunday	<2		2			
2/15/2016	Monday	<2		<2			
2/16/2016	Tuesday	<2		<2			5.2
2/17/2016	Wednesday	<2	4	2	6.3	5.2	104.3
2/18/2016	Thursday	<2		<2	14.5		18.1
2/19/2016	Friday	2		<2	5.2		

*Sample times are approximate

Table 3: Field's Point Bacteria Data

Field's Point Bacteria Data 2016
all results are in MPN/100 mL

Date	Day of the Week	Fecal Coliform			Enterococci		
		Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)	Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)
2/20/2016	Saturday	2		<2			
2/21/2016	Sunday	<2		<2			
2/22/2016	Monday	2		<2			
2/23/2016	Tuesday	<2		2			71.9
2/24/2016	Wednesday	<2	<2	<2	25.0	19.5	47.4
2/25/2016	Thursday	<2		<2	38.4		13.2
2/26/2016	Friday	2		<2	14.1		
2/27/2016	Saturday	2		<2			
2/28/2016	Sunday	<2		<2			
2/29/2016	Monday	<2		<2			
3/1/2016	Tuesday	<2		<2			62.0
3/2/2016	Wednesday	<2	<2	2	16.6	16.0	4.1
3/3/2016	Thursday	2		<2	13.4		8.6
3/4/2016	Friday	<2		<2	5.2		
3/5/2016	Saturday	<2		<2			
3/6/2016	Sunday	<2		<2			
3/7/2016	Monday	<2		2			
3/8/2016	Tuesday	<2		<2			
3/9/2016	Wednesday	<2	<2	<2			9.8
3/10/2016	Thursday	<2		<2	5.2		5.2
3/11/2016	Friday	<2		<2	4.1		
3/12/2016	Saturday	<2		<2			
3/13/2016	Sunday	<2		<2			
3/14/2016	Monday	<2		2			
3/15/2016	Tuesday	2		<2			13.2
3/16/2016	Wednesday	<2	<2	<2	6.3	6.3	3.1
3/17/2016	Thursday	<2		<2	6.3		10.9
3/18/2016	Friday	<2		<2	2.0		
3/19/2016	Saturday	<2		<2			
3/20/2016	Sunday	<2		<2			
3/21/2016	Monday	<2		2			
3/22/2016	Tuesday	<2		<2			
3/23/2016	Wednesday	2	<2	<2			11.9
3/24/2016	Thursday	<2		<2	6.3		7.3
3/25/2016	Friday	2		<2	4.1		
3/26/2016	Saturday	<2		<2			
3/27/2016	Sunday	<2		2			
3/28/2016	Monday	2		<2			
3/29/2016	Tuesday	<2		<2			6.3
3/30/2016	Wednesday	<2	<2	<2	9.7	10.9	2.0
3/31/2016	Thursday	<2		<2	3.1		4.1
4/1/2016	Friday	<2		<2	7.5		
4/2/2016	Saturday	<2		<2			
4/3/2016	Sunday	2		2			
4/4/2016	Monday	<2		<2			
4/5/2016	Tuesday	<2		<2			
4/6/2016	Wednesday	2	2	<2			14.4
4/7/2016	Thursday	<2		<2	19.5		3.0
4/8/2016	Friday	<2		<2	<1		
4/9/2016	Saturday	<2		2			

*Sample times are approximate

Table 3: Field's Point Bacteria Data

Field's Point Bacteria Data 2016
all results are in MPN/100 mL

Date	Day of the Week	Fecal Coliform			Enterococci		
		Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)	Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)
4/10/2016	Sunday	<2		2			
4/11/2016	Monday	2		<2			
4/12/2016	Tuesday	<2		<2			3.0
4/13/2016	Wednesday	<2	<2	6	6.3	5.2	1.0
4/14/2016	Thursday	2		<2	1.0		6.3
4/15/2016	Friday	<2		<2	6.3		
4/16/2016	Saturday	<2		<2			
4/17/2016	Sunday	2		<2			
4/18/2016	Monday	<2		<2			
4/19/2016	Tuesday	<2		<2			
4/20/2016	Wednesday	2	<2	<2			2.0
4/21/2016	Thursday	2		2	<1		<1
4/22/2016	Friday	<2		2	<1		
4/23/2016	Saturday	2		<2			
4/24/2016	Sunday	<2		<2			
4/25/2016	Monday	<2		<2			
4/26/2016	Tuesday	<2		<2			1.0
4/27/2016	Wednesday	<2	<2	<2	4.1	3.1	1.0
4/28/2016	Thursday	2		<2	1.0		2.0
4/29/2016	Friday	<2		<2	<1		
4/30/2016	Saturday	<2		<2			
5/1/2016	Sunday	<2		<2			
5/2/2016	Monday	<2		<2			
5/3/2016	Tuesday	<2		<2			
5/4/2016	Wednesday	4	4	<2			3.1
5/5/2016	Thursday	<2		<2	<1		2.0
5/6/2016	Friday	<2		<2	<1		
5/7/2016	Saturday	2		<2			
5/8/2016	Sunday	<2		<2			
5/9/2016	Monday	<2		<2			
5/10/2016	Tuesday	<2		<2			5.2
5/11/2016	Wednesday	<2	<2	<2	1.0	2.0	1.0
5/12/2016	Thursday	<2		<2	<1		1.0
5/13/2016	Friday	2		<2	<1		
5/14/2016	Saturday	<2		<2			
5/15/2016	Sunday	<2		<2			
5/16/2016	Monday	<2		2			
5/17/2016	Tuesday	4		2			
5/18/2016	Wednesday	4	2	<2			<1
5/19/2016	Thursday	<2		<2	<1		<1
5/20/2016	Friday	<2		<2	1.0		
5/21/2016	Saturday	<2		<2			
5/22/2016	Sunday	2		<2			
5/23/2016	Monday	2		<2			
5/24/2016	Tuesday	<2		<2			1.0
5/25/2016	Wednesday	<2	<2	2	<1	<1	<1
5/26/2016	Thursday	<2		13	<1		8.5
5/27/2016	Friday	<2		2	1.0		
5/28/2016	Saturday	<2		<2			
5/29/2016	Sunday	<2		2			<1

*Sample times are approximate

Table 3: Field's Point Bacteria Data

Field's Point Bacteria Data 2016
all results are in MPN/100 mL

		Fecal Coliform			Enterococci		
Date	Day of the Week	Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)	Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)
5/30/2016	Monday	4		<2	13.5		
5/31/2016	Tuesday	4		<2			
6/1/2016	Wednesday	2	2	<2			
6/2/2016	Thursday	<2		<2			4.1
6/3/2016	Friday	<2		2	1.0		
6/4/2016	Saturday	2		<2			
6/5/2016	Sunday	2		<2			
6/6/2016	Monday	<2		<2			
6/7/2016	Tuesday	<2		<2			2.0
6/8/2016	Wednesday	<2	2	2	<1	<1	4.1
6/9/2016	Thursday	<2		2	2.0		<1
6/10/2016	Friday	<2		<2	3.1		
6/11/2016	Saturday	<2		<2			
6/12/2016	Sunday	<2		<2			
6/13/2016	Monday	<2		4			
6/14/2016	Tuesday	<2		8			<1
6/15/2016	Wednesday	2	2	<2	3.0	<1	
6/16/2016	Thursday	4		8			1.0
6/17/2016	Friday	<2		<2	<1		
6/18/2016	Saturday	<2		2			
6/19/2016	Sunday	2		7			
6/20/2016	Monday	2		8			
6/21/2016	Tuesday	110		8			3.1
6/22/2016	Wednesday	4	8	4	1.0	3.1	2.0
6/23/2016	Thursday	7		4	<1		12.2
6/24/2016	Friday	2		<2	<1		
6/25/2016	Saturday	<2		2			
6/26/2016	Sunday	2		2			
6/27/2016	Monday	8		<2			
6/28/2016	Tuesday	<2		2			
6/29/2016	Wednesday	13	50	2			8.6
6/30/2016	Thursday	<2		<2	2.0		2.0
7/1/2016	Friday	2		2	<1		
7/2/2016	Saturday	<2		2			
7/3/2016	Sunday	<2		8			1.0
7/4/2016	Monday	<2		<2	<1		
7/5/2016	Tuesday	4		2			
7/6/2016	Wednesday	<2	4	2			1.0
7/7/2016	Thursday	2		4	<1		<1
7/8/2016	Friday	<2		<2	1.0		
7/9/2016	Saturday	<2		<2			
7/10/2016	Sunday	<2		4			
7/11/2016	Monday	2		4			
7/12/2016	Tuesday	2		<2			
7/13/2016	Wednesday	2	<2	<2			4.1
7/14/2016	Thursday	<2		<2	<1		7.4
7/15/2016	Friday	<2		2	10.8		
7/16/2016	Saturday	8		2			
7/17/2016	Sunday	<2		130			
7/18/2016	Monday	17		<2			

*Sample times are approximate

Table 3: Field's Point Bacteria Data

Field's Point Bacteria Data 2016
all results are in MPN/100 mL

		Fecal Coliform			Enterococci		
Date	Day of the Week	Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)	Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)
7/19/2016	Tuesday	4		<2			7.5
7/20/2016	Wednesday	<2	<2	2	5.2	7.4	1.0
7/21/2016	Thursday	<2		<2	<1		1.0
7/22/2016	Friday	2		2	<1		
7/23/2016	Saturday	2		2			
7/24/2016	Sunday	2		<2			
7/25/2016	Monday	<2		2			
7/26/2016	Tuesday	4		<2			
7/27/2016	Wednesday	2	8	2			2.0
7/28/2016	Thursday	4		2	2.0		3.1
7/29/2016	Friday	2		<2	<1		
7/30/2016	Saturday	2		2			
7/31/2016	Sunday	<2		2			
8/1/2016	Monday	<2		2			
8/2/2016	Tuesday	17		4			1.0
8/3/2016	Wednesday	8	8	<2	20.3	21.3	29.9
8/4/2016	Thursday	2		<2	18.5		27.2
8/5/2016	Friday	4		2	1.0		
8/6/2016	Saturday	<2		<2			
8/7/2016	Sunday	8000		2			6.3
8/8/2016	Monday	<2		<2	<1		
8/9/2016	Tuesday	4		4			
8/10/2016	Wednesday	8	4	4			
8/11/2016	Thursday	11		<2			1.0
8/12/2016	Friday	<2		2	5.2		
8/13/2016	Saturday	4		8			
8/14/2016	Sunday	7		4			
8/15/2016	Monday	2		4			
8/16/2016	Tuesday	<2		2			1.0
8/17/2016	Wednesday	<2	8	4	<1	2.0	1.0
8/18/2016	Thursday	2		<2	<1		8.6
8/19/2016	Friday	<2		4	6.3		
8/20/2016	Saturday	6		<2			
8/21/2016	Sunday	<2		2			
8/22/2016	Monday	23		4			
8/23/2016	Tuesday	13		<2			
8/24/2016	Wednesday	4	4	<2			1.0
8/25/2016	Thursday	2		2	<1		<1
8/26/2016	Friday	11		<2	3.0		
8/27/2016	Saturday	2		4			
8/28/2016	Sunday	4		<2			
8/29/2016	Monday	2		<2			
8/30/2016	Tuesday	2		14			1.0
8/31/2016	Wednesday	23	4	2	2.0	1.0	
9/1/2016	Thursday	<2		2			1.0
9/2/2016	Friday	19		<2	3.1		
9/3/2016	Saturday	<2		<2			
9/4/2016	Sunday	7		2			4.1
9/5/2016	Monday	<2		2	1.0		
9/6/2016	Tuesday	2		2			

*Sample times are approximate

Table 3: Field's Point Bacteria Data

Field's Point Bacteria Data 2016
all results are in MPN/100 mL

Date	Day of the Week	Fecal Coliform			Enterococci		
		Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)	Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)
9/7/2016	Wednesday	<2	<2	<2			
9/8/2016	Thursday	<2		2			<1
9/9/2016	Friday	<2		<2	<1		
9/10/2016	Saturday	<2		2			
9/11/2016	Sunday	<2		2			
9/12/2016	Monday	4		<2			
9/13/2016	Tuesday	<2		<2			<1
9/14/2016	Wednesday	<2	<2	<2	1.0	<1	<1
9/15/2016	Thursday	<2		<2	<1		<1
9/16/2016	Friday	<2		2	<1		
9/17/2016	Saturday	2		<2			
9/18/2016	Sunday	<2		<2			
9/19/2016	Monday	4		<2			
9/20/2016	Tuesday	2		<2			
9/21/2016	Wednesday	<2	2	<2			<1
9/22/2016	Thursday	<2		2	<1		1.0
9/23/2016	Friday	2		<2	<1		
9/24/2016	Saturday	<2		<2			
9/25/2016	Sunday	<2		<2			
9/26/2016	Monday	<2		<2			
9/27/2016	Tuesday	80		<2			1.0
9/28/2016	Wednesday	2	4	<2	1.0	1.0	1.0
9/29/2016	Thursday	2		2	1.0		<1
9/30/2016	Friday	8		<2	<1		
10/1/2016	Saturday	<2		2			
10/2/2016	Sunday	<2		2			
10/3/2016	Monday	<2		<2			
10/4/2016	Tuesday	7		<2			
10/5/2016	Wednesday	<2	<2	<2			2.0
10/6/2016	Thursday	<2		<2	<1		2.0
10/7/2016	Friday	<2		<2	1.0		
10/8/2016	Saturday	<2		<2			
10/9/2016	Sunday	<2		4			2.0
10/10/2016	Monday	<2		4	<1		
10/11/2016	Tuesday	4		4			
10/12/2016	Wednesday	<2	<2	4			3.1
10/13/2016	Thursday	8		2	1.0		1.0
10/14/2016	Friday	13		<2	<1		
10/15/2016	Saturday	<2		<2			
10/16/2016	Sunday	<2		4			
10/17/2016	Monday	<2		2			
10/18/2016	Tuesday	2		2			
10/19/2016	Wednesday	2	2	<2			<1
10/20/2016	Thursday	2		4	1.0		<1
10/21/2016	Friday	<2		2	<1		
10/22/2016	Saturday	2		<2			
10/23/2016	Sunday	<2		4			
10/24/2016	Monday	2		<2			
10/25/2016	Tuesday	4		4			1.0
10/26/2016	Wednesday	<2	2	4	<1	<1	2.0

*Sample times are approximate

Table 3: Field's Point Bacteria Data

Field's Point Bacteria Data 2016
all results are in MPN/100 mL

Date	Day of the Week	Fecal Coliform			Enterococci		
		Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)	Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)
10/27/2016	Thursday	<2		2	2.0		6.3
10/28/2016	Friday	<2		4	3.1		
10/29/2016	Saturday	<2		<2			
10/30/2016	Sunday	<2		<2			
10/31/2016	Monday	2		8			
11/1/2016	Tuesday	4		<2			
11/2/2016	Wednesday	<2	<2	<2			3.1
11/3/2016	Thursday	2		<2	4.1		1.0
11/4/2016	Friday	<2		<2	1.0		
11/5/2016	Saturday	2		<2			
11/6/2016	Sunday	2		<2			
11/7/2016	Monday	2		<2			3.0
11/8/2016	Tuesday	2		2	5.2		
11/9/2016	Wednesday	<2	2	<2			5.2
11/10/2016	Thursday	<2		4	<1		<1
11/11/2016	Friday	2		<2	<1		
11/12/2016	Saturday	<2		2			
11/13/2016	Sunday	4		<2			
11/14/2016	Monday	<2		<2			
11/15/2016	Tuesday	<2		<2			
11/16/2016	Wednesday	4	<2	2			5.2
11/17/2016	Thursday	<2		8	1.0		1.0
11/18/2016	Friday	4		<2	2.0		
11/19/2016	Saturday	<2		<2			
11/20/2016	Sunday	<2		<2			
11/21/2016	Monday	2		2			
11/22/2016	Tuesday	8		<2			1.0
11/23/2016	Wednesday	<2	<2	2	<1	<1	1.0
11/24/2016	Thursday	2		<2	1.0		<1
11/25/2016	Friday	2		<2	1.0		
11/26/2016	Saturday	<2		<2			
11/27/2016	Sunday	<2		<2			
11/28/2016	Monday	2		4			
11/29/2016	Tuesday	2		<2			
11/30/2016	Wednesday	<2	<2	<2			9.6
12/1/2016	Thursday	<2		<2	4.1		4.1
12/2/2016	Friday	<2		<2	5.2		
12/3/2016	Saturday	<2		<2			
12/4/2016	Sunday	<2		<2			
12/5/2016	Monday	<2		<2			
12/6/2016	Tuesday	<2		<2			1.0
12/7/2016	Wednesday	<2	<2	<2	5.2	2.0	<1
12/8/2016	Thursday	<2		<2	1.0		<1
12/9/2016	Friday	<2		<2	1.0		
12/10/2016	Saturday	<2		<2			
12/11/2016	Sunday	<2		<2			
12/12/2016	Monday	<2		<2			
12/13/2016	Tuesday	<2		<2			
12/14/2016	Wednesday	<2	<2	<2			2.0
12/15/2016	Thursday	<2		<2	4.1		1.0

*Sample times are approximate

Table 3: Field's Point Bacteria Data

Field's Point Bacteria Data 2016
all results are in MPN/100 mL

Date	Day of the Week	Fecal Coliform			Enterococci		
		Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)	Grab 1 (08:00*)	Grab 1 Duplicate (08:00*)	Grab 2 (04:00*)
12/16/2016	Friday	2		<2	<1		
12/17/2016	Saturday	<2		<2			
12/18/2016	Sunday	8		2			
12/19/2016	Monday	2		<2			
12/20/2016	Tuesday	<2		<2			1.0
12/21/2016	Wednesday	2	<2	<2	3.0	1.0	1.0
12/22/2016	Thursday	<2		<2	<1		<1
12/23/2016	Friday	<2		<2	3.0		
12/24/2016	Saturday	2		<2			
12/25/2016	Sunday	<2		<2			4.1
12/26/2016	Monday	<2		<2	4.1		
12/27/2016	Tuesday	<2		<2			
12/28/2016	Wednesday	2	<2	<2			2.0
12/29/2016	Thursday	<2		<2	4.1		5.1
12/30/2016	Friday	<2		<2	3.1		
12/31/2016	Saturday	<2		<2			

*Sample times are approximate

Table 3: Field's Point Bacteria Data

Bucklin Point Bacteria Data 2016
all results are in MPN/100 mL

		Grab 1		Grab 2		Grab 3		Grab 4		Grab 5		Grab 6		Grab 7					
Date	**Day of the Week**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Duplicate**	**Associated Grab**	**Entero-cocci Duplicate**	**Associated Grab**
01/01/16	Friday	<2.0	4.1	2.0	5.2	<2.0	4.1	2.0	2.0										
01/02/16	Saturday	2.0		2.0		<2.0		2.0											
01/03/16	Sunday	2.0		2.0		<2.0		2.0											
01/04/16	Monday	8.0		4.0		2.0		2.0											
01/05/16	Tuesday	2.0		8.0		8.0		2.0											
01/06/16	Wednesday	4.0	6.3	4.0	1.0	4.0	3.1	2.0	6.3							2.0	Grab 4	9.8	Grab 4
01/07/16	Thursday	8.0	3.1	4.0	3.1	<2.0	4.1	4.0	2.0										
01/08/16	Friday	4.0	2.0	4.0	3.1	2.0	2.0	17.0	4.1										
01/09/16	Saturday	<2.0		2.0		<2.0		4.0											
01/10/16	Sunday	<2.0		2.0		<2.0		2.0											
01/11/16	Monday	<2.0		2.0		<2.0		2.0											
01/12/16	Tuesday	2.0		2.0		<2.0		4.0											
01/13/16	Wednesday	<2.0	3.1	8.0	6.3	2.0	2.0	<2.0	1.0							4.0	Grab 4	2.0	Grab 4
01/14/16	Thursday	13.0	4.1	2.0	4.1	<2.0	<1.0	8.0	<1.0										
01/15/16	Friday	<2.0	4.1	4.0	<1.0	13.0	<1.0	2.0	5.2										
01/16/16	Saturday	8.0		7.0		8.0		4.0											
01/17/16	Sunday	8.0		<2.0		4.0		2.0											
01/18/16	Monday	<2.0	4.1	2.0	4.1	2.0	1.0	2.0	5.1										
01/19/16	Tuesday	4.0		<2.0		<2.0		4.0											
01/20/16	Wednesday	<2.0		<2.0		<2.0		17.0								2.0	Grab 4		
01/21/16	Thursday	4.0	3.0	2.0	2.0	<2.0	2.0	<2.0	7.5										
01/22/16	Friday	2.0	<1.0	<2.0	2.0	<2.0	<1.0	<2.0	<1.0										
01/23/16	Saturday	4.0		2.0		4.0		2.0											
01/24/16	Sunday	<2.0		4.0		7.0		<2.0											
01/25/16	Monday	2.0		<2.0		<2.0		2.0											
01/26/16	Tuesday	2.0		2.0		2.0		2.0											
01/27/16	Wednesday	4.0		2.0		4.0		2.0								4.0	Grab 4		
01/28/16	Thursday	7.0	9.7	<2.0	3.0	<2.0	8.6	<2.0	4.1										
01/29/16	Friday	2.0	8.5	4.0	2.0	2.0	6.3	2.0	4.1										
01/30/16	Saturday	8.0		2.0		2.0		<2.0											
01/31/16	Sunday	<2.0		<2.0		<2.0		<2.0											
02/01/16	Monday	<2.0		2.0		2.0		<2.0											
02/02/16	Tuesday	7.0		2.0		2.0		<2.0											
02/03/16	Wednesday	<2.0	3.1	4.0	15.8	2.0	<1.0	2.0	2.0							2.0	Grab 4	1.0	Grab 4
02/04/16	Thursday	4.0	12.1	2.0	3.1	2.0	3.1	2.0	12.1										
02/05/16	Friday	2.0	4.1	17.0	25.9	8.0	8.5	11.0	16.0										
02/06/16	Saturday	2.0		4.0		4.0		4.0											
02/07/16	Sunday	4.0		2.0		<2.0		2.0											
02/08/16	Monday	2.0		4.0		<2.0		4.0											
02/09/16	Tuesday	2.0		2.0		8.0		4.0											
02/10/16	Wednesday	<2.0	11.0	2.0	5.2	<2.0	7.3	4.0	4.1							11.0	Grab 4	7.3	Grab 4
02/11/16	Thursday	2.0	3.1	<2.0	2.0	2.0	1.0	4.0	5.2										
02/12/16	Friday	2.0	2.0	4.0	2.0	2.0	6.3	2.0	1.0										
02/13/16	Saturday	11.0		2.0		<2.0		4.0											
02/14/16	Sunday	2.0		4.0		2.0		2.0											
02/15/16	Monday	4.0		4.0		4.0		<2.0											

Table 4: Bucklin Point Bacteria Data

Bucklin Point Bacteria Data 2016
all results are in MPN/100 mL

		Grab 1		Grab 2		Grab 3		Grab 4		Grab 5		Grab 6		Grab 7					
Date	**Day of the Week**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Duplicate**	**Associated Grab**	**Entero-cocci Duplicate**	**Associated Grab**
02/16/16	Tuesday	2.0		<2.0		<2.0		4.0											
02/17/16	Wednesday	4.0	7.3	8.0	6.3	2.0	6.3	2.0	3.1							2.0	Grab 4	2.0	Grab 4
02/18/16	Thursday	4.0	5.2	2.0	2.0	<2.0	7.5	2.0	5.2										
02/19/16	Friday	13.0	2.0	2.0	5.2	4.0	6.3	4.0	5.2										
02/20/16	Saturday	13.0		30.0		17.0		4.0											
02/21/16	Sunday	60.0		17.0		13.0		30.0											
02/22/16	Monday	13.0		13.0		11.0		27.0											
02/23/16	Tuesday	7.0		11.0		8.0		23.0											
02/24/16	Wednesday	2.0	4.1	8.0	4.1	8.0	10.9	13.0	5.2							4.0	Grab 4	9.6	Grab 4
02/25/16	Thursday	30.0	54.6	7.0	11.0	13.0	6.3	<2.0	4.1										
02/26/16	Friday	17.0	5.1	8.0	8.4	8.0	8.6	4.0	10.8										
02/27/16	Saturday	<2.0		2.0		<2.0		4.0											
02/28/16	Sunday	<2.0		<2.0		<2.0		<2.0											
02/29/16	Monday	4.0		4.0		<2.0		<2.0											
03/01/16	Tuesday	2.0		4.0		<2.0		<2.0											
03/02/16	Wednesday	8.0	6.3	11.0	15.8	2.0	9.7	<2.0	5.2							<2.0	Grab 4	4.1	Grab 4
03/03/16	Thursday	2.0	11.6	4.0	5.2	4.0	5.2	2.0	2.0										
03/04/16	Friday	2.0	2.0	<2.0	5.2	8.0	1.0	2.0	2.0										
03/05/16	Saturday	<2.0		2.0		2.0		<2.0											
03/06/16	Sunday	<2.0		<2.0		<2.0		<2.0											
03/07/16	Monday	2.0		4.0		<2.0		<2.0											
03/08/16	Tuesday	2.0		<2.0		2.0		2.0											
03/09/16	Wednesday	2.0		<2.0		2.0		<2.0								2.0	Grab 4		
03/10/16	Thursday	2.0	4.1	<2.0	5.2	4.0	1.0	2.0	<1.0										
03/11/16	Friday	11.0	4.1	<2.0	4.1	4.0	2.0	8.0	1.0										
03/12/16	Saturday	2.0		<2.0		2.0		<2.0											
03/13/16	Sunday	8.0		4.0		4.0		<2.0											
03/14/16	Monday	<2.0		<2.0		2.0		2.0											
03/15/16	Tuesday	17.0		9.0		2.0		8.0											
03/16/16	Wednesday	<2.0	4.1	<2.0	1.0	2.0	2.0	<2.0	4.1							<2.0	Grab 4	3.1	Grab 4
03/17/16	Thursday	4.0	3.1	8.0	3.1	<2.0	5.1	8.0	7.4										
03/18/16	Friday	2.0	5.2	4.0	6.3	<2.0	2.0	<2.0	4.1										
03/19/16	Saturday	<2.0		2.0		<2.0		2.0											
03/20/16	Sunday	<2.0		23.0		4.0		4.0											
03/21/16	Monday	2.0		4.0		4.0		4.0											
03/22/16	Tuesday	2.0		2.0		8.0		2.0											
03/23/16	Wednesday	4.0		2.0		<2.0		2.0								2.0	Grab 4		
03/24/16	Thursday	<2.0	3.1	<2.0	8.5	<2.0	2.0	8.0	13.0										
03/25/16	Friday	2.0	7.4	2.0	5.2	2.0	2.0	2.0	4.1										
03/26/16	Saturday	4.0		2.0		2.0		4.0											
03/27/16	Sunday	170.0		170.0		500.0		170.0											
03/28/16	Monday	70.0		110.0		17.0		<2.0											
03/29/16	Tuesday	170.0		50.0		50.0		13.0											
03/30/16	Wednesday	2.0	3.1	<2.0	4.1	4.0	9.8	2.0	3.1							2.0	Grab 4	4.1	Grab 4
03/31/16	Thursday	<2.0	6.3	2.0	10.8	2.0	6.2	<2.0	5.2										
04/01/16	Friday	27.0		13.0	11.0	8.0	9.6	4.0	9.7	11.0	11.0								

Table 4: Bucklin Point Bacteria Data

Bucklin Point Bacteria Data 2016
all results are in MPN/100 mL

		Grab 1		Grab 2		Grab 3		Grab 4		Grab 5		Grab 6		Grab 7					
Date	**Day of the Week**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Duplicate**	**Associated Grab**	**Entero-cocci Duplicate**	**Associated Grab**
04/02/16	Saturday	2.0		4.0		2.0		2.0											
04/03/16	Sunday	2.0		2.0		2.0		4.0		170.0									
04/04/16	Monday	500.0		80.0		50.0		130.0											
04/05/16	Tuesday	2.0		<2.0		<2.0		4.0											
04/06/16	Wednesday	4.0		<2.0		2.0		4.0								4.0	Grab 4		
04/07/16	Thursday	2.0	4.1	4.0	8.6	4.0	5.1	<2.0	3.1										
04/08/16	Friday	<2.0	2.0	4.0	3.1	<2.0	2.0	<2.0	2.0										
04/09/16	Saturday	11.0		2.0		2.0		4.0											
04/10/16	Sunday	2.0		4.0		<2.0		8.0											
04/11/16	Monday	<2.0		<2.0		<2.0		<2.0											
04/12/16	Tuesday	2.0		<2.0		2.0		<2.0											
04/13/16	Wednesday	2.0	3.0	2.0	3.0	2.0	<1.0	2.0	<1.0							2.0	Grab 4	<1.0	Grab 4
04/14/16	Thursday	4.0	3.0	2.0	<1.0	2.0	1.0	2.0	1.0	<2.0	<1.0								
04/15/16	Friday	2.0	5.2	4.0	3.1	<2.0	2.0	2.0	1.0										
04/16/16	Saturday	<2.0		2.0		<2.0		2.0											
04/17/16	Sunday	2.0		2.0		<2.0		2.0											
04/18/16	Monday	<2.0		2.0		<2.0		2.0											
04/19/16	Tuesday	<2.0		2.0		<2.0		4.0											
04/20/16	Wednesday	2.0		4.0		2.0		2.0								2.0	Grab 4		
04/21/16	Thursday	2.0	<1.0	<2.0	<1.0	4.0	<1.0	2.0	1.0										
04/22/16	Friday	<2.0	3.1	<2.0	1.0	2.0	3.1	2.0	3.1										
04/23/16	Saturday	13.0		2.0		8.0		2.0											
04/24/16	Sunday	<2.0		7.0		2.0		<2.0											
04/25/16	Monday	2.0		2.0		4.0		2.0											
04/26/16	Tuesday	4.0		<2.0		<2.0		4.0											
04/27/16	Wednesday	17.0	8.5	2.0	2.0	8.0	8.4	2.0	2.0							<2.0	Grab 4	3.1	Grab 4
04/28/16	Thursday	<2.0	3.1	<2.0	2.0	<2.0	1.0	2.0	1.0										
04/29/16	Friday	<2.0	1.0	2.0	3.1	2.0	3.1	13.0	4.1										
04/30/16	Saturday	<2.0		2.0		<2.0		2.0											
05/01/16	Sunday	2.0		<2.0		4.0		2.0											
05/02/16	Monday	<2.0		4.0		2.0		2.0											
05/03/16	Tuesday	<2.0		2.0		<2.0		8.0											
05/04/16	Wednesday	2.0		<2.0		2.0		7.0								<2.0	Grab 4		
05/05/16	Thursday	2.0	3.1	<2.0	2.0	<2.0	2.0	<2.0	<1.0										
05/06/16	Friday	<2.0	2.0	2.0	4.1	2.0	3.1	<2.0	<1.0										
05/07/16	Saturday	<2.0		<2.0		4.0		<2.0											
05/08/16	Sunday	<2.0		4.0		<2.0		2.0											
05/09/16	Monday	2.0		<2.0		2.0		<2.0											
05/10/16	Tuesday	<2.0		<2.0		<2.0		<2.0											
05/11/16	Wednesday	4.0	1.0	2.0	3.1	<2.0	2.0	<2.0	2.0							<2.0	Grab 4	3.1	Grab 4
05/12/16	Thursday	2.0	4.1	4.0	4.1	<2.0	1.0	2.0	2.0										
05/13/16	Friday	2.0	1.0	<2.0	3.0	<2.0	<1.0	<2.0	7.5										
05/14/16	Saturday	<2.0		8.0		8.0		<2.0											
05/15/16	Sunday	2.0		<2.0		<2.0		<2.0											
05/16/16	Monday	<2.0		<2.0		2.0		<2.0											
05/17/16	Tuesday	<2.0		2.0		<2.0		<2.0											

Table 4: Bucklin Point Bacteria Data

Bucklin Point Bacteria Data 2016
all results are in MPN/100 mL

		Grab 1		Grab 2		Grab 3		Grab 4		Grab 5		Grab 6		Grab 7					
Date	**Day of the Week**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Duplicate**	**Associated Grab**	**Entero-cocci Duplicate**	**Associated Grab**
05/18/16	Wednesday	<2.0		<2.0		<2.0		<2.0								<2.0	Grab 4		
05/19/16	Thursday	2.0	1.0	2.0	2.0	<2.0	2.0	<2.0	<1.0										
05/20/16	Friday	<2.0	4.1	<2.0	1.0	<2.0	1.0	<2.0	2.0										
05/21/16	Saturday	<2.0		2.0		<2.0		2.0											
05/22/16	Sunday	2.0		2.0		2.0		<2.0											
05/23/16	Monday	<2.0		<2.0		<2.0		<2.0											
05/24/16	Tuesday	2.0		4.0		<2.0		2.0											
05/25/16	Wednesday	2.0	1.0	2.0	3.1	<2.0	2.0	<2.0	2.0							<2.0	Grab 4	2.0	Grab 4
05/26/16	Thursday	<2.0	2.0	2.0	3.0	4.0	<1.0	<2.0	1.0										
05/27/16	Friday	<2.0	2.0	2.0	1.0	<2.0	1.0	<2.0	1.0										
05/28/16	Saturday	<2.0		<2.0		2.0		2.0											
05/29/16	Sunday	<2.0		<2.0		2.0		<2.0											
05/30/16	Monday	<2.0	<1.0	<2.0	1.0	2.0	1.0	4.0	5.2										
05/31/16	Tuesday	4.0		2.0		<2.0		4.0											
06/01/16	Wednesday	<2.0		2.0		<2.0		<2.0								<2.0	Grab 4		
06/02/16	Thursday	<2.0		80.0		<2.0		<2.0											
06/03/16	Friday	2.0	2.0	<2.0	2.0	<2.0	<1.0	2.0	<1.0										
06/04/16	Saturday	<2.0		2.0		<2.0		2.0											
06/05/16	Sunday	<2.0		2.0		<2.0		<2.0											
06/06/16	Monday	<2.0		2.0		2.0		<2.0											
06/07/16	Tuesday	<2.0		2.0		<2.0		11.0											
06/08/16	Wednesday	<2.0	<1.0	2.0	1.0	2.0	2.0	2.0	1.0							2.0	Grab 4	1.0	Grab 4
06/09/16	Thursday	4.0	2.0	<2.0	5.1	2.0	3.0	4.0	4.1										
06/10/16	Friday	23.0	7.5	<2.0	6.3	<2.0	1.0	<2.0	3.0										
06/11/16	Saturday	800.0		80.0		80.0		230.0											
06/12/16	Sunday	230.0		300.0		300.0		230.0											
06/13/16	Monday	500.0		300.0		500.0		110.0											
06/14/16	Tuesday	230.0		23.0		2.0		11.0											
06/15/16	Wednesday	2.0	3.1	4.0	3.0	2.0	3.1	4.0	4.1							2.0	Grab 4	1.0	Grab 4
06/16/16	Thursday	<2.0		4.0		23.0		800.0											
06/17/16	Friday	1,700.0	135.4	500.0	82.0	230.0	35.9	1,700.0	203.5										
06/18/16	Saturday	2.0		4.0		4.0		4.0											
06/19/16	Sunday	13.0		23.0		4.0		23.0		4.0		80.0		11.0					
06/20/16	Monday	8.0		4.0		4.0		17.0											
06/21/16	Tuesday	4.0		4.0		23.0		1,400.0		8.0									
06/22/16	Wednesday	2.0	3.1	<2.0	1.0	<2.0	<1.0	8.0	1.0							2.0	Grab 4	<1.0	Grab 4
06/23/16	Thursday	2.0	2.0	2.0	4.1	4.0	2.0	17.0	4.1										
06/24/16	Friday	8.0	1.0	<2.0	<1.0	<2.0	<1.0	2.0	2.0										
06/25/16	Saturday	4.0		8.0		4.0		2.0											
06/26/16	Sunday	4.0		2.0		<2.0		2.0											
06/27/16	Monday	<2.0		<2.0		2.0		23.0											
06/28/16	Tuesday	4.0		<2.0		<2.0		11.0											
06/29/16	Wednesday	7.0		17.0		23.0		80.0								50.0	Grab 4		
06/30/16	Thursday	2.0	3.0	11.0	5.0	4.0	6.0	4.0	13.9										
07/01/16	Friday	8.0	2.0	7.0	1.0	<2.0	1.0	4.0	1.0										
07/02/16	Saturday	4.0		4.0		8.0		2.0											

Table 4: Bucklin Point Bacteria Data

Bucklin Point Bacteria Data 2016
all results are in MPN/100 mL

		Grab 1		Grab 2		Grab 3		Grab 4		Grab 5		Grab 6		Grab 7					
Date	**Day of the Week**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Duplicate**	**Associated Grab**	**Entero-cocci Duplicate**	**Associated Grab**
07/03/16	Sunday	2.0		2.0		9.0		<2.0											
07/04/16	Monday	7.0	5.2	2.0	3.1	<2.0	4.1	<2.0	6.1										
07/05/16	Tuesday	<2.0		23.0		30.0		23.0											
07/06/16	Wednesday	17.0		4.0		8.0		4.0								<2.0	Grab 4		
07/07/16	Thursday	23.0	7.2	80.0	5.2	11.0	5.1	30.0	1.0										
07/08/16	Friday	13.0	2.0	23.0	3.1	8.0	5.2	8.0	<1.0										
07/09/16	Saturday	8.0		2.0		4.0		<2.0											
07/10/16	Sunday	4.0		2.0		4.0		2.0											
07/11/16	Monday	2.0		2.0		2.0		2.0											
07/12/16	Tuesday	8.0		23.0		8.0		7.0											
07/13/16	Wednesday	<2.0		4.0		2.0		4.0								2.0	Grab 4		
07/14/16	Thursday	2.0	<1.0	110.0	34.5	7.0	3.1	2.0	2.0										
07/15/16	Friday	30.0	5.2	7.0	2.0	11.0	3.1	14.0	3.1										
07/16/16	Saturday	4.0		13.0		8.0		4.0											
07/17/16	Sunday	22.0		13.0		<2.0		7.0											
07/18/16	Monday	4.0		2.0		2.0		7.0											
07/19/16	Tuesday	21.0		2.0		4.0		2.0											
07/20/16	Wednesday	4.0	2.0	50.0	5.2	17.0	7.5	23.0	2.0							<2.0	Grab 4	1.0	Grab 4
07/21/16	Thursday	23.0	2.0	13.0	4.1	9.0	<1.0	22.0	2.0										
07/22/16	Friday	8.0	2.0	17.0	3.1	17.0	6.3	7.0	1.0										
07/23/16	Saturday	<2.0		4.0		7.0		2.0											
07/24/16	Sunday	8.0		2.0		4.0		4.0											
07/25/16	Monday	2.0		4.0		2.0		<2.0											
07/26/16	Tuesday	<2.0		<2.0		2.0		14.0											
07/27/16	Wednesday	4.0		14.0		8.0		8.0								11.0	Grab 4		
07/28/16	Thursday	7.0	3.0	17.0	5.2	4.0	4.1	26.0	9.8										
07/29/16	Friday	7.0	2.0	4.0	3.0	21.0	1.0	2.0	1.0										
07/30/16	Saturday	7.0		11.0		13.0		8.0											
07/31/16	Sunday	11.0		17.0		50.0		4.0											
08/01/16	Monday	23.0		23.0		8.0		50.0											
08/02/16	Tuesday	50.0		40.0		17.0		80.0											
08/03/16	Wednesday	30.0	2.0	50.0	21.6	90.0	12.2	170.0	13.4							170.0	Grab 4	4.1	Grab 4
08/04/16	Thursday	30.0	4.1	22.0	2.0	14.0	3.1	50.0	6.3										
08/05/16	Friday	11.0	8.4	11.0	4.1	30.0	7.4	50.0	2.0										
08/06/16	Saturday	4.0		14.0		4.0		7.0											
08/07/16	Sunday	7.0		11.0		17.0		13.0											
08/08/16	Monday	4.0	1.0	<2.0	<1.0	4.0	1.0	11.0	1.0										
08/09/16	Tuesday	4.0		8.0		9.0		17.0											
08/10/16	Wednesday	8.0		8.0		8.0		2.0								2.0	Grab 4		
08/11/16	Thursday	23.0		4.0		4.0		8.0											
08/12/16	Friday	2.0	<1.0	4.0	2.0	2.0	<1.0	70.0	12.2										
08/13/16	Saturday	22.0		11.0		230.0		27.0											
08/14/16	Sunday	8.0		4.0		70.0		8.0											
08/15/16	Monday	2.0		<2.0		2.0		7.0											
08/16/16	Tuesday	30.0		4.0		30.0		9.0											
08/17/16	Wednesday	4.0	2.0	4.0	<1.0	8.0	1.0	<2.0	2.0							4.0	Grab 4	2.0	Grab 4

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Bucklin Point Bacteria Data 2016
all results are in MPN/100 mL

		Grab 1		Grab 2		Grab 3		Grab 4		Grab 5		Grab 6		Grab 7					
Date	**Day of the Week**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Duplicate**	**Associated Grab**	**Entero-cocci Duplicate**	**Associated Grab**
08/18/16	Thursday	13.0	2.0	<2.0	2.0	11.0	8.4	8.0	8.4										
08/19/16	Friday	<2.0	2.0	<2.0	<1.0	13.0	2.0	2.0	3.0										
08/20/16	Saturday	2.0		4.0		11.0		4.0											
08/21/16	Sunday	13.0		2.0		13.0		2.0											
08/22/16	Monday	14.0		8.0		11.0		30.0											
08/23/16	Tuesday	13.0		2.0		17.0		4.0											
08/24/16	Wednesday	4.0		8.0		8.0		8.0								2.0	Grab 4		
08/25/16	Thursday	4.0	1.0	8.0	8.5	<2.0	7.3	4.0	4.1										
08/26/16	Friday	11.0	10.9	4.0	1.0	7.0	10.8	17.0	15.6										
08/27/16	Saturday	4.0		8.0		2.0		7.0											
08/28/16	Sunday	4.0		<2.0		<2.0		30.0											
08/29/16	Monday	7.0		17.0		13.0		30.0											
08/30/16	Tuesday	4.0		<2.0		4.0		30.0											
08/31/16	Wednesday	14.0	21.8	2.0	23.1	8.0	16.0	2.0	33.6							13.0	Grab 4	18.7	Grab 4
09/01/16	Thursday	8.0		2.0		8.0		2.0											
09/02/16	Friday	8.0	3.1	8.0	<1.0	<2.0	<1.0	13.0	2.0										
09/03/16	Saturday	14.0		13.0		8.0		11.0											
09/04/16	Sunday	<2.0		11.0		<2.0		<2.0											
09/05/16	Monday	4.0	<1.0	8.0	1.0	4.0	<1.0	<2.0	3.1										
09/06/16	Tuesday	13.0		7.0		2.0		<2.0											
09/07/16	Wednesday	4.0		2.0		2.0		2.0								4.0	Grab 4		
09/08/16	Thursday	12.0		8.0		<2.0		8.0											
09/09/16	Friday	4.0	5.1	50.0	5.1	11.0	5.1	4.0	4.1										
09/10/16	Saturday	80.0		30.0		30.0		30.0											
09/11/16	Sunday	23.0		2.0		30.0		11.0											
09/12/16	Monday	27.0		17.0		13.0		4.0											
09/13/16	Tuesday	8.0		2.0		23.0		30.0											
09/14/16	Wednesday	4.0	1.0	7.0	11.0	17.0	16.1	23.0	7.5							4.0	Grab 4	13.5	Grab 4
09/15/16	Thursday	4.0	2.0	4.0	2.0	4.0	3.0	2.0	3.1										
09/16/16	Friday	8.0	1.0	13.0	8.5	50.0	7.5	2.0	3.0										
09/17/16	Saturday	23.0		2.0		2.0		2.0											
09/18/16	Sunday	<2.0		2.0		<2.0		2.0											
09/19/16	Monday	2.0		2.0		13.0		<2.0											
09/20/16	Tuesday	30.0		11.0		4.0		11.0											
09/21/16	Wednesday	4.0		4.0		2.0		2.0								2.0	Grab 4		
09/22/16	Thursday	2.0	1.0	4.0	2.0	2.0	<1.0	2.0	1.0										
09/23/16	Friday	8.0	3.0	2.0	<1.0	2.0	1.0	13.0	1.0										
09/24/16	Saturday	8.0		7.0		7.0		2.0											
09/25/16	Sunday	2.0		<2.0		<2.0		2.0											
09/26/16	Monday	<2.0		2.0		2.0		2.0											
09/27/16	Tuesday	2.0		<2.0		2.0		2.0											
09/28/16	Wednesday	2.0	2.0	2.0	3.1	4.0	2.0	4.0	1.0							<2.0	Grab 4	3.1	Grab 4
09/29/16	Thursday	<2.0	3.1	2.0	3.0	2.0	1.0	2.0	<1.0										
09/30/16	Friday	2.0	1.0	<2.0	<1.0	<2.0	<1.0	<2.0	2.0										
10/01/16	Saturday	2.0		11.0		130.0		2.0		50.0									
10/02/16	Sunday	<2.0		<2.0		<2.0		<2.0											

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Bucklin Point Bacteria Data 2016
all results are in MPN/100 mL

		Grab 1		Grab 2		Grab 3		Grab 4		Grab 5		Grab 6		Grab 7					
Date	**Day of the Week**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Duplicate**	**Associated Grab**	**Entero-cocci Duplicate**	**Associated Grab**
10/03/16	Monday	2.0		2.0		2.0		2.0											
10/04/16	Tuesday	<2.0		2.0		2.0		11.0											
10/05/16	Wednesday	<2.0		2.0		<2.0		<2.0								<2.0	Grab 4		
10/06/16	Thursday	4.0	<1.0	2.0	1.0	2.0	<1.0	<2.0	<1.0										
10/07/16	Friday	<2.0	1.0	4.0	1.0	4.0	<1.0	8.0	3.1										
10/08/16	Saturday	<2.0		4.0		2.0		<2.0											
10/09/16	Sunday	<2.0		2.0		2.0		<2.0											
10/10/16	Monday	30.0	3.0	2.0	<1.0	4.0	<1.0	13.0	<1.0										
10/11/16	Tuesday	2.0		2.0		13.0		<2.0											
10/12/16	Wednesday	8.0		26.0		50.0		50.0								27.0	Grab 4		
10/13/16	Thursday	8.0	<1.0	50.0	9.6	17.0	<1.0	30.0	9.6										
10/14/16	Friday	8.0	<1.0	7.0	2.0	4.0	<1.0	17.0	6.2										
10/15/16	Saturday	8.0		9.0		8.0		2.0											
10/16/16	Sunday	2.0		2.0		<2.0		<2.0											
10/17/16	Monday	4.0		8.0		<2.0		11.0											
10/18/16	Tuesday	2.0		4.0		23.0		23.0											
10/19/16	Wednesday	14.0		4.0		4.0		2.0								8.0	Grab 4		
10/20/16	Thursday	4.0	2.0	4.0	4.1	8.0	6.2	7.0	<1.0										
10/21/16	Friday	2.0	3.1	8.0	5.2	80.0	6.3	13.0	2.0										
10/22/16	Saturday	2.0		4.0		7.0		4.0											
10/23/16	Sunday	2.0		<2.0		<2.0		4.0											
10/24/16	Monday	13.0		2.0		2.0		<2.0											
10/25/16	Tuesday	4.0		<2.0		4.0		2.0											
10/26/16	Wednesday	8.0	3.1	23.0	2.0	23.0	2.0	8.0	3.1							4.0	Grab 4	4.1	Grab 4
10/27/16	Thursday	4.0	4.1	2.0	5.2	4.0	5.2	4.0	8.6										
10/28/16	Friday	8.0	2.0	8.0	3.1	2.0	2.0	2.0	<1.0										
10/29/16	Saturday	<2.0		<2.0		4.0		2.0											
10/30/16	Sunday	2.0		4.0		2.0		2.0											
10/31/16	Monday	8.0		4.0		4.0		2.0											
11/01/16	Tuesday	<2.0		<2.0		7.0		2.0											
11/02/16	Wednesday	<2.0		<2.0		4.0		8.0								8.0	Grab 4		
11/03/16	Thursday	4.0	6.2	22.0	11.9	<2.0	<1.0	<2.0	1.0										
11/04/16	Friday	4.0	4.1	2.0	2.0	2.0	<1.0	4.0	<1.0										
11/05/16	Saturday	<2.0		<2.0		2.0		<2.0											
11/06/16	Sunday	2.0		2.0		<2.0		<2.0											
11/07/16	Monday	2.0		2.0		2.0		<2.0											
11/08/16	Tuesday	2.0	2.0	<2.0	1.0	13.0	32.3	2.0	3.0										
11/09/16	Wednesday	2.0		4.0		8.0		11.0								4.0	Grab 4		
11/10/16	Thursday	2.0	1.0	<2.0	2.0	4.0	4.1	2.0	8.5										
11/11/16	Friday	8.0	1.0	8.0	5.2	2.0	2.0	11.0	6.3										
11/12/16	Saturday	<2.0		4.0		<2.0		2.0											
11/13/16	Sunday	<2.0		2.0		<2.0		<2.0											
11/14/16	Monday	2.0		2.0		<2.0		2.0											
11/15/16	Tuesday	4.0		4.0		2.0		<2.0											
11/16/16	Wednesday	2.0		4.0		8.0		7.0								4.0	Grab 4		
11/17/16	Thursday	4.0	6.2	4.0	4.1	2.0	2.0	<2.0	8.5										

Table 4: Bucklin Point Bacteria Data

Bucklin Point Bacteria Data 2016
all results are in MPN/100 mL

		Grab 1		Grab 2		Grab 3		Grab 4		Grab 5		Grab 6		Grab 7					
Date	**Day of the Week**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Coliform**	**Entero-cocci**	**Fecal Duplicate**	**Associated Grab**	**Entero-cocci Duplicate**	**Associated Grab**
11/18/16	Friday	<2.0	1.0	2.0	4.1	2.0	1.0	2.0	2.0										
11/19/16	Saturday	2.0		<2.0		8.0		2.0											
11/20/16	Sunday	11.0		<2.0		2.0		2.0											
11/21/16	Monday	2.0		4.0		<2.0		<2.0											
11/22/16	Tuesday	4.0		8.0		<2.0		2.0											
11/23/16	Wednesday	8.0	2.0	4.0	<1.0	<2.0	5.2	2.0	4.1							2.0	Grab 4	5.1	Grab 4
11/24/16	Thursday	4.0	2.0	2.0	4.1	4.0	2.0	2.0	1.0										
11/25/16	Friday	2.0	<1.0	4.0	1.0	4.0	1.0	<2.0	1.0										
11/26/16	Saturday	4.0		2.0		<2.0		2.0											
11/27/16	Sunday	<2.0		<2.0		4.0		2.0											
11/28/16	Monday	11.0		2.0		4.0		4.0											
11/29/16	Tuesday	4.0		4.0		8.0		9.0											
11/30/16	Wednesday	8.0		13.0		8.0		4.0								8.0	Grab 4		
12/01/16	Thursday	8.0	14.5	2.0	2.0	50.0	2.0	30.0	5.2										
12/02/16	Friday	4.0	1.0	2.0	4.1	8.0	3.1	11.0	5.2										
12/03/16	Saturday	4.0		2.0		4.0		4.0											
12/04/16	Sunday	4.0		13.0		8.0		23.0											
12/05/16	Monday	4.0		2.0		11.0		2.0											
12/06/16	Tuesday	4.0		70.0		<2.0		2.0											
12/07/16	Wednesday	27.0	5.2	8.0	25.3	13.0	4.1	2.0	2.0							2.0	Grab 4	<1.0	Grab 4
12/08/16	Thursday	2.0	2.0	2.0	1.0	2.0	5.2	<2.0	2.0										
12/09/16	Friday	8.0	5.2	13.0	2.0	9.0	3.1	13.0	3.0										
12/10/16	Saturday	<2.0		<2.0		<2.0		7.0											
12/11/16	Sunday	<2.0		8.0		<2.0		4.0											
12/12/16	Monday	8.0		4.0		8.0		2.0											
12/13/16	Tuesday	<2.0		13.0		4.0		7.0											
12/14/16	Wednesday	4.0		4.0		<2.0		6.0								4.0	Grab 4		
12/15/16	Thursday	11.0	2.0	2.0	4.1	4.0	7.4	<2.0	1.0										
12/16/16	Friday	7.0	1.0	4.0	<1.0	4.0	1.0	2.0	2.0										
12/17/16	Saturday	4.0		4.0		2.0		2.0											
12/18/16	Sunday	<2.0		4.0		7.0		2.0											
12/19/16	Monday	<2.0		2.0		<2.0		8.0											
12/20/16	Tuesday	<2.0		7.0		<2.0		4.0											
12/21/16	Wednesday	2.0	3.1	8.0	1.0	4.0	1.0	4.0	2.0							2.0	Grab 4	1.0	Grab 4
12/22/16	Thursday	2.0	3.0	4.0	3.1	8.0	<1.0	4.0	3.0										
12/23/16	Friday	11.0	2.0	4.0	2.0	4.0	2.0	2.0	1.0										
12/24/16	Saturday	4.0		4.0		4.0		7.0											
12/25/16	Sunday	8.0		11.0		2.0		2.0											
12/26/16	Monday	<2.0	3.0	<2.0	3.1	<2.0	4.1	<2.0	1.0										
12/27/16	Tuesday	<2.0		<2.0		<2.0		<2.0											
12/28/16	Wednesday	2.0		4.0		4.0		11.0								4.0	Grab 4		
12/29/16	Thursday	2.0	5.1	8.0	2.0	<2.0	<1.0	11.0	3.1										
12/30/16	Friday	<2.0	2.0	2.0	2.0	13.0	1.0	8.0	3.1										
12/31/16	Saturday	2.0		<2.0		8.0		2.0											

Table 4: Bucklin Point Bacteria Data

Field's Point Influent Metals 2016
all analyses in ppb

Date	Day of the Week	Influent Flow	Cd (ppb)	Cr (ppb)	Cu (ppb)	Pb (ppb)	Hg (ppb)	Ni (ppb)	Ag (ppb)	Zn (ppb)	CN (ppb)
1/5/2016	Tuesday	30.82	<2.5	<10.00	65.55	<10.00	16.20	34.44	<4.0	108.50	6.89
1/6/2016	Wednesday	31.67	<2.5	<10.00	44.03	<10.00	31.30	37.01	<4.0	102.60	13.90
1/12/2016	Tuesday	63.20	<2.5	10.19	30.83	<10.00	23.50	19.43	<4.0	104.10	7.66
1/13/2016	Wednesday	55.48	<2.5	<10.00	22.34	<10.00	15.00	35.11	<4.0	75.09	6.24
1/19/2016	Tuesday	38.69	<2.5	<10.00	27.27	<10.00	19.50	22.48	<4.0	86.85	5.52
1/20/2016	Wednesday	38.06	<2.5	11.52	27.97	<10.00	20.60	26.39	<4.0	92.86	6.37
1/26/2016	Tuesday	41.37	<2.5	<10.00	50.22	<10.00	42.40	20.49	<4.0	126.20	14.30
1/27/2016	Wednesday	35.79	<2.5	14.82	42.67	<10.00	29.50	33.94	<4.0	130.40	10.40
2/2/2016	Tuesday	35.99	<2.5	10.58	38.78	<10.00	92.50	24.29	<4.0	111.40	7.79
2/3/2016	Wednesday	53.75	<2.5	11.99	52.58	25.11	63.50	20.45	<4.0	172.90	25.00
2/9/2016	Tuesday	45.55	<2.5	<10.00	26.76	<10.00	25.90	15.14	<4.0	92.37	10.70
2/10/2016	Wednesday	41.04	<2.5	<10.00	28.95	<10.00	20.00	19.32	<4.0	77.92	13.00
2/16/2016	Tuesday	71.18	<2.5	<10.00	44.63	29.21	36.40	13.59	<4.0	155.50	25.10
2/17/2016	Wednesday	61.67	<2.5	<10.00	27.85	<10.00	24.30	11.72	<4.0	77.12	11.70
2/23/2016	Tuesday	46.31	<2.5	<10.00	36.20	<10.00	34.60	15.67	<4.0	102.30	6.80
2/24/2016	Wednesday	64.60	<2.5	<10.00	41.72	24.90	19.70	15.25	<4.0	127.10	12.40
3/1/2016	Tuesday	46.60	<2.5	<10.00	35.63	<10.00	111.00	25.11	<4.0	116.80	4.99
3/2/2016	Wednesday	49.65	<2.5	<10.00	37.61	<10.00	45.90	19.66	<4.0	91.88	5.18
3/8/2016	Tuesday	41.09	<2.5	<10.00	43.27	<10.00	36.10	24.25	<4.0	72.74	7.56
3/9/2016	Wednesday	38.67	<2.5	<10.00	41.85	<10.00	30.60	34.45	<4.0	97.84	8.83
3/15/2016	Tuesday	57.80	<2.5	<10.00	43.10	<10.00	35.10	26.46	<4.0	77.80	6.63
3/16/2016	Wednesday	48.22	<2.5	<10.00	30.11	<10.00	30.90	24.70	<4.0	97.10	6.84
3/22/2016	Tuesday	37.31	<2.5	<10.00	34.25	<10.00	26.10	33.43	<4.0	105.90	6.94
3/23/2016	Wednesday	37.78	<2.5	<10.00	39.80	<10.00	153.00	26.97	<4.0	114.40	6.43
3/29/2016	Tuesday	35.20	<2.5	14.32	40.40	<10.00	39.90	27.62	<4.0	93.53	6.61
3/30/2016	Wednesday	35.88	<2.5	<10.00	44.63	<10.00	34.00	40.98	<4.0	81.03	5.75
4/5/2016	Tuesday	45.73	<2.5	<10.00	27.78	<10.00	37.20	22.93	<4.0	98.60	13.60
4/6/2016	Wednesday	46.98	<2.5	<10.00	74.97	<10.00	35.60	20.16	<4.0	97.42	8.46
4/12/2016	Tuesday	51.93	<2.5	11.46	33.80	<10.00	29.30	19.23	<4.0	79.91	6.35
4/13/2016	Wednesday	51.54	<2.5	10.69	34.19	<10.00	20.50	17.54	<4.0	97.60	6.72
4/19/2016	Tuesday	40.94	<2.5	<10.00	38.15	<10.00	21.10	16.52	<4.0	104.60	8.77
4/20/2016	Wednesday	39.90	<2.5	<10.00	38.85	<10.00	24.50	18.21	<4.0	104.70	7.61
4/26/2016	Tuesday	42.24	<2.5	<10.00	33.04	<10.00	34.00	22.56	<4.0	107.50	10.30
4/27/2016	Wednesday	36.56	<2.5	10.49	26.74	<10.00	25.50	19.98	<4.0	105.90	7.29
5/3/2016	Tuesday	44.76	<2.5	<10.00	30.62	<10.00	52.40	<10.000	<4.0	84.29	7.47
5/4/2016	Wednesday	48.50	<2.5	<10.00	30.17	<10.00	34.00	14.51	<4.0	86.48	9.36
5/10/2016	Tuesday	37.50	<2.5	<10.00	41.39	<10.00	61.30	22.01	7.34	79.81	12.70
5/11/2016	Wednesday	36.02	<2.5	<10.00	39.01	<10.00	42.30	16.32	<4.0	101.50	9.32

Table 5: Field's Point Influent Metals and Cyanide (Cd-CN)

Field's Point Influent Metals 2016
all analyses in ppb

Date	Day of the Week	Influent Flow	Cd (ppb)	Cr (ppb)	Cu (ppb)	Pb (ppb)	Hg (ppb)	Ni (ppb)	Ag (ppb)	Zn (ppb)	CN (ppb)
5/17/2016	Tuesday	35.72	<2.5	<10.00	40.14	<10.00	70.70	29.94	<4.0	94.98	10.90
5/18/2016	Wednesday	33.69	<2.5	<10.00	32.17	<10.00	40.80	26.17	<4.0	92.99	11.70
5/24/2016	Tuesday	37.91	<2.5	<10.00	63.37	19.59	118.00	23.23	<4.0	133.00	10.90
5/25/2016	Wednesday	32.26	<2.5	<10.00	61.77	10.74	48.30	28.73	<4.0	117.00	5.62
5/31/2016	Tuesday	59.65	<2.5	<10.00	28.92	<10.00	40.70	15.80	<4.0	72.26	14.50
6/1/2016	Wednesday	58.51	<2.5	<10.00	41.84	<10.00	31.40	34.10	<4.0	87.25	17.30
6/7/2016	Tuesday	34.78	<2.5	<10.00	50.10	<10.00	41.50	26.13	<4.0	98.84	19.40
6/8/2016	Wednesday	33.99	<2.5	<10.00	41.17	<10.00	82.90	21.01	<4.0	97.16	12.30
6/14/2016	Tuesday	34.51	<2.5	<10.00	40.42	11.81	42.80	27.39	<4.0	122.50	10.70
6/15/2016	Wednesday	30.43	<2.5	<10.00	43.81	12.13	73.20	28.88	<4.0	139.40	9.41
6/21/2016	Tuesday	41.15	<2.5	10.45	55.15	25.33	97.80	20.78	<4.0	149.90	8.99
6/22/2016	Wednesday	30.83	<2.5	<10.00	42.02	<10.00	40.60	21.73	<4.0	105.30	7.60
6/28/2016	Tuesday	42.11	<2.5	<10.00	63.32	17.93	103.00	22.17	<4.0	147.80	7.33
6/29/2016	Wednesday	46.60	<2.5	<10.00	44.57	27.07	63.10	40.32	<4.0	124.30	6.95
7/5/2016	Tuesday	43.53	<2.5	<10.00	41.86	12.55	22.10	19.04	<4.0	109.50	19.90
7/6/2016	Wednesday	32.03	<2.5	33.20	43.52	<10.00	29.10	27.74	<4.0	104.20	5.15
7/12/2016	Tuesday	30.04	<2.5	<10.00	55.30	<10.00	37.40	29.20	<4.0	118.80	5.39
7/13/2016	Wednesday	30.41	<2.5	<10.00	47.41	<10.00	33.20	25.30	<4.0	115.10	6.26
7/19/2016	Tuesday	29.60	<2.5	<10.00	44.90	<10.00	104.00	20.19	<4.0	114.20	5.64
7/20/2016	Wednesday	29.03	<2.5	12.62	55.93	<10.00	55.60	29.32	<4.0	120.40	6.48
7/26/2016	Tuesday	30.36	<2.5	<10.00	34.40	<10.00	46.30	53.47	<4.0	95.16	6.95
7/27/2016	Wednesday	29.66	<2.5	<10.00	45.38	<10.00	40.40	33.58	<4.0	151.50	9.09
8/2/2016	Tuesday	42.59	<2.5	<10.00	60.41	19.27	40.80	27.32	<4.0	167.20	10.00
8/3/2016	Wednesday	29.97	<2.5	<10.00	51.61	<10.00	47.70	22.90	<4.0	203.90	7.08
8/9/2016	Tuesday	26.48	<2.5	<10.00	57.92	<10.00	35.70	53.44	<4.0	116.60	32.80
8/10/2016	Wednesday	51.49	<2.5	<10.00	47.73	25.78	40.30	19.37	<4.0	135.70	7.94
8/16/2016	Tuesday	29.37	<2.5	<10.00	101.80	10.28	37.20	20.26	<4.0	158.30	7.97
8/17/2016	Wednesday	29.14	<2.5	<10.00	32.25	<10.00	51.40	21.77	<4.0	106.30	8.80
8/23/2016	Tuesday	28.44	<2.5	<10.00	30.24	<10.00	33.30	28.19	<4.0	118.20	39.10
8/24/2016	Wednesday	29.45	<2.5	<10.00	40.63	<10.00	41.60	39.69	<4.0	126.50	22.20
8/30/2016	Tuesday	29.34	<2.5	12.67	41.62	<10.00	38.70	17.41	<4.0	138.80	6.38
8/31/2016	Wednesday	28.93	<2.5	10.66	45.60	<10.00	45.30	19.81	<4.0	144.70	8.36
9/6/2016	Tuesday	29.54	<2.5	<10.00	62.88	16.85	31.80	34.17	<4.0	151.10	18.00
9/7/2016	Wednesday	38.13	<2.5	<10.00	57.31	13.57	39.60	33.02	<4.0	145.00	18.50
9/13/2016	Tuesday	26.69	<2.5	<10.00	56.14	<10.00	31.10	25.54	<4.0	111.70	6.88
9/14/2016	Wednesday	28.61	<2.5	<10.00	40.88	<10.00	36.40	20.34	<4.0	126.40	6.19
9/20/2016	Tuesday	27.99	<2.5	<10.00	41.95	<10.00	44.10	34.23	<4.0	101.90	8.27
9/21/2016	Wednesday	28.04	<2.5	<10.00	40.74	<10.00	50.80	24.51	<4.0	99.76	4.17

Table 5: Field's Point Influent Metals and Cyanide (Cd-CN)

Field's Point Influent Metals 2016
all analyses in ppb

Date	Day of the Week	Influent Flow	Cd (ppb)	Cr (ppb)	Cu (ppb)	Pb (ppb)	Hg (ppb)	Ni (ppb)	Ag (ppb)	Zn (ppb)	CN (ppb)
9/27/2016	Tuesday	36.29	<2.5	10.63	61.69	10.61	70.90	30.72	<4.0	119.90	7.25
9/28/2016	Wednesday	27.32	<2.5	<10.00	36.01	<10.00	38.30	22.74	<4.0	96.78	7.64
10/4/2016	Tuesday	27.92	<2.5	<10.00	45.80	<10.00	33.90	35.14	<4.0	122.20	6.85
10/5/2016	Wednesday	28.68	<2.5	<10.00	43.33	<10.00	29.70	28.39	<4.0	135.10	6.98
10/11/2016	Tuesday	42.01	<2.5	<10.00	35.66	<10.00	31.70	35.76	<4.0	81.82	9.19
10/12/2016	Wednesday	30.15	<2.5	<10.00	36.41	<10.00	29.20	25.78	<4.0	100.10	9.67
10/18/2016	Tuesday	29.04	<2.5	11.26	47.53	<10.00	39.20	24.56	<4.0	144.50	11.20
10/19/2016	Wednesday	29.41	<2.5	<10.00	50.01	<10.00	39.60	24.23	<4.0	135.10	7.34
10/25/2016	Tuesday	28.76	<2.5	<10.00	41.56	<10.00	50.30	38.27	<4.0	101.90	6.75
10/26/2016	Wednesday	31.37	<2.5	<10.00	38.72	<10.00	37.90	26.33	<4.0	97.38	6.95
11/1/2016	Tuesday	29.52	<2.5	10.76	43.84	<10.00	30.20	28.81	<4.0	105.00	6.73
11/2/2016	Wednesday	30.51	<2.5	<10.00	38.32	<10.00	42.20	24.87	<4.0	101.10	6.99
11/8/2016	Tuesday	29.40	<2.5	10.27	50.40	<10.00	168.00	43.33	<4.0	118.60	7.86
11/9/2016	Wednesday	28.99	<2.5	20.64	77.86	<10.00	82.30	46.66	<4.0	162.50	13.00
11/15/2016	Tuesday	52.12	<2.5	10.67	73.77	21.61	45.50	23.12	<4.0	146.80	7.71
11/16/2016	Wednesday	52.97	<2.5	16.58	41.60	<10.00	26.20	34.10	<4.0	86.84	6.49
11/22/2016	Tuesday	27.66	<2.5	14.29	49.97	<10.00	41.50	24.90	<4.0	127.90	6.63
11/23/2016	Wednesday	28.63	<2.5	10.64	45.22	<10.00	40.00	51.14	<4.0	115.10	8.14
11/29/2016	Tuesday	52.74	<2.5	<10.00	48.46	15.73	51.60	24.71	<4.0	115.80	6.60
11/30/2016	Wednesday	64.57	<2.5	<10.00	36.16	15.39	35.40	17.86	<4.0	83.34	6.19
12/6/2016	Tuesday	32.26	<2.5	11.56	58.55	<10.00	20.90	26.11	<4.0	117.50	6.43
12/7/2016	Wednesday	31.65	<2.5	<10.00	35.52	<10.00	29.20	28.66	<4.0	106.70	6.87
12/13/2016	Tuesday	31.08	<2.5	14.68	36.47	<10.00	23.30	22.81	<4.0	104.90	8.93
12/14/2016	Wednesday	30.76	<2.5	<10.00	37.15	<10.00	22.40	19.40	<4.0	91.10	8.72
12/20/2016	Tuesday	31.16	<2.5	<10.00	88.10	<10.00	18.10	13.88	<4.0	152.20	7.36
12/21/2016	Wednesday	29.83	<2.5	15.61	41.92	<10.00	46.50	32.43	<4.0	132.00	7.97
12/27/2016	Tuesday	30.44	<2.5	11.23	44.44	<10.00	56.20	20.81	<4.0	172.40	9.69
12/28/2016	Wednesday	32.12	<2.5	<10.00	35.35	<10.00	52.50	14.90	<4.0	102.30	10.30

Table 5: Field's Point Influent Metals and Cyanide (Cd-CN)

Field's Point Influent Metals Al - Mo 2016

all analyses in ppb

Date	Day of the Week	Influent Flow	Al (ppb)	Fe (ppb)	Se (ppb)	As (ppb)	Mo(ppb)
1/5/2016	Tuesday	30.82	317.9	1557	2.59	2.53	5.25
1/6/2016	Wednesday	31.67	314.6	1531		2.49	
1/12/2016	Tuesday	63.20	204.2	1080	1.61	1.49	2.65
1/13/2016	Wednesday	55.48	180.7	1050		1.78	
1/19/2016	Tuesday	38.69	164.6	1350	2.86	2.01	4.26
1/20/2016	Wednesday	38.06	174.1	1277		1.86	
1/26/2016	Tuesday	41.37	374.1	1724	1.53	1.90	4.21
1/27/2016	Wednesday	35.79	236.0	1437		1.87	
2/2/2016	Tuesday	35.99	206.6	1317	2.41	2.26	4.39
2/3/2016	Wednesday	53.75	1016.0	2668		2.41	
2/9/2016	Tuesday	45.55	302.5	1591	1.74	1.98	3.75
2/10/2016	Wednesday	41.04	198.3	1478		2.15	
2/16/2016	Tuesday	71.18	996.3	2637	1.22	2.41	3.10
2/17/2016	Wednesday	61.67	249.0	1268		1.62	
2/23/2016	Tuesday	46.31	294.0	1632	3.75	1.77	3.89
2/24/2016	Wednesday	64.60	729.8	2199		1.89	
3/1/2016	Tuesday	46.60	306.0	1717	3.21	1.85	4.78
3/2/2016	Wednesday	49.65	287.1	1472		1.82	
3/8/2016	Tuesday	41.09	242.0	1409	3.26	1.90	3.30
3/9/2016	Wednesday	38.67	332.9	1718		2.00	
3/15/2016	Tuesday	57.80	223.9	1160	1.39	1.63	1.80
3/16/2016	Wednesday	48.22	208.5	1240		1.75	
3/22/2016	Tuesday	37.31	317.2	1451	1.95	1.67	2.39
3/23/2016	Wednesday	37.78	330.1	1572		1.50	
3/29/2016	Tuesday	35.20	202.5	1350	2.17	1.57	2.55
3/30/2016	Wednesday	35.88	255.0	1251		1.68	
4/5/2016	Tuesday	45.73	308.3	1488	1.90	1.37	2.71
4/6/2016	Wednesday	46.98	201.4	1340		1.26	
4/12/2016	Tuesday	51.93	196.0	1344	2.65	1.22	2.81
4/13/2016	Wednesday	51.54	263.5	1405		1.15	
4/19/2016	Tuesday	40.94	210.0	1432	2.83	1.53	3.33
4/20/2016	Wednesday	39.90	183.4	1334		1.58	
4/26/2016	Tuesday	42.24	273.7	1491	2.09	1.79	2.80
4/27/2016	Wednesday	36.56	194.6	1344		1.65	
5/3/2016	Tuesday	44.76	205.6	1215	1.28	1.58	2.69
5/4/2016	Wednesday	48.50	294.3	1370		1.52	

Table 6: Field's Point Influent Metals (Al-Mo)

Field's Point Influent Metals Al - Mo 2016

all analyses in ppb

Date	Day of the Week	Influent Flow	Al (ppb)	Fe (ppb)	Se (ppb)	As (ppb)	Mo(ppb)
5/10/2016	Tuesday	37.50	286.5	1225	2.66	1.51	3.90
5/11/2016	Wednesday	36.02	235.4	1385		1.54	
5/17/2016	Tuesday	35.72	203.7	1306	1.94	1.52	3.48
5/18/2016	Wednesday	33.69	209.3	1250		1.49	
5/24/2016	Tuesday	37.91	524.5	2018	2.53	1.64	5.60
5/25/2016	Wednesday	32.26	277.7	1683		1.60	
5/31/2016	Tuesday	59.65	252.1	1200	1.49	1.16	4.18
6/1/2016	Wednesday	58.51	401.8	1367		1.13	
6/7/2016	Tuesday	34.78	244.5	1464	1.89	1.49	7.60
6/8/2016	Wednesday	33.99	264.7	1483		1.48	
6/14/2016	Tuesday	34.51	269.9	1487	1.70	1.58	4.26
6/15/2016	Wednesday	30.43	350.5	1633		1.77	
6/21/2016	Tuesday	41.15	512.1	1951	1.42	1.86	4.57
6/22/2016	Wednesday	30.83	337.4	1465		1.81	
6/28/2016	Tuesday	42.11	515.4	2180	2.20	1.97	6.02
6/29/2016	Wednesday	46.60	624.6	1944		1.89	
7/5/2016	Tuesday	43.53	331.3	1271	<1.00	1.67	6.08
7/6/2016	Wednesday	32.03	274.5	1371		1.63	
7/12/2016	Tuesday	30.04	351.8	1637	5.54	1.43	7.95
7/13/2016	Wednesday	30.41	361.1	1566		1.57	
7/19/2016	Tuesday	29.60	286.2	1626	3.99	1.84	9.62
7/20/2016	Wednesday	29.03	305.9	1603		1.52	
7/26/2016	Tuesday	30.36	303.9	1475	2.07	1.62	5.91
7/27/2016	Wednesday	29.66	351.5	1664		1.72	
8/2/2016	Tuesday	42.59	642.0	2399	1.61	1.79	4.19
8/3/2016	Wednesday	29.97	272.3	1675		1.77	
8/9/2016	Tuesday	26.48	320.8	1478	3.85	2.11	7.33
8/10/2016	Wednesday	51.49	644.5	2081		2.04	
8/16/2016	Tuesday	29.37	268.0	1433	4.80	1.82	8.36
8/17/2016	Wednesday	29.14	225.5	1325		1.78	
8/23/2016	Tuesday	28.44	210.2	1280	1.76	1.66	6.26
8/24/2016	Wednesday	29.45	269.7	1665		1.73	
8/30/2016	Tuesday	29.34	429.3	1508	1.82	1.99	5.40
8/31/2016	Wednesday	28.93	384.9	1544		1.78	
9/6/2016	Tuesday	29.54	419.1	1615	3.29	1.87	7.05
9/7/2016	Wednesday	38.13	413.5	1543		1.67	
9/13/2016	Tuesday	26.69	258.1	1462	2.05	1.46	5.18

Table 6: Field's Point Influent Metals (Al-Mo)

Field's Point Influent Metals Al - Mo 2016

all analyses in ppb

Date	Day of the Week	Influent Flow	Al (ppb)	Fe (ppb)	Se (ppb)	As (ppb)	Mo(ppb)
9/14/2016	Wednesday	28.61	444.8	1486		1.53	
9/20/2016	Tuesday	27.99	260.2	1468	2.73	1.67	7.87
9/21/2016	Wednesday	28.04	300.9	1459		1.73	
9/27/2016	Tuesday	36.29	376.8	1548	4.95	1.70	6.55
9/28/2016	Wednesday	27.32	233.4	1314		1.72	
10/4/2016	Tuesday	27.92	318.2	1911	3.02	1.63	7.25
10/5/2016	Wednesday	28.68	340.9	1746		1.52	
10/11/2016	Tuesday	42.01	207.7	1308	2.13	1.38	4.64
10/12/2016	Wednesday	30.15	231.8	1567		1.55	
10/18/2016	Tuesday	29.04	409.9	2374	4.43	2.06	8.35
10/19/2016	Wednesday	29.41	303.3	1612		1.71	
10/25/2016	Tuesday	28.76	346.1	1561	2.55	1.52	10.32
10/26/2016	Wednesday	31.37	323.1	1516		1.59	
11/1/2016	Tuesday	29.52	208.8	1438	2.39	1.66	9.36
11/2/2016	Wednesday	30.51	204.7	1453		1.59	
11/8/2016	Tuesday	29.40	349.9	1442	2.09	1.81	7.21
11/9/2016	Wednesday	28.99	380.8	1685		1.77	
11/15/2016	Tuesday	52.12	670.0	1932	2.10	1.60	6.68
11/16/2016	Wednesday	52.97	449.0	1198		1.45	
11/22/2016	Tuesday	27.66	329.0	1901	6.94	1.65	7.12
11/23/2016	Wednesday	28.63	250.9	1503		1.84	
11/29/2016	Tuesday	52.74	518.3	1787	1.79	2.12	5.06
11/30/2016	Wednesday	64.57	348.6	1253		1.83	
12/6/2016	Tuesday	32.26	255.3	1662	2.78	2.05	5.04
12/7/2016	Wednesday	31.65	275.6	1487		2.00	
12/13/2016	Tuesday	31.08	225.5	1440	2.53	1.64	5.55
12/14/2016	Wednesday	30.76	257.6	1541		2.03	
12/20/2016	Tuesday	31.16	419.4	1498	2.91	2.55	13.37
12/21/2016	Wednesday	29.83	240.6	1568		2.08	
12/27/2016	Tuesday	30.44	275.3	1495	<1.00	2.29	2.74
12/28/2016	Wednesday	32.12	242.3	1379		2.15	

Table 6: Field's Point Influent Metals (Al-Mo)

Field's Point Effluent Metals Cd - CN 2016
all analyses in ppb

Date	Day of the Week	Effluent Flow	Cd (ppb)	TTL Cr (ppb)	Cu (ppb)	Pb (ppb)	Hg (ppb)	Ni (ppb)	Ag (ppb)	Zn (ppb)	Total CN (ppb)
1/5/2016	Tuesday	30.82	0.026	1.725	3.051	0.468	0.0047	16.599	0.029	26.363	12.40
1/6/2016	Wednesday	31.67	0.023	1.996	3.089	0.352	0.0037	18.104	0.024	27.493	10.50
1/12/2016	Tuesday	63.20	0.026	1.986	3.044	0.574	0.0033	12.217	0.035	37.294	7.93
1/13/2016	Wednesday	55.48	0.027	1.553	2.632	0.53	0.0061	16.573	0.034	31.734	6.82
1/19/2016	Tuesday	38.69	0.027	2.258	2.724	0.448	0.0027	13.741	0.028	31.292	9.50
1/20/2016	Wednesday	38.06	0.026	2.173	2.454	0.366	0.0025	15.173	0.039	31.056	6.49
1/26/2016	Tuesday	41.37	0.026	1.535	2.69	0.329	0.0032	14.843	0.032	34.764	7.67
1/27/2016	Wednesday	35.79	0.024	2.132	2.865	0.341	0.0028	18.632	0.034	37.819	6.94
2/2/2016	Tuesday	35.99	0.023	2.822	2.755	0.343	0.0029	16.954	0.029	34.088	6.96
2/3/2016	Wednesday	53.75	0.028	2.241	3.383	0.593	0.0026	13.112	0.042	32.764	6.26
2/9/2016	Tuesday	45.55	0.027	2.148	2.406	0.397	0.0030	12.524	0.028	33.364	9.68
2/10/2016	Wednesday	41.04	0.034	2.473	3.047	0.462	0.0033	14.623	0.035	33.431	7.07
2/16/2016	Tuesday	71.18	0.048	2.083	4.567	1.178	0.0044	10.568	0.123	36.916	13.70
2/17/2016	Wednesday	61.67	0.035	1.552	3.133	0.761	0.0066	10.436	0.058	33.117	9.10
2/23/2016	Tuesday	46.31	0.042	1.884	3.413	0.685	0.0040	12.647	0.059	29.358	5.84
2/24/2016	Wednesday	64.60	0.035	1.565	7.312	0.798	0.0049	12.233	0.058	31.376	5.69
3/1/2016	Tuesday	46.60	0.029	2.003	2.723	0.506	0.0061	15.53	0.032	27.21	4.28
3/2/2016	Wednesday	49.65	0.027	1.555	2.563	0.449	0.0039	14.505	0.026	29.169	6.06
3/8/2016	Tuesday	41.09	0.034	1.591	2.396	<0.300	0.0032	17.214	<0.020	28.018	6.39
3/9/2016	Wednesday	38.67	0.036	1.847	6.959	0.404	0.0026	19.528	0.022	29.113	5.96
3/15/2016	Tuesday	57.80	0.041	1.835	2.609	0.368	0.0024	17.946	0.022	28.728	6.08
3/16/2016	Wednesday	48.22	0.024	2.454	2.43	0.363	0.0025	18.26	0.02	30.147	5.98
3/22/2016	Tuesday	37.31	0.031	1.671	2.245	0.311	0.0049	17.766	<0.020	31.42	6.79
3/23/2016	Wednesday	37.78	0.028	1.716	2.318	<0.300	0.0025	16.292	<0.020	29.852	5.66
3/29/2016	Tuesday	35.20	0.031	3.326	2.594	0.307	0.0024	16.014	0.02	32.219	4.64
3/30/2016	Wednesday	35.88	0.034	2.457	2.897	0.329	0.0030	20.162	0.02	33.224	6.01
4/5/2016	Tuesday	45.73	0.039	1.687	2.964	0.432	0.0031	18.556	0.026	36.807	8.06
4/6/2016	Wednesday	46.98	0.045	1.914	3.082	0.437	0.0023	17.567	0.027	34.501	6.52
4/12/2016	Tuesday	51.93	0.030	1.762	2.488	0.415	<0.0020	11.263	<0.020	26.4	5.55
4/13/2016	Wednesday	51.54	0.032	1.649	2.277	0.374	<0.0020	11.842	<0.020	25.502	6.44
4/19/2016	Tuesday	40.94	0.037	1.498	2.184	0.345	0.0031	10.684	<0.020	22.062	9.08
4/20/2016	Wednesday	39.90	0.025	1.978	2.257	0.341	0.0026	11.859	<0.020	25.691	9.66
4/26/2016	Tuesday	42.24	<0.020	1.481	1.81	<0.300	0.0052	11.684	<0.020	22.691	6.32
4/27/2016	Wednesday	36.56	<0.020	2.167	2.293	<0.300	0.0030	12.667	<0.020	25.063	7.69
5/3/2016	Tuesday	44.76	<0.020	1.889	2.258	0.323	0.0053	11.916	<0.020	24.19	7.54
5/4/2016	Wednesday	48.50	0.024	1.504	2.325	0.394	0.0026	11.994	<0.020	23.949	6.44

Table 7: Field's Point Effluent Metals and Cyanide (Cd-CN)

Field's Point Effluent Metals Cd - CN 2016
all analyses in ppb

Date	Day of the Week	Effluent Flow	Cd (ppb)	TTL Cr (ppb)	Cu (ppb)	Pb (ppb)	Hg (ppb)	Ni (ppb)	Ag (ppb)	Zn (ppb)	Total CN (ppb)
5/10/2016	Tuesday	37.50	0.041	1.739	2.438	0.3	<0.0020	13.965	0.198	23.944	7.96
5/11/2016	Wednesday	36.02	0.024	2.05	2.221	0.303	0.0035	13.91	0.117	25.635	8.90
5/17/2016	Tuesday	35.72	0.021	1.669	2.399	0.306	0.0032	12.301	0.059	23.669	10.00
5/18/2016	Wednesday	33.69	0.022	1.453	2.051	0.303	0.0032	12.296	0.052	22.858	11.10
5/24/2016	Tuesday	37.91	0.072	1.397	2.243	0.34	0.0023	12.972	0.044	20.768	10.20
5/25/2016	Wednesday	32.26	0.032	1.265	2.161	0.311	0.0023	13.844	0.037	23.647	9.30
5/31/2016	Tuesday	59.65	0.023	0.969	1.75	0.336	0.0031	7.762	0.037	17.976	10.00
6/1/2016	Wednesday	58.51	<0.020	0.941	1.816	0.309	0.0047	11.634	0.029	18.83	8.99
6/7/2016	Tuesday	34.78	0.039	1.512	2.191	0.393	0.0028	12.319	0.022	21.523	11.10
6/8/2016	Wednesday	33.99	0.026	1.569	2.189	0.376	0.0029	13.786	0.022	23.33	8.89
6/14/2016	Tuesday	34.51	0.183	1.527	2.443	0.332	0.0047	16.05	0.021	25.547	15.40
6/15/2016	Wednesday	30.43	0.030	1.644	1.984	0.317	0.0047	14.888	<0.020	23.84	11.70
6/21/2016	Tuesday	41.15	<0.020	1.966	2.171	0.352	0.0041	11.595	0.02	23.189	10.90
6/22/2016	Wednesday	30.83	<0.020	2.075	1.905	0.333	0.0043	13.148	<0.020	25.129	10.50
6/28/2016	Tuesday	42.11	0.048	1.271	2.726	0.445	0.0034	11.929	0.034	26.311	11.50
6/29/2016	Wednesday	46.60	<0.020	1.204	2.124	0.432	0.0041	12.781	0.024	22.911	9.59
7/5/2016	Tuesday	43.53	0.020	1.353	2.147	<0.300	0.0024	12.312	<0.020	23.006	11.10
7/6/2016	Wednesday	32.03	0.161	1.864	1.948	0.322	0.0026	15.333	<0.020	30.26	10.50
7/12/2016	Tuesday	30.04	0.024	1.13	2.147	0.366	0.0035	16.55	<0.020	31.353	14.10
7/13/2016	Wednesday	30.41	0.021	1.011	2.184	0.357	<0.0020	16.43	0.048	29.558	8.52
7/19/2016	Tuesday	29.60	<0.020	1.491	2.128	0.327	0.0025	14.92	<0.020	27.89	4.52
7/20/2016	Wednesday	29.03	<0.020	3.701	2.272	0.326	0.0022	17.211	<0.020	29.782	5.45
7/26/2016	Tuesday	30.36	<0.020	1.044	2.101	0.311	<0.0020	19.83	0.02	27.844	<8.00
7/27/2016	Wednesday	29.66	<0.020	1.381	1.955	0.336	0.0029	19.357	0.021	24.62	10.20
8/2/2016	Tuesday	42.59	<0.020	1.013	2.056	0.336	0.0046	15.013	0.021	24.024	<8.00
8/3/2016	Wednesday	29.97	0.024	1.424	2.082	0.352	0.0027	17.545	0.023	31.533	<8.00
8/9/2016	Tuesday	26.48	<0.020	1.802	2.666	0.427	0.0050	19.864	0.025	25.235	<8.00
8/10/2016	Wednesday	51.49	<0.020	1.555	2.118	0.426	0.0029	14.2	<0.020	24.779	8.41
8/16/2016	Tuesday	29.37	<0.020	1.14	2.111	0.428	0.0036	14.262	<0.020	27.539	9.51
8/17/2016	Wednesday	29.14	<0.020	4.216	2.383	0.481	0.0026	15.009	<0.020	27.989	12.10
8/23/2016	Tuesday	28.44	<0.020	0.962	1.79	0.33	0.0046	18.172	0.047	26.128	<8.00
8/24/2016	Wednesday	29.45	<0.020	2.649	1.958	0.352	0.0050	25.324	0.034	29.746	9.26
8/30/2016	Tuesday	29.34	<0.020	2.679	1.881	0.334	0.0060	18.869	0.029	29.246	8.04
8/31/2016	Wednesday	28.93	<0.020	2.226	2.1	0.386	0.0073	19.154	0.025	27.509	10.40
9/6/2016	Tuesday	29.54	<0.020	2.749	2.027	<0.300	0.0037	14.273	0.021	22.943	<8.00
9/7/2016	Wednesday	38.13	<0.020	2.056	2.673	0.355	0.0045	18.907	0.036	27.503	<8.00

Table 7: Field's Point Effluent Metals and Cyanide (Cd-CN)

Field's Point Effluent Metals Cd - CN 2016
all analyses in ppb

Date	Day of the Week	Effluent Flow	Cd (ppb)	TTL Cr (ppb)	Cu (ppb)	Pb (ppb)	Hg (ppb)	Ni (ppb)	Ag (ppb)	Zn (ppb)	Total CN (ppb)
9/13/2016	Tuesday	26.69	<0.020	1.746	2.166	<0.300	0.0045	16.983	<0.020	30.38	<8.00
9/14/2016	Wednesday	28.61	<0.020	2.419	2.177	<0.300	0.0052	20.03	<0.020	29.554	<8.00
9/20/2016	Tuesday	27.99	<0.020	1.432	1.98	<0.300	0.0027	20.349	<0.020	28.638	10.50
9/21/2016	Wednesday	28.04	<0.020	1.191	1.715	0.315	<0.0020	17.455	<0.020	27.355	10.60
9/27/2016	Tuesday	36.29	<0.020	1.494	1.816	<0.300	0.0024	16.582	<0.020	22.143	10.60
9/28/2016	Wednesday	27.32	<0.020	1.533	1.823	<0.300	0.0025	16.549	<0.020	23.794	8.28
10/4/2016	Tuesday	27.92	<0.020	1.464	1.92	0.36	0.0023	18.936	<0.020	26.528	5.98
10/5/2016	Wednesday	28.68	<0.020	2.454	1.918	0.328	0.0029	22.054	<0.020	25.288	5.18
10/11/2016	Tuesday	42.01	<0.020	0.891	1.912	0.322	0.0029	16.918	<0.020	19.684	5.22
10/12/2016	Wednesday	30.15	<0.020	2.164	1.613	0.326	0.0035	21.036	<0.020	23.024	6.09
10/18/2016	Tuesday	29.04	<0.020	1.057	1.616	<0.300	0.0035	13.873	<0.020	23.268	<8.00
10/19/2016	Wednesday	29.41	<0.020	2.496	1.741	0.302	0.0047	21.909	<0.020	21.302	10.80
10/25/2016	Tuesday	28.76	0.025	1.395	2.117	0.368	0.0024	19.368	<0.020	23.683	5.98
10/26/2016	Wednesday	31.37	<0.020	2.279	2.122	0.31	0.0025	23.576	0.027	24.09	5.56
11/1/2016	Tuesday	29.52	<0.020	1.324	2.181	0.325	0.0029	15.6	<0.020	23.996	6.65
11/2/2016	Wednesday	30.51	<0.020	2.012	2.149	0.327	0.0027	20.601	0.025	23.565	6.39
11/8/2016	Tuesday	29.40	0.033	1.795	2.177	0.316	0.0026	20.773	0.027	24.787	6.07
11/9/2016	Wednesday	28.99	<0.020	1.359	1.874	<0.300	0.0029	19.212	<0.020	24.38	4.26
11/15/2016	Tuesday	52.12	<0.020	1.504	2.054	0.347	<0.0020	14.162	0.022	24.307	5.86
11/16/2016	Wednesday	52.97	<0.020	3.902	2.646	0.388	0.0026	25.906	0.023	29.51	5.17
11/22/2016	Tuesday	27.66	<0.020	5.316	1.924	0.303	0.0033	21.326	<0.020	24.741	8.27
11/23/2016	Wednesday	28.63	<0.020	2.402	2.184	0.319	0.0027	17.765	<0.020	24.116	7.47
11/29/2016	Tuesday	52.74	<0.020	1.674	2.741	0.357	<0.0020	13.464	0.027	26.659	4.42
11/30/2016	Wednesday	64.57	<0.020	1.754	3.022	0.498	0.0029	16.537	0.046	34.311	<4.00
12/6/2016	Tuesday	32.26	0.023	1.93	2.659	0.321	0.0022	19.24	0.028	39.35	8.66
12/7/2016	Wednesday	31.65	<0.020	2.066	2.435	0.315	0.0032	22.263	0.023	30.275	7.46
12/13/2016	Tuesday	31.08	<0.020	1.202	2.181	0.329	<0.0020	17.955	0.022	31.35	5.59
12/14/2016	Wednesday	30.76	<0.020	2.227	2.49	0.331	0.0026	20.079	0.022	27.856	8.07
12/20/2016	Tuesday	31.16	0.021	1.448	2.754	0.36	0.0028	18.586	0.031	33.022	6.42
12/21/2016	Wednesday	29.83	<0.020	1.942	2.594	0.336	0.0026	22.42	0.026	33.358	7.74
12/27/2016	Tuesday	30.44	<0.020	1.113	2.329	0.364	0.0024	17.203	0.02	30.973	8.45
12/28/2016	Wednesday	32.12	<0.020	1.594	2.88	0.361	0.0028	16.592	0.026	31.437	7.69

Table 7: Field's Point Effluent Metals and Cyanide (Cd-CN)

Field's Point Effluent Metals Al - Mo 2016
all analyses in ppb

Date	Day of the Week	Effluent Flow	Al (ppb)	Fe (ppb)	Se (ppb)	As (ppb)	Mo (ppb)
1/5/2016	Tuesday	30.82	16.09	121.85	1.81	2.03	4.22
1/6/2016	Wednesday	31.67	12.47	102.83		2.12	
1/12/2016	Tuesday	63.20	21.32	133.81		1.30	
1/13/2016	Wednesday	55.48	20.36	116.72		1.27	
1/19/2016	Tuesday	38.69	15.10	110.08		1.68	
1/20/2016	Wednesday	38.06	13.65	98.15		1.60	
1/26/2016	Tuesday	41.37	12.01	90.67		1.48	
1/27/2016	Wednesday	35.79	15.00	91.14		1.56	
2/2/2016	Tuesday	35.99	11.89	98.29		1.72	
2/3/2016	Wednesday	53.75	21.01	143.81		1.58	
2/9/2016	Tuesday	45.55	15.16	110.34	1.02	1.56	3.73
2/10/2016	Wednesday	41.04	19.77	135.37		1.62	
2/16/2016	Tuesday	71.18	54.01	308.13		1.36	
2/17/2016	Wednesday	61.67	26.73	172.81		1.31	
2/23/2016	Tuesday	46.31	26.48	179.45		1.57	
2/24/2016	Wednesday	64.60	31.26	181.61		1.31	
3/1/2016	Tuesday	46.60	16.14	114.19		1.65	
3/2/2016	Wednesday	49.65	12.39	90.02		1.35	
3/8/2016	Tuesday	41.09	8.25	65.55	2.00	1.61	3.27
3/9/2016	Wednesday	38.67	11.75	97.83		1.71	
3/15/2016	Tuesday	57.80	12.76	95.77		1.24	
3/16/2016	Wednesday	48.22	12.61	98.63		1.30	
3/22/2016	Tuesday	37.31	10.79	97.83		1.39	
3/23/2016	Wednesday	37.78	9.55	83.67		1.28	
3/29/2016	Tuesday	35.20	10.68	85.79		1.39	
3/30/2016	Wednesday	35.88	12.03	94.90		1.37	
4/5/2016	Tuesday	45.73	16.11	120.97	1.66	1.05	2.83
4/6/2016	Wednesday	46.98	14.06	107.60		1.08	
4/12/2016	Tuesday	51.93	12.64	84.21		0.99	
4/13/2016	Wednesday	51.54	10.60	81.68		0.97	
4/19/2016	Tuesday	40.94	8.75	82.59		1.24	
4/20/2016	Wednesday	39.90	8.10	79.61		1.25	

Table 8: Field's Point Effluent Metals (Al-Mo)

Field's Point Effluent Metals Al - Mo 2016
all analyses in ppb

Date	Day of the Week	Effluent Flow	Al (ppb)	Fe (ppb)	Se (ppb)	As (ppb)	Mo (ppb)
4/26/2016	Tuesday	42.24	8.54	76.36		1.36	
4/27/2016	Wednesday	36.56	9.01	71.57		1.38	
5/3/2016	Tuesday	44.76	9.76	78.64	<1.00	1.24	2.87
5/4/2016	Wednesday	48.50	10.29	92.56		1.13	
5/10/2016	Tuesday	37.50	8.89	86.04		1.29	
5/11/2016	Wednesday	36.02	8.29	89.58		1.24	
5/17/2016	Tuesday	35.72	7.81	86.51		1.22	
5/18/2016	Wednesday	33.69	7.99	89.23		1.19	
5/24/2016	Tuesday	37.91	7.85	85.05		1.10	
5/25/2016	Wednesday	32.26	6.92	75.83		1.11	
5/31/2016	Tuesday	59.65	8.24	73.69		0.94	
6/1/2016	Wednesday	58.51	8.26	75.50		0.87	
6/7/2016	Tuesday	34.78	17.20	84.37	<1.00	1.16	5.77
6/8/2016	Wednesday	33.99	7.45	80.78		1.18	
6/14/2016	Tuesday	34.51	9.17	88.65		1.21	
6/15/2016	Wednesday	30.43	7.47	86.29		1.01	
6/21/2016	Tuesday	41.15	8.01	100.74		1.20	
6/22/2016	Wednesday	30.83	8.86	90.29		1.10	
6/28/2016	Tuesday	42.11	12.71	137.53		1.22	
6/29/2016	Wednesday	46.60	10.56	121.97		1.14	
7/5/2016	Tuesday	43.53	17.05	73.67		1.37	
7/6/2016	Wednesday	32.03	17.41	62.29		1.26	
7/12/2016	Tuesday	30.04	9.44	76.24	2.62	1.28	5.68
7/13/2016	Wednesday	30.41	8.59	81.13		1.20	
7/19/2016	Tuesday	29.60	14.02	66.35		1.23	
7/20/2016	Wednesday	29.03	7.78	69.21		1.33	
7/26/2016	Tuesday	30.36	8.13	95.14		1.21	
7/27/2016	Wednesday	29.66	9.23	87.60		1.22	
8/2/2016	Tuesday	42.59	18.17	89.16	1.20	1.14	3.88
8/3/2016	Wednesday	29.97	10.18	95.89		1.27	
8/9/2016	Tuesday	26.48	13.59	146.54		1.25	
8/10/2016	Wednesday	51.49	10.85	110.87		1.25	

Table 8: Field's Point Effluent Metals (Al-Mo)

Field's Point Effluent Metals Al - Mo 2016
all analyses in ppb

Date	Day of the Week	Effluent Flow	Al (ppb)	Fe (ppb)	Se (ppb)	As (ppb)	Mo (ppb)
8/16/2016	Tuesday	29.37	10.21	101.00		1.35	
8/17/2016	Wednesday	29.14	9.34	120.77		1.43	
8/23/2016	Tuesday	28.44	7.46	80.03		1.20	
8/24/2016	Wednesday	29.45	19.38	88.31		1.24	
8/30/2016	Tuesday	29.34	11.88	90.70		1.33	
8/31/2016	Wednesday	28.93	11.45	108.64		1.37	
9/6/2016	Tuesday	29.54	7.99	77.56		1.15	
9/7/2016	Wednesday	38.13	10.05	111.25		1.24	
9/13/2016	Tuesday	26.69	8.07	93.58	1.18	1.26	3.99
9/14/2016	Wednesday	28.61	8.79	84.13		1.27	
9/20/2016	Tuesday	27.99	8.00	88.75		1.11	
9/21/2016	Wednesday	28.04	7.76	89.69		1.19	
9/27/2016	Tuesday	36.29	8.38	96.74		1.17	
9/28/2016	Wednesday	27.32	8.30	88.55		1.22	
10/4/2016	Tuesday	27.92	8.48	109.47	1.42	1.12	5.37
10/5/2016	Wednesday	28.68	8.20	106.89		1.22	
10/11/2016	Tuesday	42.01	9.01	117.13		0.85	
10/12/2016	Wednesday	30.15	8.16	126.45		1.00	
10/18/2016	Tuesday	29.04	6.94	103.17		1.27	
10/19/2016	Wednesday	29.41	8.93	127.31		1.25	
10/25/2016	Tuesday	28.76	11.73	120.95		1.24	
10/26/2016	Wednesday	31.37	9.95	113.38		1.18	
11/1/2016	Tuesday	29.52	10.24	128.71		1.11	
11/2/2016	Wednesday	30.51	9.58	142.41		1.16	
11/8/2016	Tuesday	29.40	9.80	116.34		1.16	
11/9/2016	Wednesday	28.99	7.81	97.89		1.10	
11/15/2016	Tuesday	52.12	10.88	119.84	1.12	0.91	3.94
11/16/2016	Wednesday	52.97	14.19	134.04		0.91	
11/22/2016	Tuesday	27.66	10.47	108.60		1.03	
11/23/2016	Wednesday	28.63	9.46	120.63		1.20	
11/29/2016	Tuesday	52.74	13.36	120.31		1.25	
11/30/2016	Wednesday	64.57	18.96	147.38		1.30	

Table 8: Field's Point Effluent Metals (Al-Mo)

Field's Point Effluent Metals Al - Mo 2016
all analyses in ppb

Date	Day of the Week	Effluent Flow	Al (ppb)	Fe (ppb)	Se (ppb)	As (ppb)	Mo (ppb)
12/6/2016	Tuesday	32.26	10.14	117.11	1.89	1.65	5.63
12/7/2016	Wednesday	31.65	9.07	106.34		1.65	
12/13/2016	Tuesday	31.08	10.59	103.04		1.36	
12/14/2016	Wednesday	30.76	14.07	115.36		1.31	
12/20/2016	Tuesday	31.16	10.04	127.71		1.57	
12/21/2016	Wednesday	29.83	9.27	128.86		1.56	
12/27/2016	Tuesday	30.44	10.16	142.69		1.71	
12/28/2016	Wednesday	32.12	10.51	156.94		1.60	

Table 8: Field's Point Effluent Metals (Al-Mo)

Bucklin Point Influent Metals Cd - CN 2016
all results in ppb

Date	Day of the Week	Influent Flow	Cd	TTL Cr	Hex Cr	Cu	Pb	Hg	Ni	Ag	Zn	CN
1/5/2016	Tuesday	15.07	<2.5	<10.000	39.00	73.40	<10.000	0.02450	15.54	<4.0	119.7	
1/6/2016	Wednesday	15.27	<2.5	<10.000	50.00	54.60	<10.000	0.03560	12.39	<4.0	107.0	
1/7/2016	Thursday	15.22										5.020
1/8/2016	Friday	15.46										4.590
1/12/2016	Tuesday	20.57	<2.5	<10.000	44.00	48.28	<10.000	0.02780	10.04	<4.0	99.39	6.160
1/13/2016	Wednesday	17.20	<2.5	<10.000	27.00	51.93	<10.000	0.02520	12.09	<4.0	113.1	8.140
1/19/2016	Tuesday	17.15	<2.5	<10.000	26.00	45.42	<10.000	0.03210	28.62	<4.0	101.2	4.270
1/20/2016	Wednesday	16.83	<2.5	<10.000	33.00	44.46	<10.000	0.03290	25.64	<4.0	96.34	4.360
1/26/2016	Tuesday	18.94	<2.5	<10.000	28.00	39.21	<10.000	0.03250	<10.000	<4.0	87.3	6.180
1/27/2016	Wednesday	16.11	<2.5	<10.000	30.00	44.83	<10.000	0.04950	<10.000	<4.0	101.6	9.790
2/2/2016	Tuesday	14.83	<2.5	<10.000	39.00	42.21	<10.000	0.03330	<10.000	<4.0	80.74	6.040
2/3/2016	Wednesday	32.61	<2.5	<10.000	32.00	44.37	<10.000	0.03930	<10.000	<4.0	89.37	4.790
2/9/2016	Tuesday	18.82	<2.5	<10.000	35.00	26.57	<10.000	0.01570	<10.000	<4.0	51.39	6.470
2/10/2016	Wednesday	19.00	<2.5	<10.000	28.00	40.99	<10.000	0.04570	11.91	<4.0	82.58	7.080
2/16/2016	Tuesday	50.31	<2.5	<10.000	22.00	43.89	<10.000	0.02680	<10.000	<4.0	105.0	7.640
2/17/2016	Wednesday	20.83	<2.5	<10.000	<10.000	33.10	<10.000	0.02230	<10.000	<4.0	83.81	25.40
2/23/2016	Tuesday	18.95	<2.5	<10.000	29.00	49.83	<10.000	0.04930	<10.000	<4.0	106.0	5.120
2/24/2016	Wednesday	34.94	<2.5	<10.000	29.00	64.25	<10.000	0.04510	<10.000	<4.0	110.9	4.790
3/1/2016	Tuesday	18.83	<2.5	<10.000	22.00	29.25	<10.000	0.02070	<10.000	<4.0	55.26	5.150
3/2/2016	Wednesday	25.09	<2.5	<10.000	18.00	34.79	<10.000	0.01760	<10.000	<4.0	58.96	5.910
3/8/2016	Tuesday	17.61	<2.5	<10.000	29.00	42.93	<10.000	0.01900	<10.000	<4.0	56.46	5.570
3/9/2016	Wednesday	17.40	<2.5	<10.000	21.00	32.53	<10.000	0.01230	17.02	<4.0	41.75	4.580
3/15/2016	Tuesday	33.97	<2.5	<10.000	21.00	42.52	<10.000	0.02280	<10.000	<4.0	57.38	5.100
3/16/2016	Wednesday	18.90	<2.5	33.92	20.00	67.2	<10.000	0.02990	32.92	<4.0	87.58	5.200
3/22/2016	Tuesday	16.49	<2.5	14.88	31.00	57.69	<10.000	0.03610	21.84	<4.0	99.81	4.470
3/23/2016	Wednesday	16.98	<2.5	14.31	33.00	44.18	<10.000	0.02120	24.01	<4.0	69.47	5.060
3/29/2016	Tuesday	16.54	<2.5	<10.000	25.00	49.32	<10.000	0.05110	<10.000	<4.0	85.20	4.430
3/30/2016	Wednesday	15.87	<2.5	70.86	35.00	89.82	<10.000	0.05590	111.5	<4.0	114.1	4.400
4/5/2016	Tuesday	19.39	<2.5	<10.000	20.00	38.37	<10.000	0.01880	16.64	<4.0	79.37	5.110
4/6/2016	Wednesday	18.95	<2.5	<10.000	23.00	54.68	<10.000	0.04180	17.39	<4.0	156.1	5.160
4/12/2016	Tuesday	27.65	<2.5	<10.000	24.00	94.59	<10.000	0.04400	13.50	<4.0	140.5	5.220
4/13/2016	Wednesday	19.84	<2.5	<10.000	26.00	41.78	<10.000	0.03130	<10.000	<4.0	94.26	4.550
4/19/2016	Tuesday	18.37	<2.5	<10.000	22.00	66.53	10.01	0.05510	13.56	<4.0	114.1	6.510
4/20/2016	Wednesday	17.32	<2.5	<10.000	26.00	68.92	12.43	0.04980	21.19	<4.0	127.6	4.440
4/26/2016	Tuesday	21.83	<2.5	<10.000	27.00	58.37	<10.000	0.08230	19.31	<4.0	126.6	4.150
4/27/2016	Wednesday	17.53	<2.5	<10.000	20.00	54.78	<10.000	0.07130	<10.000	<4.0	113.2	6.360
5/3/2016	Tuesday	22.39	<2.5	<10.000	31.00	70.38	<10.000	0.05010	<10.000	<4.0	120.9	13.10
5/4/2016	Wednesday	29.12	<2.5	<10.000	29.00	64.98	<10.000	0.04530	<10.000	<4.0	109.2	4.680
5/10/2016	Tuesday	16.37	<2.5	<10.000	35.00	73.78	<10.000	0.04990	15.82	<4.0	109.9	4.630
5/11/2016	Wednesday	16.60	<2.5	<10.000	39.00	59.22	<10.000	0.06380	14.75	<4.0	106.4	4.650
5/17/2016	Tuesday	16.48	<2.5	<10.000	33.00	65.18	<10.000	0.05610	27.82	<4.0	116.9	4.750
5/18/2016	Wednesday	15.99	<2.5	<10.000	27.00	65.98	<10.000	0.04640	21.11	<4.0	103.9	4.790
5/24/2016	Tuesday	18.90	<2.5	<10.000	31.00	91.19	11.44	0.07580	27.43	<4.0	177.8	4.270
5/25/2016	Wednesday	14.77	<2.5	<10.000	36.00	83.76	<10.000	0.10900	10.18	<4.0	143.7	4.160
5/31/2016	Tuesday	15.41	<2.5	<10.000	51.00	42.09	<10.000	0.02940	<10.000	<4.0	82.94	5.090
6/1/2016	Wednesday	14.57	<2.5	<10.000	35.00	56.45	<10.000	0.0391	12.07	<4.0	93.47	5.120
6/7/2016	Tuesday	15.62	<2.5	<10.000	38.00	58.62	<10.000	0.06310	<10.000	<4.0	112.0	4.550
6/8/2016	Wednesday	15.15	<2.5	<10.000	37.00	69.62	<10.000	0.02220	22.55	<4.0	93.99	6.060
6/14/2016	Tuesday	13.90	<2.5	<10.000	35.00	68.01	<10.000	0.05850	15.01	<4.0	121.4	6.510
6/15/2016	Wednesday	13.80	<2.5	<10.000	39.00	75.79	<10.000	0.04220	10.17	<4.0	121.8	6.180
6/21/2016	Tuesday	17.43	<2.5	<10.000	40.00	79.43	17.50	0.03980	<10.000	<4.0	168.6	5.710
6/22/2016	Wednesday	12.91	<2.5	<10.000	49.00	68.29	<10.000	0.04680	<10.000	<4.0	120.9	6.660

Table 9: Bucklin Point Influent Metals and Cyanide (Cd-CN)

Bucklin Point Influent Metals Cd - CN 2016
all results in ppb

Date	Day of the Week	Influent Flow	Cd	TTL Cr	Hex Cr	Cu	Pb	Hg	Ni	Ag	Zn	CN
6/28/2016	Tuesday	12.83	<2.5	<10.000	56.00	70.35	<10.000	0.06110	<10.000	<4.0	130.5	6.410
6/29/2016	Wednesday	24.89	<2.5	<10.000	45.00	77.23	16.31	0.05870	13.24	<4.0	174.0	5.030
7/5/2016	Tuesday	20.98	<2.5	<10.000	40.00	60.94	<10.000	0.02700	<10.000	<4.0	123.1	4.340
7/6/2016	Wednesday	12.13	<2.5	<10.000	56.00	62.55	<10.000	0.04620	<10.000	<4.0	123.5	4.180
7/12/2016	Tuesday	12.03	<2.5	<10.000	38.00	75.50	<10.000	0.04580	15.90	<4.0	123.4	<4.00
7/13/2016	Wednesday	12.09	<2.5	<10.000	51.00	70.16	<10.000	0.07060	28.04	<4.0	148.9	<4.00
7/19/2016	Tuesday	11.95	<2.5	<10.000	47.00	78.94	<10.000	0.05840	18.95	<4.0	143.7	5.140
7/20/2016	Wednesday	11.72	<2.5	14.37	47.00	55.59	<10.000	0.03180	30.15	<4.0	119.9	4.840
7/26/2016	Tuesday	11.36	<2.5	<10.000	48.00	80.84	<10.000	0.02660	18.67	<4.0	141.0	4.350
7/27/2016	Wednesday	11.38	<2.5	<10.000	38.00	96.26	<10.000	0.0462	25.43	<4.0	147.6	4.530
8/2/2016	Tuesday	16.70	<2.5	<10.000	46.00	88.49	13.27	0.04880	15.77	4.968	173.3	4.770
8/3/2016	Wednesday	11.65	<2.5	<10.000	48.00	85.73	<10.000	0.03160	14.02	<4.0	141.5	4.170
8/9/2016	Tuesday	11.37	<2.5	<10.000	61.00	71.68	12.82	0.03670	<10.000	<4.0	139.9	5.130
8/10/2016	Wednesday	22.11	<2.5	<10.000	38.00	102.4	15.34	0.07100	16.23	<4.0	172.6	4.850
8/16/2016	Tuesday	12.39	<2.5	<10.000	49.00	75.61	<10.000	0.08430	24.74	<4.0	131.4	6.130
8/17/2016	Wednesday	11.88	<2.5	<10.000	39.00	75.58	<10.000	0.07210	<10.000	<4.0	140.5	6.510
8/23/2016	Tuesday	11.70	<2.5	<10.000	39.00	68.52	<10.000	0.1010	28.37	<4.0	131.3	5.670
8/24/2016	Wednesday	11.70	<2.5	<10.000	60.00	68.34	<10.000	0.04170	22.79	<4.0	144.3	6.530
8/30/2016	Tuesday	11.43	<2.5	<10.000	50.00	97.68	<10.000	0.13200	72.05	4.609	147.9	7.300
8/31/2016	Wednesday	12.25	<2.5	58.76	43.00	161.0	<10.000	0.06730	214.7	<4.0	147.0	<4.00
9/6/2016	Tuesday	14.06	<2.5	12.54	46.00	81.29	<10.000	0.04990	27.23	<4.0	129.6	<4.00
9/7/2016	Wednesday	12.90	<2.5	<10.000	42.00	91.61	<10.000	0.06810	70.27	<4.0	147.8	<4.00
9/13/2016	Tuesday	11.30	<2.5	44.79	43.00	84.70	<10.000	0.05310	16.65	6.304	142.0	5.090
9/14/2016	Wednesday	11.18	<2.5	<10.000	81.00	54.10	<10.000	0.03670	10.14	<4.0	128.2	4.070
9/20/2016	Tuesday	12.09	<2.5	19.67	59.00	68.35	<10.000	0.04820	22.79	<4.0	112.1	4.110
9/21/2016	Wednesday	10.93	<2.5	13.69	64.00	65.93	<10.000	0.05210	13.59	<4.0	110.5	4.640
9/27/2016	Tuesday	17.63	<2.5	13.40	41.00	83.20	<10.000	0.05970	19.43	4.894	144.5	5.040
9/28/2016	Wednesday	12.50	<2.5	<10.000	48.00	76.07	<10.000	0.04790	<10.000	4.162	124.6	6.970
10/4/2016	Tuesday	12.41	<2.5	<10.000	55.00	90.11	<10.000	0.04450	17.81	<4.0	126.4	5.650
10/5/2016	Wednesday	11.59	<2.5	<10.000	53.00	73.39	<10.000	0.05960	21.37	<4.0	146.8	4.280
10/11/2016	Tuesday	12.26	<2.5	<10.000	57.00	41.99	<10.000	0.04020	<10.000	<4.0	96.21	<4.00
10/12/2016	Wednesday	11.99	<2.5	<10.000	41.00	76.00	<10.000	0.10200	13.11	4.783	139.4	<4.00
10/18/2016	Tuesday	12.41	<2.5	<10.000	43.00	89.24	<10.000	0.0632	16.04	6.177	151.7	8.290
10/19/2016	Wednesday	12.52	<2.5	11.09	44.00	95.89	<10.000	0.06860	16.19	9.459	177.5	9.380
10/25/2016	Tuesday	12.12	<2.5	<10.000	60.00	60.96	<10.000	0.05580	22.00	<4.0	116.5	4.790
10/26/2016	Wednesday	11.77	<2.5	14.94	67.00	92.87	<10.000	0.05610	44.52	<4.0	120.3	4.470
11/1/2016	Tuesday	12.03	<2.5	<10.000	49.00	81.43	<10.000	0.04260	17.14	6.381	124.4	4.020
11/2/2016	Wednesday	12.34	<2.5	13.95	44.00	93.02	<10.000	0.06170	58.11	4.027	116.0	4.970
11/8/2016	Tuesday	11.72	<2.5	<10.000	46.00	107.5	<10.000	0.05970	18.85	4.328	158.8	5.920
11/9/2016	Wednesday	12.32	<2.5	<10.000	45.00	95.41	<10.000	0.06240	23.09	<4.0	144.3	4.860
11/15/2016	Tuesday	29.21	<2.5	<10.000	56.00	102.0	<10.000	0.09240	23.80	5.298	172.1	4.290
11/16/2016	Wednesday	13.28	<2.5	15.49	39.00	70.09	12.17	0.04890	22.13	<4.0	145.9	<4.00
11/21/2016	Monday	12.26	<2.5	21.15	52.00	60.08	<10.000	0.03300	<10.000	<4.0	108.9	
11/22/2016	Tuesday	11.79	<2.5	32.96	49.00	79.18	<10.000	0.05030	10.81	<4.0	134.4	6.930
11/23/2016	Wednesday	12.15										6.910
11/29/2016	Tuesday	34.39	<2.5	10.91	54.00	87.47	<10.000	0.04810	13.99	<4.0	135.1	4.310
11/30/2016	Wednesday	18.64	<2.5	<10.000	26.00	55.35	<10.000	0.16000	<10.000	<4.0	114.9	5.460
12/6/2016	Tuesday	12.76	<2.5	<10.000	33.00	102.8	<10.000	0.06830	11.93	<4.0	149.2	4.610
12/7/2016	Wednesday	15.27	<2.5	<10.000	32.00	85.15	<10.000	0.04000	24.81	<4.0	164.6	4.990
12/13/2016	Tuesday	13.16	<2.5	<10.000	40.00	96.42	<10.000	0.03080	20.33	<4.0	114.2	6.430
12/14/2016	Wednesday	12.65	<2.5	<10.000	45.00	77.98	<10.000	0.06190	19.79	<4.0	116.7	6.510
12/20/2016	Tuesday	13.57	<2.5	13.69	42.00	38.62	<10.000	0.06860	20.22	<4.0	100.6	5.570

Table 9: Bucklin Point Influent Metals and Cyanide (Cd-CN)

Bucklin Point Influent Metals Cd - CN 2016
all results in ppb

Date	Day of the Week	Influent Flow	Cd	TTL Cr	Hex Cr	Cu	Pb	Hg	Ni	Ag	Zn	CN
12/21/2016	Wednesday	13.34	<2.5	20.55	43.00	60.92	<10.000	0.0390	11.65	<4.0	117.3	5.110
12/27/2016	Tuesday	13.68	<2.5	<10.000	45.00	54.26	<10.000	0.0248	<10.000	<4.0	120.2	6.000
12/28/2016	Wednesday	13.26	<2.5	13.33	41.00	64.10	<10.000	0.02690	13.14	<4.0	96.68	6.960

Table 9: Bucklin Point Influent Metals and Cyanide (Cd-CN)

Bucklin Point Influent Metals Al - Sn 2016
all anayses in ppb

Date	Day of the Week	Influent Flow	Al	Fe	Se	As	Mo	Sn
1/5/2016	Tuesday	15.07	357.1	1461.0000	<1.000	1.195	3.551	<5.00
1/6/2016	Wednesday	15.27	276.7	1243.0000				<5.00
1/12/2016	Tuesday	20.57	263.6	1167.0000	<1.000	1.228	4.786	<5.00
1/13/2016	Wednesday	17.20	289.9	1230.0000				<5.00
1/19/2016	Tuesday	17.15	541.6	1086.0000	<1.000	1.034	5.034	<5.00
1/20/2016	Wednesday	16.83	317.0	999.1				<5.00
1/26/2016	Tuesday	18.94	153.9	884.2	<1.000	0.990	2.291	<5.00
1/27/2016	Wednesday	16.11	276.8	966.2				<5.00
2/2/2016	Tuesday	14.83	143.2	850.0	<1.000	1.095	4.842	<5.00
2/3/2016	Wednesday	32.61	222.5	1290.0000				<5.00
2/9/2016	Tuesday	18.82	102.5	750.2	<1.000	1.077	8.007	<5.00
2/10/2016	Wednesday	19.00	274.6	1117.0000				<5.00
2/16/2016	Tuesday	50.31	525.2	1652.0000	<1.000	1.406	1.604	<5.00
2/17/2016	Wednesday	20.83	531.9	1605.0000				<5.00
2/23/2016	Tuesday	18.95	254.7	1102.0000	<1.000	1.075	12.753	<5.00
2/24/2016	Wednesday	34.94	400.1	1208.0000				<5.00
3/1/2016	Tuesday	18.83	102.4	626.0	<1.000	0.877	1.332	<5.00
3/2/2016	Wednesday	25.09	139.7	687.4				<5.00
3/8/2016	Tuesday	17.61	137.7	722.5	<1.000	1.201	1.321	<5.00
3/9/2016	Wednesday	17.40	100.7	706.5				<5.00
3/15/2016	Tuesday	33.97	188.1	705.3	<1.000	0.773	1.431	<5.00
3/16/2016	Wednesday	18.90	885.1	1044.0000				<5.00
3/22/2016	Tuesday	16.49	255.1	1094.0000	<1.000	0.987	2.022	<5.00
3/23/2016	Wednesday	16.98	169.9	904.4				<5.00
3/29/2016	Tuesday	16.54	280.7	1023.0000	<1.000	1.047	1.752	<5.00
3/30/2016	Wednesday	15.87	242.9	1029.0000				<5.00
4/5/2016	Tuesday	19.39	188.9	942.6	<1.000	1.135	2.946	<5.00
4/6/2016	Wednesday	18.95	398.3	1186.0000				<5.00
4/12/2016	Tuesday	27.65	344.9	1317.0000	<1.000	1.035	1.877	<5.00
4/13/2016	Wednesday	19.84	256.6	1043.0000				<5.00
4/19/2016	Tuesday	18.37	298.2	1263.0000	<1.000	1.060	1.615	<5.00
4/20/2016	Wednesday	17.32	339.5	1347.0000				<5.00
4/26/2016	Tuesday	21.83	372.5	1274.0000	<1.000	1.213	7.476	<5.00
4/27/2016	Wednesday	17.53	313.6	1219.0000				5.473
5/3/2016	Tuesday	22.39	416.0	1296.0000	<1.000	1.317	10.760	<5.00
5/4/2016	Wednesday	29.12	257.6	1055.0000				<5.00
5/10/2016	Tuesday	16.37	253.9	1088.0000	<1.000	1.068	1.688	<5.00
5/11/2016	Wednesday	16.60	231.8	1125.0000				<5.00
5/17/2016	Tuesday	16.48	647.5	1107.0000	<1.000	1.229	3.924	<5.00
5/18/2016	Wednesday	15.99	910.8	1024.0000				<5.00
5/24/2016	Tuesday	18.90	586.7	1743.0000	<1.000	1.263	2.276	<5.00
5/25/2016	Wednesday	14.77	357.5	1434.0000				<5.00

Table 10: Bucklin Point Influent Metals (Al-Sn)

Bucklin Point Influent Metals Al - Sn 2016
all anayses in ppb

Date	Day of the Week	Influent Flow	Al	Fe	Se	As	Mo	Sn
5/31/2016	Tuesday	15.41	197.4	1055.0000	<1.000	1.117	1.588	<5.00
6/1/2016	Wednesday	14.57	222.6	1101.0000				<5.00
6/7/2016	Tuesday	15.62	297.1	1271.0000	<1.000	1.984	12.151	<5.00
6/8/2016	Wednesday	15.15	290.0	1238.0000				<5.00
6/14/2016	Tuesday	13.90	294.7	1231.0000	<1.000	1.276	23.933	<5.00
6/15/2016	Wednesday	13.80	322.1	1246.0000				<5.00
6/21/2016	Tuesday	17.43	641.8	1776.0000	<1.000	1.567	4.600	<5.00
6/22/2016	Wednesday	12.91	312.3	1294.0000				<5.00
6/28/2016	Tuesday	12.83	349.9	1293.0000	<1.000	1.718	7.018	<5.00
6/29/2016	Wednesday	24.89	682.4	1752.0000				<5.00
7/5/2016	Tuesday	20.98	335.4	1208.0000	<1.000	1.345	2.118	<5.00
7/6/2016	Wednesday	12.13	260.9	1167.0000				<5.00
7/12/2016	Tuesday	12.03	720.6	1268.0000	<1.000	1.550	2.989	<5.00
7/13/2016	Wednesday	12.09	428.4	1422.0000				<5.00
7/19/2016	Tuesday	11.95	370.5	1383.0000	<1.000	1.584	6.782	<5.00
7/20/2016	Wednesday	11.72	302.1	1553.0000				<5.00
7/26/2016	Tuesday	11.36	419.1	1374.0000	<1.000	1.749	6.327	<5.00
7/27/2016	Wednesday	11.38	397.7	1452.0000				<5.00
8/2/2016	Tuesday	16.70	938.8	1968.0000	<1.000	1.677	4.137	<5.00
8/3/2016	Wednesday	11.65	449.1	1511.0000				<5.00
8/9/2016	Tuesday	11.37	1051.0000	1526.0000	<1.000	1.602	2.960	<5.00
8/10/2016	Wednesday	22.11	649.7	1688.0000				<5.00
8/16/2016	Tuesday	12.39	328.5	1246.0000	<1.000	1.421	3.067	<5.00
8/17/2016	Wednesday	11.88	334.0	1213.0000				5.118
8/23/2016	Tuesday	11.70	335.4	1407.0000	<1.000	2.139	7.314	<5.00
8/24/2016	Wednesday	11.70	367.8	1458.0000				<5.00
8/30/2016	Tuesday	11.43	411.7	1339.0000	<1.000	1.576	6.833	7.503
8/31/2016	Wednesday	12.25	431.3	1336.0000				<5.00
9/6/2016	Tuesday	14.06	853.0	1314.0000	<1.000	1.600	3.055	<5.00
9/7/2016	Wednesday	12.90	392.4	1327.0000				7.264
9/13/2016	Tuesday	11.30	387.4	1286.0000	<1.000	1.385	22.600	<5.00
9/14/2016	Wednesday	11.18	359.7	1163.0000				<5.00
9/20/2016	Tuesday	12.09	349.1	1223.0000	<1.000	1.368	6.103	<5.00
9/21/2016	Wednesday	10.93	333.8	1279.0000				<5.00
9/27/2016	Tuesday	17.63	1327.0000	1377.0000	<1.000	1.693	14.955	<5.00
9/28/2016	Wednesday	12.50	355.1	1220.0000				<5.00
10/4/2016	Tuesday	12.41	392.6	1356.0000	<1.000	1.307	13.344	<5.00
10/5/2016	Wednesday	11.59	472.3	1405.0000				<5.00
10/11/2016	Tuesday	12.26	237.9	1239.0000	<1.000	1.212	10.272	<5.00
10/12/2016	Wednesday	11.99	381.7	1318.0000				<5.00
10/18/2016	Tuesday	12.41	402.9	1336.0000	<1.000	1.248	4.878	10.86
10/19/2016	Wednesday	12.52	2380.0000	1523.0000				7.459

Table 10: Bucklin Point Influent Metals (Al-Sn)

Bucklin Point Influent Metals Al - Sn 2016
all anayses in ppb

Date	Day of the Week	Influent Flow	Al	Fe	Se	As	Mo	Sn
10/25/2016	Tuesday	12.12	327.8	1276.0000	<1.000	1.258	2.739	<5.00
10/26/2016	Wednesday	11.77	348.7	1230.0000				<5.00
11/1/2016	Tuesday	12.03	293.6	1231.0000	<1.000	1.528	12.438	<5.00
11/2/2016	Wednesday	12.34	267.0	1094.0000				<5.00
11/8/2016	Tuesday	11.72	482.4	1318.0000	<1.000	1.486	7.991	<5.00
11/9/2016	Wednesday	12.32	426.2	1228.0000				<5.00
11/15/2016	Tuesday	29.21	946.6	1444.0000	<1.000	1.436	4.311	<5.00
11/16/2016	Wednesday	13.28	571.4	1397.0000				<5.00
11/21/2016	Monday	12.26	1048.0000	1263.0000	<1.000	1.543	10.694	<5.00
11/22/2016	Tuesday	11.79	442.3	1391.0000				<5.00
11/29/2016	Tuesday	34.39	462.2	1317.0000	<1.000	0.911	4.123	<5.00
11/30/2016	Wednesday	18.64	490.7	1246.0000				<5.00
12/6/2016	Tuesday	12.76	508.3	1346.0000	<1.000	0.942	2.910	<5.00
12/7/2016	Wednesday	15.27	450.3	1352.0000				<5.00
12/13/2016	Tuesday	13.16	403.4	1324.0000	<1.000	0.893	7.285	<5.00
12/14/2016	Wednesday	12.65	311.9	1130.0000				<5.00
12/20/2016	Tuesday	13.57	244.5	1572.0000	<1.000	1.313	3.933	<5.00
12/21/2016	Wednesday	13.34	284.2	1257.0000				<5.00
12/27/2016	Tuesday	13.68	308.6	1185.0000	<1.000	1.216	3.173	<5.00
12/28/2016	Wednesday	13.26	538.0	1164.0000				5.033

Table 10: Bucklin Point Influent Metals (Al-Sn)

Bucklin Point Effluent Metals Cd - CN 2016
all analyses in ppb

Date	Day of the Week	Effluent Flow	Cd	TTL Cr	Hex Cr	Cu	Pb	Hg	Ni	Ag	Zn	CN
1/5/2016	Tuesday	15.07	0.026	0.665	<10.000	5.074	0.404	4.440	4.214	0.041	36.220	
1/6/2016	Wednesday	15.27	0.031	1.090	<10.000	7.217	0.440	<2.0	4.446	0.049	40.165	
1/7/2016	Thursday	15.22										<4.00
1/8/2016	Friday	15.46										<4.00
1/12/2016	Tuesday	20.57	0.027	0.833	<10.000	5.076	0.456	5.310	4.298	0.074	34.528	4.700
1/13/2016	Wednesday	17.20	0.025	0.910	<10.000	5.134	0.459	3.700	4.507	0.075	37.143	4.380
1/19/2016	Tuesday	17.15	0.045	0.557	<10.000	5.361	0.449	4.340	11.493	0.059	39.292	4.440
1/20/2016	Wednesday	16.83	0.034	0.668	<10.000	6.030	0.457	4.420	10.646	0.057	40.716	<4.00
1/26/2016	Tuesday	18.94	0.035	0.603	<10.000	6.586	0.486	4.440	4.905	0.075	39.184	4.770
1/27/2016	Wednesday	16.11	0.025	0.595	<10.000	5.438	0.505	5.310	4.389	0.076	40.255	6.000
2/2/2016	Tuesday	14.83	0.050	0.524	<10.000	7.628	0.540	3.430	6.236	0.071	44.165	<4.00
2/3/2016	Wednesday	25.94	0.038	0.791	<10.000	9.338	0.802	5.240	5.368	0.137	41.266	6.640
2/9/2016	Tuesday	18.82	0.032	0.452	<10.000	4.866	0.409	5.080	3.480	0.046	33.434	<4.00
2/10/2016	Wednesday	19.00	0.033	0.501	<10.000	5.244	0.414	3.570	3.904	0.063	35.532	<4.00
2/16/2016	Tuesday	36.06	0.047	1.011	<10.000	9.928	1.060	8.760	3.639	0.155	37.369	4.310
2/17/2016	Wednesday	20.83	0.026	0.537	<10.000	5.133	0.458	5.940	5.165	0.067	30.871	8.050
2/23/2016	Tuesday	18.95	0.17	0.521	<10.000	7.749	0.602	4.930	7.686	0.119	40.813	6.410
2/24/2016	Wednesday	34.94	0.076	1.618	<10.000	12.708	1.482	9.310	6.810	0.263	39.550	4.220
3/1/2016	Tuesday	18.83	0.035	0.645	<10.000	6.306	0.635	3.480	8.282	0.083	36.562	4.050
3/2/2016	Wednesday	25.09	0.050	1.136	<10.000	11.576	1.309	10.50	7.786	0.186	36.243	<4.00
3/8/2016	Tuesday	17.61	0.035	0.736	<10.000	5.581	0.524	4.400	5.812	0.062	37.936	5.260
3/9/2016	Wednesday	17.40	0.032	0.825	<10.000	5.383	0.484	2.930	7.030	0.059	38.516	<4.00
3/15/2016	Tuesday	33.97	0.026	1.168	<10.000	5.984	0.513	4.580	3.840	0.081	27.912	<4.00
3/16/2016	Wednesday	18.90	0.027	1.117	<10.000	4.902	0.458	2.960	5.835	0.060	33.430	4.690
3/22/2016	Tuesday	16.49	0.030	0.791	<10.000	5.065	0.465	3.760	6.321	0.053	38.054	6.630
3/23/2016	Wednesday	16.98	0.034	0.837	<10.000	5.064	0.461	10.50	7.976	0.054	40.365	4.280
3/29/2016	Tuesday	16.54	0.025	0.825	<10.000	5.591	0.477	4.650	5.999	0.061	38.063	6.780
3/30/2016	Wednesday	15.87	0.026	0.897	<10.000	6.744	0.501	4.680	8.704	0.051	41.618	4.440
4/5/2016	Tuesday	19.39	0.029	1.283	<10.000	5.689	0.495	3.940	8.351	0.067	44.642	5.900
4/6/2016	Wednesday	18.95	0.036	1.017	<10.000	5.693	0.522	4.240	9.104	0.062	44.660	6.640
4/12/2016	Tuesday	27.65	0.027	0.934	<10.000	5.787	0.577	<2.0	6.734	0.060	36.737	5.540
4/13/2016	Wednesday	19.84	0.029	0.787	<10.000	4.672	0.570	<2.0	6.986	0.049	39.086	15.20
4/19/2016	Tuesday	18.37	0.041	0.563	<10.000	4.235	0.524	7.540	6.767	0.039	37.981	7.560
4/20/2016	Wednesday	17.32	0.045	0.562	<10.000	4.739	0.584	5.670	9.940	0.040	45.369	5.520
4/26/2016	Tuesday	21.83	0.062	0.743	<10.000	7.020	0.657	4.980	6.732	0.062	60.728	4.750
4/27/2016	Wednesday	17.53	0.157	0.689	<10.000	5.436	0.486	3.030	6.506	0.039	47.167	4.070
5/3/2016	Tuesday	22.39	0.035	1.198	<10.000	6.686	0.557	4.560	7.453	0.050	43.958	4.810
5/4/2016	Wednesday	25.79	0.039	1.213	<10.000	6.896	0.624	5.640	7.493	0.061	45.056	5.180
5/10/2016	Tuesday	16.37	0.046	0.648	<10.000	5.186	0.592	2.440	15.957	0.044	46.981	5.530
5/11/2016	Wednesday	16.60	0.039	0.739	<10.000	5.305	0.612	3.400	11.279	0.050	45.459	4.310
5/17/2016	Tuesday	16.48	0.042	0.711	<10.000	5.986	0.666	3.590	8.447	0.045	60.012	4.670
5/18/2016	Wednesday	15.99	0.040	0.890	<10.000	6.176	0.627	2.600	7.543	0.045	49.093	4.170
5/24/2016	Tuesday	18.90	0.089	0.708	<10.000	5.033	0.778	2.960	8.560	0.049	50.526	5.020
5/25/2016	Wednesday	14.77	0.169	0.753	<10.000	5.163	0.717	2.440	9.027	0.055	49.683	4.180
5/31/2016	Tuesday	15.41	0.040	0.611	<10.000	5.913	0.599	4.160	4.084	0.063	39.288	5.610
6/1/2016	Wednesday	14.57	0.041	0.664	<10.000	5.829	0.688	3.200	5.617	0.067	45.734	4.590

Table 11: Bucklin Point Effluent Metals and Cyanide (Cd-CN)

Bucklin Point Effluent Metals Cd - CN 2016
all analyses in ppb

Date	Day of the Week	Effluent Flow	Cd	TTL Cr	Hex Cr	Cu	Pb	Hg	Ni	Ag	Zn	CN
6/7/2016	Tuesday	15.62	0.073	0.842	<10.000	6.620	1.351	4.780	6.594	0.096	62.062	7.880
6/8/2016	Wednesday	15.15	0.049	1.140	<10.000	7.548	1.358	5.360	10.728	0.190	52.751	4.040
6/14/2016	Tuesday	13.90	0.105	1.290	<10.000	11.500	1.110	5.840	7.987	0.160	55.839	4.860
6/15/2016	Wednesday	13.80	0.158	1.559	<10.000	10.376	1.069	6.480	6.962	0.162	53.429	4.800
6/21/2016	Tuesday	17.43	0.295	1.087	<10.000	11.382	1.226	7.590	4.615	0.232	50.414	5.340
6/22/2016	Wednesday	12.91	0.057	1.407	<10.000	12.692	1.381	8.890	5.553	0.262	54.780	8.530
6/28/2016	Tuesday	12.83	0.096	1.487	<10.000	14.879	1.475	4.410	6.693	0.320	55.294	4.780
6/29/2016	Wednesday	24.89	0.045	1.794	<10.000	15.111	1.367	10.20	5.932	0.329	47.146	5.420
7/5/2016	Tuesday	20.69	0.054	0.910	<10.000	10.424	1.082	5.190	3.735	0.178	44.846	<4.00
7/6/2016	Wednesday	12.13	0.052	0.968	<10.000	7.656	0.886	5.550	5.018	0.140	47.800	<4.00
7/12/2016	Tuesday	12.03	0.11	3.3875	<10.000	29.4225	2.8815	3.915	8.0725	1.944	73.4025	<4.00
7/13/2016	Wednesday	12.09	0.041	0.714	<10.000	6.0795	0.697	3.055	9.701	0.1665	46.764	<4.00
7/19/2016	Tuesday	11.95	0.053	0.904	<10.000	6.378	0.592	2.580	9.632	0.096	51.792	4.680
7/20/2016	Wednesday	11.72	0.046	1.034	<10.000	6.442	0.631	2.230	9.725	0.094	50.772	<4.00
7/26/2016	Tuesday	11.36	0.054	0.870	<10.000	7.923	0.535	2.670	9.726	0.095	42.896	<4.00
7/27/2016	Wednesday	11.38	0.051	1.192	<10.000	9.095	0.464	3.170	13.412	0.112	42.124	<4.00
8/2/2016	Tuesday	16.70	0.047	0.960	<10.000	8.352	0.481	5.180	7.247	0.135	45.906	6.530
8/3/2016	Wednesday	11.65	0.048	1.240	<10.000	8.340	0.470	3.540	9.098	0.145	53.119	4.070
8/9/2016	Tuesday	11.37	0.055	0.637	<10.000	7.223	0.667	4.120	4.813	0.095	48.511	4.220
8/10/2016	Wednesday	21.47	0.039	0.903	<10.000	6.536	0.588	3.930	5.729	0.106	44.784	<4.00
8/16/2016	Tuesday	12.39	0.044	2.372	<10.000	10.136	0.424	3.370	9.202	0.1	45.82	5.020
8/17/2016	Wednesday	11.88	0.043	1.977	<10.000	9.074	0.406	3.410	10.610	0.089	45.710	7.11
8/23/2016	Tuesday	11.70	0.035	5.628	<10.000	6.077	0.476	6.740	28.857	0.070	40.291	<4.00
8/24/2016	Wednesday	11.70	0.036	1.588	<10.000	6.532	0.480	4.250	7.939	0.077	45.084	4.520
8/30/2016	Tuesday	11.43	0.032	2.975	<10.000	5.654	0.509	8.120	16.040	0.073	44.417	<4.00
8/31/2016	Wednesday	12.25	0.027	5.161	<10.000	5.261	0.497	5.710	25.013	0.066	42.927	<4.00
9/6/2016	Tuesday	14.06	0.038	1.802	<10.000	6.370	0.448	3.890	9.352	0.077	43.008	<4.00
9/7/2016	Wednesday	12.90	0.036	1.571	<10.000	6.405	0.408	3.800	12.075	0.072	42.509	<4.00
9/13/2016	Tuesday	11.30	0.038	3.778	<10.000	7.512	0.410	5.270	14.816	0.124	45.612	<4.00
9/14/2016	Wednesday	11.18	0.041	2.319	<10.000	8.466	0.477	3.210	12.819	0.111	48.966	4.830
9/20/2016	Tuesday	12.09	0.031	3.128	<10.000	6.045	0.314	2.320	12.448	0.121	38.028	<4.00
9/21/2016	Wednesday	10.93	0.032	2.323	<10.000	6.526	0.306	3.690	11.584	0.107	40.532	5.670
9/27/2016	Tuesday	17.63	0.022	1.633	<10.000	5.862	0.438	3.400	8.680	0.151	37.453	5.780
9/28/2016	Wednesday	12.50	0.022	1.119	<10.000	4.622	<0.300	2.390	7.607	0.087	32.771	4.220
10/4/2016	Tuesday	12.41	0.043	1.083	<10.000	8.170	0.459	5.760	8.164	0.124	39.495	4.020
10/5/2016	Wednesday	11.59	0.026	1.538	<10.000	5.421	0.352	2.510	10.294	0.107	39.026	<4.00
10/11/2016	Tuesday	12.26	0.021	2.118	<10.000	4.347	0.382	4.270	11.978	0.102	39.614	<4.00
10/12/2016	Wednesday	11.99	0.024	0.932	<10.000	4.875	0.376	3.480	7.021	0.098	39.318	<4.00
10/18/2016	Tuesday	12.41	0.021	0.762	<10.000	4.517	0.385	3.170	7.319	0.127	42.479	4.480
10/19/2016	Wednesday	12.52	0.023	0.862	<10.000	4.648	0.353	3.060	9.144	0.136	41.137	5.810
10/25/2016	Tuesday	12.12	0.032	1.317	<10.000	6.444	0.565	4.19	8.794	0.215	44.106	7.940
10/26/2016	Wednesday	11.77	0.023	2.103	<10.000	5.030	0.425	3.940	14.284	0.143	43.062	4.260
11/1/2016	Tuesday	12.03	0.030	6.295	<10.000	6.020	0.595	3.300	17.501	0.135	41.997	<4.00
11/2/2016	Wednesday	12.34	0.028	1.323	<10.000	7.176	0.421	3.940	8.917	0.131	42.909	<4.00
11/8/2016	Tuesday	11.72	0.024	1.899	<10.000	5.529	0.452	3.160	7.724	0.135	44.584	6.380
11/9/2016	Wednesday	12.32	0.031	5.575	<10.000	6.108	0.644	4.610	13.056	0.153	45.552	<4.00

Table 11: Bucklin Point Effluent Metals and Cyanide (Cd-CN)

Bucklin Point Effluent Metals Cd - CN 2016
all analyses in ppb

Date	Day of the Week	Effluent Flow	Cd	TTL Cr	Hex Cr	Cu	Pb	Hg	Ni	Ag	Zn	CN
11/15/2016	Tuesday	23.12	0.021	2.195	<10.000	5.596	0.461	3.180	7.107	0.206	35.638	4.760
11/16/2016	Wednesday	13.28	0.022	1.039	<10.000	5.021	0.380	3.540	6.618	0.141	37.292	<4.00
11/21/2016	Monday	12.26	0.024	3.922	<10.000	5.115	0.411	3.810	5.589	0.136	43.524	
11/22/2016	Tuesday	11.79	0.021	3.481	<10.000	4.654	0.387	3.120	5.748	0.138	39.968	8.930
11/23/2016	Wednesday	12.15										6.260
11/29/2016	Tuesday	25.87	0.026	1.779	<10.000	6.491	0.560	4.440	6.057	0.240	36.352	7.190
11/30/2016	Wednesday	18.64	0.020	3.211	<10.000	4.824	0.417	3.470	13.401	0.153	31.605	6.710
12/6/2016	Tuesday	12.76	0.025	1.210	<10.000	4.782	0.456	2.190	7.290	0.099	43.015	6.510
12/7/2016	Wednesday	15.27	0.020	0.764	<10.000	4.146	0.377	2.210	6.745	0.091	39.159	4.260
12/13/2016	Tuesday	13.16	0.025	1.244	<10.000	4.638	0.365	28.70	6.722	0.096	37.817	8.360
12/14/2016	Wednesday	12.65	0.031	7.273	<10.000	5.141	0.450	5.090	8.910	0.111	42.932	10.00
12/20/2016	Tuesday	13.57	0.033	13.458	<10.000	4.984	0.489	3.580	8.238	0.120	44.819	7.250
12/21/2016	Wednesday	13.34	0.032	20.669	<10.000	4.668	0.531	2.260	9.842	0.108	45.987	7.100
12/27/2016	Tuesday	13.68	0.028	1.784	<10.000	4.654	0.424	2.910	3.560	0.072	39.711	7.830
12/28/2016	Wednesday	13.26	0.031	1.219	<10.000	4.711	0.412	2.220	7.188	0.080	44.200	7.320

Table 11: Bucklin Point Effluent Metals and Cyanide (Cd-CN)

Bucklin Point Effluent Metals Al - Sn 2016
all analyses in ppb

Date	Day of the Week	Effluent Flow	Al	Fe	Se	As	Mo	Sn
1/5/2016	Tuesday	15.07	18.066	74.784	<1.000	0.970	2.004	<5.00
1/6/2016	Wednesday	15.27	19.781	85.518				12.38
1/12/2016	Tuesday	20.57	23.164	101.666				<5.00
1/13/2016	Wednesday	17.20	21.201	94.135				<5.00
1/19/2016	Tuesday	17.15	26.804	98.999				<5.00
1/20/2016	Wednesday	16.83	25.694	95.367				<5.00
1/26/2016	Tuesday	18.94	29.132	126.221				<5.00
1/27/2016	Wednesday	16.11	27.142	114.220				<5.00
2/2/2016	Tuesday	14.83	24.087	116.343				<5.00
2/3/2016	Wednesday	25.94	48.715	221.234				<5.00
2/9/2016	Tuesday	18.82	19.668	113.577	<1.000	0.979	6.322	<5.00
2/10/2016	Wednesday	19.00	20.454	116.792				<5.00
2/16/2016	Tuesday	36.06	79.291	307.749				<5.00
2/17/2016	Wednesday	20.83	25.996	107.042				<5.00
2/23/2016	Tuesday	18.95	33.372	141.946				<5.00
2/24/2016	Wednesday	34.94	111.061	420.397				<5.00
3/1/2016	Tuesday	18.83	32.341	148.067				<5.00
3/2/2016	Wednesday	25.09	80.370	322.554				<5.00
3/8/2016	Tuesday	17.61	22.755	107.750	<1.000	0.869	0.959	<5.00
3/9/2016	Wednesday	17.40	20.344	97.167				<5.00
3/15/2016	Tuesday	33.97	31.770	133.805				<5.00
3/16/2016	Wednesday	18.90	23.218	112.119				<5.00
3/22/2016	Tuesday	16.49	23.382	92.373				<5.00
3/23/2016	Wednesday	16.98	21.924	86.960				<5.00
3/29/2016	Tuesday	16.54	24.972	116.752				<5.00
3/30/2016	Wednesday	15.87	22.613	112.245				<5.00
4/5/2016	Tuesday	19.39	25.996	144.736	<1.000	0.901	2.272	<5.00
4/6/2016	Wednesday	18.95	26.882	127.378				<5.00
4/12/2016	Tuesday	27.65	29.647	148.698				7.087
4/13/2016	Wednesday	19.84	25.425	120.569				<5.00
4/19/2016	Tuesday	18.37	20.864	88.952				<5.00
4/20/2016	Wednesday	17.32	25.547	89.982				<5.00
4/26/2016	Tuesday	21.83	31.959	141.630				<5.00
4/27/2016	Wednesday	17.53	20.624	89.768				<5.00
5/3/2016	Tuesday	22.39	24.724	114.171	<1.000	1.164	9.194	<5.00
5/4/2016	Wednesday	25.79	29.046	122.536				<5.00
5/10/2016	Tuesday	16.37	21.468	80.969				<5.00
5/11/2016	Wednesday	16.60	21.829	109.037				<5.00
5/17/2016	Tuesday	16.48	30.155	99.260				<5.00

Table 12: Bucklin Point Effluent Metals (Al-Sn)

Bucklin Point Effluent Metals Al - Sn 2016
all analyses in ppb

Date	Day of the Week	Effluent Flow	Al	Fe	Se	As	Mo	Sn
5/18/2016	Wednesday	15.99	28.731	85.296				<5.00
5/24/2016	Tuesday	18.90	25.373	84.937				<5.00
5/25/2016	Wednesday	14.77	26.201	75.932				<5.00
5/31/2016	Tuesday	15.41	21.295	78.537				<5.00
6/1/2016	Wednesday	14.57	20.457	72.696				<5.00
6/7/2016	Tuesday	15.62	26.317	94.347	<1.000	1.381	6.783	<5.00
6/8/2016	Wednesday	15.15	34.070	121.886				<5.00
6/14/2016	Tuesday	13.90	42.213	155.913				<5.00
6/15/2016	Wednesday	13.80	45.018	162.358				<5.00
6/21/2016	Tuesday	17.43	52.764	204.861				<5.00
6/22/2016	Wednesday	12.91	60.060	249.771				<5.00
6/28/2016	Tuesday	12.83	62.621	264.106				<5.00
6/29/2016	Wednesday	24.89	76.363	281.841				<5.00
7/5/2016	Tuesday	20.69	55.265	287.687				<5.00
7/6/2016	Wednesday	12.13	32.960	175.447				40.68
7/12/2016	Tuesday	12.03	222.235	809.4165	<1.000	1.288	3.211	<5.00
7/13/2016	Wednesday	12.09	22.588	66.3095				<5.00
7/19/2016	Tuesday	11.95	19.448	54.325				<5.00
7/20/2016	Wednesday	11.72	18.999	54.031				<5.00
7/26/2016	Tuesday	11.36	20.039	65.798				<5.00
7/27/2016	Wednesday	11.38	23.610	79.816				<5.00
8/2/2016	Tuesday	16.70	23.868	82.272	<1.000	1.211	2.456	<5.00
8/3/2016	Wednesday	11.65	25.707	83.112				<5.00
8/9/2016	Tuesday	11.37	17.781	61.248				<5.00
8/10/2016	Wednesday	21.47	22.714	78.586				<5.00
8/16/2016	Tuesday	12.39	22.278	85.767				<5.00
8/17/2016	Wednesday	11.88	19.287	62.282				<5.00
8/23/2016	Tuesday	11.70	13.407	61.519				<5.00
8/24/2016	Wednesday	11.70	13.471	67.434				<5.00
8/30/2016	Tuesday	11.43	12.449	75.830				<5.00
8/31/2016	Wednesday	12.25	13.195	94.987				<5.00
9/6/2016	Tuesday	14.06	13.983	80.885				<5.00
9/7/2016	Wednesday	12.90	14.476	105.032				<5.00
9/13/2016	Tuesday	11.30	16.311	103.267	<1.000	1.141	12.253	<5.00
9/14/2016	Wednesday	11.18	16.721	131.874				<5.00
9/20/2016	Tuesday	12.09	12.320	74.452				<5.00
9/21/2016	Wednesday	10.93	11.997	75.884				<5.00
9/27/2016	Tuesday	17.63	23.442	199.721				<5.00
9/28/2016	Wednesday	12.50	14.874	87.229				<5.00
10/4/2016	Tuesday	12.41	17.198	109.032	<1.000	0.921	8.985	<5.00
10/5/2016	Wednesday	11.59	15.088	100.773				<5.00

Table 12: Bucklin Point Effluent Metals (Al-Sn)

Bucklin Point Effluent Metals Al - Sn 2016
all analyses in ppb

Date	Day of the Week	Effluent Flow	Al	Fe	Se	As	Mo	Sn
10/11/2016	Tuesday	12.26	16.553	145.280				<5.00
10/12/2016	Wednesday	11.99	15.272	114.744				<5.00
10/18/2016	Tuesday	12.41	13.888	124.319				<5.00
10/19/2016	Wednesday	12.52	17.200	153.978				<5.00
10/25/2016	Tuesday	12.12	31.141	179.253				<5.00
10/26/2016	Wednesday	11.77	17.695	150.704				<5.00
11/1/2016	Tuesday	12.03	17.671	139.492				49.36
11/2/2016	Wednesday	12.34	18.182	106.659				<5.00
11/8/2016	Tuesday	11.72	15.802	112.871				<5.00
11/9/2016	Wednesday	12.32	17.377	120.579				<5.00
11/15/2016	Tuesday	23.12	24.632	178.488	<1.000	0.903	2.337	<5.00
11/16/2016	Wednesday	13.28	19.879	109.924				<5.00
11/21/2016	Monday	12.26	16.399	125.784				<5.00
11/22/2016	Tuesday	11.79	17.166	101.543				<5.00
11/29/2016	Tuesday	25.87	30.679	203.430				<5.00
11/30/2016	Wednesday	18.64	26.098	163.150				<5.00
12/6/2016	Tuesday	12.76	18.596	93.286	<1.000	0.695	2.039	<5.00
12/7/2016	Wednesday	15.27	15.512	81.897				<5.00
12/13/2016	Tuesday	13.16	18.727	76.470				<5.00
12/14/2016	Wednesday	12.65	18.493	96.972				<5.00
12/20/2016	Tuesday	13.57	18.574	112.427				<5.00
12/21/2016	Wednesday	13.34	16.801	99.770				<5.00
12/27/2016	Tuesday	13.68	13.657	76.713				<5.00
12/28/2016	Wednesday	13.26	16.772	90.522				<5.00

Table 12: Bucklin Point Effluent Metals (Al-Sn)

Field's Point Influent Nutrients

Date	Nitrite $N\text{-}NO_2$ ppm	Nitrate $N\text{-}NO_3$ ppm	NitrateNitrite $N\text{-}NO_3NO_2$ ppm	Ammonia $N\text{-}NH_3$ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
01/04/16	0.1560	<0.1	0.181	22.40	27.500	4.450	27.681
01/05/16	0.1340	<0.1	0.163	17.80	24.700	4.850	24.863
01/06/16	0.1340	<0.1	0.144	20.10	30.100	4.660	30.244
01/11/16	0.2770	0.7430	1.020	10.70	18.100	1.970	19.120
01/12/16	0.2630	0.7000	0.963	11.70	19.200	1.990	20.163
01/13/16	0.3160	0.4130	0.729	12.20	20.600	2.900	21.329
01/18/16	0.3440	0.4220	0.766	15.70	21.000	3.790	21.766
01/19/16	0.3360	0.3260	0.662	16.50	22.900	3.830	23.562
01/20/16	0.2800	0.1900	0.470	17.90	25.900	4.180	26.370
01/25/16	0.1790	0.2720	0.451	20.30	28.100	4.140	28.551
01/26/16	0.2480	0.4430	0.691	17.40	24.200	3.260	24.891
01/27/16	0.2700	0.2790	0.549	19.00	26.600	4.500	27.149
02/01/16	0.1130	0.3020	0.415	22.70	31.700	4.380	32.115
02/02/16	0.1720	0.2830	0.455	20.70	28.300	3.610	28.755
02/03/16	0.1640	0.5140	0.678	13.80	19.000	3.540	19.678
02/08/16	0.1960	0.8840	1.080	19.10	22.700	3.460	23.780
02/09/16	0.1350	0.6330	0.768	15.30	19.900	3.320	20.668
02/10/16	0.1300	0.4640	0.594	17.70	26.600	3.150	27.194
02/15/16	0.0674	0.4636	0.531	19.90	27.900	4.060	28.431
02/16/16	0.0599	0.7351	0.795	7.740	11.700	2.150	12.495
02/17/16	0.0958	1.0142	1.110	11.40	18.000	2.370	19.110
02/22/16	0.1170	0.6730	0.790	19.60	30.700	4.530	31.490
02/23/16	0.1010	0.6220	0.723	15.70	24.100	4.950	24.823
02/24/16	0.0709	0.6391	0.710	10.40	15.700	3.640	16.410
02/29/16	0.1420	0.7160	0.858	16.00	24.800	3.290	25.658
03/01/16	0.1430	0.6800	0.823	18.40	29.600	4.090	30.423
03/02/16	0.1490	0.9010	1.050	12.30	18.000	3.020	19.050
03/07/16	0.168	0.3380	0.505	23.00	32.700	4.060	33.205
03/08/16	0.122	0.2240	0.342	17.40	23.900	4.190	24.242
03/09/16	0.1220	0.2130	0.335	17.60	25.900	4.650	26.235
03/14/16	0.0735	0.3805	0.454	13.00	25.800	4.960	26.254
03/15/16	0.0856	0.5364	0.622	10.50	16.300	2.550	16.922
03/16/16	0.0982	0.5538	0.652	13.00	17.400	3.680	18.052
03/21/16	0.1210	0.3400	0.461	15.80	21.800	3.710	22.261
03/22/16	0.1270	0.2550	0.382	17.50	22.700	4.050	23.082
03/23/16	0.1020	0.1290	0.231	18.10	27.300	5.170	27.531
03/28/16	0.1340	0.3170	0.451	14.00	21.600	3.890	22.051
03/29/16	0.1550	0.2290	0.384	19.30	29.500	4.320	29.884
03/30/16	0.1530	<0.1	0.250	19.50	29.700	4.270	29.950
04/04/16	0.2160	0.3600	0.576	16.40	24.500	2.960	25.076
04/05/16	0.1240	0.5540	0.678	13.10	21.900	3.680	22.578
04/06/16	0.0924	0.5426	0.635	17.40	24.800	3.970	25.435
04/11/16	0.1170	0.8550	0.972	13.70	19.800	3.290	20.772
04/12/16	0.1070	0.8170	0.924	15.40	22.800	3.250	23.724
04/13/16	0.0966	0.7594	0.856	11.80	17.500	3.090	18.356
04/18/16	0.1160	0.1300	0.246	16.30	22.300	3.980	22.546
04/19/16	0.1000	0.1950	0.295	14.20	21.900	4.090	22.195
04/20/16	0.0834	0.1396	0.223	15.60	22.800	3.920	23.023
04/25/16	0.1220	0.1610	0.283	19.20	31.300	3.630	31.583
04/26/16	0.1850	0.1870	0.372	21.00	31.000	3.510	31.372
04/27/16	0.1680	<0.1	0.231	17.40	26.700	4.060	26.931
05/02/16	0.1950	<0.1	0.290	17.70	28.500	4.410	28.790
05/03/16	0.2410	0.2430	0.484	13.40	22.200	3.640	22.684
05/04/16	0.1250	0.3900	0.515	14.80	23.600	3.430	24.115
05/09/16	0.0173	0.1297	0.147	18.00	26.900	4.340	27.047
05/10/16	0.0302	0.1198	0.150	17.90	26.100	4.340	26.250
05/11/16	0.0587	0.5293	0.588	20.30	29.300	4.510	29.888
05/16/16	<0.0100	<0.1	<0.100	17.90	24.400	4.650	24.400
05/17/16	0.0196	<0.1	<0.100	20.40	26.600	4.240	26.600
05/18/16	0.0138	<0.1	<0.100	23.50	34.000	4.730	34.000
05/23/16	0.0185	0.1235	0.142	19.70	29.700	5.550	29.842
05/24/16	0.1340	<0.1	0.183	17.20	25.900	3.740	26.083
05/25/16	0.1490	<0.1	0.200	20.10	29.700	4.310	29.900
05/30/16	0.3570	0.2660	0.623	9.620	14.100	2.660	14.723
05/31/16	0.4120	0.1270	0.539	11.30	14.800	2.590	15.339
06/01/16	0.2910	0.1480	0.439	12.50	20.000	2.690	20.439
06/06/16	0.1230	0.1990	0.322	14.10	22.300	2.620	22.622
06/07/16	0.0134	0.1396	0.153	15.70	22.600	4.070	22.753
06/08/16	0.0113	<0.1	<0.100	24.60	33.000	3.510	33.000
06/13/16	<0.0100	<0.1	<0.100	27.30	39.400	5.560	39.400
06/14/16	<0.0100	<0.1	<0.100	18.80	30.400	5.300	30.400
06/15/16	<0.0100	<0.1	<0.100	20.10	32.700	5.480	32.700
06/20/16	0.0109	<0.1	<0.100	21.70	25.100	4.090	25.100
06/21/16	0.0189	0.1111	0.130	17.70	24.400	3.490	24.530
06/22/16	0.0597	<0.1	0.130	20.40	27.100	3.860	27.230
06/27/16	0.1440	<0.1	0.177	22.30	30.100	4.110	30.277
06/28/16	0.0711	<0.1	0.129	20.60	28.600	5.440	28.729
06/29/16	0.0929	<0.1	0.121	12.60	18.400	2.860	18.521
07/04/16	0.1480	<0.1	0.141	15.90	19.600	4.630	19.741
07/05/16	0.1590	<0.1	0.165	12.40	17.100	3.750	17.265
07/06/16	0.1970	<0.1	0.209	17.70	30.500	3.400	30.709
07/11/16	0.0203	0.1287	0.149	19.10	30.200	3.990	30.349
07/12/16	<0.0100	<0.1	<0.100	17.60	28.300	3.390	28.300
07/13/16	<0.0100	<0.1	<0.100	22.60	34.100	3.620	34.100
07/18/16	<0.0100	<0.1	<0.100	18.30	28.000	3.930	28.000
07/19/16	0.0145	<0.1	<0.100	27.10	38.100	4.860	38.100
07/20/16	0.0184	<0.1	<0.100	23.50	36.200	4.610	36.200
07/25/16	<0.0100	0.1020	0.102	21.30	32.700	4.160	32.802

Field's Point Effluent Nutrients

Date	Nitrite $N\text{-}NO_2$ ppm	Nitrate $N\text{-}NO_3$ ppm	NitrateNitrite $N\text{-}NO_3NO_2$ ppm	Ammonia $N\text{-}NH_3$ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
01/04/16	<0.0100	4.6100	4.610	0.3640	1.320	1.820	5.930
01/05/16	<0.0100	4.3900	4.390	<0.1	1.380	1.770	5.770
01/06/16	<0.0100	4.7000	4.700	<0.1	1.270	2.030	5.970
01/11/16	0.1370	5.3330	5.470	1.790	3.000	1.210	8.470
01/12/16	0.1690	5.6110	5.780	2.560	3.750	0.8560	9.530
01/13/16	0.1410	3.6390	3.780	1.710	2.870	0.8790	6.650
01/18/16	0.1140	2.4960	2.610	1.560	3.110	1.300	5.720
01/19/16	0.1250	2.9950	3.120	2.090	3.430	1.090	6.550
01/20/16	0.1530	3.2670	3.420	3.070	4.360	1.190	7.780
01/25/16	0.2120	4.0180	4.230	3.520	4.530	1.700	8.760
01/26/16	0.1460	4.2740	4.420	2.280	3.420	1.500	7.840
01/27/16	0.1030	4.7670	4.870	1.620	2.880	1.430	7.750
02/01/16	0.1930	3.4370	3.630	2.790	3.910	1.650	7.540
02/02/16	0.1140	4.3160	4.430	1.710	2.770	1.500	7.200
02/03/16	0.1270	4.2530	4.380	2.180	3.220	1.410	7.600
02/08/16	0.3300	4.0900	4.420	4.540	5.400	0.6930	9.820
02/09/16	0.2210	3.8690	4.090	2.840	3.710	0.8260	7.800
02/10/16	0.1950	4.4450	4.640	2.550	3.530	0.8480	8.170
02/15/16	0.2240	3.5760	3.800	4.310	5.560	1.650	9.360
02/16/16	0.0877	4.3923	4.480	2.190	3.630	1.260	8.110
02/17/16	0.2160	4.2340	4.450	3.860	4.980	0.9120	9.430
02/22/16	0.2440	2.0860	2.330	7.760	9.060	0.9860	11.390
02/23/16	0.1950	3.0350	3.230	5.350	6.590	1.040	9.820
02/24/16	0.1330	3.7570	3.890	2.050	3.230	1.190	7.120
02/29/16	0.2490	2.4210	2.670	3.960	4.890	0.9050	7.560
03/01/16	0.2840	2.8660	3.150	5.980	7.140	1.070	10.290
03/02/16	0.2210	2.9290	3.150	2.260	3.370	0.8330	6.520
03/07/16	0.255	2.5050	2.760	6.530	7.680	1.570	10.440
03/08/16	0.2180	2.8320	3.050	3.800	4.910	1.430	7.960
03/09/16	0.1340	2.6360	2.770	2.920	3.970	1.620	6.740
03/14/16	0.1210	2.8890	3.010	1.900	3.460	1.990	6.470
03/15/16	0.1570	3.6830	3.840	1.850	2.630	1.010	6.470
03/16/16	0.1400	1.7100	1.850	1.120	1.940	1.040	3.790
03/21/16	0.1240	2.0260	2.150	1.960	3.320	1.930	5.470
03/22/16	0.0764	1.9836	2.060	1.410	2.570	1.400	4.630
03/23/16	0.0825	1.9575	2.040	1.390	2.580	1.450	4.620
03/28/16	0.0181	3.9919	4.010	0.3590	1.490	1.790	5.500
03/29/16	0.0303	4.5597	4.590	0.6290	1.650	1.820	6.240
03/30/16	0.0436	4.3664	4.410	0.9150	1.960	2.040	6.370
04/04/16	0.1440	5.2160	5.360	2.380	3.290	1.260	8.650
04/05/16	0.0562	3.9238	3.980	0.6610	1.520	1.060	5.500
04/06/16	0.1500	5.7200	5.870	2.300	3.110	1.040	8.980
04/11/16	0.1070	4.6230	4.730	1.620	2.430	0.7240	7.160
04/12/16	0.0496	5.9804	6.030	1.150	1.880	1.070	7.910
04/13/16	0.0127	4.0073	4.020	0.1040	1.010	1.030	5.030
04/18/16	0.0104	3.6896	3.700	0.1810	1.230	1.840	4.930
04/19/16	<0.0100	3.1800	3.180	<0.1	1.070	1.440	4.250
04/20/16	<0.0100	4.0600	4.060	<0.1	0.930	1.490	4.990
04/25/16	0.0635	3.4665	3.530	1.460	2.400	1.490	5.930
04/26/16	0.0761	4.7939	4.870	1.320	2.300	1.390	7.170
04/27/16	<0.0100	3.3600	3.360	0.1450	1.140	1.490	4.500
05/02/16	0.1290	4.2710	4.400	2.080	3.150	1.800	7.550
05/03/16	0.0286	3.1214	3.150	0.5780	1.480	1.200	4.630
05/04/16	0.0658	3.5042	3.570	0.7520	1.700	0.9280	5.270
05/09/16	<0.0100	2.8000	2.800	0.1680	1.190	1.170	3.990
05/10/16	0.0338	2.6762	2.710	0.450	1.410	1.300	4.120
05/11/16	<0.0100	2.9900	2.990	0.170	1.240	1.320	4.230
05/16/16	0.0357	2.0443	2.080	0.5850	1.470	1.870	3.550
05/17/16	<0.0100	1.6600	1.660	0.2230	1.260	1.620	2.920
05/18/16	<0.0100	2.2900	2.290	0.110	1.150	1.830	3.440
05/23/16	<0.0100	1.2600	1.260	0.1380	1.130	1.850	2.390
05/24/16	<0.0100	2.2000	2.200	0.200	1.230	1.380	3.430
05/25/16	<0.0100	2.1100	2.110	<0.1	1.120	1.420	3.230
05/30/16	0.0163	3.0337	3.050	0.3020	1.090	1.070	4.140
05/31/16	0.0176	3.2724	3.290	0.320	1.250	0.8920	4.540
06/01/16	0.0218	3.7082	3.730	0.5780	1.440	1.050	5.170
06/06/16	<0.0100	3.2200	3.220	0.240	1.150	1.530	4.370
06/07/16	<0.0100	1.8800	1.880	0.140	0.996	1.760	2.876
06/08/16	<0.0100	4.6300	4.630	0.3460	1.350	2.270	5.980
06/13/16	<0.0100	2.7900	2.790	0.2160	1.090	2.450	3.880
06/14/16	<0.0100	1.3400	1.340	0.1270	1.020	2.150	2.360
06/15/16	<0.0100	1.2200	1.220	0.1660	1.120	1.190	2.340
06/20/16	<0.0100	2.1100	2.110	0.1880	1.210	2.370	3.320
06/21/16	0.0177	1.0923	1.110	0.3090	1.340	1.640	2.450
06/22/16	<0.0100	1.5900	1.590	0.2380	1.290	1.180	2.880
06/27/16	0.0335	1.9565	1.990	0.7240	1.670	2.490	3.660
06/28/16	0.0314	1.6986	1.730	0.8560	1.800	1.920	3.530
06/29/16	0.0602	1.2298	1.290	0.820	1.540	0.9880	2.830
07/04/16	<0.0100	1.8000	1.800	0.130	0.827	2.050	2.627
07/05/16	<0.0100	1.8100	1.810	0.1150	0.957	1.930	2.767
07/06/16	<0.0100	1.7400	1.740	0.1440	1.020	2.150	2.760
07/11/16	<0.0100	1.5700	1.570	0.1810	0.956	2.320	2.526
07/12/16	<0.0100	1.2400	1.240	0.1450	1.030	2.320	2.270
07/13/16	0.0220	3.0080	3.030	0.9030	1.860	2.150	4.890
07/18/16	<0.0100	1.7600	1.760	0.3410	1.290	1.870	3.050
07/19/16	<0.0100	3.6000	3.600	0.3830	1.350	1.730	4.950
07/20/16	<0.0100	3.0200	3.020	0.2920	1.380	2.150	4.400
07/25/16	<0.0100	1.5200	1.520	<0.1	1.280	2.630	2.800

Table 13: Field's Point Influent and Effluent Nutrients

Field's Point Influent Nutrients

Date	Nitrite $N\text{-}NO_2$ ppm	Nitrate $N\text{-}NO_3$ ppm	NitrateNitrite $N\text{-}NO_3NO_2$ ppm	Ammonia $N\text{-}NH_3$ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
07/26/16	0.0308	<0.1	0.117	16.70	26.000	4.170	26.117
07/27/16	0.0508	<0.1	0.101	20.00	31.200	4.520	31.301
08/01/16	<0.0100	<0.1	<0.100	24.80	37.100	5.870	37.100
08/02/16	<0.0100	0.1060	0.106	13.30	24.600	4.810	24.706
08/03/16	<0.0100	<0.1	<0.100	23.70	34.100	4.490	34.100
08/08/16	<0.0100	<0.1	<0.100	22.20	34.600	4.200	34.600
08/09/16	<0.0100	<0.1	<0.100	20.70	32.100	4.110	32.100
08/10/16	0.0170	0.1680	0.185	9.880	18.600	2.650	18.785
08/15/16	0.0650	<0.1	0.105	19.20	29.100	3.360	29.205
08/16/16	0.0868	<0.1	0.118	16.50	27.600	3.930	27.718
08/17/16	0.0329	<0.1	<0.100	17.00	26.200	3.910	26.200
08/22/16	0.3660	0.1010	0.467	13.80	20.100	2.600	20.567
08/23/16	0.4440	<0.1	0.463	19.50	28.300	3.730	28.763
08/24/16	0.3770	<0.1	0.347	21.70	30.900	4.090	31.247
08/29/16	0.3020	<0.1	0.286	23.80	34.700	4.690	34.986
08/30/16	0.1930	<0.1	0.242	21.50	30.800	4.310	31.042
08/31/16	0.0984	<0.1	0.171	23.00	38.900	4.800	39.071
09/05/16	0.2500	<0.1	0.259	18.80	30.800	4.410	31.059
09/06/16	0.1230	0.1370	0.260	23.30	34.700	4.250	34.960
09/07/16	0.0963	0.1417	0.238	19.40	34.900	3.970	35.138
09/12/16	0.1470	<0.1	0.241	24.30	36.800	5.240	37.041
09/13/16	0.0194	<0.1	<0.100	32.40	43.500	4.780	43.500
09/14/16	0.0188	<0.1		22.90		4.900	
09/15/16							
09/19/16	0.0281	<0.1	<0.100	18.60	29.500	4.100	29.500
09/20/16	0.0227	<0.1	0.113	24.40	34.900	4.330	35.013
09/21/16	0.0257	<0.1	0.102	24.80	34.300	4.380	34.402
09/26/16	0.0108	0.1492	0.160	26.20	37.600	4.820	37.760
09/27/16	<0.0100	<0.1	<0.100	20.50	32.200	4.190	32.200
09/28/16	<0.0100	<0.1	<0.100	24.80	36.600	4.700	36.600
10/03/16	0.0568	3.1532	3.210	26.10	36.500	4.550	39.710
10/04/16	<0.0100	<0.1	<0.100	25.10	36.900	4.470	36.900
10/05/16	<0.0100	0.1100	0.110	26.00	34.400	4.780	34.510
10/10/16	0.0419	0.1761	0.218	16.80	22.700	2.470	22.918
10/11/16	<0.0100	0.1220	0.122	20.70	28.400	3.670	28.522
10/12/16	<0.0100	0.1200	0.120	19.80	29.500	4.380	29.620
10/17/16	<0.0100	0.1490	0.149	25.00	34.900	4.520	35.049
10/18/16	<0.0100	0.1200	0.120	24.80	36.700	5.340	36.820
10/19/16	<0.0100	0.1150	0.115	23.40	35.100	10.60	35.215
10/24/16	0.0666	0.1034	0.170	23.50	35.500	4.860	35.670
10/25/16	0.0791	<0.1	0.151	24.60	37.600	4.260	37.751
10/26/16	0.0806	0.1054	0.186	22.60	32.100	4.110	32.286
10/31/16	0.1180	0.1940	0.312	21.20	27.900	3.610	28.212
11/01/16	0.1470	<0.1	0.203	22.10	30.200	4.010	30.403
11/02/16	0.1460	<0.1	0.216	22.80	33.600	4.110	33.816
11/07/16	0.0788	0.1982	0.277	27.00	39.100	4.690	39.377
11/08/16	0.1800	0.1460	0.326	22.70	34.000	5.000	34.326
11/09/16	0.1620	<0.1	0.219	22.80	38.300	5.280	38.519
11/14/16	0.0916	0.1784	0.270	23.80	36.000	5.080	36.270
11/15/16	0.0433	0.2967	0.340	13.40	22.600	3.120	22.940
11/16/16	0.0525	0.1435	0.196	14.40	20.600	2.730	20.796
11/21/16	<0.0100	0.1520	0.152	22.60	32.100	4.360	32.252
11/22/16	0.0138	0.1142	0.128	22.60	33.200	4.610	33.328
11/23/16	0.0145	0.1305	0.145	20.30	29.900	4.190	30.045
11/24/16							
11/28/16	<0.0100	0.1450	0.145	22.40	32.300	4.310	32.445
11/29/16	0.0380	0.3110	0.349	19.50	27.200	2.670	27.549
11/30/16	0.0638	0.4222	0.486	13.50	19.800	1.940	20.286
12/05/16	0.0162	0.1418	0.158	26.10	35.300	4.400	35.458
12/06/16	0.0129	0.1011	0.114	24.50	33.100	4.000	33.214
12/07/16	0.0203	<0.1	0.100	26.60	37.200	4.070	37.300
12/12/16	0.0853	0.3457	0.431	22.30	32.200	2.740	32.631
12/13/16	0.0474	0.1056	0.153	22.00	31.700	3.530	31.853
12/14/16	0.0276	0.1344	0.162	22.10	30.000	3.460	30.162
12/19/16	0.0103	0.1907	0.201	23.60	31.500	3.940	31.701
12/20/16	0.0320	0.1060	0.138	22.10	31.300	4.080	31.438
12/21/16	0.0142	0.1028	0.117	22.40	33.100	4.070	33.217
12/26/16	0.0480	0.1180	0.166	20.90	33.000	3.860	33.166
12/27/16	0.0314	0.1446	0.176	17.70	29.800	3.740	29.976
12/28/16	0.0304	<0.1	0.118	21.40	30.800	3.400	30.918

Field's Point Effluent Nutrients

Date	Nitrite $N\text{-}NO_2$ ppm	Nitrate $N\text{-}NO_3$ ppm	NitrateNitrite $N\text{-}NO_3NO_2$ ppm	Ammonia $N\text{-}NH_3$ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
07/26/16	<0.0100	1.7100	1.710	0.1110	0.970	2.220	2.680
07/27/16	<0.0100	2.0200	2.020	0.190	1.170	2.250	3.190
08/01/16	<0.0100	1.7600	1.760	0.2710	1.510	3.050	3.270
08/02/16	<0.0100	1.2200	1.220	0.1130	1.180	1.970	2.400
08/03/16	0.0539	2.1261	2.180	1.110	2.240	2.170	4.420
08/08/16	0.0125	1.1875	1.200	0.5040	1.610	2.380	2.810
08/09/16	<0.0100	1.7300	1.730	0.1260	1.450	1.570	3.180
08/10/16	0.0160	1.3140	1.330	0.3390	1.300	1.050	2.630
08/15/16	0.0114	1.5786	1.590	<0.1	0.932	1.420	2.522
08/16/16	<0.0100	1.6700	1.670	<0.1	1.030	1.560	2.700
08/17/16	<0.0100	1.0800	1.080	<0.1	0.931	2.240	2.011
08/22/16	0.0240	1.9860	2.010	0.3950	1.260	1.800	3.270
08/23/16	<0.0100	1.7500	1.750	<0.1	0.955	1.410	2.705
08/24/16	<0.0100	2.0400	2.040	<0.1	1.070	1.690	3.110
08/29/16	0.0161	2.0939	2.110	0.4750	1.540	2.840	3.650
08/30/16	<0.0100	2.1000	2.100	<0.1	1.040	2.170	3.140
08/31/16	<0.0100	2.7300	2.730	0.2220	1.310	2.550	4.040
09/05/16	<0.0100	0.9690	0.969	<0.1	1.020	1.920	1.989
09/06/16	0.0108	2.1992	2.210	0.500	1.340	1.670	3.550
09/07/16	0.0373	1.8827	1.920	1.310	2.240	2.040	4.160
09/12/16							
09/13/16	<0.0100	2.9400	2.940	0.2610	1.300	2.430	4.240
09/14/16	<0.0100			0.1110	1.180	3.080	
09/15/16	<0.0100			<0.1		3.100	
09/19/16	0.0320	1.3380	1.370	0.6350	1.610	2.140	2.980
09/20/16	<0.0100	3.0100	3.010	0.2730	1.240	1.640	4.250
09/21/16	0.0101	3.7399	3.750	0.2490	1.310	2.280	5.060
09/26/16	<0.0100	2.0700	2.070	<0.1	1.100	2.400	3.170
09/27/16	<0.0100	2.5500	2.550	<0.1	0.893	1.770	3.443
09/28/16	<0.0100	2.8600	2.860	<0.1	0.892	2.040	3.752
10/03/16	<0.0100	1.8300	1.830	0.3120	1.350	1.610	3.180
10/04/16	<0.0100	2.1000	2.100	0.3060	1.240	1.720	3.340
10/05/16	0.0104	2.1596	2.170	0.5170	1.490	2.130	3.660
10/10/16	0.0703	2.1497	2.220	1.510	2.270	1.450	4.490
10/11/16	0.0747	2.4653	2.540	1.080	1.850	0.8260	4.390
10/12/16	<0.0100	0.8750	0.875	<0.1	0.887	1.020	1.762
10/17/16	<0.0100	1.9700	1.970	<0.1	0.973	2.330	2.943
10/18/16	<0.0100	1.6900	1.690	<0.1	1.120	2.100	2.810
10/19/16	<0.0100	1.4300	1.430	<0.1	1.040	2.200	2.470
10/24/16	<0.0100	1.1600	1.160	<0.1	1.030	1.920	2.190
10/25/16	<0.0100	1.7900	1.790	<0.1	1.140	2.050	2.930
10/26/16	0.0110	2.9390	2.950	0.5260	1.540	1.960	4.490
10/31/16	<0.0100	1.9700	1.970	<0.1	0.986	1.450	2.956
11/01/16	<0.0100	1.5200	1.520	<0.1	1.070	1.380	2.590
11/02/16	0.0119	1.8281	1.840	0.6570	1.650	1.650	3.490
11/07/16	0.0134	1.9766	1.990	0.2850	1.260	1.890	3.250
11/08/16	<0.0100	1.8600	1.860	0.1180	1.000	2.610	2.860
11/09/16	<0.0100	1.8500	1.850	<0.1	0.990	2.290	2.840
11/14/16	0.0214	1.2486	1.270	0.9980	2.250	2.570	3.520
11/15/16	0.0269	2.8631	2.890	1.110	1.940	1.680	4.830
11/16/16	0.0591	2.0509	2.110	0.7770	1.720	1.160	3.830
11/21/16							
11/22/16	0.0209	1.7391	1.760	0.6810	1.690	1.930	3.450
11/23/16	<0.01	1.3700	1.370	<0.1	0.989	2.120	2.359
11/24/16	<0.01	1.1000	1.100	<0.1	1.100	2.57	2.200
11/28/16	0.0207	1.6693	1.690	1.110	2.060	2.600	3.750
11/29/16	0.0695	4.4405	4.510	3.380	4.030	1.530	8.540
11/30/16	0.1080	4.6420	4.750	2.560	3.420	1.120	8.170
12/05/16	0.1030	2.6170	2.720	3.230	4.180	2.020	6.900
12/06/16	0.0926	3.2074	3.300	2.200	3.150	1.990	6.450
12/07/16	0.0798	3.8302	3.910	2.120	3.040	2.130	6.950
12/12/16	0.1410	5.4690	5.610	3.300	4.080	2.240	9.690
12/13/16	0.0787	2.8913	2.970	1.970	2.580	1.870	5.550
12/14/16	0.0224	2.0876	2.110	0.4520	1.290	1.390	3.400
12/19/16	0.1180	0.7410	0.859	5.880	6.640	2.420	7.499
12/20/16	0.1030	0.5500	0.653	4.080	5.100	1.660	5.753
12/21/16	0.0903	0.6837	0.774	3.170	4.460	1.510	5.234
12/26/16	0.0820	0.5250	0.607	4.090	5.170	2.140	5.777
12/27/16	0.0602	0.294	0.354	2.780	3.620	1.650	3.974
12/28/16	0.0784	0.306	0.384	5.870	6.610	1.320	6.994

Bucklin Point Influent Nutrients

Date	Nitrite $N\text{-}NO_2$ ppm	Nitrate $N\text{-}NO_3$ ppm	Nitrate + Nitrite $N\text{-}NO_3NO_2$ ppm	Ammonia $N\text{-}NH_3$ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
01/04/16	0.0279	<0.1	<0.100	25.20	33.700	6.080	33.700
01/05/16	0.0548	0.1802	0.235	24.30	35.200	6.100	35.435
01/06/16	0.0622	0.2078	0.270	23.70	38.900	6.430	39.170
01/11/16	0.1200	0.6200	0.740	14.20	21.200	2.950	21.940
01/12/16	0.1550	0.7030	0.858	18.00	27.200	4.100	28.058
01/13/16	0.9470	<0.1	0.562	17.90	26.700	4.200	27.262
01/18/16	0.1380	0.2710	0.409	20.70	24.600	3.460	25.009
01/19/16	0.1600	0.4350	0.595	24.50	34.700	8.330	35.295
01/20/16	0.1590	0.3600	0.519	21.50	31.700	6.670	32.219
01/25/16	0.1280	<0.1	0.200	22.30	29.900	3.860	30.100
01/26/16	0.1110	<0.1	0.178	26.20	39.400	6.120	39.578
01/27/16	0.1700	<0.1	0.174	22.20	31.600	5.030	31.774
02/01/16	0.0457	<0.1	<0.100	25.30	31.900	3.500	31.900
02/02/16	0.0680	<0.1	<0.100	24.10	30.500	5.050	30.500
02/03/16	0.0815	0.8085	0.890	19.00	26.400	4.330	27.290
02/08/16	0.1260	0.4570	0.583	17.70	22.600	3.400	23.183
02/09/16	0.1310	0.3710	0.502	19.10	26.100	3.800	26.602
02/10/16	0.1170	0.5850	0.702	18.80	28.500	4.450	29.202
02/15/16	0.1180	<0.1	0.208	21.50	33.100	4.860	33.308
02/16/16	0.0967	1.2333	1.330	10.50	16.500	3.410	17.830
02/17/16	0.1100	1.2500	1.360	8.910	14.200	2.480	15.560
02/22/16	0.0167	<0.1	<0.100	18.70	27.200	4.630	27.200
02/23/16	0.0126	0.2224	0.235	18.60	28.200	5.350	28.435
02/24/16	0.0147	0.1653	0.180	15.80	26.200	5.580	26.380
02/29/16	0.2800	0.5350	0.815	18.20	21.700	3.360	22.515
03/01/16	0.0479	0.1591	0.207	20.20	26.600	3.990	26.807
03/02/16	0.1310	0.7230	0.854	16.10	21.500	3.660	22.354
03/07/16	0.2250	<0.1	0.313	19.50	25.200	3.320	25.513
03/08/16	0.0423	0.1077	0.150	23.50	30.600	3.770	30.750
03/09/16	0.2340	<0.1	0.256	22.90	27.600	3.400	27.856
03/14/16	0.0529	<0.1	<0.100	22.30	30.000	3.900	30.000
03/15/16	0.0994	0.2096	0.309	14.90	20.100	2.890	20.409
03/16/16	0.1780	0.1710	0.349	20.10	27.400	5.710	27.749
03/21/16	0.0609	<0.1	0.153	20.30	25.600	3.580	25.753
03/22/16	0.1360	0.1890	0.325	18.30	26.400	5.220	26.725
03/23/16	0.0532	<0.1	<0.100	22.10	29.500	4.720	29.500
03/28/16	0.0201	<0.1	<0.100	18.30	27.400	4.390	27.400
03/29/16	0.2400	0.1470	0.387	19.00	31.250	4.370	31.637
03/30/16	0.0798	0.1032	0.183	21.70	32.400	5.360	32.583
04/04/16	0.2410	0.2390	0.480	18.70	26.200	3.910	26.680
04/05/16	0.2980	0.1400	0.438	19.20	26.000	4.100	26.438
04/06/16	0.2280	0.4460	0.674	17.50	24.800	4.650	25.474
04/11/16	0.2450	0.6320	0.877	15.70	19.200	3.290	20.077
04/12/16	0.2730	0.6360	0.909	15.10	21.800	3.940	22.709
04/13/16	0.2200	0.7900	1.010	15.30	21.400	3.640	22.410
04/18/16	0.1550	<0.1	0.204	18.00	27.000	3.950	27.204
04/19/16	0.1180	0.3730	0.491	17.90	27.100	4.360	27.591
04/20/16	0.0629	<0.1	0.161	18.40	27.600	4.330	27.761
04/25/16	0.2120	<0.1	0.261	18.20	27.000	4.080	27.261
04/26/16	0.1140	0.1480	0.262	17.60	28.800	4.370	29.062
04/27/16	0.2050	0.1540	0.359	16.00	26.200	3.420	26.559
05/02/16	0.1930	<0.1	0.198	18.60	28.800	4.960	28.998
05/03/16	0.1530	0.5280	0.681	15.60	25.200	4.120	25.881
05/04/16	0.3070	<0.1	0.306	18.40	29.700	5.200	30.006
05/09/16	0.2040	<0.1	0.274	21.20	30.500	4.610	30.774
05/10/16	0.0395	0.2065	0.246	20.40	30.100	5.250	30.346
05/11/16	0.0199	<0.1	0.117	20.80	32.200	6.750	32.317
05/16/16	0.0146	<0.1	<0.100	21.50	28.600	5.180	28.600
05/17/16	0.0205	0.1535	0.174	21.60	29.900	5.530	30.074
05/18/16	0.0214	0.1146	0.136	20.80	31.600	5.640	31.736
05/23/16	<0.0100	<0.1	<0.100	20.50	31.200	4.240	31.200
05/24/16	0.0193	0.2577	0.277	19.30	31.700	4.960	31.977
05/25/16	0.0173	<0.1	0.102	22.40	26.600	4.860	26.702
05/30/16	0.0238	<0.1	<0.100	15.50	24.800	3.530	24.800
05/31/16	0.4510	<0.1	0.419	22.80	32.700	4.830	33.119
06/01/16	0.0321	<0.1	<0.100	24.50	36.000	3.970	36.000
06/06/16	0.7230	<0.1	0.809	17.70	24.300	3.110	25.109
06/07/16	0.2760	0.3490	0.625	20.20	33.400	4.870	34.025
06/08/16	0.1430	<0.1	0.114	21.20	28.300	4.150	28.414
06/13/16	0.0114	<0.1	<0.100	23.00	31.700	4.440	31.700
06/14/16	0.0436	0.9664	1.010	22.10	34.800	5.550	35.810
06/15/16	0.2490	<0.1	0.267	22.80	35.800	5.620	36.067
06/20/16	<0.0100	<0.1	<0.100	23.70	31.300	4.750	31.300
06/21/16	<0.0100	0.3160	0.316	19.90	31.300	5.020	31.616
06/22/16	<0.0100	0.1040	0.104	23.90	32.200	4.170	32.304
06/27/16	<0.0100	<0.1	<0.100	25.40	32.900	5.560	32.900
06/28/16	<0.0100	0.2760	0.276	26.80	36.900	5.660	37.176
06/29/16	0.0106	<0.1	<0.100	18.50	26.800	4.990	26.800
06/30/16							
07/04/16	<0.0100	<0.1	<0.100	25.10	35.200	4.260	35.200
07/05/16	<0.0100	<0.1	<0.100	18.90	27.100	4.810	27.100
07/06/16	0.0678	0.3582	0.426	22.10	33.300	5.320	33.726
07/07/16							
07/08/16							

Bucklin Point Effluent Nutrients

Date	Nitrite $N\text{-}NO_2$ ppm	Nitrate $N\text{-}NO_3$ ppm	Nitrate + Nitrite $N\text{-}NO_3NO_2$ ppm	Ammonia $N\text{-}NH_3$ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
01/04/16	0.0367	0.8473	0.884	3.670	4.330	2.370	5.214
01/05/16	0.0410	2.1390	2.180	2.980	3.820	2.590	6.000
01/06/16	0.0447	2.1053	2.150	3.790	5.030	2.950	7.180
01/11/16	0.0539	2.6761	2.730	3.630	4.760	1.860	7.490
01/12/16	0.0469	1.5131	1.560	4.750	6.290	2.620	7.850
01/13/16	0.0550	1.8050	1.860	4.740	6.260	2.300	8.120
01/18/16	0.0346	0.6804	0.715	3.050	4.510	1.220	5.225
01/19/16	0.0454	1.0946	1.140	4.410	6.310	3.220	7.450
01/20/16	0.0455	1.8445	1.890	2.770	4.370	3.030	6.260
01/25/16	0.0327	1.3773	1.410	1.750	3.130	1.980	4.540
01/26/16	0.0306	0.8034	0.834	3.380	5.070	2.810	5.904
01/27/16	0.0298	0.7632	0.793	2.550	4.090	1.740	4.883
02/01/16	0.0399	1.4201	1.460	1.240	2.790	2.080	4.250
02/02/16	0.0318	2.7782	2.810	0.2360	1.770	2.740	4.580
02/03/16	0.0276	1.7124	1.740	1.150	3.370	2.560	5.110
02/08/16	0.0278	0.6152	0.643	3.710	4.750	1.370	5.393
02/09/16	0.0500	0.6500	0.700	4.660	6.150	1.900	6.850
02/10/16	0.0568	0.5942	0.651	3.810	5.070	1.990	5.721
02/15/16	0.0409	1.5291	1.570	1.660	3.120	1.690	4.690
02/16/16	0.0520	1.9080	1.960	1.330	4.060	2.000	6.020
02/17/16	0.0695	2.0005	2.070	4.110	5.440	1.950	7.510
02/22/16	0.0520	0.9980	1.050	1.700	3.040	1.640	4.090
02/23/16	0.3710	0.6490	1.020	2.960	4.740	2.340	5.760
02/24/16	0.0496	1.2204	1.270	2.590	6.170	2.470	7.440
02/29/16	0.0565	0.7505	0.807	3.360	4.840	1.910	5.647
03/01/16	0.0538	1.0362	1.090	3.250	4.880	2.100	5.970
03/02/16	0.0549	0.8961	0.951	4.160	6.970	2.310	7.921
03/07/16	0.0552	0.6389	0.694	2.480	3.820	1.400	4.514
03/08/16	0.0547	0.8053	0.860	2.520	4.010	1.770	4.870
03/09/16	0.0479	0.6951	0.743	3.190	4.510	2.090	5.253
03/14/16	0.0658	0.8222	0.888	3.740	5.220	2.610	6.108
03/15/16	0.0482	0.7748	0.823	4.460	6.030	2.030	6.853
03/16/16	0.0454	<0.1	0.135	6.320	8.060	2.410	8.195
03/21/16	0.0464	0.5916	0.638	2.740	4.630	2.280	5.268
03/22/16	0.0596	1.0504	1.110	1.940	3.670	2.140	4.780
03/23/16	0.0492	0.8988	0.948	2.740	4.310	2.200	5.258
03/28/16	0.0304	0.9956	1.026	3.594	5.344	1.995	6.369
03/29/16	0.0463	0.9337	0.980	4.090	5.910	2.620	6.890
03/30/16	0.0470	1.1030	1.150	1.890	3.340	1.970	4.490
04/04/16	0.0482	0.9518	1.000	2.270	3.840	1.170	4.840
04/05/16	0.0667	0.7393	0.806	2.840	4.730	1.790	5.536
04/06/16	0.0586	1.1814	1.240	1.040	2.430	1.470	3.670
04/11/16	0.0717	1.5383	1.610	1.360	2.510	1.580	4.120
04/12/16	0.0575	1.5625	1.620	0.8580	2.450	2.070	4.070
04/13/16	0.0581	2.1719	2.230	0.840	2.060	2.200	4.290
04/18/16	0.0317	1.8683	1.900	0.7140	1.920	1.920	3.820
04/19/16	0.0315	2.2385	2.270	0.1710	1.530	2.310	3.800
04/20/16	0.0265	1.9335	1.960	<0.1	1.400	2.400	3.360
04/25/16	0.0804	3.1896	3.270	0.3920	1.990	3.430	5.260
04/26/16	0.0863	1.5637	1.650	1.370	3.250	2.810	4.900
04/27/16	0.0556	1.6444	1.700	0.3730	1.580	2.000	3.280
05/02/16	0.0383	1.4817	1.520	0.6870	1.950	2.510	3.470
05/03/16	0.0607	1.8693	1.930	1.310	2.820	2.400	4.750
05/04/16	0.0314	1.3986	1.430	0.4680	1.750	2.030	3.180
05/09/16	0.0384	1.9316	1.970	0.4220	1.600	2.210	3.570
05/10/16	0.0307	1.9593	1.990	0.1930	1.450	2.530	3.440
05/11/16	0.0268	1.0732	1.100	1.590	2.930	3.510	4.030
05/16/16	0.0302	1.8298	1.860	0.2160	1.180	3.040	3.040
05/17/16	0.0305	1.8095	1.840	0.2750	1.310	3.250	3.150
05/18/16	0.0297	1.9603	1.990	0.2710	1.470	3.240	3.460
05/23/16	0.0318	1.4782	1.510	<0.1	2.000	2.690	3.510
05/24/16	0.0269	1.1931	1.220	0.1990	1.570	2.770	2.790
05/25/16	0.0283	2.1417	2.170	0.160	1.430	2.950	3.600
05/30/16	0.0228	1.9872	2.010	0.3620	1.850	2.590	3.860
05/31/16	0.0296	2.1804	2.210	0.2590	1.620	2.770	3.830
06/01/16	0.0254	2.0746	2.100	0.2170	1.660	3.200	3.760
06/06/16	0.0625	1.3475	1.410	0.8030	2.270	2.540	3.680
06/07/16	0.0482	1.3618	1.410	0.480	2.260	2.720	3.670
06/08/16	0.0487	1.3313	1.380	1.080	2.940	3.390	4.320
06/13/16	0.0923	1.3277	1.420	2.010	3.890	3.130	5.310
06/14/16	0.0839	1.3961	1.480	2.250	4.330	5.520	5.810
06/15/16	0.0827	1.3173	1.400	1.730	3.700	3.390	5.100
06/20/16	0.1240	1.5860	1.710	1.870	1.960	3.260	3.670
06/21/16	0.1040	1.0760	1.180	2.500	4.570	3.620	5.750
06/22/16	0.0833	0.7097	0.793	2.620	4.770	3.350	5.563
06/27/16	0.2900	2.3500	2.640	1.890	4.250	3.790	6.890
06/28/16	0.3330	1.7370	2.070	2.870	5.270	4.220	7.340
06/29/16	0.3140	1.2060	1.520	2.430	4.970	3.050	6.490
06/30/16	0.4460	3.1840	3.630	1.330	3.380		7.010
07/04/16	0.2700	5.2200	5.490	0.6270	2.450	4.010	7.940
07/05/16	0.2520	1.9580	2.210	1.030	3.010	3.300	5.220
07/06/16	0.1760	0.7030	0.879	0.5120	2.250	3.080	3.129
07/07/16	0.0731	0.6319	0.705	0.1150	2.170	2.600	2.875
07/08/16			0.702	0.1460	11.300	3.640	12.002

Table 14: Bucklin Point Influent and Effluent Nutrients

Bucklin Point Influent Nutrients

Date	Nitrite $N\text{-}NO_2$ ppm	Nitrate $N\text{-}NO_3$ ppm	Nitrate + Nitrite $N\text{-}NO_3NO_2$ ppm	Ammonia $N\text{-}NH_3$ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
07/11/16	<0.0100	<0.1	<0.100	24.10	36.000	3.900	36.000
07/12/16	0.2160	<0.1	0.265	24.60	38.700	4.410	38.965
07/13/16	0.0874	<0.1	<0.100	24.10	38.500	6.260	38.500
07/18/16	<0.0100	<0.1	<0.100	25.00	37.100	6.190	37.100
07/19/16	<0.0100	0.2130	0.213	25.30	39.700	6.530	39.913
07/20/16	0.0286	0.1954	0.224	25.30	39.700	5.190	39.924
07/25/16	<0.0100	<0.1	<0.100	25.70	38.400	5.720	38.400
07/26/16	<0.0100	0.3640	0.364	22.50	33.700	5.940	34.064
07/27/16	<0.0100	0.1880	0.188	21.90	33.400	6.100	33.588
08/01/16	0.3880	<0.1	0.338	25.90	33.900	6.650	34.238
08/02/16	0.1950	0.1190	0.314	22.80	36.800	10.90	37.114
08/03/16	0.0102	0.2618	0.272	25.80	37.100	5.960	37.372
08/08/16	<0.0100	<0.1	<0.100	24.40	36.100	4.520	36.100
08/09/16	0.0120	0.1070	0.119	23.80	37.300	5.610	37.419
08/10/16	0.0129	0.1791	0.192	19.50	31.400	4.970	31.592
08/15/16	0.2070	<0.1	0.205	22.40	32.400	4.310	32.605
08/16/16	0.0119	0.2971	0.309	38.30	49.500	5.180	49.809
08/17/16	0.0652	<0.1	0.152	26.20	37.200	5.440	37.352
08/22/16	0.6560	<0.1	0.594	20.80	29.800	4.150	30.394
08/23/16	0.1410	0.2880	0.429	24.60	35.800	4.720	36.229
08/24/16	<0.0100	<0.1	<0.100	27.80	39.200	5.280	39.200
08/29/16	<0.0100	<0.1	<0.100	27.70	39.300	4.650	39.300
08/30/16	<0.0100	0.2510	0.251	26.80	38.700	5.200	38.951
08/31/16	<0.0100	0.2240	0.224	26.10	38.800	5.390	39.024
09/05/16	0.0273	<0.1	<0.100	28.60	41.400	4.910	41.400
09/06/16	0.1550	0.1020	0.257	23.40	37.500	7.280	37.757
09/07/16	0.2500	<0.1	0.199	25.20	36.000	5.490	36.199
09/12/16	0.3930	<0.1	0.429	27.40	38.600	5.460	39.029
09/13/16	0.5870	0.1960	0.783	29.80	42.600	4.910	43.383
09/14/16	0.3810			26.20		5.240	
09/19/16	0.7520	<0.1	0.679	23.80	36.000	5.150	36.679
09/20/16	0.6390	0.1890	0.828	22.80	32.300	4.590	33.128
09/21/16	0.1450	0.1900	0.335	27.30	36.800	5.400	37.135
09/26/16	<0.0100	<0.1	<0.100	27.10	39.200	6.280	39.200
09/27/16	<0.0100	0.1860	0.186	20.90	33.600	6.960	33.786
09/28/16	<0.0100	0.1180	0.118	24.50	35.400	4.830	35.518
10/03/16	<0.0100	<0.1	<0.100	25.60	36.700	4.620	36.700
10/04/16	<0.0100	0.2990	0.299	26.20	38.600	5.200	38.899
10/05/16	<0.0100	<0.1	<0.100	26.10	35.500	5.050	35.500
10/10/16	0.1780	0.2620	0.440	14.30	18.900	2.250	19.340
10/11/16	0.0114	0.2926	0.304	22.80	31.400	4.100	31.704
10/12/16	0.0286		0.249	23.70	33.800	4.960	34.049
10/17/16	<0.0100	<0.1	<0.100	25.80	37.000	5.110	37.000
10/18/16	<0.0100	0.3180	0.318	27.00	39.300	5.460	39.618
10/19/16	0.0149	0.1031	0.118	27.00	40.600	6.310	40.718
10/24/16	0.0224	<0.1	<0.100	23.90	33.800	3.900	33.800
10/25/16	0.0225	0.2775	0.300	24.30	36.600	4.710	36.900
10/26/16	<0.0100	<0.1	<0.100	27.00	37.400	5.040	37.400
10/31/16	0.0268	<0.1	0.109	19.60	28.300	3.720	28.409
11/01/16	0.0319	0.3001	0.332	27.20	36.400	4.950	36.732
11/02/16	0.0123	0.1997	0.212	26.80	38.500	5.050	38.712
11/07/16	0.0185	0.2405	0.259	25.20	40.700	4.810	40.959
11/08/16	<0.0100	0.1310	0.131	27.90	42.100	5.590	42.231
11/09/16	<0.0100	0.1970	0.197	26.30	40.500	5.690	40.697
11/10/16							
11/14/16	0.0191	<0.1	<0.100	26.60	37.900	5.130	37.900
11/15/16	0.1480	0.2030	0.351	26.10	40.100	6.270	40.451
11/16/16	0.4990	0.3740	0.873	16.30	25.500	3.900	26.373
11/21/16	<0.0100	<0.1	<0.100	25.60	36.200	6.270	36.200
11/22/16	<0.0100	<0.1	<0.100	26.10	39.100	5.540	39.100
11/23/16	0.0326	<0.1	<0.100	27.40	39.500	5.380	39.500
11/28/16	<0.0100	<0.1	<0.100	28.50	40.500	4.950	40.500
11/29/16	<0.0100	0.3640	0.364	28.10	41.500	5.490	41.864
11/30/16	0.0457	0.3333	0.379	17.00	24.700	3.030	25.079
12/05/16	<0.0100	<0.1	<0.100	27.70	38.300	4.650	38.300
12/06/16	<0.0100	0.2390	0.239	29.40	41.400	5.100	41.639
12/07/16	<0.0100	0.1590	0.159	24.90	36.300	4.860	36.459
12/12/16	<0.0100	<0.1	<0.100	21.70	31.700	3.700	31.700
12/13/16	0.1400	<0.1	0.147	28.10	38.200	4.080	38.347
12/14/16	0.0116	<0.1	<0.100	28.10	39.300	5.100	39.300
12/19/16	0.5490	<0.1	0.548	23.70	32.500	4.120	33.048
12/20/16	0.0833	<0.1	0.163	27.20	39.700	5.400	39.863
12/21/16	0.0111	<0.1	<0.100	35.00	45.600	6.050	45.600
12/26/16	<0.0100	<0.1	<0.100	33.70	41.800	3.770	41.800
12/27/16	0.1580	<0.1	0.168	25.80	39.500	8.620	39.668
12/28/16	0.0188	<0.1	<0.100	25.10	35.300	4.510	35.300

Bucklin Point Effluent Nutrients

Date	Nitrite $N\text{-}NO_2$ ppm	Nitrate $N\text{-}NO_3$ ppm	Nitrate + Nitrite $N\text{-}NO_3NO_2$ ppm	Ammonia $N\text{-}NH_3$ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
07/11/16	0.02015	0.4149	0.435	<0.1	1.280	1.075	1.715
07/12/16	0.0225	0.8660	0.8885	<0.1	1.690	1.217	2.5785
07/13/16	0.0246	1.0804	1.105	<0.1	1.265	1.185	2.370
07/18/16	0.0181	0.8839	0.902	<0.1	1.190	1.720	2.092
07/19/16	0.0103	0.3127	0.323	<0.1	1.130	1.410	1.453
07/20/16	0.0136	0.8034	0.817	<0.1	0.909	0.970	1.726
07/25/16	0.0202	1.1198	1.140	<0.1	1.340	1.830	2.480
07/26/16	0.0218	2.0482	2.070	<0.1	1.400	2.840	3.470
07/27/16	0.0198	2.1302	2.150	<0.1	1.320	3.650	3.470
08/01/16	0.0278	1.0222	1.050	<0.1	1.440	2.750	2.490
08/02/16	0.0366	0.9304	0.967	0.2250	1.730	4.440	2.697
08/03/16	0.0219	1.0181	1.040	<0.1	1.300	4.040	2.340
08/08/16	0.0175	0.9125	0.930	<0.1	1.060	2.360	1.990
08/09/16	0.0118	0.7602	0.772	<0.1	1.100	2.590	1.872
08/10/16	0.0289	0.5721	0.601	0.1980	1.230	2.370	1.831
08/15/16	0.0211	1.3089	1.330	<0.1	0.859	1.760	2.189
08/16/16	0.0389	3.6111	3.650	0.1105	1.715	3.130	5.365
08/17/16	0.0150	1.2350	1.250	<0.1	1.010	3.230	2.260
08/22/16	0.0177	0.9133	0.931	<0.1	0.970	1.780	1.901
08/23/16	0.0126	1.3474	1.360	<0.1	0.924	1.910	2.284
08/24/16	0.0158	1.2942	1.310	<0.1	0.927	2.520	2.237
08/29/16	0.0126	0.8434	0.856	<0.1	0.924	1.890	1.780
08/30/16	0.0140	0.9090	0.923	<0.1	0.989	2.020	1.912
08/31/16	0.0147	0.8063	0.821	<0.1	1.000	1.640	1.821
09/05/16	0.0148	1.3552	1.370	<0.1	1.030	2.340	2.400
09/06/16	0.0162	1.0038	1.020	<0.1	0.971	2.470	1.991
09/07/16	0.0240	1.3460	1.370	<0.1	1.020	2.640	2.390
09/12/16	0.0246	0.5504	0.575	<0.1	1.140	2.550	1.715
09/13/16	0.0284	0.6616	0.690	0.1030	1.400	2.230	2.090
09/14/16	0.0227			<0.1		1.920	
09/19/16	0.0317	0.8673	0.899	0.4110	1.430	2.860	2.329
09/20/16	0.0250	0.7910	0.816	<0.1	1.040	2.660	1.856
09/21/16	0.0241	1.1059	1.130	<0.1	0.974	2.900	2.104
09/26/16	0.0197	0.6593	0.679	<0.1	0.895	3.480	1.574
09/27/16	0.0270	0.4980	0.525	0.5410	1.580	4.590	2.105
09/28/16	0.0206	0.6024	0.623	<0.1	1.620	1.900	2.243
10/03/16	0.0189	0.6351	0.654	<0.1	0.920	1.530	1.574
10/04/16	0.0287	0.6403	0.669	<0.1	0.979	1.650	1.648
10/05/16	0.0212	0.3618	0.383	0.1960	1.030	1.660	1.413
10/10/16	0.0241	0.4539	0.478	0.5290	1.120	0.9070	1.598
10/11/16	0.0329	0.3041	0.337	0.3710	1.110	1.550	1.447
10/12/16	0.0513	0.6597	0.711	0.2570	1.160	1.770	1.871
10/17/16	0.0365	0.3985	0.435	0.3210	1.190	2.120	1.625
10/18/16	0.0272	0.3558	0.383	0.1840	1.180	2.080	1.563
10/19/16	0.0230	0.5210	0.544	0.1490	1.240	2.230	1.784
10/24/16	0.0167	0.5773	0.594	<0.1	0.991	1.970	1.585
10/25/16	0.01795	0.808	0.826	0.651	1.99	2.88	2.82
10/26/16	0.0235	0.6155	0.639	0.6040	1.650	3.070	2.289
10/31/16	0.0243	0.7837	0.808	<0.1	0.978	1.420	1.786
11/01/16	0.0214	0.7816	0.803	<0.1	1.050	2.450	1.853
11/02/16	0.0193	1.0907	1.110	<0.1	1.120	2.890	2.230
11/07/16	0.0236						
11/08/16	0.0280	0.6760	0.704	<0.1	1.190	2.530	1.894
11/09/16	0.0355	0.9635	0.999	0.1350	1.290	2.720	2.289
11/10/16	0.0256	0.7104	0.736	0.1410	1.300	3.190	2.036
11/14/16	0.0513	1.1987	1.250	0.280	1.450	2.480	2.700
11/15/16	0.0399	0.8191	0.859	0.9130	2.410	2.870	3.269
11/16/16	0.0452	1.2748	1.320	0.4730	1.550	2.300	2.870
11/21/16	0.0507	1.4793	1.530	0.4050	1.540	2.290	3.070
11/22/16	0.0403	1.0397	1.080	0.6020	1.760	2.770	2.840
11/23/16	0.0481	0.8879	0.936	0.2540	1.540	2.200	2.476
11/28/16	0.0490	0.7240	0.773	0.3670	1.370	1.210	2.143
11/29/16	0.0348	0.8502	0.885	1.700	3.460	1.690	4.345
11/30/16	0.0415	0.3895	0.431	3.150	4.290	2.730	4.721
12/05/16	0.0847	1.4453	1.530	1.470	2.560	1.690	4.090
12/06/16	0.0866	1.7734	1.860	2.150	3.420	2.390	5.280
12/07/16	0.0742	2.4058	2.480	0.6530	1.610	2.530	4.090
12/12/16	0.0376	0.8874	0.925	2.740	4.120	1.930	5.045
12/13/16	0.0565	1.0035	1.060	4.480	5.360	2.190	6.420
12/14/16	0.0663	1.6237	1.690	2.100	2.840	2.610	4.530
12/19/16	0.0754	1.5246	1.600	2.490	3.410	1.840	5.010
12/20/16	0.0811	1.1389	1.220	3.290	4.150	2.510	5.370
12/21/16	0.0603	0.6557	0.716	2.550	3.600	2.500	4.316
12/26/16	0.0599	0.7491	0.809	2.200	3.310	1.220	4.119
12/27/16	0.0910	1.4690	1.560	2.280	3.430	1.890	4.990
12/28/16	0.0560	1.3340	1.390	2.120	3.170	4.400	4.560

Field's Point Oil & Grease 2016

Date	Influent Flow	Effluent Flow	Influent Average	Effluent Average
	MGD	MGD	ppm	ppm
1/5/2016	30.82	30.82	13.15	<4.0
2/9/2016	45.55	45.55	12.71	<4.0
3/8/2016	41.09	41.09	10.17	<4.0
4/5/2016	45.73	45.73	18.80	<4.0
5/3/2016	44.76	44.76	19.56	<4.0
6/7/2016	34.78	34.78	13.12	<4.0
7/13/2016	30.41	30.41	31.23	<4.0
8/2/2016	42.59	42.59	18.94	<4.0
9/27/2016	36.29	36.29	18.62	<4.0
10/4/2016	27.92	27.92	17.64	<4.0
11/15/2016	52.12	52.12	26.77	<4.0
12/6/2016	32.26	32.26	22.71	<4.0

Bucklin Point Oil & Grease 2016

Date	Influent Flow	Effluent Flow	Influent Average	Effluent Average
	MGD	MGD	ppm	ppm
1/5/2016	15.07	15.07	17.48	<4.0
2/9/2016	18.82	18.82	19.11	<4.0
3/8/2016	17.61	17.61	16.70	<4.0
4/5/2016	19.39	19.39	39.10	<4.0
5/3/2016	22.39	22.39	24.55	<4.0
6/7/2016	15.62	15.62	24.70	<4.0
7/12/2016	12.03	12.03	35.30	<4.0
8/2/2016	16.70	16.70	23.17	<4.0
9/28/2016	12.50	12.50	25.24	<4.0
10/4/2016	12.41	12.41	22.42	<4.0
11/22/2016	11.79	11.79	37.51	<4.0
12/6/2016	12.76	12.76	35.91	<4.0

Field's Point Dissolved Metals 2016
all results in ppb
MDL = method detection limit

Date	**Cd**	Cd MDL	**Cr**	Cr MDL	**Cu**	Cu MDL	**Pb**	Pb MDL	**Ni**	Ni MDL	**Ag**	Ag MDL	**Zn**	Zn MDL	**Al**	Al MDL	**Fe**	Fe MDL
1/5/2016	0.02	0.02	1.49	0.30	3.09	0.30	**0.30**	0.30	15.72	0.30	**0.02**	0.02	25.87	4.00	5.53	3.00	46.15	3.00
2/9/2016	0.04	0.02	2.01	0.30	2.93	0.30	**0.30**	0.30	12.45	0.30	0.02	0.02	35.33	5.00	6.15	5.00	52.86	5.00
3/8/2016	0.03	0.02	1.54	0.30	2.38	0.30	**0.30**	0.30	17.32	0.30	**0.02**	0.02	28.86	5.00	**5.00**	5.00	48.29	5.00
4/5/2016	0.04	0.02	1.38	0.30	2.67	0.30	**0.30**	0.30	16.51	0.30	**0.02**	0.02	33.84	5.00	5.14	5.00	42.72	5.00
5/3/2016	**0.02**	0.02	1.85	0.30	4.84	0.30	0.31	0.30	12.04	0.30	**0.02**	0.02	28.38	5.00	**5.00**	5.00	42.40	5.00
6/7/2016	0.02	0.02	1.35	0.30	1.79	0.30	**0.30**	0.30	11.73	0.30	**0.02**	0.02	21.09	5.00	**5.00**	5.00	37.37	5.00
7/12/2016	**0.02**	0.02	1.15	0.30	2.03	0.30	**0.30**	0.30	16.42	0.30	**0.02**	0.02	28.30	5.00	**5.00**	5.00	40.22	5.00
8/2/2016	**0.02**	0.02	0.93	0.30	1.93	0.30	**0.30**	0.30	15.18	0.30	**0.02**	0.02	23.49	5.00	**5.00**	5.00	46.84	5.00
9/13/2016	**0.02**	0.02	1.91	0.30	2.01	0.30	**0.30**	0.30	17.13	0.30	**0.02**	0.02	30.10	5.00	**5.00**	5.00	50.40	5.00
10/4/2016	**0.02**	0.02	1.57	0.30	1.79	0.30	**0.30**	0.30	18.99	0.30	**0.02**	0.02	28.23	5.00	**5.00**	5.00	56.95	5.00
11/15/2016	**0.02**	0.02	1.91	0.30	2.09	0.30	**0.30**	0.30	14.14	0.30	**0.02**	0.02	24.53	5.00	**5.00**	5.00	50.46	5.00
12/6/2016	**0.02**	0.02	1.93	0.30	2.81	0.30	**0.30**	0.30	19.39	0.30	**0.02**	0.02	29.54	5.00	**5.00**	5.00	66.13	5.00

*Bold numbers are results that were reported at < detection limit

	Cd	**Cr**	**Cu**	**Pb**	**Ni**	**Ag**	**Zn**	**Al**	**Fe**
yearly average concentration	<0.02	1.58	2.53	<0.30	15.58	<0.02	28.13	<5.15	48.40
yearly median concentration	0.02	1.56	2.23	0.30	16.07	0.02	28.34	5.00	47.56
yearly minimum concentration	<0.02	0.93	1.79	<0.30	11.73	<0.02	21.09	<5.00	37.37
yearly maximum concentration	0.04	2.01	4.84	0.31	19.39	0.02	35.33	6.15	66.13

Table 16: Field's Point Effluent Dissolved Metals

Bucklin Point Dissolved Metals 2016
all results in ppb
MDL = method detection limit

Date	Cd	Cd MDL	Cr	Cr MDL	Cu	Cu MDL	Pb	Pb MDL	Ni	Ni MDL	Ag	Ag MDL	Zn	Zn MDL	Al	Al MDL	Fe	Fe MDL
1/5/2016	0.02	0.02	0.50	0.30	3.81	0.30	0.31	0.30	4.42	0.30	**0.02**	0.02	39.11	5.00	9.69	5.00	41.36	5.00
2/9/2016	0.03	0.02	0.34	0.30	3.38	0.30	0.25	0.30	3.44	0.30	**0.02**	0.02	39.20	5.00	9.14	5.00	61.10	5.00
3/8/2016	0.03	0.02	0.45	0.30	3.77	0.30	0.32	0.30	5.49	0.30	0.03	0.02	37.57	5.00	6.95	5.00	46.50	5.00
4/5/2016	**0.02**	0.02	0.70	0.30	3.82	0.30	**0.30**	0.30	7.87	0.30	0.02	0.02	43.76	5.00	7.58	5.00	68.50	5.00
5/3/2016	0.03	0.02	0.81	0.30	10.2	0.30	0.45	0.30	7.14	0.30	**0.02**	0.02	49.30	5.00	8.59	5.00	46.72	5.00
6/7/2016	0.06	0.02	0.76	0.30	4.32	0.30	1.08	0.30	6.79	0.30	0.04	0.02	71.10	5.00	12.56	5.00	31.32	5.00
7/12/2016	0.04	0.02	0.70	0.30	4.41	0.30	0.62	0.30	6.78	0.30	0.05	0.02	48.86	5.00	11.63	5.00	23.56	5.00
8/2/2016	0.04	0.02	0.82	0.30	6.54	0.30	0.35	0.30	7.30	0.30	0.05	0.02	45.03	5.00	12.13	5.00	36.21	5.00
9/13/2016	0.03	0.02	3.72	0.30	6.07	0.30	0.34	0.30	14.96	0.30	0.05	0.02	45.68	5.00	9.37	5.00	52.22	5.00
10/4/2016	0.04	0.02	1.13	0.30	7.15	0.30	0.32	0.30	8.45	0.30	0.07	0.02	40.84	5.00	9.38	5.00	72.66	5.00
11/15/2016	**0.02**	0.02	2.57	0.30	3.47	0.30	**0.30**	0.30	6.83	0.30	0.08	0.02	35.09	5.00	8.55	5.00	100.95	5.00
12/6/2016	**0.02**	0.02	3.80	0.30	3.94	0.30	0.37	0.30	18.17	0.30	0.05	0.02	42.34	5.00	12.44	5.00	63.93	5.00

*Bold numbers are results that were reported at < detection limit

	Cd	Cr	Cu	Pb	Ni	Ag	Zn	Al	Fe
yearly average concentration	<0.03	1.36	5.08	<0.42	8.14	<0.04	44.82	9.83	53.75
yearly median concentration	0.03	0.78	4.13	0.33	6.98	0.04	43.05	9.37	49.47
yearly minimum concentration	<0.02	0.34	3.38	<0.30	3.44	<0.02	35.09	6.95	23.56
yearly maximum concentration	0.06	3.80	10.25	1.08	18.17	0.08	71.10	12.56	100.95

Table 17: Bucklin Point Effluent Dissolved Metals

Field's Point WWTF Bioassay Results - 2016 *Americamysis bahia*						
Acute	**1st Quarter, 2016**			**2nd Quarter, 2016**		
Test	**Result**	**Permit Limit**	**Pass Y/N**	**Result**	**Permit Limit**	**Pass Y/N**
LC_{50}	>100%	>100%	Y	>100%	>100%	Y
A-NOEC	100%	N/A**	N/A	NC	N/A**	N/A
	3rd Quarter, 2016			**4th Quarter, 2016**		
Test	**Result**	**Permit Limit**	**Pass Y/N**	**Result**	**Permit Limit**	**Pass Y/N**
LC_{50}	>100%	>100%	N	>100%	>100%	Y
A-NOEC	100%	N/A**	N/A	100%	N/A**	N/A

* NOTE - % indicates Percent Effluent

** No permit limit exists for A-NOEC

LC_{50}	LC_{50} is the effluent concentration that causes 50% mortality during the acute toxicity test duration.
A-NOEC	No observable effect concentration: Highest concentration of the effluent in which 90% or more of the test animals survive
Acute Test	continuous exposure to effluent for 48 hours
NC	Not calculated

Field's Point WWTF Bioassay Results - 2016 *Arbacia punctulata*						
Chronic	**1st Quarter, 2016**			**2nd Quarter, 2016**		
Test	**Result**	**Permit Limit**	**Pass Y/N**	**Result**	**Permit Limit**	**Pass Y/N**
C-NOEC	100%	Required monitoring: No Limit	Y	50%	Required monitoring: No Limit	Y
	3rd Quarter, 2016			**4th Quarter, 2016**		
Test	**Result**	**Permit Limit**	**Pass Y/N**	**Result**	**Permit Limit**	**Pass Y/N**
C-NOEC	100%	Required monitoring: No Limit	Y	100%	Required monitoring: No Limit	Y

* NOTE - % indicates Percent Effluent

C-NOEC	Highest concentration of effluent with no observed effect on fertilization rates
Chronic test	Tests for sublethal effects of effluent on specifically on fertilization rates of *A. punculata* eggs. Exposure rate is 60 minutes

Bucklin Point WWTF Bioassay Results - 2016 ***Americamysis bahia***						
Acute	**1st Quarter, 2016**			**2nd Quarter, 2016**		
Test	**Result**	**Permit Limit**	**Pass Y/N**	**Result**	**Permit Limit**	**Pass Y/N**
LC_{50}	>100%	>100%	Y	>100%	>100%	Y
A-NOEC	100%	N/A**	N/A	NC	N/A**	N/A
	3rd Quarter, 2016			**4th Quarter, 2016**		
Test	**Result**	**Permit Limit**	**Pass Y/N**	**Result**	**Permit Limit**	**Pass Y/N**
LC_{50}	>100%	>100%	Y	>100%	>100%	Y
A-NOEC	100%	N/A**	N/A	100%	N/A**	N/A

* NOTE - % indicates Percent Effluent

** No permit limit exists for A-NOEC

LC_{50}	LC_{50} is the effluent concentration that causes 50% mortality during the acute toxicity
A-NOEC	No observable effect concentration: Highest concentration of the effluent in which 90% or more of the test animals survive
Acute Test	continuous exposure to effluent for 48 hours
NC	Not calculated

Bucklin Point WWTF Bioassay Results - 2016 ***Arbacia punctulata***						
Chronic	**1st Quarter, 2016**			**2nd Quarter, 2016**		
Test	**Result**	**Permit Limit**	**Pass Y/N**	**Result**	**Permit Limit**	**Pass Y/N**
C-NOEC	100%	50%	Y	100%	50%	Y
	3rd Quarter, 2016			**4th Quarter, 2016**		
Test	**Result**	**Permit Limit**	**Pass Y/N**	**Result**	**Permit Limit**	**Pass Y/N**
C-NOEC	100%	50%	Y	100%	50%	Y

* NOTE - % indicates Percent Effluent

C-NOEC	Highest concentration of effluent with no observed effect on fertilization rates
Chronic test	Tests for sublethal effects of effluent on specifically on fertilization rates of *A. punculata* eggs. Exposure rate is 60 minutes

Field's Point Metals Loading from Final Sludge (lbs/yr)

Date	Sludge	Arsenic		Beryllium		Cadmium		Chromium		Copper		Lead		Mercury		Molybdenum		Nickel		Selenium		Silver		Zinc		Cyanide	
	Dry Tons	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs
1/5/2016	20.14	7.85		0.16		1.55		46.61		253.71		64.71		0.45		5.33		47.40		8.56		3.72		540.86		1.85	
1/19/2016	26.46	6.02		0.15		1.46		45.87		223.39		74.40		0.36		4.21		46.07		7.34		3.57		472.70		7.21	
Monthly Avg:	**23.30**	**6.94**		**0.16**		**1.50**		**46.24**		**238.55**		**69.55**		**0.41**		**4.77**		**46.74**		**7.95**		**3.64**		**506.78**		**4.53**	
Monthly Total in lbs.	**1,263,711**		**8.76**		**0.20**		**1.90**		**58.44**		**301.46**		**87.89**		**0.51**		**6.03**		**59.06**		**10.04**		**4.60**		**640.43**		**5.72**
2/2/2016	20.99	4.51		0.19		1.10		40.90		176.80		39.76		0.22		4.99		33.26		6.29		4.49		388.01		2.83	
2/16/2016	22.00	6.41		0.23		1.54		65.30		226.27		62.12		0.28		6.35		39.70		6.15		5.68		553.76		5.45	
Monthly Avg:	**21.50**	**5.46**		**0.21**		**1.32**		**53.10**		**201.53**		**50.94**		**0.25**		**5.67**		**36.48**		**6.22**		**5.08**		**470.88**		**4.14**	
Monthly Total in lbs.	**1,232,934**		**6.73**		**0.26**		**1.63**		**65.47**		**248.48**		**62.81**		**0.31**		**6.99**		**44.97**		**7.67**		**6.27**		**580.57**		**5.10**
3/1/2016	28.10	5.19		0.24		1.24		45.83		191.60		73.90		0.13		4.60		35.94		6.70		4.22		397.74		17.00	
3/15/2016	31.08	4.11		0.19		1.88		42.96		201.07		60.50		0.30		4.68		40.76		7.42		3.78		438.70		13.00	
Monthly Avg:	**29.59**	**4.65**		**0.22**		**1.56**		**44.39**		**196.34**		**67.20**		**0.22**		**4.64**		**38.35**		**7.06**		**4.00**		**418.22**		**15.00**	
Monthly Total in lbs.	**1,371,489**		**6.38**		**0.30**		**2.14**		**60.89**		**269.27**		**92.16**		**0.29**		**6.37**		**52.60**		**9.69**		**5.49**		**573.59**		**20.57**
4/5/2016	22.76	4.79		0.07		1.62		46.00		216.80		61.69		0.39		5.80		40.01		6.73		3.58		468.86		3.60	
4/19/2016	28.44	4.68		0.10		1.51		44.10		197.70		51.90		0.30		4.30		31.75		6.10		3.50		410.62		3.50	
Monthly Avg:	**25.60**	**4.74**		**0.08**		**1.57**		**45.05**		**207.25**		**56.79**		**0.35**		**5.05**		**35.88**		**6.42**		**3.54**		**439.74**		**3.55**	
Monthly Total in lbs.	**1,273,272**		**6.03**		**0.11**		**2.00**		**57.37**		**263.89**		**72.31**		**0.44**		**6.43**		**45.68**		**8.17**		**4.50**		**559.91**		**4.52**
5/3/2016	31.78	4.16		0.13		1.18		45.44		191.67		83.94		0.27		5.11		38.83		7.04		3.29		467.61		2.00	
5/17/2016	28.74	4.04		0.12		1.62		49.32		239.65		65.16		0.36		5.90		40.40		9.21		14.80		487.23		2.50	
Monthly Avg:	**30.26**	**4.10**		**0.12**		**1.40**		**47.38**		**215.66**		**74.55**		**0.32**		**5.50**		**39.62**		**8.12**		**9.04**		**477.42**		**2.25**	
Monthly Total in lbs.	**1,382,798**		**5.67**		**0.17**		**1.94**		**65.51**		**298.22**		**103.09**		**0.44**		**7.61**		**54.78**		**11.23**		**12.50**		**660.18**		**3.11**
6/7/2016	23.76	2.88		0.12		2.07		47.88		241.18		91.65		0.71		5.75		41.63		6.52		5.82		475.22		1.50	
6/21/2016	33.13	2.93		0.16		1.78		46.65		234.17		65.31		0.53		5.32		36.41		7.59		4.28		484.81		1.10	
Monthly Avg:	**28.45**	**2.90**		**0.14**		**1.93**		**47.27**		**237.68**		**78.48**		**0.62**		**5.54**		**39.02**		**7.06**		**5.05**		**480.01**		**1.30**	
Monthly Total in lbs.	**1,357,152**		**3.94**		**0.19**		**2.62**		**64.15**		**322.56**		**106.51**		**0.84**		**7.52**		**52.95**		**9.58**		**6.86**		**651.45**		**1.76**
7/5/2016	20.94	4.38		0.12		1.56		43.05		264.60		82.54		0.50		7.15		38.90		8.57		5.51		541.04		1.40	
7/19/2016	19.63	5.43		0.30		1.55		71.27		330.23		133.58		0.60		10.56		52.24		10.84		5.88		701.50		1.60	
Monthly Avg:	**20.28**	**4.91**		**0.21**		**1.55**		**57.16**		**297.41**		**108.06**		**0.55**		**8.85**		**45.57**		**9.70**		**5.69**		**621.27**		**1.50**	
Monthly Total in lbs.	**1,206,797**		**5.92**		**0.25**		**1.87**		**68.98**		**358.92**		**130.41**		**0.66**		**10.68**		**54.99**		**11.71**		**6.87**		**749.75**		**1.81**
8/2/2016	27.33	4.23		0.12		1.12		41.65		245.34		62.88		0.61		8.89		48.65		8.91		4.70		581.39		1.30	
8/16/2016	30.24	4.53		0.22		1.10		50.84		261.06		107.96		0.60		7.66		41.42		7.42		4.20		575.11		1.20	
Monthly Avg:	**28.79**	**4.38**		**0.17**		**1.11**		**46.24**		**253.20**		**85.42**		**0.61**		**8.27**		**45.04**		**8.16**		**4.45**		**578.25**		**1.25**	
Monthly Total in lbs.	**1,221,747**		**5.35**		**0.21**		**1.36**		**56.50**		**309.34**		**104.36**		**0.74**		**10.10**		**55.02**		**9.97**		**5.44**		**706.48**		**1.53**
9/6/2016	21.41	3.81		0.13		1.23		43.58		240.94		63.90		0.40		7.81		37.29		7.17		8.17		615.97		0.92	
9/20/2016	21.98	3.46		0.04		1.16		45.69		239.80		74.58		0.57		7.99		48.71		7.38		5.74		587.22		1.20	
Monthly Avg:	**21.69**	**3.63**		**0.08**		**1.20**		**44.64**		**240.37**		**69.24**		**0.49**		**7.90**		**43.00**		**7.27**		**6.96**		**601.59**		**1.06**	
Monthly Total in lbs.	**1,151,286**		**4.18**		**0.10**		**1.38**		**51.39**		**276.73**		**79.72**		**0.56**		**9.10**		**49.51**		**8.37**		**8.01**		**692.61**		**1.22**
10/4/2016	21.89	3.68		0.06		1.24		46.76		220.05		70.46		0.47		7.22		42.74		7.85		4.80		531.09		1.50	
10/18/2016	27.25	3.39		0.10		1.89		46.28		234.53		57.38		0.58		8.31		38.53		8.15		4.88		561.21		0.97	
Monthly Avg:	**24.57**	**3.54**		**0.08**		**1.56**		**46.52**		**227.29**		**63.92**		**0.53**		**7.76**		**40.64**		**8.00**		**4.84**		**546.15**		**1.24**	
Monthly Total in lbs.	**1,124,004**		**3.98**		**0.09**		**1.76**		**52.29**		**255.48**		**71.84**		**0.59**		**8.73**		**45.67**		**8.99**		**5.44**		**613.87**		**1.39**
11/1/2016	20.39	3.52		0.13		1.97		41.52		208.64		66.03		0.59		8.41		35.25		7.80		4.31		455.76		1.00	
11/15/2016	20.13	3.85		0.07		1.59		36.55		185.33		39.74		0.66		6.67		33.95		7.25		3.85		393.43		1.20	
Monthly Avg:	**20.26**	**3.69**		**0.10**		**1.78**		**39.04**		**196.98**		**52.89**		**0.63**		**7.54**		**34.60**		**7.52**		**4.08**		**424.60**		**1.10**	
Monthly Total in lbs.	**1,188,946**		**4.39**		**0.12**		**2.12**		**46.41**		**234.20**		**62.88**		**0.74**		**8.96**		**41.14**		**8.95**		**4.86**		**504.82**		**1.31**
12/6/2016	27.97	4.09		0.14		1.11		45.89		178.59		49.61		0.26		5.68		33.90		6.90		3.45		448.55		0.95	
12/20/2016	29.72	4.62		0.10		1.12		52.19		185.27		59.51		0.74		6.45		36.98		6.82		3.62		448.73		3.90	
Monthly Avg:	**28.85**	**4.36**		**0.12**		**1.12**		**49.04**		**181.93**		**54.56**		**0.50**		**6.07**		**35.44**		**6.86**		**3.54**		**448.64**		**2.43**	
Monthly Total in lbs.	**1,357,058**		**5.91**		**0.16**		**1.52**		**66.55**		**246.89**		**74.04**		**0.68**		**8.23**		**48.09**		**9.31**		**4.80**		**608.83**		**3.29**
YEARLY TOTAL LBS	**15,131,193**		**67.25**		**2.15**		**22.22**		**713.93**		**3385.45**		**1048.03**		**6.80**		**96.75**		**604.48**		**113.69**		**75.64**		**7542.47**		**51.34**

Table 20: Field's Point Sludge Analysis

Field's Point Metals Loading from Final Sludge (lbs/yr)

Year	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdeum	Nickel	Selenium	Silver	Zinc	Cyanide
1994			202.7	2628.1	13386.0	4297.2	74.0		4626.2		1113.9	15683.7	281.0
1995			203.5	2824.5	14962.8	3700.2	55.0		4202.3		818.1	13071.5	189.3
1996	132.3	4.9	186.4	3473.3	12461.8	3389.6	47.8	205.1	3860.3		757.7	11615.1	239.8
1997			189.7	3654.7	13674.5	4122.1	53.9		3400.3		867.9	12323.5	189.6
1998	44.6		208.7	2655.5	11207.8	2879.9	36.9		2188.6		698.3	10101.5	127.1
1999	35.4		233.3	2315.0	13490.2	2516.8	28.8	164.7	1887.7	74.9	677.4	11549.1	90.1
2000	42.4	32.3	352.8	1747.7	15019.4	2544.9	12.0	84.1	1191.9	23.5	384.0	6482.0	49.6
2001	88.1	16.9	205.7	2379.0	15120.0	2611.1	26.3	204.6	2008.3	282.0	634.9	13297.6	111.0
2002	84.9	7.6	154.5	1757.0	15758.0	3156.0	27.9	190.1	1555.0	190.4	651.5	15148.0	79.6
2003	53.6	9.7	183.8	1976.2	12993.4	3008.8	28.4	98.1	1485.4	118.2	466.3	12773.9	60.8
2004	43.4	12.1	221.0	3774.2	20910.1	2608.5	23.8	103.2	2472.9	163.4	501.2	14645.1	95.9
2005	79.5	13.9	250.7	4970.6	30477.9	2867.9	29.6	190.3	3092.9	167.2	478.5	20592.3	78.6
2006	85.2	11.7	131.8	1448.6	5889.2	2616.6	16.7	193.4	1181.6	136.4	452.8	12290.6	56.9
2007	18.5	12.2	64.5	612.1	3862.6	1033.7	6.8	157.1	526.2	41.8	173.4	6833.0	67.5
2008	32.9	48.3	66.7	856.5	5426.0	1793.2	74.0	294.3	841.1	39.2	195.7	9914.5	113.8
2009	38.0	33.0	82.5	919.6	4792.0	1771.9	8.4	300.2	769.1	26.5	132.2	10442.8	121.1
2010	44.8	27.6	73.5	928.9	6111.0	1770.2	60.6	276.2	874.0	33.0	151.0	9897.7	94.6
2011	40.8	26.1	123.7	1156.0	3795.4	1613.2	7.5	261.0	790.7	43.0	115.9	9026.6	71.5
2012	33.8	28.5	78.3	995.0	3892.6	1269.2	8.1	285.5	818.7	114.5	185.3	8760.1	199.1
2013	75.1	3.6	48.0	1006.5	4202.2	1454.2	8.0	99.9	757.9	168.3	189.9	8772.9	83.2
2014	82.1	3.9	41.3	846.3	3873.3	1153.0	6.7	100.6	709.6	181.4	131.9	7457.4	59.7
2015	88.0	2.4	42.3	798.3	3683.9	991.0	6.5	98.3	652.2	154.2	105.6	8168.1	71.3
2016	67.2	2.1	22.2	713.9	3385.5	1048.0	6.8	96.7	604.5	113.7	75.6	7542.5	51.3

Table 21: Field's Point Sludge Summary

Bucklin Point Metals Loading from Final Sludge (lbs/yr)

Date	Sludge	Arsenic		Beryllium		Cadmium		Chromium		Copper		Lead		Mercury		Molybdenum		Nickel		Selenium		Silver		Zinc		Cyanide	
	Dry Tons	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs	ppm	lbs
1/5/2016	12.20	4.04		0.45		0.84		89.19		638.55		63.65		0.45		7.91		64.90		5.00		11.10		688.80		2.14	
1/19/2016	6.39	6.99		0.56		1.20		117.97		835.61		89.15		0.90		12.56		87.36		7.91		15.77		985.31		3.51	
Monthly Avg:	**9.29**	**5.52**		**0.51**		**1.02**		**103.58**		**737.08**		**76.40**		**0.68**		**10.24**		**76.13**		**6.46**		**13.44**		**837.05**		**2.83**	
Monthly Total in lbs.	**343,280**		**1.89**		**0.17**		**0.35**		**35.56**		**253.03**		**26.23**		**0.23**		**3.51**		**26.13**		**2.22**		**4.61**		**287.34**		**0.97**
2/2/2016	5.47	7.34		0.67		1.49		120.21		859.44		93.83		0.64		15.56		97.91		6.85		19.53		1098.77		4.65	
2/16/2016	6.58	5.46		0.45		1.06		76.80		560.98		71.83		0.73		12.54		69.55		3.97		12.25		767.98		7.19	
Monthly Avg:	**6.02**	**6.40**		**0.56**		**1.28**		**98.51**		**710.21**		**82.83**		**0.69**		**14.05**		**83.73**		**5.41**		**15.89**		**933.38**		**5.92**	
Monthly Total in lbs.	**303,080**		**1.94**		**0.17**		**0.39**		**29.85**		**215.25**		**25.10**		**0.21**		**4.26**		**25.38**		**1.64**		**4.82**		**282.89**		**1.79**
3/1/2016	6.23	5.65		0.47		1.01		76.07		541.55		79.73		0.47		12.31		80.59		5.72		12.44		769.34		19.00	
3/15/2016	6.75	5.19		0.56		1.26		91.32		582.39		78.86		0.58		11.01		90.87		6.07		13.46		697.96		15.00	
Monthly Avg:	**6.49**	**5.42**		**0.52**		**1.14**		**83.70**		**561.97**		**79.29**		**0.53**		**11.66**		**85.73**		**5.89**		**12.95**		**733.65**		**17.00**	
Monthly Total in lbs.	**350,000**		**1.90**		**0.18**		**0.40**		**29.29**		**196.69**		**27.75**		**0.18**		**4.08**		**30.01**		**2.06**		**4.53**		**256.78**		**5.95**
4/5/2016	6.73	5.41		0.27		1.13		123.14		544.73		69.92		0.97		9.77		95.38		5.28		11.17		678.31		4.20	
4/19/2016	12.12	6.19		0.43		1.35		127.36		612.99		83.46		0.83		9.98		108.93		6.07		12.16		760.02		5.80	
Monthly Avg:	**9.42**	**5.80**		**0.35**		**1.24**		**125.25**		**578.86**		**76.69**		**0.90**		**9.87**		**102.15**		**5.67**		**11.66**		**719.16**		**5.00**	
Monthly Total in lbs.	**321,120**		**1.86**		**0.11**		**0.40**		**40.22**		**185.88**		**24.63**		**0.29**		**3.17**		**32.80**		**1.82**		**3.74**		**230.94**		**1.61**
5/3/2016	5.63	6.20		0.95		1.66		127.42		679.27		113.29		0.84		10.14		111.24		7.91		17.71		806.92		6.60	
5/17/2016	6.70	5.69		0.57		2.10		100.02		682.85		99.36		0.76		9.70		96.30		8.21		12.52		792.28		6.30	
Monthly Avg:	**6.16**	**5.95**		**0.76**		**1.88**		**113.72**		**681.06**		**106.33**		**0.80**		**9.92**		**103.77**		**8.06**		**15.12**		**799.60**		**6.45**	
Monthly Total in lbs.	**415,920**		**2.47**		**0.32**		**0.78**		**47.30**		**283.27**		**44.22**		**0.33**		**4.13**		**43.16**		**3.35**		**6.29**		**332.57**		**2.68**
6/7/2016	9.88	4.69		0.47		1.79		82.55		714.22		92.56		0.94		10.61		77.65		7.39		14.22		834.37		2.80	
6/21/2016	6.94	4.26		0.50		1.60		70.15		652.65		88.52		0.87		10.06		71.13		7.05		13.48		838.29		2.70	
Monthly Avg:	**8.41**	**4.48**		**0.49**		**1.69**		**76.35**		**683.44**		**90.54**		**0.91**		**10.34**		**74.39**		**7.22**		**13.85**		**836.33**		**2.75**	
Monthly Total in lbs.	**357,940**		**1.60**		**0.17**		**0.61**		**27.33**		**244.63**		**32.41**		**0.32**		**3.70**		**26.63**		**2.58**		**4.96**		**299.36**		**0.98**
7/5/2016	5.45	5.97		0.52		1.35		71.73		728.16		98.42		1.10		11.93		73.18		7.34		16.47		960.58		1.70	
7/19/2016	5.07	5.88		0.59		1.26		68.77		744.04		98.27		1.30		12.31		67.26		7.10		18.47		950.71		1.60	
Monthly Avg:	**5.26**	**5.93**		**0.56**		**1.30**		**70.25**		**736.10**		**98.34**		**1.20**		**12.12**		**70.22**		**7.22**		**17.47**		**955.65**		**1.65**	
Monthly Total in lbs.	**308,480**		**1.83**		**0.17**		**0.40**		**21.67**		**227.07**		**30.34**		**0.37**		**3.74**		**21.66**		**2.23**		**5.39**		**294.80**		**0.51**
8/2/2016	6.41	5.98		0.59		1.15		58.89		762.00		81.59		1.30		12.79		61.36		7.64		20.14		930.59		1.40	
8/16/2016	6.90	6.28		0.53		1.26		59.97		720.05		104.68		1.00		12.34		55.24		7.24		20.03		889.86		1.20	
Monthly Avg:	**6.66**	**6.13**		**0.56**		**1.20**		**59.43**		**741.03**		**93.14**		**1.15**		**12.56**		**58.30**		**7.44**		**20.09**		**910.22**		**1.30**	
Monthly Total in lbs.	**368,148**		**2.26**		**0.21**		**0.44**		**21.88**		**272.81**		**34.29**		**0.42**		**4.63**		**21.46**		**2.74**		**7.39**		**335.10**		**0.48**
9/6/2016	7.18	6.68		0.46		1.58		98.46		766.71		109.14		1.20		14.68		130.30		7.10		20.74		992.96		1.00	
9/20/2016	5.80	6.41		0.47		1.57		127.10		792.50		96.79		1.60		15.11		111.08		7.32		27.07		1022.03		1.40	
Monthly Avg:	**6.49**	**6.55**		**0.47**		**1.58**		**112.78**		**779.61**		**102.97**		**1.40**		**14.90**		**120.69**		**7.21**		**23.90**		**1007.49**		**1.20**	
Monthly Total in lbs.	**309,440**		**2.03**		**0.14**		**0.49**		**34.90**		**241.24**		**31.86**		**0.43**		**4.61**		**37.35**		**2.23**		**7.40**		**311.76**		**0.37**
10/4/2016	10.77	6.63		0.53		1.35		143.22		807.74		94.03		1.10		17.94		95.24		8.29		29.17		1056.08		4.70	
10/18/2016	5.80	6.73		0.45		1.39		125.32		775.54		98.25		0.95		17.92		80.06		7.98		30.70		1068.93		2.30	
Monthly Avg:	**8.29**	**6.68**		**0.49**		**1.37**		**134.27**		**791.64**		**96.14**		**1.03**		**17.93**		**87.65**		**8.14**		**29.94**		**1062.51**		**3.50**	
Monthly Total in lbs.	**359,300**		**2.40**		**0.18**		**0.49**		**48.24**		**284.44**		**34.54**		**0.37**		**6.44**		**31.49**		**2.92**		**10.76**		**381.76**		**1.26**
11/1/2016	6.05	4.25		0.38		1.71		96.05		606.97		80.26		0.96		17.16		71.59		5.29		27.79		838.20		1.40	
11/15/2016	5.90	5.39		0.33		1.57		75.12		554.94		62.94		1.20		14.64		64.74		6.16		26.17		706.08		1.20	
Monthly Avg:	**5.98**	**4.82**		**0.35**		**1.64**		**85.58**		**580.96**		**71.60**		**1.08**		**15.90**		**68.17**		**5.73**		**26.98**		**772.14**		**1.30**	
Monthly Total in lbs.	**360,760**		**1.74**		**0.13**		**0.59**		**30.88**		**209.59**		**25.83**		**0.39**		**5.74**		**24.59**		**2.07**		**9.73**		**278.56**		**0.47**
12/6/2016	5.12	6.44		0.63		1.38		88.05		720.60		84.49		0.85		17.71		69.52		6.95		32.22		951.50		1.30	
12/20/2016	7.14	4.71		0.42		1.11		66.93		599.41		62.19		0.76		13.52		67.38		5.90		24.34		727.86		2.90	
Monthly Avg:	**6.13**	**5.58**		**0.53**		**1.24**		**77.49**		**660.01**		**73.34**		**0.81**		**15.62**		**68.45**		**6.43**		**28.28**		**839.68**		**2.10**	
Monthly Total in lbs.	**391,420**		**2.18**		**0.21**		**0.49**		**30.33**		**258.34**		**28.71**		**0.32**		**6.11**		**26.79**		**2.52**		**11.07**		**328.67**		**0.82**
YEARLY TOTAL LBS	**4,188,888**		**24.10**		**2.16**		**5.82**		**397.45**		**2872.23**		**365.91**		**3.87**		**54.12**		**347.46**		**28.38**		**80.69**		**3620.51**		**17.89**

Table 22: Bucklin Point Sludge Analysis

Bucklin Point Metals Loading from Final Sludge (lbs/yr)

Year	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdeum	Nickel	Selenium	Silver	Zinc	Cyanide
1994	16.2		35.4	655.5	3839.7	723.4	84.2		627.6		171.3	4234.5	64.3
1995			35.8	681.0	4306.7	551.8	55.9		539.8		126.2	3495.8	57.6
1996													
1997	16.0		52.9	1177.6	4589.3	1183.6	16.0		1074.4		339.8	4349.4	58.9
1998	12.2		44.8	1263.0	4743.4	1128.3	12.2		977.8		463.4	5838.9	27.7
1999	11.1		44.4	993.6	3906.8	930.3	11.1		716.9		473.0	5945.8	24.3
2000	38.3		60.8	1304.1	5164.7	1073.2	16.8	171.8	1345.4		467.7	7104.0	24.8
2001	57.8	13.6	38.6	1003.3	4132.9	900.1	12.0	167.4	985.3	44.4	371.2	6336.5	33.6
2002	43.7	6.1	27.1	755.0	4565.0	1034.3	18.0	148.9	840.7	37.6	385.8	7226.0	13.3
2003	30.2	6.6	29.2	2669.3	3439.4	772.3	10.0	69.3	868.1	32.1	273.0	5973.1	8.9
2004	27.6	7.3	45.5	851.5	3733.7	739.0	11.6	62.0	794.7	36.1	225.0	6759.2	7.6
2005	18.8	5.9	30.9	969.5	4468.6	682.1	8.9	77.4	781.5	32.5	153.0	5469.7	10.3
2006	25.5	2.0	24.4	2398.8	3657.0	713.0	6.8	37.1	1089.2	33.9	165.4	4953.9	12.0
2007	11.2	5.2	25.7	4143.3	4676.1	633.5	9.3	70.7	1389.7	14.4	177.5	5635.0	22.8
2008	8.9	14.1	23.3	5594.6	4209.5	585.4	36.0	84.7	1568.6	17.4	116.8	5519.0	27.4
2009	18.1	8.2	20.6	1054.3	3132.4	516.6	4.6	79.6	438.2	14.6	62.5	4895.0	19.3
2010	20.7	7.0	17.5	619.0	3075.2	445.7	14.4	74.3	318.1	14.6	58.1	3949.5	17.1
2011	19.3	9.0	13.9	499.9	2159.5	474.2	4.9	90.0	294.1	15.1	66.4	3583.1	14.5
2012	18.2	8.4	13.5	370.6	2502.2	370.7	4.3	84.3	269.2	16.0	56.8	3388.8	24.9
2013	21.1	1.9	11.7	349.5	2493.6	381.4	4.0	45.4	271.9	21.2	54.1	3264.5	19.6
2014	26.6	2.5	11.1	432.7	3268.3	373.4	2.9	51.5	335.1	30.3	57.8	3499.3	19.1
2015	25.4	2.3	7.4	422.7	3125.3	367.9	3.3	49.2	346.2	31.9	54.6	3619.9	21.8
2016	24.1	2.2	5.8	397.4	2872.2	365.9	3.9	54.1	347.5	28.4	80.7	3620.5	17.9

Table 23: Bucklin Point Sludge Summary

Field's Point Influent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
1/5/2016	1,1,1-Trichloroethane	<1	ppb
1/5/2016	1,1,2,2-Tetrachlorethane	<1	ppb
1/5/2016	1,1,2-Trichloroethane	<1	ppb
1/5/2016	1,1-Dichloroethane	<1	ppb
1/5/2016	1,1-Dichloroethene	<1	ppb
1/5/2016	1,2-dichlorobenzene	<1	ppb
1/5/2016	1,2-Dichloroethane	<1	ppb
1/5/2016	1,2-Dichloropropane	<1	ppb
1/5/2016	1,3-dichlorobenzene	<1	ppb
1/5/2016	1,4-dichlorobenzene	<1	ppb
1/5/2016	2-Chloroethylvinylether	<2	ppb
1/5/2016	Benzene	<1	ppb
1/5/2016	Bromodichloromethane	<1	ppb
1/5/2016	Bromoform	<1	ppb
1/5/2016	Bromomethane	<10	ppb
1/5/2016	Carbon Tetrachloride	<1	ppb
1/5/2016	Chlorobenzene	<1	ppb
1/5/2016	Chloroethane	<10	ppb
1/5/2016	Chloroform	2	ppb
1/5/2016	Chloromethane	<10	ppb
1/5/2016	cis-1,3-Dichloropropene	<1	ppb
1/5/2016	Dibromochloromethane	<1	ppb
1/5/2016	Ethylbenzene	<1	ppb
1/5/2016	Methylene Chloride	<5	ppb
1/5/2016	o- xylene	<1	ppb
1/5/2016	p&m xylene	<1	ppb
1/5/2016	Tetrachlorethene	1	ppb
1/5/2016	Toluene	2	ppb
1/5/2016	Trans-1,2-Dichloroethene	<1	ppb
1/5/2016	Trans-1,3-Dichloropropene	<1	ppb
1/5/2016	Trichlorethene	1	ppb
1/5/2016	Trichlorofluoromethane	<1	ppb
1/5/2016	Vinyl Chloride	<1	ppb
2/9/2016	1,1,1-Trichloroethane	<10	ppb
2/9/2016	1,1,2,2-Tetrachlorethane	<10	ppb
2/9/2016	1,1,2-Trichloroethane	<10	ppb
2/9/2016	1,1-Dichloroethane	<10	ppb
2/9/2016	1,1-Dichloroethene	<10	ppb
2/9/2016	1,2-dichlorobenzene	<10	ppb
2/9/2016	1,2-Dichloroethane	<10	ppb
2/9/2016	1,2-Dichloropropane	<10	ppb
2/9/2016	1,3-dichlorobenzene	<10	ppb
2/9/2016	1,4-dichlorobenzene	<10	ppb
2/9/2016	2-Chloroethylvinylether	<20	ppb
2/9/2016	Benzene	<10	ppb
2/9/2016	Bromodichloromethane	<10	ppb
2/9/2016	Bromoform	<10	ppb
2/9/2016	Bromomethane	<100	ppb
2/9/2016	Carbon Tetrachloride	<10	ppb
2/9/2016	Chlorobenzene	<10	ppb
2/9/2016	Chloroethane	<100	ppb
2/9/2016	Chloroform	<10	ppb
2/9/2016	Chloromethane	<100	ppb
2/9/2016	cis-1,3-Dichloropropene	<10	ppb
2/9/2016	Dibromochloromethane	<10	ppb
2/9/2016	Ethylbenzene	<10	ppb
2/9/2016	Methylene Chloride	<50	ppb
2/9/2016	o- xylene	<10	ppb
2/9/2016	p&m xylene	<10	ppb

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Table 24: EPA VOC Data
Field's Point

EPA Priority Pollutants Data
Field's Point 2016

Field's Point Influent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
2/9/2016	Tetrachlorethene	<10	ppb
2/9/2016	Toluene	<10	ppb
2/9/2016	Trans-1,2-Dichloroethene	<10	ppb
2/9/2016	Trans-1,3-Dichloropropene	<10	ppb
2/9/2016	Trichlorethene	<10	ppb
2/9/2016	Trichlorofluoromethane	<10	ppb
2/9/2016	Vinyl Chloride	<10	ppb
3/8/2016	1,1,1-Trichloroethane	<10	ppb
3/8/2016	1,1,2,2-Tetrachlorethane	<10	ppb
3/8/2016	1,1,2-Trichloroethane	<10	ppb
3/8/2016	1,1-Dichloroethane	<10	ppb
3/8/2016	1,1-Dichloroethene	<10	ppb
3/8/2016	1,2-dichlorobenzene	<10	ppb
3/8/2016	1,2-Dichloroethane	<10	ppb
3/8/2016	1,2-Dichloropropane	<10	ppb
3/8/2016	1,3-dichlorobenzene	<10	ppb
3/8/2016	1,4-dichlorobenzene	<10	ppb
3/8/2016	2-Chloroethylvinylether	<20	ppb
3/8/2016	Benzene	<10	ppb
3/8/2016	Bromodichloromethane	<10	ppb
3/8/2016	Bromoform	<10	ppb
3/8/2016	Bromomethane	<100	ppb
3/8/2016	Carbon Tetrachloride	<10	ppb
3/8/2016	Chlorobenzene	<10	ppb
3/8/2016	Chloroethane	<100	ppb
3/8/2016	Chloroform	<10	ppb
3/8/2016	Chloromethane	<100	ppb
3/8/2016	cis-1,3-Dichloropropene	<10	ppb
3/8/2016	Dibromochloromethane	<10	ppb
3/8/2016	Ethylbenzene	<10	ppb
3/8/2016	Methylene Chloride	<50	ppb
3/8/2016	o- xylene	<10	ppb
3/8/2016	p&m xylene	<10	ppb
3/8/2016	Tetrachlorethene	<10	ppb
3/8/2016	Toluene	<10	ppb
3/8/2016	Trans-1,2-Dichloroethene	<10	ppb
3/8/2016	Trans-1,3-Dichloropropene	<10	ppb
3/8/2016	Trichlorethene	<10	ppb
3/8/2016	Trichlorofluoromethane	<10	ppb
3/8/2016	Vinyl Chloride	<10	ppb
4/5/2016	1,1,1-Trichloroethane	<1	ppb
4/5/2016	1,1,2,2-Tetrachlorethane	<1	ppb
4/5/2016	1,1,2-Trichloroethane	<1	ppb
4/5/2016	1,1-Dichloroethane	<1	ppb
4/5/2016	1,1-Dichloroethene	<1	ppb
4/5/2016	1,2-dichlorobenzene	<1	ppb
4/5/2016	1,2-Dichloroethane	<1	ppb
4/5/2016	1,2-Dichloropropane	<1	ppb
4/5/2016	1,3-dichlorobenzene	<1	ppb
4/5/2016	1,4-dichlorobenzene	<1	ppb
4/5/2016	2-Chloroethylvinylether	<2	ppb
4/5/2016	Benzene	<1	ppb
4/5/2016	Bromodichloromethane	<1	ppb
4/5/2016	Bromoform	<1	ppb
4/5/2016	Bromomethane	<10	ppb
4/5/2016	Carbon Tetrachloride	<1	ppb
4/5/2016	Chlorobenzene	<1	ppb
4/5/2016	Chloroethane	<10	ppb
4/5/2016	Chloroform	4	ppb

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Table 24: EPA VOC Data
Field's Point

EPA Priority Pollutants Data
Field's Point 2016

Field's Point Influent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
4/5/2016	Chloromethane	<10	ppb
4/5/2016	cis-1,3-Dichloropropene	<1	ppb
4/5/2016	Dibromochloromethane	<1	ppb
4/5/2016	Ethylbenzene	<1	ppb
4/5/2016	Methylene Chloride	<5	ppb
4/5/2016	o- xylene	<1	ppb
4/5/2016	p&m xylene	<1	ppb
4/5/2016	Tetrachlorethene	2	ppb
4/5/2016	Toluene	2	ppb
4/5/2016	Trans-1,2-Dichloroethene	<1	ppb
4/5/2016	Trans-1,3-Dichloropropene	<1	ppb
4/5/2016	Trichlorethene	1	ppb
4/5/2016	Trichlorofluoromethane	<1	ppb
4/5/2016	Vinyl Chloride	<1	ppb
5/3/2016	1,1,1-Trichloroethane	<10	ppb
5/3/2016	1,1,2,2-Tetrachlorethane	<10	ppb
5/3/2016	1,1,2-Trichloroethane	<10	ppb
5/3/2016	1,1-Dichloroethane	<10	ppb
5/3/2016	1,1-Dichloroethene	<10	ppb
5/3/2016	1,2-dichlorobenzene	<10	ppb
5/3/2016	1,2-Dichloroethane	<10	ppb
5/3/2016	1,2-Dichloropropane	<10	ppb
5/3/2016	1,3-dichlorobenzene	<10	ppb
5/3/2016	1,4-dichlorobenzene	<10	ppb
5/3/2016	2-Chloroethylvinylether	<20	ppb
5/3/2016	Benzene	<10	ppb
5/3/2016	Bromodichloromethane	<10	ppb
5/3/2016	Bromoform	<10	ppb
5/3/2016	Bromomethane	<100	ppb
5/3/2016	Carbon Tetrachloride	<10	ppb
5/3/2016	Chlorobenzene	<10	ppb
5/3/2016	Chloroethane	<100	ppb
5/3/2016	Chloroform	<10	ppb
5/3/2016	Chloromethane	<100	ppb
5/3/2016	cis-1,3-Dichloropropene	<10	ppb
5/3/2016	Dibromochloromethane	<10	ppb
5/3/2016	Ethylbenzene	<10	ppb
5/3/2016	Methylene Chloride	<50	ppb
5/3/2016	o- xylene	<10	ppb
5/3/2016	p&m xylene	<10	ppb
5/3/2016	Tetrachlorethene	<10	ppb
5/3/2016	Toluene	<10	ppb
5/3/2016	Trans-1,2-Dichloroethene	<10	ppb
5/3/2016	Trans-1,3-Dichloropropene	<10	ppb
5/3/2016	Trichlorethene	<10	ppb
5/3/2016	Trichlorofluoromethane	<10	ppb
5/3/2016	Vinyl Chloride	<10	ppb
6/7/2016	1,1,1-Trichloroethane	<10	ppb
6/7/2016	1,1,2,2-Tetrachlorethane	<10	ppb
6/7/2016	1,1,2-Trichloroethane	<10	ppb
6/7/2016	1,1-Dichloroethane	<10	ppb
6/7/2016	1,1-Dichloroethene	<10	ppb
6/7/2016	1,2-dichlorobenzene	<10	ppb
6/7/2016	1,2-Dichloroethane	<10	ppb
6/7/2016	1,2-Dichloropropane	<10	ppb
6/7/2016	1,3-dichlorobenzene	<10	ppb
6/7/2016	1,4-dichlorobenzene	<10	ppb
6/7/2016	2-Chloroethylvinylether	<20	ppb
6/7/2016	Benzene	<10	ppb

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Table 24: EPA VOC Data
Field's Point

Field's Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
6/7/2016	Bromodichloromethane	<10	ppb
6/7/2016	Bromoform	<10	ppb
6/7/2016	Bromomethane	<100	ppb
6/7/2016	Carbon Tetrachloride	<10	ppb
6/7/2016	Chlorobenzene	<10	ppb
6/7/2016	Chloroethane	<100	ppb
6/7/2016	Chloroform	<10	ppb
6/7/2016	Chloromethane	<100	ppb
6/7/2016	cis-1,3-Dichloropropene	<10	ppb
6/7/2016	Dibromochloromethane	<10	ppb
6/7/2016	Ethylbenzene	<10	ppb
6/7/2016	Methylene Chloride	<50	ppb
6/7/2016	o- xylene	<10	ppb
6/7/2016	p&m xylene	<10	ppb
6/7/2016	Tetrachlorethene	<10	ppb
6/7/2016	Toluene	<10	ppb
6/7/2016	Trans-1,2-Dichloroethene	<10	ppb
6/7/2016	Trans-1,3-Dichloropropene	<10	ppb
6/7/2016	Trichlorethene	<10	ppb
6/7/2016	Trichlorofluoromethane	<10	ppb
6/7/2016	Vinyl Chloride	<10	ppb
7/12/2016	1,1,1-Trichloroethane	<10	ppb
7/12/2016	1,1,2,2-Tetrachlorethane	<10	ppb
7/12/2016	1,1,2-Trichloroethane	<10	ppb
7/12/2016	1,1-Dichloroethane	<10	ppb
7/12/2016	1,1-Dichloroethene	<10	ppb
7/12/2016	1,2-dichlorobenzene	<10	ppb
7/12/2016	1,2-Dichloroethane	<10	ppb
7/12/2016	1,2-Dichloropropane	<10	ppb
7/12/2016	1,3-dichlorobenzene	<10	ppb
7/12/2016	1,4-dichlorobenzene	<10	ppb
7/12/2016	2-Chloroethylvinylether	<20	ppb
7/12/2016	Benzene	<10	ppb
7/12/2016	Bromodichloromethane	<10	ppb
7/12/2016	Bromoform	<10	ppb
7/12/2016	Bromomethane	<100	ppb
7/12/2016	Carbon Tetrachloride	<10	ppb
7/12/2016	Chlorobenzene	<10	ppb
7/12/2016	Chloroethane	<100	ppb
7/12/2016	Chloroform	<10	ppb
7/12/2016	Chloromethane	<100	ppb
7/12/2016	cis-1,3-Dichloropropene	<10	ppb
7/12/2016	Dibromochloromethane	<10	ppb
7/12/2016	Ethylbenzene	<10	ppb
7/12/2016	Methylene Chloride	<50	ppb
7/12/2016	o- xylene	<10	ppb
7/12/2016	p&m xylene	<10	ppb
7/12/2016	Tetrachlorethene	<10	ppb
7/12/2016	Toluene	<10	ppb
7/12/2016	Trans-1,2-Dichloroethene	<10	ppb
7/12/2016	Trans-1,3-Dichloropropene	<10	ppb
7/12/2016	Trichlorethene	<10	ppb
7/12/2016	Trichlorofluoromethane	<10	ppb
7/12/2016	Vinyl Chloride	<10	ppb
8/2/2016	1,1,1-Trichloroethane	<1	ppb
8/2/2016	1,1,2,2-Tetrachlorethane	<1	ppb
8/2/2016	1,1,2-Trichloroethane	<1	ppb
8/2/2016	1,1-Dichloroethane	<1	ppb
8/2/2016	1,1-Dichloroethene	<1	ppb

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Sample Date
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Table 24: EPA VOC Data
Field's Point

Field's Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
8/2/2016	1,2-dichlorobenzene	<1	ppb
8/2/2016	1,2-Dichloroethane	<1	ppb
8/2/2016	1,2-Dichloropropane	<1	ppb
8/2/2016	1,3-dichlorobenzene	<1	ppb
8/2/2016	1,4-dichlorobenzene	<1	ppb
8/2/2016	2-Chloroethylvinylether	<2	ppb
8/2/2016	Benzene	<1	ppb
8/2/2016	Bromodichloromethane	<1	ppb
8/2/2016	Bromoform	<1	ppb
8/2/2016	Bromomethane	<10	ppb
8/2/2016	Carbon Tetrachloride	<1	ppb
8/2/2016	Chlorobenzene	<1	ppb
8/2/2016	Chloroethane	<10	ppb
8/2/2016	Chloroform	3.1	ppb
8/2/2016	Chloromethane	<10	ppb
8/2/2016	cis-1,3-Dichloropropene	<1	ppb
8/2/2016	Dibromochloromethane	<1	ppb
8/2/2016	Ethylbenzene	2.6	ppb
8/2/2016	Methylene Chloride	<5	ppb
8/2/2016	o- xylene	4.0	ppb
8/2/2016	p&m xylene	8.7	ppb
8/2/2016	Tetrachlorethene	<1	ppb
8/2/2016	Toluene	14	ppb
8/2/2016	Trans-1,2-Dichloroethene	<1	ppb
8/2/2016	Trans-1,3-Dichloropropene	<1	ppb
8/2/2016	Trichlorethene	1.5	ppb
8/2/2016	Trichlorofluoromethane	<1	ppb
8/2/2016	Vinyl Chloride	<1	ppb
9/13/2016	1,1,1-Trichloroethane	<1	ppb
9/13/2016	1,1,2,2-Tetrachlorethane	<1	ppb
9/13/2016	1,1,2-Trichloroethane	<1	ppb
9/13/2016	1,1-Dichloroethane	<1	ppb
9/13/2016	1,1-Dichloroethene	<1	ppb
9/13/2016	1,2-dichlorobenzene	<1	ppb
9/13/2016	1,2-Dichloroethane	<1	ppb
9/13/2016	1,2-Dichloropropane	<1	ppb
9/13/2016	1,3-dichlorobenzene	<1	ppb
9/13/2016	1,4-dichlorobenzene	<1	ppb
9/13/2016	2-Chloroethylvinylether	<2	ppb
9/13/2016	Benzene	<1	ppb
9/13/2016	Bromodichloromethane	<1	ppb
9/13/2016	Bromoform	<1	ppb
9/13/2016	Bromomethane	<10	ppb
9/13/2016	Carbon Tetrachloride	<1	ppb
9/13/2016	Chlorobenzene	<1	ppb
9/13/2016	Chloroethane	<10	ppb
9/13/2016	Chloroform	4.7	ppb
9/13/2016	Chloromethane	<10	ppb
9/13/2016	cis-1,3-Dichloropropene	<1	ppb
9/13/2016	Dibromochloromethane	<1	ppb
9/13/2016	Ethylbenzene	<1	ppb
9/13/2016	Methylene Chloride	<5	ppb
9/13/2016	o- xylene	<1	ppb
9/13/2016	p&m xylene	<1	ppb
9/13/2016	Tetrachlorethene	1.4	ppb
9/13/2016	Toluene	3.1	ppb
9/13/2016	Trans-1,2-Dichloroethene	<1	ppb
9/13/2016	Trans-1,3-Dichloropropene	<1	ppb
9/13/2016	Trichlorethene	<1	ppb

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Table 24: EPA VOC Data
Field's Point

Field's Point Influent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
9/13/2016	Trichlorofluoromethane	<1	ppb
9/13/2016	Vinyl Chloride	<1	ppb
10/4/2016	1,1,1-Trichloroethane	<1	ppb
10/4/2016	1,1,2,2-Tetrachlorethane	<1	ppb
10/4/2016	1,1,2-Trichloroethane	<1	ppb
10/4/2016	1,1-Dichloroethane	<1	ppb
10/4/2016	1,1-Dichloroethene	<1	ppb
10/4/2016	1,2-dichlorobenzene	<1	ppb
10/4/2016	1,2-Dichloroethane	<1	ppb
10/4/2016	1,2-Dichloropropane	<1	ppb
10/4/2016	1,3-dichlorobenzene	<1	ppb
10/4/2016	1,4-dichlorobenzene	<1	ppb
10/4/2016	2-Chloroethylvinylether	<2	ppb
10/4/2016	Benzene	<1	ppb
10/4/2016	Bromodichloromethane	<1	ppb
10/4/2016	Bromoform	<1	ppb
10/4/2016	Bromomethane	<10	ppb
10/4/2016	Carbon Tetrachloride	<1	ppb
10/4/2016	Chlorobenzene	<1	ppb
10/4/2016	Chloroethane	<10	ppb
10/4/2016	Chloroform	4.3	ppb
10/4/2016	Chloromethane	<10	ppb
10/4/2016	cis-1,3-Dichloropropene	<1	ppb
10/4/2016	Dibromochloromethane	<1	ppb
10/4/2016	Ethylbenzene	<1	ppb
10/4/2016	Methylene Chloride	<5	ppb
10/4/2016	o- xylene	<1	ppb
10/4/2016	p&m xylene	<1	ppb
10/4/2016	Tetrachlorethene	1.4	ppb
10/4/2016	Toluene	2.6	ppb
10/4/2016	Trans-1,2-Dichloroethene	<1	ppb
10/4/2016	Trans-1,3-Dichloropropene	<1	ppb
10/4/2016	Trichlorethene	<1	ppb
10/4/2016	Trichlorofluoromethane	<1	ppb
10/4/2016	Vinyl Chloride	<1	ppb
11/15/2016	1,1,1-Trichloroethane	<1	ppb
11/15/2016	1,1,2,2-Tetrachlorethane	<1	ppb
11/15/2016	1,1,2-Trichloroethane	<1	ppb
11/15/2016	1,1-Dichloroethane	<1	ppb
11/15/2016	1,1-Dichloroethene	<1	ppb
11/15/2016	1,2-dichlorobenzene	<1	ppb
11/15/2016	1,2-Dichloroethane	<1	ppb
11/15/2016	1,2-Dichloropropane	<1	ppb
11/15/2016	1,3-dichlorobenzene	<1	ppb
11/15/2016	1,4-dichlorobenzene	<1	ppb
11/15/2016	2-Chloroethylvinylether	<2	ppb
11/15/2016	Benzene	<1	ppb
11/15/2016	Bromodichloromethane	<1	ppb
11/15/2016	Bromoform	<1	ppb
11/15/2016	Bromomethane	<10	ppb
11/15/2016	Carbon Tetrachloride	<1	ppb
11/15/2016	Chlorobenzene	<1	ppb
11/15/2016	Chloroethane	<10	ppb
11/15/2016	Chloroform	11	ppb
11/15/2016	Chloromethane	<10	ppb
11/15/2016	cis-1,3-Dichloropropene	<1	ppb
11/15/2016	Dibromochloromethane	<1	ppb
11/15/2016	Ethylbenzene	4.2	ppb
11/15/2016	Methylene Chloride	<5	ppb

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Table 24: EPA VOC Data
Field's Point

Field's Point Influent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
11/15/2016	o- xylene	4.8	ppb
11/15/2016	p&m xylene	16	ppb
11/15/2016	Tetrachlorethene	1.2	ppb
11/15/2016	Toluene	13	ppb
11/15/2016	Trans-1,2-Dichloroethene	<1	ppb
11/15/2016	Trans-1,3-Dichloropropene	<1	ppb
11/15/2016	Trichlorethene	<1	ppb
11/15/2016	Trichlorofluoromethane	<1	ppb
11/15/2016	Vinyl Chloride	<1	ppb
12/6/2016	1,1,1-Trichloroethane	<1	ppb
12/6/2016	1,1,2,2-Tetrachlorethane	<1	ppb
12/6/2016	1,1,2-Trichloroethane	<1	ppb
12/6/2016	1,1-Dichloroethane	<1	ppb
12/6/2016	1,1-Dichloroethene	<1	ppb
12/6/2016	1,2-dichlorobenzene	<1	ppb
12/6/2016	1,2-Dichloroethane	<1	ppb
12/6/2016	1,2-Dichloropropane	<1	ppb
12/6/2016	1,3-dichlorobenzene	<1	ppb
12/6/2016	1,4-dichlorobenzene	<1	ppb
12/6/2016	2-Chloroethylvinylether	<2	ppb
12/6/2016	Benzene	<1	ppb
12/6/2016	Bromodichloromethane	<1	ppb
12/6/2016	Bromoform	<1	ppb
12/6/2016	Bromomethane	<10	ppb
12/6/2016	Carbon Tetrachloride	<1	ppb
12/6/2016	Chlorobenzene	<1	ppb
12/6/2016	Chloroethane	<10	ppb
12/6/2016	Chloroform	4.3	ppb
12/6/2016	Chloromethane	<10	ppb
12/6/2016	cis-1,3-Dichloropropene	<1	ppb
12/6/2016	Dibromochloromethane	<1	ppb
12/6/2016	Ethylbenzene	<1	ppb
12/6/2016	Methylene Chloride	<5	ppb
12/6/2016	o- xylene	<1	ppb
12/6/2016	p&m xylene	<1	ppb
12/6/2016	Tetrachlorethene	1.5	ppb
12/6/2016	Toluene	2.0	ppb
12/6/2016	Trans-1,2-Dichloroethene	<1	ppb
12/6/2016	Trans-1,3-Dichloropropene	<1	ppb
12/6/2016	Trichlorethene	1.2	ppb
12/6/2016	Trichlorofluoromethane	<1	ppb
12/6/2016	Vinyl Chloride	<1	ppb

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d's Point Effluent Grab Samples		
Parameter	**Result**	**Units**
1,1,1-Trichloroethane	<1	ppb
1,1,2,2-Tetrachlorethane	<1	ppb
1,1,2-Trichloroethane	<1	ppb
1,1-Dichloroethane	<1	ppb
1,1-Dichloroethene	<1	ppb
1,2-dichlorobenzene	<1	ppb
1,2-Dichloroethane	<1	ppb
1,2-Dichloropropane	<1	ppb
1,3-dichlorobenzene	<1	ppb
1,4-dichlorobenzene	<1	ppb
2-Chloroethylvinylether	<2	ppb
Benzene	<1	ppb
Bromodichloromethane	11	ppb
Bromoform	7	ppb
Bromomethane	<10	ppb
Carbon Tetrachloride	<1	ppb
Chlorobenzene	<1	ppb
Chloroethane	<10	ppb
Chloroform	4	ppb
Chloromethane	<10	ppb
cis-1,3-Dichloropropene	<1	ppb
Dibromochloromethane	16	ppb
Ethylbenzene	<1	ppb
Methylene Chloride	<5	ppb
o- xylene	<1	ppb
p&m xylene	<1	ppb
Tetrachlorethene	<1	ppb
Toluene	<1	ppb
Trans-1,2-Dichloroethene	<1	ppb
Trans-1,3-Dichloropropene	<1	ppb
Trichlorethene	<1	ppb
Trichlorofluoromethane	<1	ppb
Vinyl Chloride	<1	ppb
1,1,1-Trichloroethane	<1	ppb
1,1,2,2-Tetrachlorethane	<1	ppb
1,1,2-Trichloroethane	<1	ppb
1,1-Dichloroethane	<1	ppb
1,1-Dichloroethene	<1	ppb
1,2-dichlorobenzene	<1	ppb
1,2-Dichloroethane	<1	ppb
1,2-Dichloropropane	<1	ppb
1,3-dichlorobenzene	<1	ppb
1,4-dichlorobenzene	<1	ppb
2-Chloroethylvinylether	<2	ppb
Benzene	<1	ppb
Bromodichloromethane	<1	ppb
Bromoform	<1	ppb
Bromomethane	<10	ppb
Carbon Tetrachloride	<1	ppb
Chlorobenzene	<1	ppb
Chloroethane	<10	ppb
Chloroform	1	ppb
Chloromethane	<10	ppb
cis-1,3-Dichloropropene	<1	ppb
Dibromochloromethane	<1	ppb
Ethylbenzene	<1	ppb
Methylene Chloride	<5	ppb
o- xylene	<1	ppb
p&m xylene	<1	ppb

d's Point Effluent Grab Samples		
Parameter	**Result**	**Units**
Tetrachlorethene	<1	ppb
Toluene	<1	ppb
Trans-1,2-Dichloroethene	<1	ppb
Trans-1,3-Dichloropropene	<1	ppb
Trichlorethene	<1	ppb
Trichlorofluoromethane	<1	ppb
Vinyl Chloride	<1	ppb
1,1,1-Trichloroethane	<1	ppb
1,1,2,2-Tetrachlorethane	<1	ppb
1,1,2-Trichloroethane	<1	ppb
1,1-Dichloroethane	<1	ppb
1,1-Dichloroethene	<1	ppb
1,2-dichlorobenzene	<1	ppb
1,2-Dichloroethane	<1	ppb
1,2-Dichloropropane	<1	ppb
1,3-dichlorobenzene	<1	ppb
1,4-dichlorobenzene	<1	ppb
2-Chloroethylvinylether	<2	ppb
Benzene	<1	ppb
Bromodichloromethane	<1	ppb
Bromoform	<1	ppb
Bromomethane	<10	ppb
Carbon Tetrachloride	<1	ppb
Chlorobenzene	<1	ppb
Chloroethane	<10	ppb
Chloroform	2	ppb
Chloromethane	<10	ppb
cis-1,3-Dichloropropene	<1	ppb
Dibromochloromethane	<1	ppb
Ethylbenzene	<1	ppb
Methylene Chloride	<5	ppb
o- xylene	<1	ppb
p&m xylene	<1	ppb
Tetrachlorethene	<1	ppb
Toluene	<1	ppb
Trans-1,2-Dichloroethene	<1	ppb
Trans-1,3-Dichloropropene	<1	ppb
Trichlorethene	<1	ppb
Trichlorofluoromethane	<1	ppb
Vinyl Chloride	<1	ppb
1,1,1-Trichloroethane	<1	ppb
1,1,2,2-Tetrachlorethane	<1	ppb
1,1,2-Trichloroethane	<1	ppb
1,1-Dichloroethane	<1	ppb
1,1-Dichloroethene	<1	ppb
1,2-dichlorobenzene	<1	ppb
1,2-Dichloroethane	<1	ppb
1,2-Dichloropropane	<1	ppb
1,3-dichlorobenzene	<1	ppb
1,4-dichlorobenzene	<1	ppb
2-Chloroethylvinylether	<2	ppb
Benzene	<1	ppb
Bromodichloromethane	5	ppb
Bromoform	2	ppb
Bromomethane	<10	ppb
Carbon Tetrachloride	<1	ppb
Chlorobenzene	<1	ppb
Chloroethane	<10	ppb
Chloroform	3	ppb

d's Point Effluent Grab Samples		
Parameter	**Result**	**Units**
Chloromethane	<10	ppb
cis-1,3-Dichloropropene	<1	ppb
Dibromochloromethane	5	ppb
Ethylbenzene	<1	ppb
Methylene Chloride	<5	ppb
o- xylene	<1	ppb
p&m xylene	<1	ppb
Tetrachlorethene	<1	ppb
Toluene	<1	ppb
Trans-1,2-Dichloroethene	<1	ppb
Trans-1,3-Dichloropropene	<1	ppb
Trichlorethene	<1	ppb
Trichlorofluoromethane	<1	ppb
Vinyl Chloride	<1	ppb
1,1,1-Trichloroethane	<10	ppb
1,1,2,2-Tetrachlorethane	<10	ppb
1,1,2-Trichloroethane	<10	ppb
1,1-Dichloroethane	<10	ppb
1,1-Dichloroethene	<10	ppb
1,2-dichlorobenzene	<10	ppb
1,2-Dichloroethane	<10	ppb
1,2-Dichloropropane	<10	ppb
1,3-dichlorobenzene	<10	ppb
1,4-dichlorobenzene	<10	ppb
2-Chloroethylvinylether	<20	ppb
Benzene	<10	ppb
Bromodichloromethane	11	ppb
Bromoform	<10	ppb
Bromomethane	<100	ppb
Carbon Tetrachloride	<10	ppb
Chlorobenzene	<10	ppb
Chloroethane	<100	ppb
Chloroform	<10	ppb
Chloromethane	<100	ppb
cis-1,3-Dichloropropene	<10	ppb
Dibromochloromethane	10	ppb
Ethylbenzene	<10	ppb
Methylene Chloride	<50	ppb
o- xylene	<10	ppb
p&m xylene	<10	ppb
Tetrachlorethene	<10	ppb
Toluene	<10	ppb
Trans-1,2-Dichloroethene	<10	ppb
Trans-1,3-Dichloropropene	<10	ppb
Trichlorethene	<10	ppb
Trichlorofluoromethane	<10	ppb
Vinyl Chloride	<10	ppb
1,1,1-Trichloroethane	<1	ppb
1,1,2,2-Tetrachlorethane	<1	ppb
1,1,2-Trichloroethane	<1	ppb
1,1-Dichloroethane	<1	ppb
1,1-Dichloroethene	<1	ppb
1,2-dichlorobenzene	<1	ppb
1,2-Dichloroethane	<1	ppb
1,2-Dichloropropane	<1	ppb
1,3-dichlorobenzene	<1	ppb
1,4-dichlorobenzene	<1	ppb
2-Chloroethylvinylether	<2	ppb
Benzene	<1	ppb

d's Point Effluent Grab Samples		
Parameter	**Result**	**Units**
Bromodichloromethane	12	ppb
Bromoform	8	ppb
Bromomethane	<10	ppb
Carbon Tetrachloride	<1	ppb
Chlorobenzene	<1	ppb
Chloroethane	<10	ppb
Chloroform	<1	ppb
Chloromethane	<10	ppb
cis-1,3-Dichloropropene	<1	ppb
Dibromochloromethane	17	ppb
Ethylbenzene	<1	ppb
Methylene Chloride	<5	ppb
o- xylene	<1	ppb
p&m xylene	<1	ppb
Tetrachlorethene	<1	ppb
Toluene	<1	ppb
Trans-1,2-Dichloroethene	<1	ppb
Trans-1,3-Dichloropropene	<1	ppb
Trichlorethene	<1	ppb
Trichlorofluoromethane	<1	ppb
Vinyl Chloride	<1	ppb
1,1,1-Trichloroethane	<1	ppb
1,1,2,2-Tetrachlorethane	<1	ppb
1,1,2-Trichloroethane	<1	ppb
1,1-Dichloroethane	<1	ppb
1,1-Dichloroethene	<1	ppb
1,2-dichlorobenzene	<1	ppb
1,2-Dichloroethane	<1	ppb
1,2-Dichloropropane	<1	ppb
1,3-dichlorobenzene	<1	ppb
1,4-dichlorobenzene	<1	ppb
2-Chloroethylvinylether	<2	ppb
Benzene	<1	ppb
Bromodichloromethane	14	ppb
Bromoform	9	ppb
Bromomethane	<10	ppb
Carbon Tetrachloride	<1	ppb
Chlorobenzene	<1	ppb
Chloroethane	<10	ppb
Chloroform	11	ppb
Chloromethane	<10	ppb
cis-1,3-Dichloropropene	<1	ppb
Dibromochloromethane	21	ppb
Ethylbenzene	<1	ppb
Methylene Chloride	<5	ppb
o- xylene	<1	ppb
p&m xylene	<1	ppb
Tetrachlorethene	<1	ppb
Toluene	<1	ppb
Trans-1,2-Dichloroethene	<1	ppb
Trans-1,3-Dichloropropene	<1	ppb
Trichlorethene	<1	ppb
Trichlorofluoromethane	<1	ppb
Vinyl Chloride	<1	ppb
1,1,1-Trichloroethane	<1	ppb
1,1,2,2-Tetrachlorethane	<1	ppb
1,1,2-Trichloroethane	<1	ppb
1,1-Dichloroethane	<1	ppb
1,1-Dichloroethene	<1	ppb

d's Point Effluent Grab Samples		
Parameter	**Result**	**Units**
1,2-dichlorobenzene	<1	ppb
1,2-Dichloroethane	<1	ppb
1,2-Dichloropropane	<1	ppb
1,3-dichlorobenzene	<1	ppb
1,4-dichlorobenzene	<1	ppb
2-Chloroethylvinylether	<2	ppb
Benzene	<1	ppb
Bromodichloromethane	9.8	ppb
Bromoform	15	ppb
Bromomethane	<10	ppb
Carbon Tetrachloride	<1	ppb
Chlorobenzene	<1	ppb
Chloroethane	<10	ppb
Chloroform	3.3	ppb
Chloromethane	<10	ppb
cis-1,3-Dichloropropene	<1	ppb
Dibromochloromethane	18	ppb
Ethylbenzene	<1	ppb
Methylene Chloride	<5	ppb
o- xylene	<1	ppb
p&m xylene	<1	ppb
Tetrachlorethene	<1	ppb
Toluene	<1	ppb
Trans-1,2-Dichloroethene	<1	ppb
Trans-1,3-Dichloropropene	<1	ppb
Trichlorethene	<1	ppb
Trichlorofluoromethane	<1	ppb
Vinyl Chloride	<1	ppb
1,1,1-Trichloroethane	<1	ppb
1,1,2,2-Tetrachlorethane	<1	ppb
1,1,2-Trichloroethane	<1	ppb
1,1-Dichloroethane	<1	ppb
1,1-Dichloroethene	<1	ppb
1,2-dichlorobenzene	<1	ppb
1,2-Dichloroethane	<1	ppb
1,2-Dichloropropane	<1	ppb
1,3-dichlorobenzene	<1	ppb
1,4-dichlorobenzene	<1	ppb
2-Chloroethylvinylether	<2	ppb
Benzene	<1	ppb
Bromodichloromethane	11	ppb
Bromoform	8.9	ppb
Bromomethane	<10	ppb
Carbon Tetrachloride	<1	ppb
Chlorobenzene	<1	ppb
Chloroethane	<10	ppb
Chloroform	5.6	ppb
Chloromethane	<10	ppb
cis-1,3-Dichloropropene	<1	ppb
Dibromochloromethane	14	ppb
Ethylbenzene	<1	ppb
Methylene Chloride	<5	ppb
o- xylene	<1	ppb
p&m xylene	<1	ppb
Tetrachlorethene	<1	ppb
Toluene	<1	ppb
Trans-1,2-Dichloroethene	<1	ppb
Trans-1,3-Dichloropropene	<1	ppb
Trichlorethene	<1	ppb

d's Point Effluent Grab Samples		
Parameter	**Result**	**Units**
Trichlorofluoromethane	<1	ppb
Vinyl Chloride	<1	ppb
1,1,1-Trichloroethane	<1	ppb
1,1,2,2-Tetrachlorethane	<1	ppb
1,1,2-Trichloroethane	<1	ppb
1,1-Dichloroethane	<1	ppb
1,1-Dichloroethene	<1	ppb
1,2-dichlorobenzene	<1	ppb
1,2-Dichloroethane	<1	ppb
1,2-Dichloropropane	<1	ppb
1,3-dichlorobenzene	<1	ppb
1,4-dichlorobenzene	<1	ppb
2-Chloroethylvinylether	<2	ppb
Benzene	<1	ppb
Bromodichloromethane	13	ppb
Bromoform	12	ppb
Bromomethane	<10	ppb
Carbon Tetrachloride	<1	ppb
Chlorobenzene	<1	ppb
Chloroethane	<10	ppb
Chloroform	4.2	ppb
Chloromethane	<10	ppb
cis-1,3-Dichloropropene	<1	ppb
Dibromochloromethane	24	ppb
Ethylbenzene	<1	ppb
Methylene Chloride	<5	ppb
o- xylene	<1	ppb
p&m xylene	<1	ppb
Tetrachlorethene	<1	ppb
Toluene	<1	ppb
Trans-1,2-Dichloroethene	<1	ppb
Trans-1,3-Dichloropropene	<1	ppb
Trichlorethene	<1	ppb
Trichlorofluoromethane	<1	ppb
Vinyl Chloride	<1	ppb
1,1,1-Trichloroethane	<1	ppb
1,1,2,2-Tetrachlorethane	<1	ppb
1,1,2-Trichloroethane	<1	ppb
1,1-Dichloroethane	<1	ppb
1,1-Dichloroethene	<1	ppb
1,2-dichlorobenzene	<1	ppb
1,2-Dichloroethane	<1	ppb
1,2-Dichloropropane	<1	ppb
1,3-dichlorobenzene	<1	ppb
1,4-dichlorobenzene	<1	ppb
2-Chloroethylvinylether	<2	ppb
Benzene	<1	ppb
Bromodichloromethane	6.3	ppb
Bromoform	5.7	ppb
Bromomethane	<10	ppb
Carbon Tetrachloride	<1	ppb
Chlorobenzene	<1	ppb
Chloroethane	<10	ppb
Chloroform	5.6	ppb
Chloromethane	<10	ppb
cis-1,3-Dichloropropene	<1	ppb
Dibromochloromethane	12	ppb
Ethylbenzene	<1	ppb
Methylene Chloride	<5	ppb

d's Point Effluent Grab Samples		
Parameter	**Result**	**Units**
o- xylene	<1	ppb
p&m xylene	<1	ppb
Tetrachlorethene	<1	ppb
Toluene	<1	ppb
Trans-1,2-Dichloroethene	<1	ppb
Trans-1,3-Dichloropropene	<1	ppb
Trichlorethene	<1	ppb
Trichlorofluoromethane	<1	ppb
Vinyl Chloride	<1	ppb
1,1,1-Trichloroethane	<1	ppb
1,1,2,2-Tetrachlorethane	<1	ppb
1,1,2-Trichloroethane	<1	ppb
1,1-Dichloroethane	<1	ppb
1,1-Dichloroethene	<1	ppb
1,2-dichlorobenzene	<1	ppb
1,2-Dichloroethane	<1	ppb
1,2-Dichloropropane	<1	ppb
1,3-dichlorobenzene	<1	ppb
1,4-dichlorobenzene	<1	ppb
2-Chloroethylvinylether	<2	ppb
Benzene	<1	ppb
Bromodichloromethane	<1	ppb
Bromoform	<1	ppb
Bromomethane	<10	ppb
Carbon Tetrachloride	<1	ppb
Chlorobenzene	<1	ppb
Chloroethane	<10	ppb
Chloroform	1.3	ppb
Chloromethane	<10	ppb
cis-1,3-Dichloropropene	<1	ppb
Dibromochloromethane	<1	ppb
Ethylbenzene	<1	ppb
Methylene Chloride	<5	ppb
o- xylene	<1	ppb
p&m xylene	<1	ppb
Tetrachlorethene	<1	ppb
Toluene	<1	ppb
Trans-1,2-Dichloroethene	<1	ppb
Trans-1,3-Dichloropropene	<1	ppb
Trichlorethene	<1	ppb
Trichlorofluoromethane	<1	ppb
Vinyl Chloride	<1	ppb

Bucklin Point Influent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
1/4/2016	1,1,1-Trichloroethane	<1	ppb
1/4/2016	1,1,2,2-Tetrachlorethane	<1	ppb
1/4/2016	1,1,2-Trichloroethane	<1	ppb
1/4/2016	1,1-Dichloroethane	<1	ppb
1/4/2016	1,1-Dichloroethene	<1	ppb
1/4/2016	1,2-dichlorobenzene	<1	ppb
1/4/2016	1,2-Dichloroethane	<1	ppb
1/4/2016	1,2-Dichloropropane	<1	ppb
1/4/2016	1,3-dichlorobenzene	<1	ppb
1/4/2016	1,4-dichlorobenzene	<1	ppb
1/4/2016	2-Chloroethylvinylether	<2	ppb
1/4/2016	Benzene	<1	ppb
1/4/2016	Bromodichloromethane	<1	ppb
1/4/2016	Bromoform	<1	ppb
1/4/2016	Bromomethane	<10	ppb
1/4/2016	Carbon Tetrachloride	<1	ppb
1/4/2016	Chlorobenzene	<1	ppb
1/4/2016	Chloroethane	<10	ppb
1/4/2016	Chloroform	5	ppb
1/4/2016	Chloromethane	<10	ppb
1/4/2016	cis-1,3-Dichloropropene	<1	ppb
1/4/2016	Dibromochloromethane	<1	ppb
1/4/2016	Ethylbenzene	<1	ppb
1/4/2016	Methylene Chloride	<5	ppb
1/4/2016	o- xylene	<1	ppb
1/4/2016	p&m xylene	<1	ppb
1/4/2016	Tetrachlorethene	19	ppb
1/4/2016	Toluene	1	ppb
1/4/2016	Trans-1,2-Dichloroethene	<1	ppb
1/4/2016	Trans-1,3-Dichloropropene	<1	ppb
1/4/2016	Trichlorethene	1	ppb
1/4/2016	Trichlorofluoromethane	<1	ppb
1/4/2016	Vinyl Chloride	<1	ppb
2/8/2016	1,1,1-Trichloroethane	<10	ppb
2/8/2016	1,1,2,2-Tetrachlorethane	<10	ppb
2/8/2016	1,1,2-Trichloroethane	<10	ppb
2/8/2016	1,1-Dichloroethane	<10	ppb
2/8/2016	1,1-Dichloroethene	<10	ppb
2/8/2016	1,2-dichlorobenzene	<10	ppb
2/8/2016	1,2-Dichloroethane	<10	ppb
2/8/2016	1,2-Dichloropropane	<10	ppb
2/8/2016	1,3-dichlorobenzene	<10	ppb
2/8/2016	1,4-dichlorobenzene	<10	ppb
2/8/2016	2-Chloroethylvinylether	<20	ppb
2/8/2016	Benzene	<10	ppb
2/8/2016	Bromodichloromethane	<10	ppb
2/8/2016	Bromoform	<10	ppb
2/8/2016	Bromomethane	<100	ppb
2/8/2016	Carbon Tetrachloride	<10	ppb
2/8/2016	Chlorobenzene	<10	ppb
2/8/2016	Chloroethane	<100	ppb
2/8/2016	Chloroform	<10	ppb
2/8/2016	Chloromethane	<100	ppb
2/8/2016	cis-1,3-Dichloropropene	<10	ppb
2/8/2016	Dibromochloromethane	<10	ppb
2/8/2016	Ethylbenzene	<10	ppb
2/8/2016	Methylene Chloride	<50	ppb
2/8/2016	o- xylene	<10	ppb
2/8/2016	p&m xylene	<10	ppb

Bucklin Point Effluent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
1/5/2016	1,1,1-Trichloroethane	<1	ppb
1/5/2016	1,1,2,2-Tetrachlorethane	<1	ppb
1/5/2016	1,1,2-Trichloroethane	<1	ppb
1/5/2016	1,1-Dichloroethane	<1	ppb
1/5/2016	1,1-Dichloroethene	<1	ppb
1/5/2016	1,2-dichlorobenzene	<1	ppb
1/5/2016	1,2-Dichloroethane	<1	ppb
1/5/2016	1,2-Dichloropropane	<1	ppb
1/5/2016	1,3-dichlorobenzene	<1	ppb
1/5/2016	1,4-dichlorobenzene	<1	ppb
1/5/2016	2-Chloroethylvinylether	<2	ppb
1/5/2016	Benzene	<1	ppb
1/5/2016	Bromodichloromethane	<1	ppb
1/5/2016	Bromoform	<1	ppb
1/5/2016	Bromomethane	<10	ppb
1/5/2016	Carbon Tetrachloride	<1	ppb
1/5/2016	Chlorobenzene	<1	ppb
1/5/2016	Chloroethane	<10	ppb
1/5/2016	Chloroform	<1	ppb
1/5/2016	Chloromethane	<10	ppb
1/5/2016	cis-1,3-Dichloropropene	<1	ppb
1/5/2016	Dibromochloromethane	<1	ppb
1/5/2016	Ethylbenzene	<1	ppb
1/5/2016	Methylene Chloride	<5	ppb
1/5/2016	o- xylene	<1	ppb
1/5/2016	p&m xylene	<1	ppb
1/5/2016	Tetrachlorethene	1	ppb
1/5/2016	Toluene	<1	ppb
1/5/2016	Trans-1,2-Dichloroethene	<1	ppb
1/5/2016	Trans-1,3-Dichloropropene	<1	ppb
1/5/2016	Trichlorethene	<1	ppb
1/5/2016	Trichlorofluoromethane	<1	ppb
1/5/2016	Vinyl Chloride	<1	ppb
2/9/2016	1,1,1-Trichloroethane	<10	ppb
2/9/2016	1,1,2,2-Tetrachlorethane	<10	ppb
2/9/2016	1,1,2-Trichloroethane	<10	ppb
2/9/2016	1,1-Dichloroethane	<10	ppb
2/9/2016	1,1-Dichloroethene	<10	ppb
2/9/2016	1,2-dichlorobenzene	<10	ppb
2/9/2016	1,2-Dichloroethane	<10	ppb
2/9/2016	1,2-Dichloropropane	<10	ppb
2/9/2016	1,3-dichlorobenzene	<10	ppb
2/9/2016	1,4-dichlorobenzene	<10	ppb
2/9/2016	2-Chloroethylvinylether	<20	ppb
2/9/2016	Benzene	<10	ppb
2/9/2016	Bromodichloromethane	<10	ppb
2/9/2016	Bromoform	<10	ppb
2/9/2016	Bromomethane	<100	ppb
2/9/2016	Carbon Tetrachloride	<10	ppb
2/9/2016	Chlorobenzene	<10	ppb
2/9/2016	Chloroethane	<100	ppb
2/9/2016	Chloroform	<10	ppb
2/9/2016	Chloromethane	<100	ppb
2/9/2016	cis-1,3-Dichloropropene	<10	ppb
2/9/2016	Dibromochloromethane	<10	ppb
2/9/2016	Ethylbenzene	<10	ppb
2/9/2016	Methylene Chloride	<50	ppb
2/9/2016	o- xylene	<10	ppb
2/9/2016	p&m xylene	<10	ppb

EPA VOC Data
Bucklin Point 2016

Bucklin Point Influent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
2/8/2016	Tetrachlorethene	<10	ppb
2/8/2016	Toluene	<10	ppb
2/8/2016	Trans-1,2-Dichloroethene	<10	ppb
2/8/2016	Trans-1,3-Dichloropropene	<10	ppb
2/8/2016	Trichlorethene	<10	ppb
2/8/2016	Trichlorofluoromethane	<10	ppb
2/8/2016	Vinyl Chloride	<10	ppb
3/7/2016	1,1,1-Trichloroethane	<10	ppb
3/7/2016	1,1,2,2-Tetrachlorethane	<10	ppb
3/7/2016	1,1,2-Trichloroethane	<10	ppb
3/7/2016	1,1-Dichloroethane	<10	ppb
3/7/2016	1,1-Dichloroethene	<10	ppb
3/7/2016	1,2-dichlorobenzene	<10	ppb
3/7/2016	1,2-Dichloroethane	<10	ppb
3/7/2016	1,2-Dichloropropane	<10	ppb
3/7/2016	1,3-dichlorobenzene	<10	ppb
3/7/2016	1,4-dichlorobenzene	<10	ppb
3/7/2016	2-Chloroethylvinylether	<20	ppb
3/7/2016	Benzene	<10	ppb
3/7/2016	Bromodichloromethane	<10	ppb
3/7/2016	Bromoform	<10	ppb
3/7/2016	Bromomethane	<100	ppb
3/7/2016	Carbon Tetrachloride	<10	ppb
3/7/2016	Chlorobenzene	<10	ppb
3/7/2016	Chloroethane	<100	ppb
3/7/2016	Chloroform	<10	ppb
3/7/2016	Chloromethane	<100	ppb
3/7/2016	cis-1,3-Dichloropropene	<10	ppb
3/7/2016	Dibromochloromethane	<10	ppb
3/7/2016	Ethylbenzene	<10	ppb
3/7/2016	Methylene Chloride	<50	ppb
3/7/2016	o- xylene	<10	ppb
3/7/2016	p&m xylene	<10	ppb
3/7/2016	Tetrachlorethene	<10	ppb
3/7/2016	Toluene	<10	ppb
3/7/2016	Trans-1,2-Dichloroethene	<10	ppb
3/7/2016	Trans-1,3-Dichloropropene	<10	ppb
3/7/2016	Trichlorethene	<10	ppb
3/7/2016	Trichlorofluoromethane	<10	ppb
3/7/2016	Vinyl Chloride	<10	ppb
4/4/2016	1,1,1-Trichloroethane	<1	ppb
4/4/2016	1,1,2,2-Tetrachlorethane	<1	ppb
4/4/2016	1,1,2-Trichloroethane	<1	ppb
4/4/2016	1,1-Dichloroethane	<1	ppb
4/4/2016	1,1-Dichloroethene	<1	ppb
4/4/2016	1,2-dichlorobenzene	<1	ppb
4/4/2016	1,2-Dichloroethane	<1	ppb
4/4/2016	1,2-Dichloropropane	<1	ppb
4/4/2016	1,3-dichlorobenzene	<1	ppb
4/4/2016	1,4-dichlorobenzene	<1	ppb
4/4/2016	2-Chloroethylvinylether	<2	ppb
4/4/2016	Benzene	<1	ppb
4/4/2016	Bromodichloromethane	<1	ppb
4/4/2016	Bromoform	<1	ppb
4/4/2016	Bromomethane	<10	ppb
4/4/2016	Carbon Tetrachloride	<1	ppb
4/4/2016	Chlorobenzene	<1	ppb
4/4/2016	Chloroethane	<10	ppb
4/4/2016	Chloroform	4	ppb

Bucklin Point Effluent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
2/9/2016	Tetrachlorethene	<10	ppb
2/9/2016	Toluene	<10	ppb
2/9/2016	Trans-1,2-Dichloroethene	<10	ppb
2/9/2016	Trans-1,3-Dichloropropene	<10	ppb
2/9/2016	Trichlorethene	<10	ppb
2/9/2016	Trichlorofluoromethane	<10	ppb
2/9/2016	Vinyl Chloride	<10	ppb
3/8/2016	1,1,1-Trichloroethane	<1	ppb
3/8/2016	1,1,2,2-Tetrachlorethane	<1	ppb
3/8/2016	1,1,2-Trichloroethane	<1	ppb
3/8/2016	1,1-Dichloroethane	<1	ppb
3/8/2016	1,1-Dichloroethene	<1	ppb
3/8/2016	1,2-dichlorobenzene	<1	ppb
3/8/2016	1,2-Dichloroethane	<1	ppb
3/8/2016	1,2-Dichloropropane	<1	ppb
3/8/2016	1,3-dichlorobenzene	<1	ppb
3/8/2016	1,4-dichlorobenzene	<1	ppb
3/8/2016	2-Chloroethylvinylether	<2	ppb
3/8/2016	Benzene	<1	ppb
3/8/2016	Bromodichloromethane	<1	ppb
3/8/2016	Bromoform	<1	ppb
3/8/2016	Bromomethane	<10	ppb
3/8/2016	Carbon Tetrachloride	<1	ppb
3/8/2016	Chlorobenzene	<1	ppb
3/8/2016	Chloroethane	<10	ppb
3/8/2016	Chloroform	<1	ppb
3/8/2016	Chloromethane	<10	ppb
3/8/2016	cis-1,3-Dichloropropene	<1	ppb
3/8/2016	Dibromochloromethane	<1	ppb
3/8/2016	Ethylbenzene	<1	ppb
3/8/2016	Methylene Chloride	<5	ppb
3/8/2016	o- xylene	<1	ppb
3/8/2016	p&m xylene	<1	ppb
3/8/2016	Tetrachlorethene	<1	ppb
3/8/2016	Toluene	<1	ppb
3/8/2016	Trans-1,2-Dichloroethene	<1	ppb
3/8/2016	Trans-1,3-Dichloropropene	<1	ppb
3/8/2016	Trichlorethene	<1	ppb
3/8/2016	Trichlorofluoromethane	<1	ppb
3/8/2016	Vinyl Chloride	<1	ppb
4/5/2016	1,1,1-Trichloroethane	<1	ppb
4/5/2016	1,1,2,2-Tetrachlorethane	<1	ppb
4/5/2016	1,1,2-Trichloroethane	<1	ppb
4/5/2016	1,1-Dichloroethane	<1	ppb
4/5/2016	1,1-Dichloroethene	<1	ppb
4/5/2016	1,2-dichlorobenzene	<1	ppb
4/5/2016	1,2-Dichloroethane	<1	ppb
4/5/2016	1,2-Dichloropropane	<1	ppb
4/5/2016	1,3-dichlorobenzene	<1	ppb
4/5/2016	1,4-dichlorobenzene	<1	ppb
4/5/2016	2-Chloroethylvinylether	<2	ppb
4/5/2016	Benzene	<1	ppb
4/5/2016	Bromodichloromethane	<1	ppb
4/5/2016	Bromoform	<1	ppb
4/5/2016	Bromomethane	<10	ppb
4/5/2016	Carbon Tetrachloride	<1	ppb
4/5/2016	Chlorobenzene	<1	ppb
4/5/2016	Chloroethane	<10	ppb
4/5/2016	Chloroform	<1	ppb

Table 25: EPA VOC Data
Bucklin Point

EPA VOC Data
Bucklin Point 2016

Bucklin Point Influent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
4/4/2016	Chloromethane	<10	ppb
4/4/2016	cis-1,3-Dichloropropene	<1	ppb
4/4/2016	Dibromochloromethane	<1	ppb
4/4/2016	Ethylbenzene	<1	ppb
4/4/2016	Methylene Chloride	<5	ppb
4/4/2016	o- xylene	<1	ppb
4/4/2016	p&m xylene	<1	ppb
4/4/2016	Tetrachlorethene	1	ppb
4/4/2016	Toluene	1	ppb
4/4/2016	Trans-1,2-Dichloroethene	<1	ppb
4/4/2016	Trans-1,3-Dichloropropene	<1	ppb
4/4/2016	Trichlorethene	<1	ppb
4/4/2016	Trichlorofluoromethane	<1	ppb
4/4/2016	Vinyl Chloride	<1	ppb
5/2/2016	1,1,1-Trichloroethane	<10	ppb
5/2/2016	1,1,2,2-Tetrachlorethane	<10	ppb
5/2/2016	1,1,2-Trichloroethane	<10	ppb
5/2/2016	1,1-Dichloroethane	<10	ppb
5/2/2016	1,1-Dichloroethene	<10	ppb
5/2/2016	1,2-dichlorobenzene	<10	ppb
5/2/2016	1,2-Dichloroethane	<10	ppb
5/2/2016	1,2-Dichloropropane	<10	ppb
5/2/2016	1,3-dichlorobenzene	<10	ppb
5/2/2016	1,4-dichlorobenzene	<10	ppb
5/2/2016	2-Chloroethylvinylether	<20	ppb
5/2/2016	Benzene	<10	ppb
5/2/2016	Bromodichloromethane	<10	ppb
5/2/2016	Bromoform	<10	ppb
5/2/2016	Bromomethane	<100	ppb
5/2/2016	Carbon Tetrachloride	<10	ppb
5/2/2016	Chlorobenzene	<10	ppb
5/2/2016	Chloroethane	<100	ppb
5/2/2016	Chloroform	<10	ppb
5/2/2016	Chloromethane	<100	ppb
5/2/2016	cis-1,3-Dichloropropene	<10	ppb
5/2/2016	Dibromochloromethane	<10	ppb
5/2/2016	Ethylbenzene	<10	ppb
5/2/2016	Methylene Chloride	<50	ppb
5/2/2016	o- xylene	<10	ppb
5/2/2016	p&m xylene	<10	ppb
5/2/2016	Tetrachlorethene	<10	ppb
5/2/2016	Toluene	<10	ppb
5/2/2016	Trans-1,2-Dichloroethene	<10	ppb
5/2/2016	Trans-1,3-Dichloropropene	<10	ppb
5/2/2016	Trichlorethene	<10	ppb
5/2/2016	Trichlorofluoromethane	<10	ppb
5/2/2016	Vinyl Chloride	<10	ppb
6/6/2016	1,1,1-Trichloroethane	<10	ppb
6/6/2016	1,1,2,2-Tetrachlorethane	<10	ppb
6/6/2016	1,1,2-Trichloroethane	<10	ppb
6/6/2016	1,1-Dichloroethane	<10	ppb
6/6/2016	1,1-Dichloroethene	<10	ppb
6/6/2016	1,2-dichlorobenzene	<10	ppb
6/6/2016	1,2-Dichloroethane	<10	ppb
6/6/2016	1,2-Dichloropropane	<10	ppb
6/6/2016	1,3-dichlorobenzene	<10	ppb
6/6/2016	1,4-dichlorobenzene	<10	ppb
6/6/2016	2-Chloroethylvinylether	<20	ppb
6/6/2016	Benzene	<10	ppb

Bucklin Point Effluent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
4/5/2016	Chloromethane	<10	ppb
4/5/2016	cis-1,3-Dichloropropene	<1	ppb
4/5/2016	Dibromochloromethane	<1	ppb
4/5/2016	Ethylbenzene	<1	ppb
4/5/2016	Methylene Chloride	<5	ppb
4/5/2016	o- xylene	<1	ppb
4/5/2016	p&m xylene	<1	ppb
4/5/2016	Tetrachlorethene	<1	ppb
4/5/2016	Toluene	<1	ppb
4/5/2016	Trans-1,2-Dichloroethene	<1	ppb
4/5/2016	Trans-1,3-Dichloropropene	<1	ppb
4/5/2016	Trichlorethene	<1	ppb
4/5/2016	Trichlorofluoromethane	<1	ppb
4/5/2016	Vinyl Chloride	<1	ppb
5/3/2016	1,1,1-Trichloroethane	<10	ppb
5/3/2016	1,1,2,2-Tetrachlorethane	<10	ppb
5/3/2016	1,1,2-Trichloroethane	<10	ppb
5/3/2016	1,1-Dichloroethane	<10	ppb
5/3/2016	1,1-Dichloroethene	<10	ppb
5/3/2016	1,2-dichlorobenzene	<10	ppb
5/3/2016	1,2-Dichloroethane	<10	ppb
5/3/2016	1,2-Dichloropropane	<10	ppb
5/3/2016	1,3-dichlorobenzene	<10	ppb
5/3/2016	1,4-dichlorobenzene	<10	ppb
5/3/2016	2-Chloroethylvinylether	<20	ppb
5/3/2016	Benzene	<10	ppb
5/3/2016	Bromodichloromethane	<10	ppb
5/3/2016	Bromoform	<10	ppb
5/3/2016	Bromomethane	<100	ppb
5/3/2016	Carbon Tetrachloride	<10	ppb
5/3/2016	Chlorobenzene	<10	ppb
5/3/2016	Chloroethane	<100	ppb
5/3/2016	Chloroform	<10	ppb
5/3/2016	Chloromethane	<100	ppb
5/3/2016	cis-1,3-Dichloropropene	<10	ppb
5/3/2016	Dibromochloromethane	<10	ppb
5/3/2016	Ethylbenzene	<10	ppb
5/3/2016	Methylene Chloride	<50	ppb
5/3/2016	o- xylene	<10	ppb
5/3/2016	p&m xylene	<10	ppb
5/3/2016	Tetrachlorethene	<10	ppb
5/3/2016	Toluene	<10	ppb
5/3/2016	Trans-1,2-Dichloroethene	<10	ppb
5/3/2016	Trans-1,3-Dichloropropene	<10	ppb
5/3/2016	Trichlorethene	<10	ppb
5/3/2016	Trichlorofluoromethane	<10	ppb
5/3/2016	Vinyl Chloride	<10	ppb
6/7/2016	1,1,1-Trichloroethane	<1	ppb
6/7/2016	1,1,2,2-Tetrachlorethane	<1	ppb
6/7/2016	1,1,2-Trichloroethane	<1	ppb
6/7/2016	1,1-Dichloroethane	<1	ppb
6/7/2016	1,1-Dichloroethene	<1	ppb
6/7/2016	1,2-dichlorobenzene	<1	ppb
6/7/2016	1,2-Dichloroethane	<1	ppb
6/7/2016	1,2-Dichloropropane	<1	ppb
6/7/2016	1,3-dichlorobenzene	<1	ppb
6/7/2016	1,4-dichlorobenzene	<1	ppb
6/7/2016	2-Chloroethylvinylether	<2	ppb
6/7/2016	Benzene	<1	ppb

Table 25: EPA VOC Data
Bucklin Point

Bucklin Point Influent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
6/6/2016	Bromodichloromethane	<10	ppb
6/6/2016	Bromoform	<10	ppb
6/6/2016	Bromomethane	<100	ppb
6/6/2016	Carbon Tetrachloride	<10	ppb
6/6/2016	Chlorobenzene	<10	ppb
6/6/2016	Chloroethane	<100	ppb
6/6/2016	Chloroform	<10	ppb
6/6/2016	Chloromethane	<100	ppb
6/6/2016	cis-1,3-Dichloropropene	<10	ppb
6/6/2016	Dibromochloromethane	<10	ppb
6/6/2016	Ethylbenzene	<10	ppb
6/6/2016	Methylene Chloride	<50	ppb
6/6/2016	o- xylene	<10	ppb
6/6/2016	p&m xylene	<10	ppb
6/6/2016	Tetrachlorethene	<10	ppb
6/6/2016	Toluene	<10	ppb
6/6/2016	Trans-1,2-Dichloroethene	<10	ppb
6/6/2016	Trans-1,3-Dichloropropene	<10	ppb
6/6/2016	Trichlorethene	<10	ppb
6/6/2016	Trichlorofluoromethane	<10	ppb
6/6/2016	Vinyl Chloride	<10	ppb
7/11/2016	1,1,1-Trichloroethane	<10	ppb
7/11/2016	1,1,2,2-Tetrachlorethane	<10	ppb
7/11/2016	1,1,2-Trichloroethane	<10	ppb
7/11/2016	1,1-Dichloroethane	<10	ppb
7/11/2016	1,1-Dichloroethene	<10	ppb
7/11/2016	1,2-dichlorobenzene	<10	ppb
7/11/2016	1,2-Dichloroethane	<10	ppb
7/11/2016	1,2-Dichloropropane	<10	ppb
7/11/2016	1,3-dichlorobenzene	<10	ppb
7/11/2016	1,4-dichlorobenzene	<10	ppb
7/11/2016	2-Chloroethylvinylether	<20	ppb
7/11/2016	Benzene	<10	ppb
7/11/2016	Bromodichloromethane	<10	ppb
7/11/2016	Bromoform	<10	ppb
7/11/2016	Bromomethane	<100	ppb
7/11/2016	Carbon Tetrachloride	<10	ppb
7/11/2016	Chlorobenzene	<10	ppb
7/11/2016	Chloroethane	<100	ppb
7/11/2016	Chloroform	<10	ppb
7/11/2016	Chloromethane	<100	ppb
7/11/2016	cis-1,3-Dichloropropene	<10	ppb
7/11/2016	Dibromochloromethane	<10	ppb
7/11/2016	Ethylbenzene	<10	ppb
7/11/2016	Methylene Chloride	<50	ppb
7/11/2016	o- xylene	<10	ppb
7/11/2016	p&m xylene	<10	ppb
7/11/2016	Tetrachlorethene	<10	ppb
7/11/2016	Toluene	<10	ppb
7/11/2016	Trans-1,2-Dichloroethene	<10	ppb
7/11/2016	Trans-1,3-Dichloropropene	<10	ppb
7/11/2016	Trichlorethene	<10	ppb
7/11/2016	Trichlorofluoromethane	<10	ppb
7/11/2016	Vinyl Chloride	<10	ppb
8/1/2016	1,1,1-Trichloroethane	<1	ppb
8/1/2016	1,1,2,2-Tetrachlorethane	<1	ppb
8/1/2016	1,1,2-Trichloroethane	<1	ppb
8/1/2016	1,1-Dichloroethane	<1	ppb
8/1/2016	1,1-Dichloroethene	<1	ppb

Bucklin Point Effluent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
6/7/2016	Bromodichloromethane	<1	ppb
6/7/2016	Bromoform	<1	ppb
6/7/2016	Bromomethane	<10	ppb
6/7/2016	Carbon Tetrachloride	<1	ppb
6/7/2016	Chlorobenzene	<1	ppb
6/7/2016	Chloroethane	<10	ppb
6/7/2016	Chloroform	<1	ppb
6/7/2016	Chloromethane	<10	ppb
6/7/2016	cis-1,3-Dichloropropene	<1	ppb
6/7/2016	Dibromochloromethane	<1	ppb
6/7/2016	Ethylbenzene	<1	ppb
6/7/2016	Methylene Chloride	<5	ppb
6/7/2016	o- xylene	<1	ppb
6/7/2016	p&m xylene	<1	ppb
6/7/2016	Tetrachlorethene	<1	ppb
6/7/2016	Toluene	<1	ppb
6/7/2016	Trans-1,2-Dichloroethene	<1	ppb
6/7/2016	Trans-1,3-Dichloropropene	<1	ppb
6/7/2016	Trichlorethene	<1	ppb
6/7/2016	Trichlorofluoromethane	<1	ppb
6/7/2016	Vinyl Chloride	<1	ppb
7/12/2016	1,1,1-Trichloroethane	<1	ppb
7/12/2016	1,1,2,2-Tetrachlorethane	<1	ppb
7/12/2016	1,1,2-Trichloroethane	<1	ppb
7/12/2016	1,1-Dichloroethane	<1	ppb
7/12/2016	1,1-Dichloroethene	<1	ppb
7/12/2016	1,2-dichlorobenzene	<1	ppb
7/12/2016	1,2-Dichloroethane	<1	ppb
7/12/2016	1,2-Dichloropropane	<1	ppb
7/12/2016	1,3-dichlorobenzene	<1	ppb
7/12/2016	1,4-dichlorobenzene	<1	ppb
7/12/2016	2-Chloroethylvinylether	<2	ppb
7/12/2016	Benzene	<1	ppb
7/12/2016	Bromodichloromethane	<1	ppb
7/12/2016	Bromoform	<1	ppb
7/12/2016	Bromomethane	<10	ppb
7/12/2016	Carbon Tetrachloride	<1	ppb
7/12/2016	Chlorobenzene	<1	ppb
7/12/2016	Chloroethane	<10	ppb
7/12/2016	Chloroform	<1	ppb
7/12/2016	Chloromethane	<10	ppb
7/12/2016	cis-1,3-Dichloropropene	<1	ppb
7/12/2016	Dibromochloromethane	<1	ppb
7/12/2016	Ethylbenzene	<1	ppb
7/12/2016	Methylene Chloride	<5	ppb
7/12/2016	o- xylene	<1	ppb
7/12/2016	p&m xylene	<1	ppb
7/12/2016	Tetrachlorethene	<1	ppb
7/12/2016	Toluene	<1	ppb
7/12/2016	Trans-1,2-Dichloroethene	<1	ppb
7/12/2016	Trans-1,3-Dichloropropene	<1	ppb
7/12/2016	Trichlorethene	<1	ppb
7/12/2016	Trichlorofluoromethane	<1	ppb
7/12/2016	Vinyl Chloride	<1	ppb
8/2/2016	1,1,1-Trichloroethane	<1	ppb
8/2/2016	1,1,2,2-Tetrachlorethane	<1	ppb
8/2/2016	1,1,2-Trichloroethane	<1	ppb
8/2/2016	1,1-Dichloroethane	<1	ppb
8/2/2016	1,1-Dichloroethene	<1	ppb

Table 25: EPA VOC Data
Bucklin Point

EPA VOC Data
Bucklin Point 2016

Bucklin Point Influent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
8/1/2016	1,2-dichlorobenzene	<1	ppb
8/1/2016	1,2-Dichloroethane	<1	ppb
8/1/2016	1,2-Dichloropropane	<1	ppb
8/1/2016	1,3-dichlorobenzene	<1	ppb
8/1/2016	1,4-dichlorobenzene	<1	ppb
8/1/2016	2-Chloroethylvinylether	<2	ppb
8/1/2016	Benzene	<1	ppb
8/1/2016	Bromodichloromethane	<1	ppb
8/1/2016	Bromoform	<1	ppb
8/1/2016	Bromomethane	<10	ppb
8/1/2016	Carbon Tetrachloride	<1	ppb
8/1/2016	Chlorobenzene	<1	ppb
8/1/2016	Chloroethane	<10	ppb
8/1/2016	Chloroform	3.2	ppb
8/1/2016	Chloromethane	<10	ppb
8/1/2016	cis-1,3-Dichloropropene	<1	ppb
8/1/2016	Dibromochloromethane	<1	ppb
8/1/2016	Ethylbenzene	<1	ppb
8/1/2016	Methylene Chloride	<5	ppb
8/1/2016	o- xylene	<1	ppb
8/1/2016	p&m xylene	<1	ppb
8/1/2016	Tetrachlorethene	<1	ppb
8/1/2016	Toluene	6.2	ppb
8/1/2016	Trans-1,2-Dichloroethene	<1	ppb
8/1/2016	Trans-1,3-Dichloropropene	<1	ppb
8/1/2016	Trichlorethene	<1	ppb
8/1/2016	Trichlorofluoromethane	<1	ppb
8/1/2016	Vinyl Chloride	<1	ppb
9/12/2016	1,1,1-Trichloroethane	<1	ppb
9/12/2016	1,1,2,2-Tetrachlorethane	<1	ppb
9/12/2016	1,1,2-Trichloroethane	<1	ppb
9/12/2016	1,1-Dichloroethane	<1	ppb
9/12/2016	1,1-Dichloroethene	<1	ppb
9/12/2016	1,2-dichlorobenzene	<1	ppb
9/12/2016	1,2-Dichloroethane	<1	ppb
9/12/2016	1,2-Dichloropropane	<1	ppb
9/12/2016	1,3-dichlorobenzene	<1	ppb
9/12/2016	1,4-dichlorobenzene	<1	ppb
9/12/2016	2-Chloroethylvinylether	<2	ppb
9/12/2016	Benzene	<1	ppb
9/12/2016	Bromodichloromethane	<1	ppb
9/12/2016	Bromoform	<1	ppb
9/12/2016	Bromomethane	<10	ppb
9/12/2016	Carbon Tetrachloride	<1	ppb
9/12/2016	Chlorobenzene	<1	ppb
9/12/2016	Chloroethane	<10	ppb
9/12/2016	Chloroform	3.3	ppb
9/12/2016	Chloromethane	<10	ppb
9/12/2016	cis-1,3-Dichloropropene	<1	ppb
9/12/2016	Dibromochloromethane	<1	ppb
9/12/2016	Ethylbenzene	<1	ppb
9/12/2016	Methylene Chloride	<5	ppb
9/12/2016	o- xylene	<1	ppb
9/12/2016	p&m xylene	<1	ppb
9/12/2016	Tetrachlorethene	<1	ppb
9/12/2016	Toluene	3.9	ppb
9/12/2016	Trans-1,2-Dichloroethene	<1	ppb
9/12/2016	Trans-1,3-Dichloropropene	<1	ppb
9/12/2016	Trichlorethene	<1	ppb

Bucklin Point Effluent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
8/2/2016	1,2-dichlorobenzene	<1	ppb
8/2/2016	1,2-Dichloroethane	<1	ppb
8/2/2016	1,2-Dichloropropane	<1	ppb
8/2/2016	1,3-dichlorobenzene	<1	ppb
8/2/2016	1,4-dichlorobenzene	<1	ppb
8/2/2016	2-Chloroethylvinylether	<2	ppb
8/2/2016	Benzene	<1	ppb
8/2/2016	Bromodichloromethane	<1	ppb
8/2/2016	Bromoform	<1	ppb
8/2/2016	Bromomethane	<10	ppb
8/2/2016	Carbon Tetrachloride	<1	ppb
8/2/2016	Chlorobenzene	<1	ppb
8/2/2016	Chloroethane	<10	ppb
8/2/2016	Chloroform	<1	ppb
8/2/2016	Chloromethane	<10	ppb
8/2/2016	cis-1,3-Dichloropropene	<1	ppb
8/2/2016	Dibromochloromethane	<1	ppb
8/2/2016	Ethylbenzene	<1	ppb
8/2/2016	Methylene Chloride	<5	ppb
8/2/2016	o- xylene	<1	ppb
8/2/2016	p&m xylene	<1	ppb
8/2/2016	Tetrachlorethene	<1	ppb
8/2/2016	Toluene	1.1	ppb
8/2/2016	Trans-1,2-Dichloroethene	<1	ppb
8/2/2016	Trans-1,3-Dichloropropene	<1	ppb
8/2/2016	Trichlorethene	<1	ppb
8/2/2016	Trichlorofluoromethane	<1	ppb
8/2/2016	Vinyl Chloride	<1	ppb
9/13/2016	1,1,1-Trichloroethane	<1	ppb
9/13/2016	1,1,2,2-Tetrachlorethane	<1	ppb
9/13/2016	1,1,2-Trichloroethane	<1	ppb
9/13/2016	1,1-Dichloroethane	<1	ppb
9/13/2016	1,1-Dichloroethene	<1	ppb
9/13/2016	1,2-dichlorobenzene	<1	ppb
9/13/2016	1,2-Dichloroethane	<1	ppb
9/13/2016	1,2-Dichloropropane	<1	ppb
9/13/2016	1,3-dichlorobenzene	<1	ppb
9/13/2016	1,4-dichlorobenzene	<1	ppb
9/13/2016	2-Chloroethylvinylether	<2	ppb
9/13/2016	Benzene	<1	ppb
9/13/2016	Bromodichloromethane	<1	ppb
9/13/2016	Bromoform	<1	ppb
9/13/2016	Bromomethane	<10	ppb
9/13/2016	Carbon Tetrachloride	<1	ppb
9/13/2016	Chlorobenzene	<1	ppb
9/13/2016	Chloroethane	<10	ppb
9/13/2016	Chloroform	<1	ppb
9/13/2016	Chloromethane	<10	ppb
9/13/2016	cis-1,3-Dichloropropene	<1	ppb
9/13/2016	Dibromochloromethane	<1	ppb
9/13/2016	Ethylbenzene	<1	ppb
9/13/2016	Methylene Chloride	<5	ppb
9/13/2016	o- xylene	<1	ppb
9/13/2016	p&m xylene	<1	ppb
9/13/2016	Tetrachlorethene	<1	ppb
9/13/2016	Toluene	<1	ppb
9/13/2016	Trans-1,2-Dichloroethene	<1	ppb
9/13/2016	Trans-1,3-Dichloropropene	<1	ppb
9/13/2016	Trichlorethene	<1	ppb

Table 25: EPA VOC Data
Bucklin Point

EPA VOC Data
Bucklin Point 2016

Bucklin Point Influent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
9/12/2016	Trichlorofluoromethane	<1	ppb
9/12/2016	Vinyl Chloride	<1	ppb
10/3/2016	1,1,1-Trichloroethane	<1	ppb
10/3/2016	1,1,2,2-Tetrachlorethane	<1	ppb
10/3/2016	1,1,2-Trichloroethane	<1	ppb
10/3/2016	1,1-Dichloroethane	<1	ppb
10/3/2016	1,1-Dichloroethene	<1	ppb
10/3/2016	1,2-dichlorobenzene	<1	ppb
10/3/2016	1,2-Dichloroethane	<1	ppb
10/3/2016	1,2-Dichloropropane	<1	ppb
10/3/2016	1,3-dichlorobenzene	<1	ppb
10/3/2016	1,4-dichlorobenzene	<1	ppb
10/3/2016	2-Chloroethylvinylether	<2	ppb
10/3/2016	Benzene	<1	ppb
10/3/2016	Bromodichloromethane	<1	ppb
10/3/2016	Bromoform	<1	ppb
10/3/2016	Bromomethane	<10	ppb
10/3/2016	Carbon Tetrachloride	<1	ppb
10/3/2016	Chlorobenzene	<1	ppb
10/3/2016	Chloroethane	<10	ppb
10/3/2016	Chloroform	6.1	ppb
10/3/2016	Chloromethane	<10	ppb
10/3/2016	cis-1,3-Dichloropropene	<1	ppb
10/3/2016	Dibromochloromethane	<1	ppb
10/3/2016	Ethylbenzene	1.0	ppb
10/3/2016	Methylene Chloride	<5	ppb
10/3/2016	o- xylene	<1	ppb
10/3/2016	p&m xylene	<1	ppb
10/3/2016	Tetrachlorethene	5.4	ppb
10/3/2016	Toluene	1.9	ppb
10/3/2016	Trans-1,2-Dichloroethene	<1	ppb
10/3/2016	Trans-1,3-Dichloropropene	<1	ppb
10/3/2016	Trichlorethene	<1	ppb
10/3/2016	Trichlorofluoromethane	<1	ppb
10/3/2016	Vinyl Chloride	<1	ppb
11/14/2016	1,1,1-Trichloroethane	<1	ppb
11/14/2016	1,1,2,2-Tetrachlorethane	<1	ppb
11/14/2016	1,1,2-Trichloroethane	<1	ppb
11/14/2016	1,1-Dichloroethane	<1	ppb
11/14/2016	1,1-Dichloroethene	<1	ppb
11/14/2016	1,2-dichlorobenzene	<1	ppb
11/14/2016	1,2-Dichloroethane	<1	ppb
11/14/2016	1,2-Dichloropropane	<1	ppb
11/14/2016	1,3-dichlorobenzene	<1	ppb
11/14/2016	1,4-dichlorobenzene	<1	ppb
11/14/2016	2-Chloroethylvinylether	<2	ppb
11/14/2016	Benzene	<1	ppb
11/14/2016	Bromodichloromethane	<1	ppb
11/14/2016	Bromoform	<1	ppb
11/14/2016	Bromomethane	<10	ppb
11/14/2016	Carbon Tetrachloride	<1	ppb
11/14/2016	Chlorobenzene	<1	ppb
11/14/2016	Chloroethane	<10	ppb
11/14/2016	Chloroform	3.1	ppb
11/14/2016	Chloromethane	<10	ppb
11/14/2016	cis-1,3-Dichloropropene	<1	ppb
11/14/2016	Dibromochloromethane	<1	ppb
11/14/2016	Ethylbenzene	1.1	ppb
11/14/2016	Methylene Chloride	<5	ppb

Bucklin Point Effluent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
9/13/2016	Trichlorofluoromethane	<1	ppb
9/13/2016	Vinyl Chloride	<1	ppb
10/4/2016	1,1,1-Trichloroethane	<1	ppb
10/4/2016	1,1,2,2-Tetrachlorethane	<1	ppb
10/4/2016	1,1,2-Trichloroethane	<1	ppb
10/4/2016	1,1-Dichloroethane	<1	ppb
10/4/2016	1,1-Dichloroethene	<1	ppb
10/4/2016	1,2-dichlorobenzene	<1	ppb
10/4/2016	1,2-Dichloroethane	<1	ppb
10/4/2016	1,2-Dichloropropane	<1	ppb
10/4/2016	1,3-dichlorobenzene	<1	ppb
10/4/2016	1,4-dichlorobenzene	<1	ppb
10/4/2016	2-Chloroethylvinylether	<2	ppb
10/4/2016	Benzene	<1	ppb
10/4/2016	Bromodichloromethane	<1	ppb
10/4/2016	Bromoform	<1	ppb
10/4/2016	Bromomethane	<10	ppb
10/4/2016	Carbon Tetrachloride	<1	ppb
10/4/2016	Chlorobenzene	<1	ppb
10/4/2016	Chloroethane	<10	ppb
10/4/2016	Chloroform	<1	ppb
10/4/2016	Chloromethane	<10	ppb
10/4/2016	cis-1,3-Dichloropropene	<1	ppb
10/4/2016	Dibromochloromethane	<1	ppb
10/4/2016	Ethylbenzene	<1	ppb
10/4/2016	Methylene Chloride	<5	ppb
10/4/2016	o- xylene	<1	ppb
10/4/2016	p&m xylene	<1	ppb
10/4/2016	Tetrachlorethene	<1	ppb
10/4/2016	Toluene	<1	ppb
10/4/2016	Trans-1,2-Dichloroethene	<1	ppb
10/4/2016	Trans-1,3-Dichloropropene	<1	ppb
10/4/2016	Trichlorethene	<1	ppb
10/4/2016	Trichlorofluoromethane	<1	ppb
10/4/2016	Vinyl Chloride	<1	ppb
11/15/2016	1,1,1-Trichloroethane	<1	ppb
11/15/2016	1,1,2,2-Tetrachlorethane	<1	ppb
11/15/2016	1,1,2-Trichloroethane	<1	ppb
11/15/2016	1,1-Dichloroethane	<1	ppb
11/15/2016	1,1-Dichloroethene	<1	ppb
11/15/2016	1,2-dichlorobenzene	<1	ppb
11/15/2016	1,2-Dichloroethane	<1	ppb
11/15/2016	1,2-Dichloropropane	<1	ppb
11/15/2016	1,3-dichlorobenzene	<1	ppb
11/15/2016	1,4-dichlorobenzene	<1	ppb
11/15/2016	2-Chloroethylvinylether	<2	ppb
11/15/2016	Benzene	<1	ppb
11/15/2016	Bromodichloromethane	<1	ppb
11/15/2016	Bromoform	<1	ppb
11/15/2016	Bromomethane	<10	ppb
11/15/2016	Carbon Tetrachloride	<1	ppb
11/15/2016	Chlorobenzene	<1	ppb
11/15/2016	Chloroethane	<10	ppb
11/15/2016	Chloroform	5.2	ppb
11/15/2016	Chloromethane	<10	ppb
11/15/2016	cis-1,3-Dichloropropene	<1	ppb
11/15/2016	Dibromochloromethane	<1	ppb
11/15/2016	Ethylbenzene	<1	ppb
11/15/2016	Methylene Chloride	<5	ppb

Table 25: EPA VOC Data
Bucklin Point

Bucklin Point Influent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
11/14/2016	o- xylene	<1	ppb
11/14/2016	p&m xylene	<1	ppb
11/14/2016	Tetrachlorethene	1.3	ppb
11/14/2016	Toluene	3.9	ppb
11/14/2016	Trans-1,2-Dichloroethene	<1	ppb
11/14/2016	Trans-1,3-Dichloropropene	<1	ppb
11/14/2016	Trichlorethene	<1	ppb
11/14/2016	Trichlorofluoromethane	<1	ppb
11/14/2016	Vinyl Chloride	<1	ppb
12/5/2016	1,1,1-Trichloroethane	<1	ppb
12/5/2016	1,1,2,2-Tetrachlorethane	<1	ppb
12/5/2016	1,1,2-Trichloroethane	<1	ppb
12/5/2016	1,1-Dichloroethane	<1	ppb
12/5/2016	1,1-Dichloroethene	<1	ppb
12/5/2016	1,2-dichlorobenzene	<1	ppb
12/5/2016	1,2-Dichloroethane	<1	ppb
12/5/2016	1,2-Dichloropropane	<1	ppb
12/5/2016	1,3-dichlorobenzene	<1	ppb
12/5/2016	1,4-dichlorobenzene	<1	ppb
12/5/2016	2-Chloroethylvinylether	<2	ppb
12/5/2016	Benzene	<1	ppb
12/5/2016	Bromodichloromethane	<1	ppb
12/5/2016	Bromoform	<1	ppb
12/5/2016	Bromomethane	<10	ppb
12/5/2016	Carbon Tetrachloride	<1	ppb
12/5/2016	Chlorobenzene	<1	ppb
12/5/2016	Chloroethane	<10	ppb
12/5/2016	Chloroform	3.0	ppb
12/5/2016	Chloromethane	<10	ppb
12/5/2016	cis-1,3-Dichloropropene	<1	ppb
12/5/2016	Dibromochloromethane	<1	ppb
12/5/2016	Ethylbenzene	<1	ppb
12/5/2016	Methylene Chloride	<5	ppb
12/5/2016	o- xylene	<1	ppb
12/5/2016	p&m xylene	<1	ppb
12/5/2016	Tetrachlorethene	2.0	ppb
12/5/2016	Toluene	5.8	ppb
12/5/2016	Trans-1,2-Dichloroethene	<1	ppb
12/5/2016	Trans-1,3-Dichloropropene	<1	ppb
12/5/2016	Trichlorethene	<1	ppb
12/5/2016	Trichlorofluoromethane	<1	ppb
12/5/2016	Vinyl Chloride	<1	ppb

Bucklin Point Effluent Grab Samples			
Sample Date	**Parameter**	**Result**	**Units**
11/15/2016	o- xylene	<1	ppb
11/15/2016	p&m xylene	<1	ppb
11/15/2016	Tetrachlorethene	<1	ppb
11/15/2016	Toluene	<1	ppb
11/15/2016	Trans-1,2-Dichloroethene	<1	ppb
11/15/2016	Trans-1,3-Dichloropropene	<1	ppb
11/15/2016	Trichlorethene	<1	ppb
11/15/2016	Trichlorofluoromethane	<1	ppb
11/15/2016	Vinyl Chloride	<1	ppb
12/6/2016	1,1,1-Trichloroethane	<1	ppb
12/6/2016	1,1,2,2-Tetrachlorethane	<1	ppb
12/6/2016	1,1,2-Trichloroethane	<1	ppb
12/6/2016	1,1-Dichloroethane	<1	ppb
12/6/2016	1,1-Dichloroethene	<1	ppb
12/6/2016	1,2-dichlorobenzene	<1	ppb
12/6/2016	1,2-Dichloroethane	<1	ppb
12/6/2016	1,2-Dichloropropane	<1	ppb
12/6/2016	1,3-dichlorobenzene	<1	ppb
12/6/2016	1,4-dichlorobenzene	<1	ppb
12/6/2016	2-Chloroethylvinylether	<2	ppb
12/6/2016	Benzene	<1	ppb
12/6/2016	Bromodichloromethane	<1	ppb
12/6/2016	Bromoform	<1	ppb
12/6/2016	Bromomethane	<10	ppb
12/6/2016	Carbon Tetrachloride	<1	ppb
12/6/2016	Chlorobenzene	<1	ppb
12/6/2016	Chloroethane	<10	ppb
12/6/2016	Chloroform	<1	ppb
12/6/2016	Chloromethane	<10	ppb
12/6/2016	cis-1,3-Dichloropropene	<1	ppb
12/6/2016	Dibromochloromethane	<1	ppb
12/6/2016	Ethylbenzene	<1	ppb
12/6/2016	Methylene Chloride	<5	ppb
12/6/2016	o- xylene	<1	ppb
12/6/2016	p&m xylene	<1	ppb
12/6/2016	Tetrachlorethene	<1	ppb
12/6/2016	Toluene	<1	ppb
12/6/2016	Trans-1,2-Dichloroethene	<1	ppb
12/6/2016	Trans-1,3-Dichloropropene	<1	ppb
12/6/2016	Trichlorethene	<1	ppb
12/6/2016	Trichlorofluoromethane	<1	ppb
12/6/2016	Vinyl Chloride	<1	ppb

Date	Location	As (ppb)	BOD (ppm)	Cd (ppb)	Cr (ppb)	Cu (ppb)	CN (ppb)	Total Nitrogen (ppm)	Pb (ppb)	Hg (ppt)	Mo (ppb)	NH3-N (ppm)	Ni (ppb)	NO3NO2 (mg/L)	Se (ppb)	Ag (ppb)	Sn (ppb)	TKN (mgN/L)	TSS (ppm)	Zn (ppb)
1/6/2016	BS19	1.164	292.28	0.156	0.803	40.674	5.14	78.6	3.028	30.2	0.826	43	2.129	<0.100	<1.000	0.237	7.547	78.6	274	115.21
1/11/2016	FS16	0.876	290.38	0.159	1.316	24.826	4.22	80.8	13.402	57.6	1.032	49.4	2.696	<0.100	<1.000	0.155		80.8	270	130.737
1/20/2016	FS37	<0.500	199.38	0.093	0.394	15.601	<4.00	116	4.363	31.9	1.104	68.3	1.688	<0.100	4.283	0.039		116	170	100.892
1/27/2016	FS13	<1.500	NR	0.291	<0.900	4.346	<4.00	11.26	<0.900	3.28	<0.900	3.61	1.004	2.52	<3.000	<0.060		8.74	25	25.314
2/4/2016	BS23	<0.500	NR	0.146	3.651	41.203	<4.00	47	16.236	835	0.957	21.7	7.564	0.7	<1.000	2.092	<5	46.3	318	102.739
2/10/2016	FS20	<0.500	138.04	0.172	0.764	16.376	<4.00	20.57	1.089	12.9	0.517	10.3	1.807	1.77	<1.000	0.07		18.8	150	58.937
2/17/2016	BS03	<0.500	38.95	0.061	0.562	7.129	<4.00	12.81	1.02	11.4	<0.300	5.43	1.279	2.51	<1.000	0.077	<5	10.3	39.23	30.425
2/25/2016	FS03	1.664	925.23	0.639	6.144	73.345	12.5	419.18	98.921	71.3	6.474	263	7.913	0.18	3.316	0.28		419	620	631.219
3/2/2016	BS17	<1.000	106.38	0.204	<0.600	18.428	<4.00	33.9	2.443	11.1	<0.600	15.3	1.598	3.1	<2.000	0.126	<5	30.8	124.9	47.655
3/9/2016	FS38	<0.500	5.37	0.128	1.122	2.774	<4.00	4.054	1.698	5.73	0.39	<0.1	1.763	3.44	<1.000	0.097		0.614	20.67	35.453
3/16/2016	BS13	<0.500	43.87	0.036	<0.300	4.395	<4.00	8.69	0.418	8.55	<0.300	7.01	1.048	1.67	<1.000	<0.020	<5	7.02	30	32.617
3/23/2016	FS17	<0.500	287.35	0.268	1.016	18.75	<4.00	68.8	5.724	25.7	0.782	51.5	1.784	<0.100	<1.000	0.175		68.8	140	106.1
3/30/2016	BS02	<0.500	185.93	0.07	0.495	38.779	<4.00	69	3.641	59.8	0.702	46.5	1.444	<0.100	<1.000	0.397	<5	69	136	76.805
4/6/2016	FS19	<0.500	271.61	0.097	0.934	20.159	6.39	83.9	8.773	27.6	0.73	37.4	1.601	<0.100	<1.000	0.255		83.9	134.12	86.546
4/13/2016	BS04	<0.500	36.45	0.065	<0.300	2.605	<4.00	9.05	<0.300	6.7	<0.300	2.78	1.144	2.09	<1.000	0.04	<5	6.96	149	15.21
4/20/2016	FS05	0.687	59.96	0.267	0.454	11.078	4.71	15.865	3.099	8.13	0.901	9.04	1.372	0.965	<1.000	0.278		14.9	78	45.035
5/4/2016	FS14	<0.500	134.81	0.225	0.854	27.343	<4.00	24.561	2.459	4.34	0.566	12.6	1.307	0.261	<1.000	0.127		24.3	212	77.066
5/11/2016	BS09	<0.500	228.93	0.149	0.581	36.015	<4.00	29.2	2.827	25.6	1.595	13	1.853	<0.100	<1.000	0.078	<5	29.2	290.91	127.09
5/18/2016	FS43	<0.500	298.48	0.147	1.265	35.769	<4.00	72	16.141	95.5	0.939	51.6	1.932	<0.100	<1.000	0.115		72	234	120.858
5/25/2016	BS05	<0.500	335	0.171	3.4	43.227	6.12	61.8	2.426	22.2	0.818	51	2.909	<0.100	<1.000	0.252	<5	61.8	254	234.683
6/1/2016	FS24	0.949	529.24	0.285	2.107	38.791	4.32	84.5	53.679	47.8	1.062	46.9	3.502	<0.100	<1.000	0.221		84.5	550	202.167
6/15/2016	FS26	0.658	572.83	0.223	2.277	47.289		87.1	39.681	36.6	1.361	60.3	2.603	<2.500	<1.000	0.4		87.1	584	178.84
6/22/2016	BS20	0.765	482.22	0.359	2.81	132.153		71.4	22.462	39.6	2.378	45.8	3.886	<0.100	<1.000	0.712	<5	71.4	294	381.409
6/29/2016	FS34	<1.000	1824	0.52	3.225	47.15		82.7	19.058	36	3.522	22.1	4.332	<0.100	<2.000	0.859		82.7	590	284.561
7/13/2016	BS07	1.012	1374.06	0.7	5.229	169.24		134	35.224	26.1	3.109	65.7	7.718	<0.100	2.061	1.142	<5	134	1340	655.65
7/20/2016	FS31	0.503	466.17	0.31	1.706	49.249		82.4	4.958	22.1	0.88	53.7	2.169	<0.100	<1.000	0.39		82.4	886	156.994
7/27/2016	BS10	0.787	524.34	0.485	4.677	156.193		108	20.849	49.3	2.643	52.4	8.894	<0.100	1.317	0.82	<5	108	1030	437.391
8/3/2016	FS02	0.516	417.66	0.098	1.116	16.471		38.2	5.722	20.3	0.795	26.4	1.623	<0.100	<1.000	0.172		38.2	190	110.419
8/10/2016	BS14	0.512	6.45	0.051	0.656	3.388	6.86	3.78	2.018	2.1	0.348	1.24	1.156	1.52	<1.000	0.033	<5	2.26	12	24.703
8/17/2016	FS12	0.575	295.04	0.123	0.989	28.357	<4.00	56.8	8.438	50.3	0.8	39.2	2.142	<0.100	<1.000	0.886		56.9	190	105.624
8/29/2016	BS08	0.933	457.73	0.334	3.262	117.046	6.37	77.8	23.365	26.5	1.4	52	3.819	<0.100	<1.000	1.014	<5	77.8	560	378.911
9/7/2016	FS04	<0.500	133.21	0.107	0.677	13.98	<4.00	24.6	6.909	11.9	0.384	15.5	1.617	<0.100	<1.000	0.126		24.6	192	72.269
9/14/2016	BS03	<0.500	138.42	0.102	0.923	26.146	<4.00	NR	1.301	24.4	0.525	24.7	1.398	NR	<1.000	0.175	<5	NR	87	99.779
9/21/2016	FS41	0.77	334.04	0.747	1.829	26.509	<4.00	59.9	19.058	<2.0	1.066	44.1	3.093	<0.100	<1.000	1.352		59.9	324	139.977
9/28/2016	BS06	0.599	325.74	0.336	1.453	52.419	6.2	64.7	10.595	57.1	1.19	45.3	2.917	<0.100	<1.000	1.547	<5	64.7	334	178.679
10/5/2016	FS01	0.671	469.09	0.178	2.239	55.143	4.88	81.8	9.574	44.7	2.188	74.5	4.604	<0.100	<1.000	0.225		81.8	336	304.173
10/12/2016	FS13	<1.000	577.11	0.515	2.739	39.784	9.48	84.5	11.686	18.2	1.633	38.9	4.118	<0.100	<2.000	0.401		84.5	632	319.656
10/19/2016	FS06	0.6	203.98	0.215	1.08	31.21	4.27	35.1	8.954	59.1	3.015	23.2	2.055	<0.100	<1.000	0.252		35.1	248	98.701
10/26/2016	BS04	0.647	909.89	0.85	4.869	67.191	5.6	75	2.658	41.2	3.934	25.1	5.309	<0.100	1.378	0.466	<5	75	1356	689.152
11/2/2016	FS15	<0.500	573.63	0.14	2.595	30.736	<4.00	109	28.992	120	1.444	60.5	1.943	<0.100	1.453	0.231		109	754	395.969
11/13/2016	BS12	1.103	258.94	0.151	1.24	43.868	<4.00	67.224	7.88	53.5	0.837	45.4	2.446	0.124	<1.000	0.447	<5	67.1	358	130.649
11/16/2016	FS38	<0.500	38.58	0.447	0.792	2.764	<4.00	29.33	0.993	8.32	0.778	23	0.974	3.23	<1.000	0.021		26.1	28.5	9.291
11/30/2016	BS05	<0.500	246.76	0.149	1.056	17.017	<4.00	55.2	1.438	21	0.632	46.6	1.705	<0.100	<1.000	0.082	<5	55.2	242	106.594
12/7/2016	FS18	<0.500	305.51	0.262	1.271	35.851	<4.00	67.6	2.765	42.7	0.995	56.3	2.111	<0.100	<1.000	0.198		67.6	416	136.702
12/13/2016	BS16	<0.500	200.35	0.082	0.673	35.9	4.49	70.3	2.612	24.9	0.704	55.6	1.9	<0.100	<1.000	0.106	<5	70.3	64	66.21

BS= Bucklin Point Sanitary Manhole FS= Field's Point Sanitary Manhole

Table 26: Sanitary Manhole Sampling Data

NBC Significant Industrial User Sample Results

User Name	Location	Sample Date	Type	District	Cd mg/L	Cr mg/L	Cu mg/L	Pb mg/L	Ni mg/L	Ag mg/L	Zn mg/L	As mg/L	Hg ng/L	CN ppb	TTO* ppb	BOD mg/L	TSS mg/L	Oil and Grease mg/L	Ammonia mg/L	Total Kjeldahl Nitrogen mg/L	NO3NO2 mg/L	Total Nitrogen mg/L	pH SU	Temp-erature C	Total Residual Chlorine ppb	Total Solids %	n-Amyl Acetate ug/L	Acetone* ug/L	Isopropyl Acetate ug/L	Ethyl Acetate ug/L
A. Harrison & Company, Inc.	#1	3/25/2016	G	FP											15			<4.0	<0.1	7.080	<2.500	7.080								
A. Harrison & Company, Inc.	#1	9/22/2016	G	FP											23.6			<4.0	<0.1	<0.500	<2.500	<0.500								
Accent Plating Company	#1	3/15/2016	C	BP	<0.0150	<0.0750	0.0244	<0.0750	<0.0500	<0.0250	<0.0600			<4.00					1.190	2.540	<2.500	2.540								
Accent Plating Company	#1	11/17/2016	C	BP	<0.0150	<0.0750	2.32	<0.0750	<0.0500	<0.0250	<0.0600			<4.00					2.290	3.580	0.426	4.006								
Accent Plating Company	#1	12/13/2016	C	BP	<0.0150	<0.0750	0.0936	<0.0750	<0.0500	<0.0250	<0.0600			<4.00					0.4850	8.530	0.479	9.009								
A & F Plating Company	#1	1/5/2016	C	FP	<0.0150	<0.0750	0.0574	<0.0750	0.130	<0.0250	<0.0600	<0.005		81.00					0.2040	<0.500	<2.500	<0.500								
A & F Plating Company	#1	4/25/2016	C	FP	<0.0150	<0.0750	0.345	<0.0750	0.0956	<0.0250	0.0759	<0.005		23.60					0.2050	0.894	<2.500	0.894								
A & F Plating Company	#1	11/21/2016	C	FP	<0.0150	<0.0750	0.103	<0.0750	0.301	<0.0250	<0.0600	<0.005		42.30					<0.1	<0.500	0.168	<0.500								
Al-Jac Produce	#1	4/26/2016	C	FP												5983.11	26980.00		29.80	602.000	<2.500	602.000								
Al-Jac Produce	#1	12/6/2016	C	FP												6452.43	15140.00		43.70	396.000	2.900	398.900								
Alloy Holdings, LLC	#1	1/25/2016	C	FP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	0.394	<0.005							<0.1	<0.500	<2.500	<0.500								
Alloy Holdings, LLC	#1	9/15/2016	C	FP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600	<0.005							<0.1	NR	NR	NR								
Angelica Textile Service	#1	4/4/2016	C	BP												422.65	38.40	15.99	1.470	11.900	<2.500	11.900								
Angelica Textile Service	#1	9/29/2016	C	BP												400.64	22.00	17.29	0.9390	11.500	<2.500	11.500								
Armbrust International, Ltd.	#1	2/24/2016	C	FP	<0.0150	<0.0750	0.0831	<0.0750	0.603	<0.0250	0.0936	<0.005		17.80					0.3710	12.900	<2.500	12.900								
Armbrust International, Ltd.	#1	9/13/2016	C	FP	<0.0150	<0.0750	0.160	<0.0750	0.170	0.0624	0.178	<0.005		19.20					<0.1	NR	NR	NR								
Aspen Aerogels Rhode Island, LLC	#1	4/19/2016	C	BP											<500	7434.58	34.51		8570	10900.000	<2.500	10900.00								
Aspen Aerogels Rhode Island, LLC	#1	11/1/2016	C	BP											9.4	14465.50	748.00		3610	4470.000	<2.500	4170.248								
Aspen Aerogels Rhode Island, LLC	#2	4/22/2016	G	BP											<500	39475.00	< 2													
Aspen Aerogels Rhode Island, LLC	#2	11/1/2016	G	BP											7	43342.00	6.00		551	518	<2.500	518.183								
B. Deltoro & Sons, Inc.	#1	4/14/2016	C	FP												4314.00	5608.00		15.60	351.000	<2.500	351.000								
B. Deltoro & Sons, Inc.	#1	12/6/2016	C	FP												3941.07	6896.00		27.30	188.000	2.550	190.550								
Bliss Manufacturing Co., Inc.	#1	2/3/2016	C	BP	<0.0150	<0.0750	0.096	<0.0750	<0.0500	0.134	<0.0600			165.0					0.3970	0.969	<2.500	0.969								
Bliss Manufacturing Co., Inc.	#1	10/25/2016	C	BP	<0.0150	<0.0750	0.245	<0.0750	<0.0500	0.561	0.0619			634.0					3.700	7.710	<2.500	7.710								
Bliss Manufacturing Co., Inc.	#1	12/5/2016	C	BP	<0.0150	<0.0750	0.306	<0.0750	<0.0500	0.166	<0.0600			90.00					0.2690	2.110	1.710	3.820								
Chemart Company	#1	1/27/2016	C	BP	<0.0150	<0.0750	0.0551	<0.0750	0.146	<0.0250	<0.0600			4.760					<0.1	1.170	<2.500	1.170								
Chemart Company	#1	9/21/2016	C	BP	<0.0150	<0.0750	0.981	<0.0750	0.20	<0.0250	0.0605			7.440					0.8950	3.470	<2.500	3.470								
Cintas Corporation	#1	3/1/2016	C	BP	<0.0150	<0.0750	0.0427	<0.0750	<0.0500	<0.0250	0.0981			14.10	15	226.58	29.00	9.247	<0.1	7.850	<2.500	7.850								
Cintas Corporation	#1	10/6/2016	C	BP	<0.0150	<0.0750	0.10	<0.0750	<0.0500	<0.0250	0.0627			9.950	9.1	189.26	40.43	18.01												
Conopco, Inc. (Site #1)	#1	4/6/2016	C	BP											118				<0.1	<0.500	<2.500	<0.500								
Conopco, Inc. (Site #1)	#1	10/19/2016	C	BP											116				<0.1	0.796	<2.500	0.796								
Contract Specialties, Inc.	#1	2/16/2016	C	FP	<0.0150	<0.0750	0.366	<0.0750	<0.0500	<0.0250	0.0958	<0.005		<4.00					<0.1	<0.500	<2.500	<0.500								
Contract Specialties, Inc.	#1	11/30/2016	C	FP	<0.0150	<0.0750	0.175	<0.0750	<0.0500	<0.0250	<0.0600	<0.005		<4.00					<0.1	<0.500	0.211	<0.500								
Darlene Group	#1	2/1/2016	C	BP	<0.0150	<0.0750	0.135	<0.0750	<0.0500	<0.0250	<0.0600			<4.00					<0.1	0.758	<2.500	0.758								
Darlene Group	#1	11/21/2016	C	BP	<0.0150	<0.0750	0.185	<0.0750	<0.0500	<0.0250	<0.0600			<4.00					<0.1	<0.500	0.474	<0.500								
Denison Acquistion Company, LLC	#1	2/9/2016	G	BP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	0.0909				5	1932.68	< 2	<4.0	2.230	4.210	<2.500	4.210					<10	1300	16	<10
Denison Acquistion Company, LLC	#1	9/13/2016	G	BP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	0.322				92	38823.15	10.10	45.12	0.6260	4.930	<2.500	4.930					<10	38000	<10	<10
DFI-EP, LLC	#1	2/9/2016	C	FP	<0.0150	0.0929	0.0864	<0.0750	0.188	<0.0250	0.245	<0.005		94.10					0.2060	0.790	0.677	1.467								
DFI-EP, LLC	#1	9/6/2016	C	FP	0.0676	1.15	30.1	<0.0750	14.3	0.0482	55.0	<0.005		66900					2.340	5.040	21.800	26.840								
DFI-EP, LLC	#1	9/22/2016	C	FP	0.0189	6.28	0.464	<0.0750	4.84	<0.0250	2.78	<0.005		4560					1.360	1.810	13.700	15.510								
DFI-EP, LLC	#1	10/11/2016	C	FP	0.0523	0.142	0.136	<0.0750	56.5	<0.0250	5.79	<0.005		29.00					1.270	3.140	3.120	6.260								
DFI-EP, LLC	#1	11/22/2016	C	FP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	0.117	<0.005		23.10					<0.1	<0.500	<0.100	<0.500								
DiFruscia Industries, Inc.	#1	1/14/2016	C	FP	<0.0150	<0.0750	0.103	<0.0750	0.822	<0.0250	<0.0600	<0.005		<4.00					<0.1	<0.500	14.700	14.700								
DiFruscia Industries, Inc.	#1	2/3/2016	C	FP	<0.0150	<0.0750	0.171	<0.0750	0.539	<0.0250	<0.0600	<0.005		8.790					<0.1	<0.500	15.200	15.200								
DiFruscia Industries, Inc.	#1	8/15/2016	C	FP	<0.0150	0.218	0.210	<0.0750	0.965	<0.0250	0.103	<0.005		21.30					1.320	<5.000	21.300	21.300								
Dominion Energy Manchester St., Inc.	#1	5/12/2016	C	FP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600	<0.005							<0.1	<0.500	<2.500	<0.500								

*TTO (Total Toxic Organics) includes volatile organic compounds, shown in detail in Table 27B. Acetone, where measured, is included in the TTO as well as shown separately.

Table 27A: NBC SIU Data

NBC Significant Industrial User Sample Results

User Name	Location	Sample Date	Type	District	Cd mg/L	Cr mg/L	Cu mg/L	Pb mg/L	Ni mg/L	Ag mg/L	Zn mg/L	As mg/L	Hg ng/L	CN ppb	TTO* ppb	BOD mg/L	TSS mg/L	Oil and Grease mg/L	Ammonia mg/L	Total Kjeldahl Nitrogen mg/L	NO3NO2 mg/L	Total Nitrogen mg/L	pH SU	Temp-erature C	Total Residual Chlorine ppb	Total Solids %	n-Amyl Acetate ug/L	Acetone* ug/L	Isopropyl Acetate ug/L	Ethyl Acetate ug/L
Dominion Energy Manchester St., Inc.	#1	9/15/2016	C	FP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600	<0.005							<0.1	NR	NR	NR								
Eagle Laundry Inc.	#1	3/29/2016	C	FP												<2.00	52.86	90.16	<0.1	2.410	<2.500	2.410								
Eagle Laundry Inc.	#1	10/5/2016	C	FP												109.52	40.00	59.02	0.1070	2.780	<2.500	2.780								
Eastern Color & Chemical Co.	#1	4/12/2016	C	FP	<0.0150	<0.0750	0.0332	<0.0750	<0.0500	<0.0250	0.565	<0.005			19	519.33	52.63	150.8	0.8050	4.690	<2.500	4.690								
Eastern Color & Chemical Co.	#1	11/30/2016	C	FP	<0.0150	<0.0750	0.0458	<0.0750	<0.0500	<0.0250	1.58	<0.005			25.9	1159.11	150.00	148.7	10.70	27.500	<0.100	27.500								
Eaton Aerospace	#1	4/4/2016	C	BP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600			<4.00					<0.1	<0.500	<2.500	<0.500								
Eaton Aerospace	#1	10/25/2016	C	BP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600			<4.00					<0.1	<0.500	<2.500	<0.500								
Ecological Fibers, Inc.	#1	3/3/2016	C	BP	<0.0150	<0.0750	0.0306	<0.0750	0.0811	<0.0250	2.61				15	139.68	27.57		97.70	133.000	<2.500	133.000								
Ecological Fibers, Inc.	#1	4/26/2016	C	BP	<0.0150	<0.0750	0.0665	<0.0750	0.108	<0.0250	7.48				<100	875.21	23.92		102.0	162.000	<2.500	162.000								
Ecological Fibers, Inc.	#1	5/24/2016	C	BP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	0.3460				13	561.70	10.83		63.30	81.200	<2.500	81.200								
Ecological Fibers, Inc.	#1	9/7/2016	C	BP	<0.0150	<0.0750	<0.0200	<0.0750	0.0724	<0.0250	0.616				16.3	703.56	9.26		93.10	105.000	<2.500	105.000								
Electrolizing, Inc.	#1	2/24/2016	C	FP	<0.0150	0.199	<0.0200	<0.0750	<0.0500	<0.0250	0.631	<0.005		<4.00					0.5580	0.940	21.800	22.740								
Electrolizing, Inc.	#1	8/16/2016	C	FP	<0.0150	0.351	0.0524	<0.0750	<0.0500	<0.0250	1.62	<0.005		<4.00					1.030	<5.000	22.100	22.100								
E&M Enterprises, LTD	#1	1/14/2016	C	FP	<0.0150	<0.0750	0.231	<0.0750	0.201	<0.0250	<0.0600	<0.005		185.0					<0.1	<0.500	<2.500	<0.500								
E&M Enterprises, LTD	#1	8/30/2016	C	FP	<0.0150	<0.0750	0.240	<0.0750	0.187	<0.0250	<0.0600	<0.005		126.0					<0.1	<0.500	<2.500	<0.500								
Finlay Extracts & Ingredients USA, Inc.	#1	5/4/2016	C	BP												1015.19	112.00		0.5980	43.100	<2.500	43.100								
G. Tanury Plating Company	#1	1/4/2016	C	FP	<0.0150	<0.0750	3.07	<0.0750	0.908	<0.0250	0.163	<0.005		3430					0.9670	2.100	<2.500	2.100								
G. Tanury Plating Company	#1	1/26/2016	C	FP	<0.0150	<0.0750	2.02	<0.0750	1.80	<0.0250	2.01	<0.005		88.80					<0.1	<0.500	<2.500	<0.500								
G. Tanury Plating Company	#1	2/23/2016	C	FP	<0.0150	<0.0750	0.636	<0.0750	0.276	<0.0250	0.0708	<0.005		22.40					<0.1	<0.500	<2.500	<0.500								
G. Tanury Plating Company	#1	9/21/2016	C	FP	<0.0150	<0.0750	0.647	<0.0750	0.428	<0.0250	0.145	<0.005		714.0					0.3830	2.200	<2.500	2.200								
General Cable Industries, LLC	#1	5/4/2016	C	BP	<0.0150	<0.0750	0.115	<0.0750	<0.0500	<0.0250	0.647					1470.61	53.00	10.06	<0.1	19.300	<2.500	19.300								
General Cable Industries, LLC	#1	10/24/2016	C	BP	<0.0150	<0.0750	0.258	<0.0750	<0.0500	<0.0250	1.00					1160.56	110.00	12.22	<0.1	25.600	<2.500	25.600								
Godfrey and Wing Inc.	#1	4/6/2016	C	BP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600				35				<0.1	<0.500	<2.500	<0.500								
Godfrey and Wing Inc.	#1	11/16/2016	C	BP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600				47.4				<0.2	<0.500	<0.100	<0.500								
Hillview Auto Body	#1	4/13/2016	G	FP	<0.0150	<0.0750	0.0638	<0.0750	<0.0500	<0.0250	0.608	<0.005			18			<4.0	<0.1	7.610	<2.500	7.610								
Hillview Auto Body	#1	10/18/2016	G	FP	<0.0150	<0.0750	0.123	<0.0750	0.0519	<0.0250	0.716	<0.005			2.3			<4.0	0.1780	2.920	<2.500	2.920								
Hord Crystal Corporation	#1	2/29/2016	G	BP	<0.0150	<0.0750	0.704	<0.0750	<0.0500	<0.0250	0.259			12.70					2.450	82.000	26.900	108.900								
Hord Crystal Corporation	#1	9/12/2016	G	BP	<0.0150	<0.0750	0.385	<0.0750	<0.0500	<0.0250	0.085			6.480					19.40	130.000	<2.500	130.000								
HP Services, Inc.	#1	4/11/2016	G	BP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600			<4.00				<4.0	<0.1	1.690	<2.500	1.690								
HP Services, Inc.	#1	11/22/2016	G	BP	<0.0150	<0.0750	0.0389	<0.0750	<0.0500	<0.0250	<0.0600			10.10				<4.0	<0.1	<0.500	<0.100	<0.500								
Ideal Plating & Polishing Co., Inc.	#1	1/20/2016	C	FP	<0.0150	0.0913	0.525	<0.0750	0.392	<0.0250	0.166	<0.005		180.0					<0.1	<0.500	<2.500	<0.500								
Ideal Plating & Polishing Co., Inc.	#1	9/20/2016	C	FP	<0.0150	0.179	0.582	<0.0750	0.292	<0.0250	0.112	<0.005		162.0					<0.1	<0.500	<2.500	<0.500								
Induplate LLC	#1	1/5/2016	C	FP	<0.0150	<0.0750	0.0495	<0.0750	<0.0500	<0.0250	0.279	<0.005		<4.00					<0.1	<0.500	4.130	4.130								
Induplate LLC	#1	8/16/2016	C	FP	<0.0150	<0.0750	0.0564	<0.0750	<0.0500	<0.0250	0.247	<0.005		5.460					1.180	1.560	7.230	8.790								
Interplex Engineered Products, Inc.	#1	4/20/2016	C	BP	<0.0150	<0.0750	<0.0200	<0.0750	0.227	<0.0250	<0.0600			8.700					0.3350	1.590	<2.500	1.590								
Interplex Engineered Products, Inc.	#1	10/24/2016	C	BP	<0.0150	<0.0750	<0.0200	<0.0750	0.0595	<0.0250	<0.0600			9.470					<0.1	1.850	<2.500	1.850								
International Chromium Plating	#1	1/26/2016	C	FP	<0.0150	0.351	0.0348	<0.0750	0.517	<0.0250	0.205	<0.005		<4.00					0.1930	0.744	<2.500	0.744								
International Chromium Plating	#1	9/21/2016	C	FP	<0.0150	0.181	0.0365	<0.0750	0.108	<0.0250	<0.0600	<0.005		71.40					0.5160	0.721	<2.500	0.721								
International Etching, Inc.	#1	1/26/2016	C	FP	<0.0150	<0.0750	0.0241	<0.0750	<0.0500	<0.0250	<0.0600	<0.005		<4.00					0.1990	1.890	<2.500	1.890								
International Etching, Inc.	#1	9/26/2016	C	FP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600	<0.005		12.60					<0.1	0.522	<2.500	0.522								
International Insignia Corporation	#1	4/7/2016	C	FP	<0.0150	<0.0750	0.832	<0.0750	1.34	<0.0250	0.296	<0.005		13.00					6.540	36.600	<2.500	36.600								
International Insignia Corporation	#1	11/3/2016	C	FP	<0.0150	<0.0750	0.137	<0.0750	0.813	<0.0250	0.112	<0.005		7.850																
Ira Green, Inc.	#1	1/7/2016	C	FP	<0.0150	<0.0750	0.0249	<0.0750	<0.0500	<0.0250	<0.0600	<0.005		4.850					<0.1	<0.500	<2.500	<0.500								
Ira Green, Inc.	#1	5/26/2016	C	FP	<0.0150	<0.0750	0.0506	<0.0750	<0.0500	<0.0250	<0.0600	<0.005		11.90					<0.1	0.801	<2.500	0.801								
Ira Green, Inc.	#1	10/18/2016	C	FP	<0.0150	<0.0750	0.0564	<0.0750	0.0676	<0.0250	<0.0600	<0.005		8.990					<0.1	<0.500	<2.500	<0.500								

*TTO (Total Toxic Organics) includes volatile organic compounds, shown in detail in Table 27B. Acetone, where measured, is included in the TTO as well as shown separately.

Table 27A: NBC SIU Data

NBC Significant Industrial User Sample Results

User Name	Location	Sample Date	Type	District	Cd mg/L	Cr mg/L	Cu mg/L	Pb mg/L	Ni mg/L	Ag mg/L	Zn mg/L	As mg/L	Hg ng/L	CN ppb	TTO* ppb	BOD mg/L	TSS mg/L	Oil and Grease mg/L	Ammonia mg/L	Total Kjeldahl Nitrogen mg/L	NO3NO2 mg/L	Total Nitrogen mg/L	pH SU	Temp-erature C	Total Residual Chlorine ppb	Total Solids %	n-Amyl Acetate ug/L	Acetone* ug/L	Isopropyl Acetate ug/L	Ethyl Acetate ug/L
John H. Collins & Sons Company	#1	2/22/2016	C	BP	<0.0150	<0.0750	0.025	<0.0750	<0.0500	<0.0250	1.01			150.0	1094			24.87	0.5060	21.200	<2.500	21.200								
John H. Collins & Sons Company	#1	9/27/2016	C	BP	<0.0150	<0.0750	0.104	<0.0750	0.0803	0.0449	0.139			48.50	333.7			62.29	4.190	14.300	4.600	18.900								
Lincoln Manufacturing, Inc.	#1	2/29/2016	G	BP														217.0	<0.1	3.850	<2.500	3.850								
Lincoln Manufacturing, Inc.	#1	5/16/2016	G	BP														4.474	1.080	22.300	169.000	191.300								
Lincoln Manufacturing, Inc.	#1	9/13/2016	G	BP														<4.0	0.2850	<2.500	11.700	11.700								
Liquid Blue	#1	3/10/2016	G	BP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600					125.56	32.00		0.8090	65.300	<2.500	65.300								
Liquid Blue	#1	10/19/2016	G	BP	<0.0150	<0.0750	0.0741	<0.0750	<0.0500	<0.0250	<0.0600					85.95	22.64		<0.1	<2.500	<2.500	<2.500								
Liquid Blue	#2	3/10/2016	G	BP	<0.0150	<0.0750	0.138	<0.0750	<0.0500	<0.0250	<0.0600					112.05	5.21		0.6470	39.400	<2.500	39.400								
Liquid Blue	#2	10/19/2016	G	BP	<0.0150	<0.0750	0.140	<0.0750	<0.0500	<0.0250	0.127					79.68	109.39		<0.1	28.400	<2.500	28.400								
Mahr Federal Inc.	#1	4/12/2016	C	FP	<0.0150	0.777	0.0498	<0.0750	<0.0500	<0.0250	<0.0600	<0.005		<4.00	4			<4.0	<0.1	<0.500	<2.500	<0.500								
Mahr Federal Inc.	#1	10/27/2016	C	FP	<0.0150	1.04	0.0406	<0.0750	<0.0500	<0.0250	<0.0600	<0.005		<4.00	7.2			<4.0	<0.1	<0.500	<2.500	<2.500								
Materion Technical Materials, Inc.	#1	4/19/2016	C	BP	<0.0150	<0.0750	<0.0200	<0.0750	0.0686	<0.0250	<0.0600			4.980					0.8010	2.080	<2.500	2.080								
Materion Technical Materials, Inc.	#1	11/16/2016	C	BP	<0.0150	<0.0750	0.0278	<0.0750	<0.0500	<0.0250	<0.0600			<4.00					0.6120	7.690	0.710	8.400								
Metallurgical Solutions, Inc.	#1	3/22/2016	G	FP	<0.0150	2.01	0.457	<0.0750	0.796	<0.0250	0.0738	0.0192		61.10					1.760	<2.500	1280.000	1280								
Metallurgical Solutions, Inc.	#1	9/16/2016	G	FP	<0.0150	1.59	0.463	<0.0750	0.615	<0.0250	0.238	0.0116		104.0					1.210	NR	NR	NR								
Microfibres, Inc.	#1	1/28/2016	C	BP	<0.0150	<0.0750	0.0228	<0.0750	<0.0500	<0.0250	<0.0600	<0.005				<985.71	506.67	4.6	16.60	104.000	<2.500	104.000								
Monarch Metal Finishing Co., Inc.	#1	2/11/2016	C	FP	<0.0150	<0.0750	0.176	<0.0750	0.0502	<0.0250	<0.0600	<0.005		503.0					7.900	10.300	<2.500	10.300								
Monarch Metal Finishing Co., Inc.	#1	9/21/2016	C	FP	<0.0150	<0.0750	0.183	<0.0750	0.0843	<0.0250	0.121	<0.005		277.0					0.8560	1.200	<2.500	1.200								
Monarch Metal Finishing, Inc.	#1	3/1/2016	C	FP	<0.0150	<0.0750	0.995	<0.0750	0.551	<0.0250	0.372	<0.005		194.0					32.20	40.100	<2.500	40.100								
Monarch Metal Finishing, Inc.	#1	9/13/2016	C	FP	<0.0150	<0.0750	2.57	<0.0750	3.41	0.0475	0.384	<0.005		331.0					14.40	NR	NR	NR								
Murdock Webbing Co., Inc.	#1	2/3/2016	C	BP	<0.0150	<0.0750	0.151	<0.0750	<0.0500	<0.0250	0.0732					1428.30	83.00	80.25	4.880	62.300	<2.500	62.300								
Murdock Webbing Co., Inc.	#1	9/7/2016	C	BP	<0.0150	<0.0750	0.138	<0.0750	<0.0500	<0.0250	<0.0600					739.37	76.00	59.99	8.530	43.700	<2.500	43.700								
Narragansett Jewelry	#1	2/4/2016	C	FP	<0.0150	<0.0750	0.110	<0.0750	<0.0500	<0.0250	<0.0600	<0.005		<4.00					<0.1	1.150	<2.500	1.150								
Narragansett Jewelry	#1	9/6/2016	C	FP	<0.0150	<0.0750	0.0373	<0.0750	<0.0500	<0.0250	<0.0600	<0.005		<4.00					<0.1	0.523	<2.500	0.523								
New England Linen Supply, Inc.	#1	2/25/2016	C	BP												891.46	306.00	206.3	1.060	10.700	<2.500	10.700								
New England Linen Supply, Inc.	#1	10/5/2016	C	BP												972.18	322.00	154.1	1.250	9.490	<2.500	9.490								
NGC INC.	#1	4/26/2016	C	FP												2294.07	62.14	<4.0	11.20	427.000	<2.500	427.000								
NGC INC.	#1	12/1/2016	C	FP												2084.07	100.00	16.69	12.60	372.000	0.440	372.440								
Ocean State Peeled Potatoes	#1	4/26/2016	C	FP												972.85	1002.86		2.700	57.600	<2.500	57.600								
Ocean State Peeled Potatoes	#1	12/7/2016	C	FP												1019.22	1524.00		4.190	19.300	0.569	19.869								
The Okonite Company	#1	4/13/2016	C	BP	<0.0150	<0.0750	0.360	<0.0750	<0.0500	<0.0250	2.41							4.602	<0.1	7.230	8.900	16.130								
The Okonite Company	#1	5/23/2016	C	BP	<0.0150	<0.0750	0.137	<0.0750	<0.0500	<0.0250	<0.0600							<4.0	<0.5	6.290	<2.500	6.290								
The Okonite Company	#1	11/2/2016	C	BP	<0.0150	<0.0750	0.103	<0.0750	<0.0500	<0.0250	0.212							<4.0	<0.1	3.070	<2.500	3.070								
Pawtucket Power Associates	#1	5/16/2016	G	BP	<0.0150	<0.0750	0.234	<0.0750	<0.0500	<0.0250	<0.0600							<4.0	3.040	5.310	<2.500	5.310								
Pawtucket Power Associates	#1	7/26/2016	G	BP	<0.0150	<0.0750	0.0406	<0.0750	<0.0500	<0.0250	<0.0600							<4.0	4.550	7.490	<2.500	7.490								
Pawtucket Power Associates	#4	5/16/2016	C	BP	<0.0150	<0.0750	0.0723	<0.0750	<0.0500	<0.0250	0.0709								<0.1	2.720	<2.500	2.720								
Pawtucket Power Associates	#4	7/26/2016	C	BP	<0.0150	<0.0750	0.0702	<0.0750	<0.0500	<0.0250	0.107								<0.1	3.240	<2.500	3.240								
Pilgrim Screw Corporation	#1	3/22/2016	G	FP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	0.187	<0.005		29.10				<4.0	2.890	53.800	768.000	821.800								
Pilgrim Screw Corporation	#1	10/31/2016	G	FP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	0.163	<0.005		57.60				5.833	4.98	<5.00	1240.000	1240								
Prov. Journal Co. - Production Facility	#1	3/2/2016	C	FP	<0.0150	<0.0750	0.0226	<0.0750	<0.0500	<0.0250	0.121	<0.005						<4.0	1.170	35.000	<2.500	35.000								
Prov. Journal Co. - Production Facility	#1	10/19/2016	C	FP	<0.0150	<0.0750	0.0291	<0.0750	<0.0500	<0.0250	0.0659	<0.005						<4.0	1.500	38.000	<2.500	38.000								

*TTO (Total Toxic Organics) includes volatile organic compounds, shown in detail in Table 27B. Acetone, where measured, is included in the TTO as well as shown separately.

Table 27A: NBC SIU Data

NBC Significant Industrial User Sample Results

User Name	Location	Sample Date	Type	District	Cd mg/L	Cr mg/L	Cu mg/L	Pb mg/L	Ni mg/L	Ag mg/L	Zn mg/L	As mg/L	Hg ng/L	CN ppb	TTO* ppb	BOD mg/L	TSS mg/L	Oil and Grease mg/L	Ammonia mg/L	Total Kjeldahl Nitrogen mg/L	NO3NO2 mg/L	Total Nitrogen mg/L	pH SU	Temp-erature C	Total Residual Chlorine ppb	Total Solids %	n-Amyl Acetate ug/L	Acetone* ug/L	Isopropyl Acetate ug/L	Ethyl Acetate ug/L
Providence Specialty Products	#1	3/7/2016	G	FP												406.27	132.35	40.71	0.1880	16.600	9.220	25.820								
Providence Specialty Products	#1	11/28/2016	G	FP												1373.18	156.00	38.52	0.4320	42.600	<0.200	42.600								
Providence Specialty Products	#2	3/7/2016	G	FP												18528.50	10875.00	977.5	6.100	481.000	3.920	484.920								
Providence Specialty Products	#2	11/28/2016	G	FP												11940.86	386.00	423.3	2.930	228.000	5.370	233.370								
Providence Metallizing Company, Inc.	#1	5/3/2016		BP	<0.0150	0.225	0.111	<0.0750	0.295	<0.0250	<0.0600	<0.005		<4.00					<0.1	<0.500	<2.500	<0.500								
Providence Metallizing Company, Inc.	#1	10/18/2016		BP	<0.0150	0.216	0.138	<0.0750	0.20	<0.0250	<0.0600			<4.00					<0.1	<0.500	<2.500	<0.500								
R. E. Sturdy Company, Inc.	#1	1/13/2016	C	FP	<0.0150	<0.0750	1.24	<0.0750	0.252	0.105	0.312	<0.005		<4.00					0.4920	6.810	<2.500	6.810								
R. E. Sturdy Company, Inc.	#1	1/14/2016	C	FP	<0.0150	<0.0750	0.761	<0.0750	0.266	0.204	<0.0600	<0.005		181.0					0.6590	9.870	<2.500	9.870								
RI Resource Recovery	#4	9/27/2016	G	FP															2.240	24.000	<0.100	24.000								
RI Resource Recovery	#4	12/6/2016	G	FP															0.2670	20.300	10.500	30.800								
RI Resource Recovery	#1	2/9/2016	C	FP	<0.0150	0.115	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600	0.169	2.460	23.90	21	88.56	76.67	<4.0	1.000	33.200	<0.100	33.200								
RI Resource Recovery	#1	3/8/2016	C	FP	<0.0150	0.0834	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600	0.109	2.460	17.60	<100	69.75	94.44	<4.0	0.8510	28.300	<0.100	28.300								
RI Resource Recovery	#1	4/5/2016	C	FP	<0.0150	0.118	<0.0200	<0.0750	0.068	<0.0250	<0.0600	0.116	<2.0	24.40	<100	63.00	26.84	1.52	1.030	26.300	0.118	26.418								
RI Resource Recovery	#1	5/3/2016	C	FP	<0.0150	0.105	<0.0200	<0.0750	0.0541	<0.0250	<0.0600	0.0958	3.610	26.90	<100	30.74	31.00	<4.0	0.4090	27.600	0.229	27.829								
RI Resource Recovery	#1	8/30/2016	C	FP	<0.0150	0.0864	<0.0200	<0.0750	0.0698	<0.0250	<0.0600	0.127	3.640	25.70	<10	25.70	100.00	<4.0	0.3280	27.400	1.040	28.440								
RI Resource Recovery	#1	9/27/2016	C	FP	<0.0150	0.0899	<0.0200	<0.0750	0.0695	<0.0250	<0.0600	0.113	4.470	26.90	1.9	22.99	47.00	<4.0	1.390	28.600	0.552	29.152								
RI Resource Recovery	#1	11/1/2016	C	FP	<0.0150	0.0872	<0.0200	<0.0750	0.063	<0.0250	<0.0600	0.107	5.910	31.70	<10	23.05	110.00	<4.0	0.2610	31.100	<0.100	31.100								
RI Resource Recovery	#1	12/6/2016	C	FP	<0.0150	0.118	<0.0200	<0.0750	0.0667	<0.0250	<0.0600	0.151	4.560	53.60		37.48	62.00	<4.0	339.0	405.000	1.310	406.310								
RI Resource Recovery	#1	2/4/2016		FP													50.00						8.97	8.400		0.029				
RI Resource Recovery	#4	3/8/2016	G	FP															1.100	20.700	<0.100	20.700								
RI Resource Recovery	#4	8/30/2016	G	FP															0.2090	21.100	3.030	24.130								
Stackbin Corporation	#1	4/19/2016	G	BP	<0.0150	<0.0750	0.025	<0.0750	<0.0500	<0.0250	0.0658			10.40				6.026	0.490	9.180	<2.500	9.180								
Stackbin Corporation	#1	10/11/2016	G	BP	<0.0150	<0.0750	0.0223	<0.0750	<0.0500	<0.0250	<0.0600			13.40				<4.0	0.2440	11.200	<2.500	11.200								
Stackbin Corporation	#2	4/19/2016	G	BP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600			15.20					2.490	4.530	9.460	13.990								
Stackbin Corporation	#2	10/11/2016	G	BP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600			15.20					0.3670	1.970	7.240	9.210								
Summit Manufacturing Corporation	#1	1/27/2016	C	BP	<0.0150	0.136	0.660	<0.0750	0.116	<0.0250	<0.0600			<4.00					<0.1	<0.500	5.650	5.650								
Summit Manufacturing Corporation	#1	10/3/2016	C	BP	<0.0150	0.251	0.225	<0.0750	0.0557	<0.0250	<0.0600			7.820					<0.1	<0.500	6.450	6.450								
Surface Coatings Division, MFB LLC	#1	3/15/2016	C	FP	<0.0150	<0.0750	0.144	<0.0750	0.407	<0.0250	0.241	<0.005		4.870					0.5750	0.937	<2.500	0.937								
Surface Coatings Division, MFB LLC	#1	11/7/2016	C	FP	<0.0150	0.155	0.169	<0.0750	0.350	<0.0250	0.395	<0.005		7.320					1.060	1.560	<2.500	1.560								
Tanury Industries	#1	2/23/2016	C	BP	<0.0150	0.246	0.702	<0.0750	0.475	0.241	0.0992			17.00					3.650	13.300	<2.500	13.300								
Tanury Industries	#1	9/21/2016	C	BP	<0.0150	0.463	0.931	<0.0750	0.515	0.383	<0.0600			251.0					4.100	13.700	<2.500	13.700								
Technodic, Inc.	#1	2/23/2016	C	FP	<0.0150	1.02	0.129	<0.0750	0.173	<0.0250	0.167	<0.005		12.50					0.7630	1.700	23.600	25.300								
Technodic, Inc.	#1	11/2/2016	C	FP	<0.0150	0.838	0.140	<0.0750	<0.0500	<0.0250	0.0798	<0.005		19.00					0.26	<1.25	29.200	29.200								
Tedor Pharma Inc.	#1	1/22/2016	G	BP	<0.0150	<0.0750	0.118	<0.0750	0.149	<0.0250	0.960				902	122.20	16.67	<4.0	0.1950	5.130	<2.500	5.130					<10	760	<10	<10
Tedor Pharma Inc.	#1	9/23/2016	G	BP	<0.0150	<0.0750	0.0344	<0.0750	<0.0500	<0.0250	<0.0600				425.1	15.09	12.37	<4.0	<0.1	1.190	<2.500	1.190					<10	420	<10	<10
Teknicote, Inc.	#1	1/20/2016	G	BP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	0.088			9.080					0.3680	24.500	<2.500	24.500								
Teknicote Tank T-7	#1	11/15/2016	C	BP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	0.0739			5.320					7.830	26.500	<2.500	26.500								
TEKNOR_APEX	#1	10/31/2016	C	BP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	0.264							<4.0	<0.1	<0.500	<2.500	<0.500								
TEKNOR_APEX	#1	11/21/2016	C	BP	<0.0150	<0.0750	<0.0200	<0.0750	0.0523	<0.0250	0.306							<4.0	<0.1	<0.500	0.280	<0.500								
Tiffany and Company	#1	4/11/2016	C	BP	<0.0150	<0.0750	0.0386	<0.0750	<0.0500	0.0883	<0.0600			<4.00					1.270	3.550	<2.500	3.550								
Tiffany and Company	#1	10/25/2016	C	BP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600			<4.00					0.4460	1.440	<2.500	1.440								
Tri-Jay Company	#1	1/6/2016	C	FP	<0.0150	<0.0750	0.981	<0.0750	0.308	0.0337	0.278	<0.005		82.30					0.4680	3.930	9.850	13.780								
Tri-Jay Company	#1	8/15/2016	C	FP	<0.0150	0.111	0.802	<0.0750	0.223	<0.0250	1.34	<0.005		6.880					1.140	7.110	15.900	23.010								
Truex, Inc.	#1	1/27/2016	C	BP	<0.0150	<0.0750	0.0689	<0.0750	<0.0500	<0.0250	<0.0600			<4.00				<4.0	0.5630	2.390	<2.500	2.390								
Truex, Inc.	#1	9/27/2016	C	BP	<0.0150	<0.0750	0.153	<0.0750	<0.0500	<0.0250	0.160			6.430				<4.0	<0.1	2.030	<2.500	2.030								
Umicore USA, Incorporated	#1	3/31/2016	G	FP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600	0.00664							9110	23000.000	<2.500	23000.018								
Umicore USA, Incorporated	#1	8/16/2016	G	FP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600	<0.005							8080	22900.000	<2.500	22900.157								
Umicore USA, Incorporated	#100	3/31/2016	G	FP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600	<0.005							381.0	382.000	<2.500	382.000								
Umicore USA, Incorporated	#100	9/13/2016	G	FP	<0.0150	<0.0750	<0.0200	<0.0750	<0.0500	<0.0250	<0.0600	<0.005							787.0	803.000	22.600	825.600								
Umicore USA, Incorporated	#2	3/31/2016	G	FP	<0.0150	<0.0750	0.0321	<0.0750	<0.0500	<0.0250	<0.0600	<0.005							1390	4220.000	11.600	4231.600								

*TTO (Total Toxic Organics) includes volatile organic compounds, shown in detail in Table 27B. Acetone, where measured, is included in the TTO as well as shown separately.

Table 27A: NBC SIU Data

NBC Significant Industrial User Sample Results

User Name	Location	Sample Date	Type	District	Cd mg/L	Cr mg/L	Cu mg/L	Pb mg/L	Ni mg/L	Ag mg/L	Zn mg/L	As mg/L	Hg ng/L	CN ppb	TTO* ppb	BOD mg/L	TSS mg/L	Oil and Grease mg/L	Ammonia mg/L	Total Kjeldahl Nitrogen mg/L	NO3NO2 mg/L	Total Nitrogen mg/L	pH SU	Temp-erature C	Total Residual Chlorine ppb	Total Solids %	n-Amyl Acetate ug/L	Acetone* ug/L	Isopropyl Acetate ug/L	Ethyl Acetate ug/L
Umicore USA, Incorporated	#2	8/16/2016	G	FP	<0.0150	<0.0750	0.0385	<0.0750	<0.0500	<0.0250	<0.0600	<0.005							270.0	597.000	4.650	601.650								
Unique Plating Company	#1	1/21/2016	C	FP	<0.0150	<0.0750	0.243	<0.0750	0.209	<0.0250	<0.0600	<0.005		102.0					<0.1	<0.500	<2.500	<0.500								
Unique Plating Company	#1	2/15/2016	C	FP	<0.0150	<0.0750	0.609	<0.0750	0.497	<0.0250	0.0606	0.0056		63.40					<0.1	<0.500	<2.500	<0.500								
Unique Plating Company	#1	11/21/2016	C	FP	<0.0150	<0.0750	1.24	<0.0750	0.763	<0.0250	<0.0600	<0.005		357.0					<0.1	<0.500	1.380	1.380								
Unique Plating Company	#1	12/13/2016	C	FP	<0.0150	<0.0750	0.227	<0.0750	0.447	<0.0250	<0.0600	<0.005		75.10					<0.1	<0.500	2.320	2.320								
Univar USA, Inc.	#1	3/4/2016	G	FP	<0.0150	0.230	0.113	<0.0750	0.348	<0.0250	0.784	<0.005		4.030	27				67.40	79.700	22.400	102.100			15800					
Univar USA, Inc.	#1	9/27/2016	G	FP	<0.0150	0.106	0.0271	<0.0750	<0.0500	<0.0250	0.345	<0.005		<4.00	6.9				10.20	18.800	74.300	93.100			<10					
Universal Plating Company, Inc.	#1	2/2/2016	C	FP	<0.0150	<0.0750	0.103	<0.0750	0.0951	<0.0250	<0.0600	<0.005		19.90					<0.1	<0.500	<2.500	<0.500								
Universal Plating Company, Inc.	#1	4/25/2016	C	FP	<0.0150	<0.0750	0.0736	<0.0750	<0.0500	<0.0250	<0.0600	<0.005		14.70					<0.1	0.522	<2.500	0.522								
Universal Plating Company, Inc.	#1	11/22/2016	C	FP	<0.0150	<0.0750	0.492	<0.0750	0.060	<0.0250	<0.0600	<0.005		19.90					<0.1	<0.500	<0.100	<0.500								

*TTO (Total Toxic Organics) includes volatile organic compounds, shown in detail in Table 27B. Acetone, where measured, is included in the TTO as well as shown separately.

Table 27A: NBC SIU Data

Company	Sample Location	Sample Date	Sample Type	District	1,1,1-Trichloroethane	1,1,2,2-Tetrachlorethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3-dichlorobenzene	1,4-dichlorobenzene	2-Chloroethylvinylether	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,3-Dichloropropene	Dibromochloromethane	Ethylbenzene	Methylene Chloride	o- xylene	p&m xylene	Tetrachlorethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichlorethene	Trichlorofluoromethane	Vinyl Chloride	Acetone	TTO*
					ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ug/L	ppb
A. Harrison & Company, Inc.	#1	3/25/16	G	FP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	1	<1	<10	<1	<1	<10	14	<10	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1		15
A. Harrison & Company, Inc.	#1	9/22/16	G	FP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	1.6	<1	<10	<1	<1	<10	22	<10	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1		23.6
Aspen Aerogels Rhode Island, LLC	#1	4/19/16	C	BP	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<100	<50	<50	<50	<500	<50	<50	<500	<50	<500	<50	<50	<50	<300	<50	<50	<50	<50	<50	<50	<50	<50	<50		<500
Aspen Aerogels Rhode Island, LLC	#1	11/1/16	C	BP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	<1	<1	<10	0.6	<10	<1	<1	<1	<5	<1	<1	<1	8.8	<1	<1	<1	<1	<1		9.4
Aspen Aerogels Rhode Island, LLC	#2	4/22/16	G	BP	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<100	<50	<50	<50	<500	<50	<50	<500	<50	<500	<50	<50	<50	<300	<50	<50	<50	<50	<50	<50	<50	<50	<50		<500
Aspen Aerogels Rhode Island, LLC	#2	11/1/16	G	BP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	<1	<1	<10	7	<10	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1		7
Cintas Corporation	#1	3/1/16	C	BP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	<1	<1	<10	5	<10	<1	<1	<1	<5	2	3	2	3	<1	<1	<1	<1	<1		15
Cintas Corporation	#1	10/6/16	C	BP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	<1	<1	<10	2.1	<10	<1	<1	<1	<5	1.3	2.3	0.7	2.7	<1	<1	<1	<1	<1		9.1
Conopco, Inc. (Site #1)	#1	4/6/16	C	BP	17	<1	<1	1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	2	<1	<10	<1	<10	<1	<1	<1	<5	<1	<1	67	<1	<1	<1	31	<1	<1		118
Conopco, Inc. (Site #1)	#1	10/19/16	C	BP	12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	<1	<1	<10	<1	<10	<1	<1	<1	<5	<1	<1	80	<1	<1	<1	24	<1	<1		116
Denison Acquistion Company, LLC	#1	2/9/16	G	BP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	2	<1	<10	<1	<1	<10	3	<10	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	1300	1305
Denison Acquistion Company, LLC	#1	9/13/16	G	BP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	1	<1	<10	<1	<1	<10	38	<10	<1	<1	<1	53	<1	<1	<1	<1	<1	<1	<1	<1	<1	38000	38092
Eastern Color & Chemical Co.	#1	4/12/16	C	FP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<20	<10	<10	<10	<100	<10	<10	<100	10	<100	<10	<10	<10	<50	<10	9	<10	<10	<10	<10	<10	<10	<10		19
Eastern Color & Chemical Co.	#1	11/30/16	C	FP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	<1	<1	<10	6.4	<10	<1	<1	1.6	<5	1.5	6.3	1.2	8.9	<1	<1	<1	<1	<1		25.9
Ecological Fibers, Inc.	#1	3/3/16	C	BP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	2	<1	<10	<1	<1	<10	3	<10	<1	1	1	<5	2	3	<1	3	<1	<1	<1	<1	<1		15
Ecological Fibers, Inc.	#1	4/26/16	C	BP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<20	<10	<10	<10	<100	<10	<10	<100	<10	<100	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10		<100
Ecological Fibers, Inc.	#1	5/24/16	C	BP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<20	<10	4	<10	<100	<10	<10	<100	7	<100	<10	1	<10	<50	<10	1	<10	<10	<10	<10	<10	<10	<10		13
Ecological Fibers, Inc.	#1	9/7/16	C	BP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2	<10	4.2	<10	<10	<10	<10	<10	7.4	<10	<10	1.9	<10	<5	<10	0.3	<10	2.5	<10	<10	<10	<10	<1		16.3
Godfrey and Wing Inc.	#1	4/6/16	C	BP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	3	<1	<10	<1	<1	<10	31	<10	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	1	<1	<1		35
Godfrey and Wing Inc.	#1	11/16/16	C	BP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	3.1	<1	<10	<1	<1	<10	35	6.8	<1	<1	0.3	<5	0.6	1.3	<1	<1	<1	<1	0.3	<1	<1		47.4
Hillview Auto Body	#1	4/13/16	G	FP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	<1	<1	<10	5	<10	<1	<1	1	<5	2	5	<1	5	<1	<1	<1	<1	<1		18
Hillview Auto Body	#1	10/18/16	G	FP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	<1	<1	<10	2.3	<10	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1		2.3
John H. Collins & Sons Company	#1	2/22/16	C	BP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	7	<1	<10	<1	<1	<10	17	<10	<1	2	1	193	3	6	<1	865	<1	<1	<1	<1	<1		1094
John H. Collins & Sons Company	#1	9/27/16	C	BP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	5.1	<1	<10	<1	0.3	<10	89.7	<10	<1	1.9	0.4	186	0.8	3.5	<1	46	<1	<1	<1	<1	<1		333.7
Mahr Federal Inc.	#1	4/12/16	C	FP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	<1	<1	<10	4	<10	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1		4
Mahr Federal Inc.	#1	10/27/16	C	FP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	<1	<1	<10	7.2	<10	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1		7.2
RI Resource Recovery	#1	2/9/16	C	FP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<20	<10	<10	<10	<100	<10	<10	<100	<10	<100	<10	<10	<10	<50	<10	<10	<10	21	<10	<10	<10	<10	<10		21
RI Resource Recovery	#1	3/8/16	C	FP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<20	<10	<10	<10	<100	<10	<10	<100	<10	<100	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10		<100
RI Resource Recovery	#1	4/5/16	C	FP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<20	<10	<10	<10	<100	<10	<10	<100	<10	<100	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10		<100
RI Resource Recovery	#1	5/3/16	C	FP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<20	<10	<10	<10	<100	<10	<10	<100	<10	<100	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10		<100
RI Resource Recovery	#1	8/30/16	C	FP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	<1	<1	<10	<1	<10	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1		<10
RI Resource Recovery	#1	9/27/16	C	FP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	<1	<1	<10	1.1	<10	<1	<1	<1	<5	<1	<1	<1	0.8	<1	<1	<1	<1	<1		1.9
RI Resource Recovery	#1	11/1/16	C	FP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	<1	<1	<10	<1	<10	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1		<10
Tedor Pharma Inc.	#1	1/22/16	G	BP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	2	<1	<10	<1	<1	<10	140	<10	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	760	902
Tedor Pharma Inc.	#1	9/23/16	G	BP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	1.4	<1	<10	<1	<1	<10	2.5	<10	<1	1.2	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	420	425.1
Univar USA, Inc.	#1	3/4/16	G	FP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	5	<1	<10	22	<10	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1		27
Univar USA, Inc.	#1	9/27/16	G	FP	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<10	<1	<1	<10	6.9	<10	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1		6.9

*TTO and additional NBC SIU data shown in Table 27A.

Table 27B: NBC SIU TTO Result Detail

Septage Monitoring Data - 2016

Results in ppm

Sample No.	DATE	Cd	Cd MDL	Cr	Cr MDL	Cu	Cu MDL	Pb	Pb MDL	Ni	Ni MDL	Ag	Ag MDL	Zn	Zn MDL
BB26181	1/6/2016	0.015	0.015	0.107	0.075	9.530	0.020	0.702	0.075	0.153	0.050	<0.0400	0.040	11.600	0.060
BB26180	1/7/2016	<0.0150	0.015	<0.0750	0.075	9.780	0.020	0.566	0.075	0.088	0.050	<0.0400	0.040	7.380	0.060
BB26179	1/8/2016	<0.0150	0.015	<0.0750	0.075	9.640	0.020	0.573	0.075	0.093	0.050	<0.0400	0.040	7.150	0.060
BB26288	1/13/2016	<0.0150	0.015	<0.0750	0.075	1.360	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	2.480	0.060
BB26287	1/14/2016	<0.0150	0.015	<0.0750	0.075	0.269	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	0.838	0.060
BB26286	1/15/2016	<0.0150	0.015	<0.0750	0.075	1.190	0.020	<0.0750	0.075	0.081	0.050	<0.0400	0.040	2.460	0.060
BB26393	1/19/2016	<0.0150	0.015	<0.0750	0.075	0.499	0.020	<0.0750	0.075	0.066	0.050	<0.0400	0.040	1.100	0.060
BB26392	1/20/2016	<0.0150	0.015	<0.0750	0.075	4.440	0.020	<0.0750	0.075	0.252	0.050	<0.0400	0.040	4.210	0.060
BB26391	1/21/2016	<0.0150	0.015	<0.0750	0.075	2.240	0.020	<0.0750	0.075	0.152	0.050	<0.0400	0.040	1.780	0.060
BB27176	1/27/2016	0.016	0.015	0.148	0.075	6.070	0.020	0.819	0.075	0.342	0.050	<0.0400	0.040	13.500	0.060
BB27177	1/28/2016	<0.0150	0.015	<0.0750	0.075	1.020	0.020	0.161	0.075	<0.0500	0.050	<0.0400	0.040	3.030	0.060
BB27178	1/29/2016	<0.0150	0.015	<0.0750	0.075	NR	0.020	<0.0750	0.075	<0.0500	0.050	NR	0.040	0.828	0.060
BB27741	2/2/2016	<0.0150	0.015	0.085	0.075	9.770	0.020	0.266	0.075	0.141	0.050	<0.0400	0.040	11.300	0.060
BB27742	2/3/2016	0.029	0.015	0.178	0.075	14.100	0.020	0.625	0.075	0.423	0.050	0.048	0.040	30.550	0.060
BB27743	2/4/2016	<0.0150	0.015	<0.0750	0.075	8.190	0.020	0.254	0.075	0.136	0.050	<0.0400	0.040	9.660	0.060
BB28419	2/10/2016	0.021	0.015	0.489	0.075	8.650	0.020	1.470	0.075	0.239	0.050	<0.0400	0.040	14.400	0.060
BB28420	2/11/2016	0.020	0.015	0.119	0.075	18.900	0.020	0.489	0.075	0.494	0.050	<0.0400	0.040	24.800	0.060
BB28421	2/12/2016	<0.0150	0.015	0.111	0.075	2.970	0.020	0.182	0.075	0.106	0.050	<0.0400	0.040	7.210	0.060
BB29042	2/18/2016	<0.0150	0.015	<0.0750	0.075	2.710	0.020	0.133	0.075	0.051	0.050	<0.0400	0.040	4.460	0.060
BB29043	2/19/2016	0.046	0.015	0.516	0.075	22.100	0.020	1.180	0.075	0.349	0.050	0.308	0.040	32.000	0.060
BB29044	2/22/2016	0.060	0.015	0.586	0.075	58.000	0.020	3.240	0.075	0.704	0.050	0.184	0.040	48.000	0.060
BB29771	2/25/2016	<0.0150	0.015	<0.0750	0.075	0.593	0.020	<0.0750	0.075	0.057	0.050	<0.0400	0.040	1.260	0.060
BB29772	2/26/2016	<0.0150	0.015	<0.0750	0.075	2.460	0.020	0.273	0.075	0.090	0.050	<0.0400	0.040	8.500	0.060
BB29773	2/29/2016	<0.0150	0.015	<0.0750	0.075	5.840	0.020	0.410	0.075	0.118	0.050	<0.0400	0.040	11.000	0.060
BB30623	3/2/2016	<0.0150	0.015	<0.0750	0.075	0.818	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	2.130	0.060
BB30622	3/3/2016	<0.0150	0.015	<0.0750	0.075	2.760	0.020	0.091	0.075	0.095	0.050	<0.0400	0.040	4.750	0.060
BB30624	3/4/2016	<0.0150	0.015	0.098	0.075	3.610	0.020	0.332	0.075	0.123	0.050	<0.0400	0.040	7.040	0.060
BB31115	3/10/2016	0.023	0.015	0.182	0.075	16.200	0.020	1.400	0.075	0.285	0.050	0.053	0.040	24.500	0.060
BB31114	3/11/2016	<0.0150	0.015	<0.0750	0.075	0.529	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	2.760	0.060
BB31113	3/12/2016	<0.0150	0.015	<0.0750	0.075	6.000	0.020	0.135	0.075	0.078	0.050	<0.0400	0.040	4.540	0.060
BB31656	3/17/2016	<0.0150	0.015	0.114	0.075	15.200	0.020	1.030	0.075	0.168	0.050	<0.0400	0.040	13.600	0.060
BB31657	3/18/2016	0.023	0.015	0.167	0.075	17.600	0.020	1.230	0.075	0.240	0.050	<0.0400	0.040	30.650	0.060
BB31658	3/19/2016	0.017	0.015	0.118	0.075	14.100	0.020	0.697	0.075	0.226	0.050	0.112	0.040	20.900	0.060
BB32360	3/24/2016	<0.0150	0.015	<0.0750	0.075	1.720	0.020	0.128	0.075	0.078	0.050	0.092	0.040	6.810	0.060
BB32361	3/25/2016	<0.0150	0.015	<0.0750	0.075	1.040	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	2.690	0.060

All values that were at or below the detection limit were reported at the detection limit.

NR = Not reportable - inadequate sample volume to complete analysis

Table 28: Septage Sampling Data

Septage Monitoring Data - 2016

Results in ppm

Sample No.	DATE	Cd	Cd MDL	Cr	Cr MDL	Cu	Cu MDL	Pb	Pb MDL	Ni	Ni MDL	Ag	Ag MDL	Zn	Zn MDL
BB32362	3/26/2016	<0.0150	0.015	<0.0750	0.075	1.080	0.020	0.088	0.075	<0.0500	0.050	0.064	0.040	4.370	0.060
BB33135	3/31/2016	<0.0150	0.015	<0.0750	0.075	4.580	0.020	0.423	0.075	0.083	0.050	<0.0400	0.040	11.900	0.060
BB33136	4/1/2016	<0.0150	0.015	<0.0750	0.075	1.780	0.020	0.194	0.075	<0.0500	0.050	<0.0400	0.040	5.510	0.060
BB33137	4/2/2016	<0.0150	0.015	<0.0750	0.075	2.090	0.020	0.190	0.075	<0.0500	0.050	<0.0400	0.040	5.880	0.060
BB33916	4/7/2016	<0.0150	0.015	<0.0750	0.075	0.432	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	1.180	0.060
BB33917	4/8/2016	<0.0150	0.015	<0.0750	0.075	1.500	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	3.960	0.060
BB33918	4/9/2016	<0.0150	0.015	<0.0750	0.075	0.815	0.020	0.075	0.075	<0.0500	0.050	<0.0400	0.040	2.210	0.060
BB34509	4/11/2016	<0.0150	0.015	<0.0750	0.075	1.090	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	4.350	0.060
BB34510	4/12/2016	<0.0150	0.015	<0.0750	0.075	4.720	0.020	0.138	0.075	0.075	0.050	<0.0400	0.040	4.670	0.060
BB34511	4/13/2016	0.017	0.015	0.151	0.075	3.960	0.020	0.228	0.075	0.199	0.050	0.069	0.040	16.600	0.060
BB35189	4/20/2016	<0.0150	0.015	0.081	0.075	13.000	0.020	0.453	0.075	0.147	0.050	<0.0400	0.040	13.600	0.060
BB35190	4/21/2016	<0.0150	0.015	<0.0750	0.075	3.570	0.020	0.198	0.075	0.057	0.050	<0.0400	0.040	7.610	0.060
BB35191	4/22/2016	0.021	0.015	0.101	0.075	5.930	0.020	0.574	0.075	0.162	0.050	<0.0400	0.040	21.000	0.060
BB35679	4/26/2016	<0.0150	0.015	<0.0750	0.075	4.800	0.020	0.486	0.075	0.069	0.050	<0.0400	0.040	8.950	0.060
BB35680	4/27/2016	<0.0150	0.015	<0.0750	0.075	7.950	0.020	0.220	0.075	0.078	0.050	<0.0400	0.040	9.060	0.060
BB35681	4/28/2016	<0.0150	0.015	<0.0750	0.075	9.520	0.020	0.301	0.075	0.109	0.050	<0.0400	0.040	12.400	0.060
BB36565	5/3/2016	0.017	0.015	0.115	0.075	9.380	0.020	0.572	0.075	0.167	0.050	<0.0400	0.040	30.000	0.300
BB36566	5/4/2016	<0.0150	0.015	<0.0750	0.075	1.720	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	3.790	0.060
BB36567	5/5/2016	<0.0150	0.015	<0.0750	0.075	2.010	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	3.590	0.060
BB37094	5/11/2016	0.018	0.015	0.286	0.075	10.500	0.020	0.446	0.075	0.916	0.050	0.059	0.040	13.900	0.060
BB37095	5/12/2016	<0.0150	0.015	<0.0750	0.075	1.720	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	3.050	0.060
BB37096	5/13/2016	<0.0150	0.015	<0.0750	0.075	3.420	0.020	0.172	0.075	0.054	0.050	<0.0400	0.040	4.230	0.060
BB37871	5/19/2016	<0.0150	0.015	<0.0750	0.075	0.745	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	1.790	0.060
BB37872	5/20/2016	<0.0150	0.015	<0.0750	0.075	0.314	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	0.697	0.060
BB37873	5/21/2016	<0.0150	0.015	<0.0750	0.075	0.785	0.020	0.189	0.075	0.059	0.050	<0.0400	0.040	1.510	0.060
BB38269	5/24/2016	<0.0150	0.015	<0.0750	0.075	0.272	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	1.280	0.060
BB38270	5/25/2016	<0.0150	0.015	<0.0750	0.075	0.445	0.020	<0.0750	0.075	0.054	0.050	<0.0400	0.040	0.871	0.060
BB38271	5/26/2016	<0.0150	0.015	<0.0750	0.075	0.451	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	0.875	0.060
BB39191	6/2/2016	0.038	0.015	0.143	0.075	10.700	0.020	0.569	0.075	0.248	0.050	<0.0400	0.040	19.900	0.060
BB39192	6/3/2016	<0.0150	0.015	0.091	0.075	7.580	0.020	0.598	0.075	0.156	0.050	<0.0400	0.040	16.100	0.060
BB39193	6/4/2016	0.025	0.015	0.139	0.075	1.700	0.020	0.723	0.075	0.149	0.050	<0.0400	0.040	16.500	0.060
BB39677	6/9/2016	<0.0150	0.015	<0.0750	0.075	1.150	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	4.560	0.060
BB39678	6/10/2016	0.035	0.015	0.202	0.075	3.530	0.020	1.060	0.075	0.260	0.050	<0.0400	0.040	28.900	0.060
BB39679	6/11/2016	<0.0150	0.015	<0.0750	0.075	5.140	0.020	0.367	0.075	0.107	0.050	<0.0400	0.040	12.500	0.060
BB40376	6/14/2016	<0.0150	0.015	<0.0750	0.075	0.895	0.020	0.092	0.075	<0.0500	0.050	<0.0400	0.040	2.920	0.060

All values that were at or below the detection limit were reported at the detection limit

NR = Not reportable - inadequate sample volume to complete analysis

Table 28: Septage Sampling Data

Septage Monitoring Data - 2016

Results in ppm

Sample No.	DATE	Cd	Cd MDL	Cr	Cr MDL	Cu	Cu MDL	Pb	Pb MDL	Ni	Ni MDL	Ag	Ag MDL	Zn	Zn MDL
BB40377	6/15/2016	0.015	0.015	0.109	0.075	13.500	0.020	0.559	0.075	0.179	0.050	<0.0400	0.040	21.100	0.060
BB40380	6/18/2016	<0.0150	0.015	<0.0750	0.075	1.050	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	3.440	0.060
BB40821	6/20/2016	0.017	0.015	0.104	0.075	4.630	0.020	0.272	0.075	0.385	0.050	<0.0400	0.040	10.800	0.060
BB40822	6/21/2016	<0.0150	0.015	<0.0750	0.075	1.340	0.020	0.088	0.075	<0.0500	0.050	<0.0400	0.040	3.110	0.060
BB40823	6/22/2016	0.023	0.015	0.192	0.075	6.370	0.020	0.494	0.075	0.149	0.050	<0.0400	0.040	14.500	0.060
BB41650	6/28/2016	<0.0150	0.015	<0.0750	0.075	2.170	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	3.620	0.060
BB41651	6/30/2016	0.016	0.015	0.113	0.075	8.690	0.020	0.393	0.075	0.148	0.050	<0.0400	0.040	15.100	0.060
BB41652	7/1/2016	0.027	0.015	0.122	0.075	7.610	0.020	0.768	0.075	0.210	0.050	<0.0400	0.040	19.300	0.060
BB42240	7/5/2016	0.046	0.015	0.140	0.075	12.000	0.020	1.290	0.075	0.260	0.050	<0.0400	0.040	33.000	0.300
BB42239	7/6/2016	0.019	0.015	0.131	0.075	4.890	0.020	0.711	0.075	0.170	0.050	<0.0400	0.040	15.600	0.060
BB42238	7/7/2016	0.016	0.015	<0.0750	0.075	12.600	0.020	0.474	0.075	0.167	0.050	<0.0400	0.040	12.400	0.060
BB42818	7/12/2016	0.016	0.015	0.122	0.075	5.250	0.020	0.342	0.075	0.143	0.050	<0.0400	0.040	11.900	0.060
BB42819	7/14/2016	<0.0150	0.015	<0.0750	0.075	2.270	0.020	0.138	0.075	0.057	0.050	<0.0400	0.040	5.310	0.060
BB42820	7/15/2016	<0.0150	0.015	<0.0750	0.075	2.160	0.020	0.135	0.075	0.050	0.050	<0.0400	0.040	5.160	0.060
BB43490	7/18/2016	<0.0150	0.015	0.075	0.075	31.100	0.020	0.523	0.075	0.072	0.050	<0.0400	0.040	8.360	0.060
BB43491	7/19/2016	<0.0150	0.015	<0.0750	0.075	11.200	0.020	0.263	0.075	<0.0500	0.050	<0.0400	0.040	3.350	0.060
BB43489	7/23/2016	0.019	0.015	0.163	0.075	11.500	0.020	0.822	0.075	0.217	0.050	<0.0400	0.040	20.800	0.060
BB44195	7/28/2016	0.022	0.015	0.088	0.075	6.760	0.020	0.402	0.075	0.167	0.050	<0.0400	0.040	12.300	0.060
BB44196	7/29/2016	<0.0150	0.015	<0.0750	0.075	2.510	0.020	0.096	0.075	0.083	0.050	<0.0400	0.040	6.730	0.060
BB44197	7/30/2016	<0.0150	0.015	0.197	0.075	4.880	0.020	0.333	0.075	0.144	0.050	<0.0400	0.040	14.900	0.060
BB44859	8/3/2016	0.071	0.015	<0.0750	0.075	11.700	0.020	6.000	0.075	0.123	0.050	<0.0400	0.040	12.500	0.060
BB44860	8/4/2016	<0.0150	0.015	<0.0750	0.075	1.940	0.020	0.083	0.075	<0.0500	0.050	<0.0400	0.040	4.450	0.060
BB44861	8/5/2016	<0.0150	0.015	<0.0750	0.075	0.909	0.020	0.079	0.075	<0.0500	0.050	<0.0400	0.040	2.730	0.060
BB45603	8/9/2016	<0.0150	0.015	<0.0750	0.075	2.980	0.020	0.150	0.075	0.085	0.050	<0.0400	0.040	5.510	0.060
BB45606	8/11/2016	<0.0150	0.015	<0.0750	0.075	3.970	0.020	0.169	0.075	0.097	0.050	<0.0400	0.040	7.410	0.060
BB45604	8/12/2016	<0.0150	0.015	<0.0750	0.075	6.550	0.020	0.287	0.075	0.116	0.050	<0.0400	0.040	11.000	0.060
BB46100	8/15/2016	<0.0150	0.015	<0.0750	0.075	2.450	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	3.320	0.060
BB46101	8/16/2016	<0.0150	0.015	<0.0750	0.075	4.640	0.020	<0.0750	0.075	0.050	0.050	<0.0400	0.040	5.000	0.060
BB46102	8/17/2016	<0.0150	0.015	0.084	0.075	3.950	0.020	0.167	0.075	0.123	0.050	<0.0400	0.040	14.500	0.060
BB46902	8/25/2016	<0.0150	0.015	<0.0750	0.075	1.490	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	2.990	0.060
BB46903	8/26/2016	<0.0150	0.015	<0.0750	0.075	2.590	0.020	0.104	0.075	0.058	0.050	<0.0400	0.040	7.060	0.060
BB46904	8/27/2016	<0.0150	0.015	0.099	0.075	2.420	0.020	0.316	0.075	0.117	0.050	<0.0400	0.040	9.230	0.060
BB46907	8/31/2016	<0.0150	0.015	<0.0750	0.075	5.600	0.020	0.324	0.075	0.081	0.050	<0.0400	0.040	12.600	0.060
BB46906	9/1/2016	<0.0150	0.015	<0.0750	0.075	1.370	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	3.650	0.060
BB46905	9/2/2016	<0.0150	0.015	<0.0750	0.075	2.180	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	3.070	0.060

All values that were at or below the detection limit were reported at the detection limit

NR = Not reportable - inadequate sample volume to complete analysis

Table 28: Septage Sampling Data

Septage Monitoring Data - 2016

Results in ppm

Sample No.	DATE	Cd	Cd MDL	Cr	Cr MDL	Cu	Cu MDL	Pb	Pb MDL	Ni	Ni MDL	Ag	Ag MDL	Zn	Zn MDL
BB48560	9/8/2016	<0.0150	0.015	<0.0750	0.075	2.890	0.020	<0.0750	0.075	0.051	0.050	<0.0400	0.040	4.440	0.060
BB48561	9/9/2016	<0.0150	0.015	<0.0750	0.075	2.920	0.020	0.111	0.075	<0.0500	0.050	<0.0400	0.040	3.760	0.060
BB48562	9/10/2016	<0.0150	0.015	<0.0750	0.075	3.410	0.020	0.239	0.075	<0.0500	0.050	<0.0400	0.040	5.550	0.060
BB48814	9/15/2016	0.019	0.015	<0.0750	0.075	6.300	0.020	0.451	0.075	0.122	0.050	<0.0400	0.040	12.300	0.060
BB48815	9/16/2016	<0.0150	0.015	<0.0750	0.075	11.300	0.020	0.385	0.075	0.150	0.050	<0.0400	0.040	13.100	0.060
BB48816	9/17/2016	<0.0150	0.015	<0.0750	0.075	1.080	0.020	0.105	0.075	0.054	0.050	<0.0400	0.040	2.940	0.060
BB49611	9/21/2016	0.024	0.015	0.222	0.075	25.400	0.020	0.924	0.075	0.285	0.050	0.045	0.040	38.000	0.060
BB49612	9/22/2016	<0.0150	0.015	<0.0750	0.075	4.350	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	4.910	0.060
BB49613	9/24/2016	<0.0150	0.015	<0.0750	0.075	0.402	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	2.620	0.060
BB50189	9/28/2016	0.070	0.015	0.152	0.075	24.600	0.020	0.541	0.075	0.226	0.050	<0.0400	0.040	24.100	0.060
BB50188	9/30/2016	<0.0150	0.015	<0.0750	0.075	8.690	0.020	0.187	0.075	0.073	0.050	<0.0400	0.040	7.770	0.060
BB50187	10/1/2016	<0.0150	0.015	<0.0750	0.075	1.000	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	2.530	0.060
BB50938	10/3/2016	<0.0150	0.015	0.123	0.075	12.700	0.020	0.358	0.075	0.143	0.050	<0.0400	0.040	17.100	0.060
BB50937	10/4/2016	0.017	0.015	0.123	0.075	10.400	0.020	0.524	0.075	0.194	0.050	<0.0400	0.040	15.700	0.060
BB50936	10/7/2016	<0.0150	0.015	<0.0750	0.075	2.980	0.020	0.104	0.075	0.067	0.050	<0.0400	0.040	3.890	0.060
BB51516	10/11/2016	0.016	0.015	0.123	0.075	10.000	0.020	0.390	0.075	0.261	0.050	<0.0400	0.040	16.400	0.060
BB51515	10/12/2016	<0.0150	0.015	0.354	0.075	8.210	0.020	0.516	0.075	0.157	0.050	<0.0400	0.040	11.200	0.060
BB51514	10/15/2016	<0.0150	0.015	<0.0750	0.075	0.182	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	1.370	0.060
BB52322	10/18/2016	<0.0150	0.015	<0.0750	0.075	7.160	0.020	0.243	0.075	0.120	0.050	<0.0400	0.040	11.400	0.060
BB52321	10/19/2016	<0.0150	0.015	<0.0750	0.075	2.710	0.020	0.133	0.075	0.077	0.050	<0.0400	0.040	6.300	0.060
BB52318	10/22/2016	0.033	0.015	0.176	0.075	24.100	0.020	1.420	0.075	0.298	0.050	0.047	0.040	30.250	0.300
BB52861	10/24/2016	<0.0150	0.015	<0.0750	0.075	1.840	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	4.670	0.060
BB52860	10/28/2016	0.034	0.015	0.406	0.075	14.000	0.020	1.650	0.075	0.361	0.050	0.058	0.040	21.800	0.060
BB52859	10/29/2016	<0.0150	0.015	<0.0750	0.075	0.478	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	1.150	0.060
BB53658	11/2/2016	<0.0150	0.015	<0.0750	0.075	10.300	0.020	0.363	0.075	0.114	0.050	<0.0400	0.040	16.200	0.060
BB53659	11/3/2016	<0.0150	0.015	<0.0750	0.075	6.030	0.020	0.094	0.075	0.232	0.050	<0.0400	0.040	4.290	0.060
BB53657	11/5/2016	<0.0150	0.015	<0.0750	0.075	3.080	0.020	0.144	0.075	<0.0500	0.050	<0.0400	0.040	3.270	0.060
BB53656	11/7/2016	<0.0150	0.015	<0.0750	0.075	6.130	0.020	0.234	0.075	0.079	0.050	<0.0400	0.040	8.030	0.060
BB53655	11/9/2016	<0.0150	0.015	<0.0750	0.075	5.520	0.020	0.166	0.075	0.060	0.050	<0.0400	0.040	7.770	0.060
BB53654	11/11/2016	0.021	0.015	<0.0750	0.075	12.000	0.020	1.430	0.075	0.179	0.050	<0.0400	0.040	14.000	0.060
BB54049	11/14/2016	<0.0150	0.015	<0.0750	0.075	1.530	0.020	<0.0750	0.075	0.090	0.050	<0.0400	0.040	3.260	0.060
BB54050	11/15/2016	<0.0150	0.015	<0.0750	0.075	2.860	0.020	<0.0750	0.075	0.072	0.050	<0.0400	0.040	3.160	0.060
BB54053	11/18/2016	<0.0150	0.015	<0.0750	0.075	2.260	0.020	0.100	0.075	0.066	0.050	<0.0400	0.040	4.590	0.060
BB55331	11/22/2016	<0.0150	0.015	0.077	0.075	11.300	0.020	0.349	0.075	0.364	0.050	<0.0400	0.040	15.300	0.060
BB55333	11/25/2016	<0.0150	0.015	<0.0750	0.075	0.225	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	0.501	0.060

All values that were at or below the detection limit were reported at the detection limit

NR = Not reportable - inadequate sample volume to complete analysis

Table 28: Septage Sampling Data

Septage Monitoring Data - 2016

Results in ppm

Sample No.	DATE	Cd	Cd MDL	Cr	Cr MDL	Cu	Cu MDL	Pb	Pb MDL	Ni	Ni MDL	Ag	Ag MDL	Zn	Zn MDL
BB55332	11/26/2016	0.054	0.015	0.175	0.075	9.830	0.020	1.030	0.075	0.336	0.050	<0.0400	0.040	15.200	0.060
BB56316	11/28/2016	<0.0150	0.015	<0.0750	0.075	2.410	0.020	0.108	0.075	0.075	0.050	<0.0400	0.040	4.490	0.060
BB56318	11/30/2016	<0.0150	0.015	<0.0750	0.075	1.580	0.020	0.109	0.075	0.069	0.050	<0.0400	0.040	4.810	0.060
BB56320	12/2/2016	0.023	0.015	0.151	0.075	14.200	0.020	0.536	0.075	0.208	0.050	<0.0400	0.040	22.700	0.060
BB56892	12/7/2016	<0.0150	0.015	<0.0750	0.075	3.570	0.020	0.130	0.075	0.123	0.050	<0.0400	0.040	5.860	0.060
BB56893	12/8/2016	0.043	0.015	0.134	0.075	16.100	0.020	2.960	0.075	0.303	0.050	0.052	0.040	15.500	0.060
BB56894	12/10/2016	<0.0150	0.015	<0.0750	0.075	0.360	0.020	<0.0750	0.075	<0.0500	0.050	<0.0400	0.040	1.780	0.060
BB57526	12/12/2016	<0.0150	0.015	<0.0750	0.075	0.544	0.020	<0.0750	0.075	0.078	0.050	<0.0400	0.040	2.580	0.060
BB57527	12/13/2016	<0.0150	0.015	<0.0750	0.075	4.610	0.020	0.181	0.075	0.082	0.050	<0.0400	0.040	7.170	0.060
BB57528	12/14/2016	<0.0150	0.015	<0.0750	0.075	1.390	0.020	<0.0750	0.075	0.066	0.050	<0.0400	0.040	3.540	0.060
BB58182	12/19/2016	<0.0150	0.015	<0.0750	0.075	3.750	0.020	0.226	0.075	0.119	0.050	<0.0400	0.040	11.600	0.060
BB58183	12/21/2016	0.021	0.015	0.168	0.075	6.130	0.020	0.397	0.075	0.505	0.050	0.057	0.040	12.600	0.060
BB58184	12/23/2016	0.016	0.015	0.146	0.075	13.400	0.020	0.347	0.075	0.474	0.050	0.092	0.040	22.600	0.060
BB58904	12/27/2016	<0.0150	0.015	<0.0750	0.075	12.300	0.020	0.438	0.075	0.275	0.050	<0.0400	0.040	15.400	0.060
BB58905	12/28/2016	0.049	0.015	0.274	0.075	13.400	0.020	0.765	0.075	0.408	0.050	0.065	0.040	73.500	0.300
BB58903	12/29/2016	0.026	0.015	0.201	0.075	29.100	0.020	0.581	0.075	0.233	0.050	0.047	0.040	21.300	0.060

All values that were at or below the detection limit were reported at the detection limit

NR = Not reportable - inadequate sample volume to complete analysis

Table 28: Septage Sampling Data

Metals Loading to Bucklin Point from Septage (lbs/yr)

Year	Cadmium	Chromium	Copper	Lead	Nickel	Silver	Zinc	Total Metals	MGY
1996	4.5	77.6	946.0	167.0	33.9	19.6	1414	2663	14.7600
1997	3.9	33.2	806.0	113.0	27.4	10.3	1060	2054	14.2200
1998	4.5	29.2	830.0	93.0	31.0	5.7	1016	2009	17.5300
1999	3.4	26.5	623.0	61.0	20.0	4.1	849	1587	21.5000
2000	2.8	21.8	591.0	53.0	26.7	4.1	873	1572	23.3400
2001	1.5	20.7	436.0	42.3	22.4	4.2	633	1160	17.3900
2002	0.95	8.2	322.6	30.4	22.8	33.1	473	892	17.0360
2003	0.89	3.8	196.4	15.9	7.1	4.2	299	527	13.0331
2004	0.90	5.0	256.3	15.9	8.9	3.3	321	612	9.1004
2005	0.93	7.9	349.9	25.5	11.3	1.9	458	855	8.9612
2006	1.35	8.8	416.0	24.2	13.2	3.3	495	961	9.3629
2007	1.5	11.5	532.3	28.2	14.8	4.2	605	1197	8.5260
2008	2.8	10.5	440.3	19.8	9.5	5.3	508	996	9.3012
2009	1.5	12.1	435.4	23.0	11.6	4.2	554	1042	9.0800
2010	1.4	12.5	505.1	30.7	15.5	3.3	640	1208	8.0228
2011	1.6	21.1	558.4	35.8	16.8	5.1	745	1384	7.0695
2012	1.6	17.7	775.6	39.0	22.5	3.4	989	1848	7.0769
2013	1.9	9.7	545.4	35.9	17.0	5.0	688	1303	7.2422
2014	1.5	10.5	606.7	36.2	15.9	7.0	780.8	1459	7.9219
2015	1.5	10.5	547.7	37.9	14.3	3.1	950.3	1565	8.4210
2016	1.2	6.8	399.6	25.4	8.8	2.9	657.8	1102	7.8385

Table 29: Septage Summary 1996-2016

								NUTRIENT PARAMETERS							TSS AND CHLOROPHYLL PARAMETERS			
Collection Date	Collection Time	Station	Water-body	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3+NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	TSS* (ppm)	Chl a (ug/L)	Phaeo-phytin (ug/L)	COMMENTS
*After a quality assurance/quality control review, the NBC found their Bay TSS data were compromised. The sampling and analysis protocols were corrected on February 19th, 2016. Data prior to this date are not reported here.																		
BAY																		
01/06/16	12:45PM	Conimicut Point Surface	BAY	0.5	28.93	8.93	6.67	156	9.15	53.3	42.1	677	378	321	*	0.9712	0.6104	
01/06/16	2:25 PM	Edgewood Yacht Club Surface	BAY	0.5	28.02	5.65	7.58	193	8.76	56.2	51.2	720	426	342	*	1.018	0.9331	
01/06/16	2:25 PM	Edgewood Yacht Club Surface (Duplicate)	BAY	0.5	28.02	5.65	7.58	194	9.08	58	54	720	416	351	*	1.306	1.085	
01/06/16	1:55 PM	India Point Park Surface	BAY	0.5	21.98	4.97	7.52	345	10.5	101	59.4	1150	618	527	*	0.4416	0.6889	
01/06/16	1:10 PM	Bullock's Reach Buoy Surface	BAY	0.5	29.41	6.02	7.67	153	8.86	50.8	42.2	643	361	306	*	1.409	1.253	
01/06/16	1:35 PM	Pawtuxet Cove Surface	BAY	0.5	7.89	2.48	7.29	833	7.2	83.9	24.5	2580	1110	992	*	0.8978	1.683	
01/06/16	10:11 AM	Phillipsdale Landing Surface	BAY	0.5	9.05	3.67	7.05	899	19.4	538	367	2160	1620	1500	*	0.7625	0.8982	
01/06/16	10:20 AM	Phillipsdale Landing Bottom	BAY	1.8	24.57	7.17	6.92	302	11.1	112	78	960	605	498	*			
01/20/16	1:00 PM	Phillipsdale Landing Surface	BAY	0.5	8.13	1.7	7.4	548	20.1	367	274	2710	1610	1110	*	4.958	7.14	
01/20/16	1:05 PM	Phillipsdale Landing Bottom	BAY	1.03	8.4	1.89	7.34	514	16.9	248	165	2610	2030	955	*			
02/02/16	9:15 AM	Conimicut Point Surface	BAY	0.5	22.56	4.19	7.62	439	13.6	96.1	56.2	1350	322	662	*	0.9158	0.5097	
02/02/16	9:20 AM	Conimicut Point Bottom	BAY					89.3	3.69	<7.0	23.2	426	323	231	*			
02/02/16	2:15 PM	Edgewood Yacht Club Surface	BAY	0.5	23.55	5.09	7.57	343	12.2	98.4	60.3	1150	595	594	*	1.872	0.6712	
02/02/16	2:15 PM	Edgewood Yacht Club Surface (Duplicate)	BAY	0.5	23.55	5.09	7.57	342	11.7	98	62.3	1150	701	585	*	1.797	0.5841	
02/02/16	2:20 PM	Edgewood Yacht Club Bottom	BAY					132	5.16	17.8	27.7	548	424	272	*			
02/02/16	10:30 AM	Pomham Rocks Surface	BAY	0.5	22.71	4.36	7.65	319	11.2	71.9	44	1180	571	489	*	1.35	1.059	
02/02/16	10:35 AM	Pomham Rocks Bottom	BAY					131	4.73	16	27	529	432	258	*			
02/02/16	1:25 PM	India Point Park Surface	BAY	0.5	22.13	4.55	7.35	346	12.6	87.7	52.6	590	489	538	*	1.884	1.227	
02/02/16	1:30 PM	India Point Park Bottom	BAY					138	5.25	33.7	30.9	561	394	260	*			
02/02/16	9:50 AM	Bullock's Reach Buoy Surface	BAY	0.5	22.3	4.51	7.62	351	12.3	64.6	55.8	1180	716	542	*	0.9549	0.7789	
02/02/16	9:55 AM	Bullock's Reach Buoy Bottom	BAY					101	3.61	12.3	24.9	460	328	247	*			
02/02/16	1:00 PM	Pawtuxet Cove Surface	BAY	0.5	7.78	5.52	6.29	977	6.68	63.1	19.9	3240	1410	1050	*	1.545	0.9779	
02/02/16	1:05 PM	Pawtuxet Cove Bottom	BAY					335	10.2	76.9	47.9	576	775	539	*			
02/02/16	9:30 AM	Phillipsdale Landing Surface	BAY	0.536	6	4.44	6.95	665	20.5	140	78.9	2480	720	909	*	1.254	1.559	
02/02/16	9:40 AM	Phillipsdale Landing Bottom	BAY	1.378	19.97	4.41	6.65	264	11.3	113	53.7	1050	904	460	*			
02/17/16	10:00 AM	Phillipsdale Landing Surface	BAY	0.517	3.6	1.23	7.37	1070.00	27.90	381.00	146.00	2290.0	1840.0	1620	*	5.542	4.758	
03/02/16	8:15 AM	Edgewood Shoal Surface	BAY	0.5	18.43	6.17	7.96	201	7.59	18.1	<5	697	759	479	10.79	29.35	6.364	
03/02/16	8:25 AM	Edgewood Shoal Bottom	BAY					187	6.53	12.4	<5	532	686	366	8.17			
03/02/16	1:30 PM	Phillipsdale Landing Surface	BAY					850	26.1	164	42.3	2450	1360	1240	< 2	4.018	2.968	Field depth, salinity, temp, pH not recorded
03/16/16	8:50 AM	Conimicut Point Surface	BAY	0.5	25.86	6.71	7.88	95.9	3.73	32.4	13.3	195	549	275	25.95	20.72	5.093	
03/16/16	2:35 PM	Edgewood Yacht Club Surface	BAY	0.5	23.77	7.65	7.8	182	7.81	57.5	20.5	402	618	389	27.17	15.58	2.631	
03/16/16	10:10 AM	Pomham Rocks Surface	BAY	0.5	24.67	6.78	7.87	123	5.6	49	15.4	291	523	312	29.78	15.34	6.156	
03/16/16	2:05 PM	India Point Park Surface	BAY	0.5	24.57	7.39	7.81	171	8.48	65.7	15.9	453	634	378	26.15	13.16	3.481	
03/16/16	9:20 AM	Bullock's Reach Buoy Surface	BAY	0.5	25.24	6.95	7.99	64	2.96	<7.0	7.16	131	480	220	29.56	32.77	1.889	
03/16/16	1:25 PM	Pawtuxet Cove Surface	BAY	0.5	6.62	9.29	7.65	947	7.1	55.6	9.94	2230	1340	1190	10.23	6.254	2.168	
03/16/16	9:00 AM	Conimicut Point Bottom	BAY					9.72	<1.5	<7.0	8.61	38.3	289	106	31.06			
03/16/16	2:50 PM	Edgewood Yacht Club Bottom	BAY					8.98	<1.5	<7.0	7.91	35.5	304	124	28.48			
03/16/16	10:10 AM	Pomham Rocks Surface (Duplicate)	BAY	0.5	24.67	6.78	7.87	119	5.13	51.6	14.2	288	529	298	23.08	19.6	5.705	
03/16/16	10:15 AM	Pomham Rocks Bottom	BAY					10.1	<1.5	<7.0	8.01	37.8	337	128	32.75			
03/16/16	2:10 PM	India Point Park Bottom	BAY					<6.0	<1.5	<7.0	7.84	<20	408	113	36.05			
03/16/16	9:25 AM	Bullock's Reach Buoy Bottom	BAY					<6.0	<1.5	<7.0	7.29	25.8	325	168	31.9			
03/16/16	1:30 PM	Pawtuxet Cove Bottom	BAY					170	5.35	45	15.6	384	618	374	27.23			
03/16/16	9:00 AM	Phillipsdale Landing Surface	BAY	0.518	9.04	8.14	6.18	618	37.6	260	59.3	1540	1300	1090	13.96	9.088	4.633	
03/16/16	9:05 AM	Phillipsdale Landing Bottom	BAY	2.033	11.41	7.92	6.37	552	32.9	149	24.4	1340	1130	860	12.77			
03/30/16	10:05 AM	Conimicut Point Surface	BAY	0.5	26.94	6.97	7.81	30.6	<1.5	<7.0	8.47	135	304	182	36.55	11.38	3.690	

Table 30: River and Bay Nutrients Data

								NUTRIENT PARAMETERS							TSS AND CHLOROPHYLL PARAMETERS			
Collection Date	Collection Time	Station	Water-body	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3+NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	TSS* (ppm)	Chl a (ug/L)	Phaeo-phytin (ug/L)	COMMENTS
03/30/16	2:10 PM	Edgewood Yacht Club Surface	BAY	0.5	24.07	7.58	7.76	222	3.19	30.6	26.5	491	428	438	29.33	2.562	0.8757	
03/30/16	1:50 PM	Pomham Rocks Surface	BAY	0.5	24.17	7.44	7.76	128	1.74	11.8	23.1	221	456	193	38.05	7.728	1.207	
03/30/16	1:20 PM	India Point Park Surface	BAY	0.5	9.98	9.5	7.78	328	10.5	89.5	31.9	1080	828	646	12.95	1.696	2.132	
03/30/16	10:20 AM	Bullock's Reach Buoy Surface	BAY	0.5	26.64	6.86	7.79	47.1	1.52	<7.0	10.2	168	384	176	31.74	9.631	2.109	
03/30/16	9:45 AM	Pawtuxet Cove Surface	BAY	0.5	7.11	7.94	7.49	976	5.66	39.6	10.9	1930	1330	1230	14.95	4.861	2.184	
03/30/16	10:20 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY	0.5	26.64	6.86	7.79	37.2	<1.5	<7.0	9.43	137	392	103	33.25	10.6	1.972	
03/30/16	2:15 PM	Edgewood Shoal Surface	BAY	0.5	24.17	7.58	7.76	201	3.35	34.6	26.4	404	431	398	27.83	6.73	-0.6	
03/30/16	8:30 AM	Phillipsdale Landing Surface	BAY	0.5	5.64	6.98	7.62	1510	11.8	144	55.1	2100	2050	1840	6.32	6.025	9.169	
03/30/16	2:20 PM	Edgewood Shoal Bottom	BAY					111	2.68	31.9	22.6	319	368	301	29.25			
04/13/16	9:45 AM	Conimicut Point Surface	BAY					270	5.84	52.1	16.8	957	653	464	19.16	<0.3	0.1755	No data was collected for depth, temp, salinity, or pH.
04/13/16	9:55 AM	Conimicut Point Bottom	BAY					8.52	<1.5	<7.0	<5	144	376	<100.0	29.35			No data was collected for depth, temp, salinity, or pH.
04/13/16	8:50 AM	Edgewood Yacht Club Surface	BAY					226	6.5	44.1	16.9	877	713	477	19.36	4.197	1.818	No data was collected for depth, temp, salinity, or pH.
04/13/16	9:00 AM	Edgewood Yacht Club Bottom	BAY					26.6	1.52	9.68	<5	281	471	151	26.38			No data was collected for depth, temp, salinity, or pH.
04/13/16	1:15 PM	Pomham Rocks Surface	BAY	0.5	19.86	9.35	7.39	155	5.33	27.4	14.1	722	583	308	20.42	13.62	2.902	
04/13/16	1:25 PM	Pomham Rocks Bottom	BAY					7.63	<1.5	<7.0	<5	196	401	171	30.93			No data was collected for depth, temp, salinity, or pH.
04/13/16	2:05 PM	India Point Park Surface	BAY	0.5	18.9	10.45	7.72	155	4.1	29.6	12.1	699	500	367	20.62	7.196	2.224	
04/13/16	2:15 PM	India Point Park Bottom	BAY					16.1	<1.5	21.1	9.99	191	342	162	25.68			No data was collected for depth, temp, salinity, or pH.
04/13/16	10:00 AM	Bullock's Reach Buoy Surface	BAY					237	4.93	38.4	14.2	809	686	512	16.89	8.891	2.506	No data was collected for depth, temp, salinity, or pH.
04/13/16	10:00 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY					235	4.81	41.6	15	719	555	425	15.42	5.629	1.938	No data was collected for depth, temp, salinity, or pH.
04/13/16	10:10 AM	Bullock's Reach Buoy Bottom	BAY					7.83	<1.5	<7.0	<5	141	357	102	26.12			No data was collected for depth, temp, salinity, or pH.
04/13/16	9:20 AM	Pawtuxet Cove Surface	BAY					893	6.52	81.8	10.8	2370	1220	1120	3.91	1.834	1.499	No data was collected for depth, temp, salinity, or pH.
04/13/16	9:30 AM	Pawtuxet Cove Bottom	BAY					188	5.22	46.1	16.3	653	556	340	16.36			No data was collected for depth, temp, salinity, or pH.
04/13/16	1:58 PM	Phillipsdale Landing Surface	BAY	0.5	1.91	11.11	7.04	306	8.82	87.4	32.2	1160	656	497	21.14	2.689	2.230	
04/13/16	2:05 PM	Phillipsdale Landing Bottom	BAY	2.053	23.34	7.93	7.04	73.4	2.8	49.1	16.7	442	564	248	14.17			
04/27/16	9:21 AM	Conimicut Point Surface	BAY	0.5	22.74	10.78	7.9	194.0	2.54	76.70	33.5	525.0	469.0	413.0	7.88	1.156	1.390	
04/27/16	10:27 AM	Edgewood Yacht Club Surface	BAY	0.5	23.94	10.81	7.97	231.0	4.33	87.20	53.9	524.0	633.0	509.0	7.23	0.8591	1.289	
04/27/16	1:05 PM	Pomham Rocks Surface	BAY	0.5	23.07	12.05	7.79	176.0	3.89	73.70	43.6	474.0	618.0	335.0	7.87	2.427	0.8500	
04/27/16	1:30 PM	India Point Park Surface	BAY	0.5	19.88	12.65	7.77	221.0	5.41	99.40	47.4	561.0	643.0	492.0	6.24	1.464	1.310	
04/27/16	9:41 AM	Bullock's Reach Buoy Surface	BAY	0.5	23.17	10.69	7.99	130.0	2.17	37.30	20.8	404.0	515.0	316.0	8.29	1.079	1.248	
04/27/16	9:41 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY	0.5	23.17	10.69	7.99	125.0	1.92	37.70	19.4	384.0	500.0	355.0	7.14	1.035	1.403	
04/27/16	9:01 AM	Pawtuxet Cove Surface	BAY	0.5	13.56	11.75	7.63	792.0	7.11	75.80	23.8	1830	1230	933.0	5.42	2.173	2.239	
04/27/16	8:31 AM	Edgewood Shoal Surface	BAY	0.5	22.18	10.07	7.82	162.0	4.37	86.80	53.6	512.0	642.0	321.0	10.93	3.076	1.525	
04/27/16	8:35 AM	Edgewood Shoal Bottom	BAY					24.30	<1.5	53.90	21.4	353.0	441.0	190.0	9.01			
04/27/16	1:50 PM	Phillipsdale Landing Surface	BAY	0.5	7.52	14.52	7.3	402.0	11.5	151.0	85.2	945.0	929.0	752.0	5.21	2.609	2.074	
05/11/16	9:15 AM	Conimicut Point Surface	BAY					72.20	1.9	<7.0	15.9	541.0	442.0	240.0	5.98	2.385	1.148	
05/11/16	9:20 AM	Conimicut Point Bottom	BAY					13.60	<1.5	<7.0	12.3	338.0	326.0	142.0	12.21			
05/11/16	8:15 AM	Edgewood Yacht Club Surface	BAY	0.5	22.89	12.13	7.84	173.0	3.32	34.40	50.8	692.0	553.0	402.0	4.54	1.398	1.004	
05/11/16	8:20 AM	Edgewood Yacht Club Bottom	BAY					74.70	2.26	23.90	27.7	503.0	425.0	242.0	6.46			
05/11/16	1:05 PM	Pomham Rocks Surface	BAY					118.0	3.25	13.60	27.6	658.0	529.0	281.0	6.59	7.893	1.210	

Table 30: River and Bay Nutrients Data

								NUTRIENT PARAMETERS							TSS AND CHLOROPHYLL PARAMETERS			
Collection Date	Collection Time	Station	Water-body	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3+NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	TSS* (ppm)	Chl a (ug/L)	Phaeo-phytin (ug/L)	COMMENTS
05/11/16	1:10 PM	Pomham Rocks Bottom	BAY					17.80	<1.5	<7.0	13.5	299.0	327.0	253.0	9.68			
05/11/16	1:40 PM	India Point Park Surface	BAY					139.0	3.71	42.60	30.7	485.0	487.0	397.0	6.09	2.141	1.232	
05/11/16	1:45 PM	India Point Park Bottom	BAY					44.40	1.82	42.60	22.6	433.0	412.0	262.0	6.80			
05/11/16	9:30 AM	Bullock's Reach Buoy Surface	BAY					101.0	2.74	10.00	20.4	581.0	471.0	262.0	6.25	3.644	1.240	
05/11/16	9:30 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY					101.0	2.77	11.1	20.7	585.0	448.0	270.0	5.39	4.446	1.515	
05/11/16	9:35 AM	Bullock's Reach Buoy Bottom	BAY					21.00	<1.5	<7.0	11.8	374.0	393.0	158.0	7.33			
05/11/16	8:48 AM	Pawtuxet Cove Surface	BAY	0.5	21.23	12.7	7.77	548.0	4.64	28.6	14	1600	915.0	782.0	4.00	3.317	1.996	
05/11/16	8:55 AM	Pawtuxet Cove Bottom	BAY					215.0	4.15	37.3	27.3	827.0	532.0	426.0	4.79			
05/11/16	2:15 PM	Phillipsdale Landing Surface	BAY	0.518	7.64	16.77	6.86	348.0	5.88	50.70	73.1	1140	308.0	548.0	4.42	1.980	1.503	
05/11/16	2:20 PM	Phillipsdale Landing Bottom	BAY	2.427	24.15	12.02	6.7	102.0	3.69	63.30	34.8	580.0	299.0	319.0	6.00			
05/25/16	9:15 AM	Conimicut Point Surface	BAY	0.5	23.11	15.52	8.14	<6.0	<1.5	<7.0	7.05	82.60	479.0	229.0	8.42	8.583	2.095	
05/25/16	1:00 PM	Edgewood Yacht Club Surface	BAY	0.53	23.76	16.6	7.8	46.90	1.8	<7.0	24.6	348.0	522.0	275.0	8.00	8.399	1.857	
05/25/16	2:30 PM	Pomham Rocks Surface	BAY	0.492	25.5	15.78	7.75	51.20	2.29	9.730	31.5	340.0	502.0	252.0	12.55	7.124	1.446	
05/25/16	1:25 PM	India Point Park Surface	BAY	0.546	24.89	15.12	7.52	107.0	3.8	73.10	46.4	497.0	546.0	367.0	9.79	2.181	1.357	
05/25/16	9:40 AM	Bullock's Reach Buoy Surface	BAY	0.51	22.1	15.47	8.11	7.810	<1.5	<7.0	12.7	189.0	489.0	186.0	9.36	10.03	1.791	
05/25/16	9:40 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY	0.51	22.1	15.47	8.11	7.980	<1.5	<7.0	14.6	189.0	441.0	178.0	9.79	7.879	1.549	
05/25/16	10:25 AM	Pawtuxet Cove Surface	BAY	0.478	8.45	17	7.33	85.60	2.56	13.80	22	404.0	578.0	407.0	9.58	10.30	2.301	
05/25/16	12:40 PM	Edgewood Shoal Surface	BAY	0.496	27.86	16.21	7.81	69.50	2.46	<7.0	24.9	382.0	543.0	283.0	7.02	6.256	1.547	
05/25/16	12:45 PM	Edgewood Shoal Bottom	BAY	6.265	30.03	12.12	7.54	8.580	<1.5	44.10	34.8	381.0	452.0	229.0	8.04			
05/25/16	1:55 PM	Phillipsdale Landing Surface	BAY	0.546	16.72	16.9	7.47	203.0	6.83	103.0	76.7	709.0	745.0	547.0	7.66	2.819	2.659	
06/09/16	8:30 AM	Conimicut Point Surface	BAY	0.5	21.42	18.43	8.02	10.40	<1.5	<7.0	25.7	449.0	489.0	206.0	7.87	24.30	3.598	
06/09/16	8:35 AM	Conimicut Point Bottom	BAY					11.30	<1.5	7.790	21.9	360.0	397.0	151.0	11.00			
06/09/16	1:00 PM	Edgewood Yacht Club Surface	BAY	0.5	21.46	18.6	7.57	54.90	3.86	<7.0	56.6	293.0	698.0	198.0	8.66	38.29	2.089	
06/09/16	1:05 PM	Edgewood Yacht Club Bottom	BAY					<6.0	<1.5	20.20	27.7	465.0	453.0	170.0	9.68			
06/09/16	9:50 AM	Pomham Rocks Surface	BAY	0.5	34.37	17.93	7.77	63.70	3.72	25.90	60.1	628.0	587.0	279.0	8.39	8.920	2.320	
06/09/16	9:55 AM	Pomham Rocks Bottom	BAY					73.30	4.75	42.90	61.8	648.0	581.0	298.0	9.90			
06/09/16	1:40 PM	India Point Park Surface	BAY	0.5	22.72	17.91	7.62	50.40	4.38	77.90	62.5	632.0	549.0	345.0	7.58	8.826	2.401	
06/09/16	1:45 PM	India Point Park Bottom	BAY					11.20	2.36	158.0	80.6	649.0	468.0	380.0	8.60			
06/09/16	8:55 AM	Bullock's Reach Buoy Surface	BAY	0.5	23.13	18.5	8.00	10.80	<1.5	<7.0	22.6	464.0	564.0	154.0	6.81	26.92	4.616	
06/09/16	8:55 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY	0.5	23.13	18.5	8.00	<6.0	<1.5	<7.0	25	460.0	536.0	145.0	6.22	10.45	5.823	
06/09/16	9:00 AM	Bullock's Reach Buoy Bottom	BAY					12.00	<1.5	<7.0	21	399.0	362.0	<100.0	41.88			
06/09/16	9:30 AM	Pawtuxet Cove Surface	BAY	0.5	7.16	19.72	7.54	595.0	15.5	82.20	33.9	1720	1210	902.0	14.38	15.21	4.469	
06/09/16	9:35 AM	Pawtuxet Cove Bottom	BAY					90.60	4.93	23.90	54.4	690.0	674.0	298.0	34.38			
06/09/16	9:15 AM	Phillipsdale Landing Surface	BAY	0.552	11	18.49	7.39	458.0	20.5	165.0	94.9	1250	1200	867.0	25.53	26.57	3.925	
06/09/16	9:20 AM	Phillipsdale Landing Bottom	BAY	1.81	15.82	19.6	7.28	321.0	18.8	179.0	108	915.0	999.0	756.0	8.09			
06/22/16	8:50 AM	Conimicut Point Surface	BAY	0.5	26.47	21.67	8.10	6.0	1.5	<7.0	26.9	73.40	463.0	216.0	4.63	7.983	2.238	
06/22/16	12:30 PM	Edgewood Yacht Club Surface	BAY	0.5	24.53	22.23	8.03	<6.0	<1.5	<7.0	36.1	197.0	600.0	237.0	9.21	22.15	4.778	
06/22/16	10:30 AM	Pomham Rocks Surface	BAY	0.5	25.12	21.96	7.96	6.0	1.5	7.0	44.7	165.0	599.0	344.0	8.51	15.61	4.136	
06/22/16	1:50 PM	India Point Park Surface	BAY	0.5	23.44	21.93	7.59	78.40	5.96	58.40	70.1	421.0	701.0	395.0	7.71	11.78	3.482	
06/22/16	9:15 AM	Bullock's Reach Buoy Surface	BAY	0.5	26.06	21.7	7.99	6.0	<1.5	<7.0	29.1	66.70	486.0	252.0	8.82	9.640	4.145	
06/22/16	9:15 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY	0.5	26.06	21.7	7.99	6.0	1.5	7.0	30.7	68.70	484.0	231.0	27.17	11.11	2.780	
06/22/16	10:00 AM	Pawtuxet Cove Surface	BAY	0.5	21.48	22.07	7.86	514.0	18.8	31.00	32.1	1270	1180	868.0	9.56	9.235	5.258	
06/22/16	1:20 PM	Phillipsdale Landing Surface	BAY	0.5	15.77	23.13	7.52	220.0	15.9	138.0	211	736.0	993.0	695.0	22.17	13.12	5.248	
06/22/16	2:30 PM	Edgewood Shoal Surface	BAY	0.5	23.78	22.73	8.23	11.40	<1.5	<7.0	35	150.0	593.0	267.0	9.25	19.87	7.554	
06/22/16	2:35 PM	Edgewood Shoal Bottom	BAY					<6.0	<1.5	<7.0	48.7	386.0	542.0	205.0	8.13			
07/06/16	8:30 AM	Conimicut Point Surface	BAY	0.5	26.59	23.48	7.87	<6.0	<1.5	<7.0	35.8	557.0	643.0	214.0	42.55	12.52	2.785	
07/06/16	8:45 AM	Conimicut Point Bottom	BAY					<6.0	<1.5	<7.0	28.8	730.0	661.0	175.0	50.00			
07/06/16	2:30 PM	Edgewood Yacht Club Surface	BAY	0.5	16.02	26.39	6.75	<6.0	<1.5	<7.0	69.9	850.0	707.0	235.0	47.78	20.40	5.393	
07/06/16	2:40 PM	Edgewood Yacht Club Bottom	BAY					12.10	<1.5	15.20	80.1	673.0	657.0	231.0	42.95			

Table 30: River and Bay Nutrients Data

								NUTRIENT PARAMETERS							TSS AND CHLOROPHYLL PARAMETERS			
Collection Date	Collection Time	Station	Water-body	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3+NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	TSS* (ppm)	Chl a (ug/L)	Phaeo-phytin (ug/L)	COMMENTS
07/06/16	12:45 PM	Pomham Rocks Surface	BAY	0.5	24.56	24.6	6.57	27.50	2.44	<7.0	87.5	484.0	770.0	259.0	41.09	29.75	6.133	
07/06/16	1:00 PM	Pomham Rocks Bottom	BAY					<6.0	<1.5	15.30	59.1	904.0	619.0	208.0	41.06			
07/06/16	2:00 PM	India Point Park Surface	BAY	0.5	16.02	26.39	6.75	136.0	11.3	127.0	142	1360	932.0	504.0	33.33	9.517	3.241	
07/06/16	2:10 PM	India Point Park Bottom	BAY					117.0	9.34	130.0	132	1280	867.0	577.0	38.51			
07/06/16	9:05 AM	Bullock's Reach Buoy Surface	BAY	0.5	20.48	23.96	8.00	<6.0	<1.5	<7.0	38.5	327.0	780.0	327.0	28.78	34.03	5.249	
07/06/16	9:05 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY	0.5	20.48	23.96	8.00	13.80	<1.5	<7.0	38.8	420.0	783.0	217.0	40.21	32.00	5.489	
07/06/16	9:15 AM	Bullock's Reach Buoy Bottom	BAY					<6.0	<1.5	<7.0	33.1	697.0	550.0	202.0	41.49			
07/06/16	9:50 AM	Pawtuxet Cove Surface	BAY	0.5				367.0	3.17	7.110	31.9	1490	1170	646.0	21.52	26.14	3.827	No salinity, temp, pH data for surface
07/06/16	10:00 AM	Pawtuxet Cove Bottom	BAY					7.010	<1.5	<7.0	57	830.0	917.0	226.0	32.98			
07/06/16	8:30 AM	Phillipsdale Landing Surface	BAY	0.579	21.6	22.51	7.18	160.0	16.7	220.0	171	1560	934.0	720.0	38.84	1.978	4.977	
07/06/16	8:35 AM	Phillipsdale Landing Bottom	BAY	3.26	23.23	22.27	7.20	162.0	17	225.0	172	1580	927.0	602.0	35.22			
07/20/16	9:10 AM	Conimicut Point Surface	BAY	0.5	27.66	24.18	7.76	18.30	<1.5	<7.0	57.8	800.0	717.0	238.0	38.96	22.33	8.997	
07/20/16	10:40 AM	Edgewood Yacht Club Surface	BAY	0.5	27.36	23.97	7.49	40.00	<1.5	<7.0	89.7	1170	671.0	225.0	39.13	14.18	4.298	
07/20/16	10:25 AM	Pomham Rocks Surface	BAY	0.5	27.1	23.85	7.54	10.60	<1.5	<7.0	88.9	1120	663.0	240.0	38.91	5.971	1.665	
07/20/16	2:35 PM	India Point Park Surface	BAY	0.5	20.48	23.93	7.18	138.0	12.9	227.0	189	2000	883.0	676.0	27.87	5.241	2.742	
07/20/16	9:30 AM	Bullock's Reach Buoy Surface	BAY	0.5	27.83	24.21	7.87	7.600	<1.5	<7.0	55.9	758.0	747.0	299.0	41.49	17.94	8.394	
07/20/16	9:30 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY	0.5	27.83	24.21	7.87	78.90	<1.5	<7.0	57.5	759.0	808.0	214.0	37.50	17.94	8.404	
07/20/16	10:00 AM	Pawtuxet Cove Surface	BAY	0.5	18.75	24.74	7.84	289.0	3.96	10.10	44.2	1420	1060	609.0	23.40	24.18	6.819	
07/20/16	12:45 PM	Edgewood Shoal Surface	BAY	0.5	27.56	24.72	7.19	6.840	<1.5	<7.0	82.8	1050	772.0	225.0	34.90	14.03	5.353	
07/20/16	12:50 PM	Edgewood Shoal Bottom	BAY					18.30	1.78	187.0	155	1550	876.0	520.0	42.50			
07/20/16	2:05 PM	Phillipsdale Landing Surface	BAY	0.5	20.48	23.98	7.19	159.0	14.6	207.0	224	2280	1090	652.0	29.13	4.806	1.304	
08/03/16	8:52 AM	Conimicut Point Surface	BAY	0.5	29.16	23.78	7.72	11.90	<1.5	12.10	94.5	1550	629.0	316.0	41.04	21.68	4.484	
08/03/16	9:00 AM	Conimicut Point Bottom	BAY					14.60	<1.5	66.30	62.3	1080	527.0	260.0	46.02			
08/03/16	2:15 PM	Edgewood Yacht Club Surface	BAY	0.5	28.14	25.80	7.47	9.750	<1.5	<7.0	132	1970	689.0	294.0	40.40	13.34	2.679	
08/03/16	2:20 PM	Edgewood Yacht Club Bottom	BAY					<6.0	<1.5	37.60	116	1850	662.0	450.0	36.77			
08/03/16	10:20 AM	Pomham Rocks Surface	BAY	0.5	27.45	23.95	7.57	17.30	<1.5	15.40	164	1860	676.0	422.0	45.87	15.62	4.219	
08/03/16	10:25 AM	Pomham Rocks Bottom	BAY					7.840	<1.5	72.30	63.1	1440	707.0	282.0	72.39			
08/03/16	1:35 PM	India Point Park Surface	BAY	0.5	25.83	24.74	7.21	7.630	<1.5	31.30	166	2050	677.0	368.0	40.87	9.861	2.755	
08/03/16	1:40 PM	India Point Park Bottom	BAY					12.90	1.54	44.60	181	1730	584.0	298.0	34.00			
08/03/16	9:24 AM	Bullock's Reach Buoy Surface	BAY	0.5	29.10	23.99	7.77	<6.0	<1.5	<7.0	98	1580	676.0	233.0	34.60	17.12	3.267	
08/03/16	9:24 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY	0.5	29.10	23.99	7.77	<6.0	<1.5	<7.0	99.2	1590	721.0	199.0	35.80	8.509	2.050	
08/03/16	9:32 AM	Bullock's Reach Buoy Bottom	BAY					9.880	<1.5	59.00	72.2	1240	621.0	242.0	47.01			
08/03/16	1:00 PM	Pawtuxet Cove Surface	BAY	0.5	15.93	24.84	7.11	441.0	6.72	52.40	118	2250	1380	1090	32.55	35.78	4.759	
08/03/16	1:05 PM	Pawtuxet Cove Bottom	BAY					66.30	1.77	20.40	107	2030	604.0	542.0	40.00			
08/03/16	9:00 AM	Phillipsdale Landing Surface	BAY	0.913	27.05	22.71	7.50	10.70	<1.5	26.70	196	2090	643.0	282.0	41.88	8.023	2.935	
08/03/16	9:15 AM	Phillipsdale Landing Bottom	BAY	3.29	27.46	22.72	7.47	13.30	1.67	72.70	166	1880	734.0	298.0	47.91			
08/17/16	8:30 AM	Conimicut Point Surface	BAY	0.014	30.09	25.51	7.66	9.900	<1.5	13.40	72	1210	620.0	267.0	22.20	11.95	3.344	
08/17/16	2:15 PM	Edgewood Yacht Club Surface	BAY	0.035	28.19	26.37	7.57	10.00	<1.5	<7.0	101	1340	678.0	109.0	37.92	19.53	4.445	
08/17/16	2:00 PM	Pomham Rocks Surface	BAY	0.028	27.70	26.08	7.55	8.560	<1.5	<7.0	109	1320	704.0	105.0	37.92	25.22	3.845	
08/17/16	1:40 PM	India Point Park Surface	BAY	0.033	18.95	26.41	7.67	182.0	7.81	37.20	184	1730	1080	515.0	30.22	27.56	3.253	
08/17/16	8:50 AM	Bullock's Reach Buoy Surface	BAY	0.020	30.01	25.27	7.68	9.490	<1.5	7.010	71.5	1210	606.0	176.0	40.20	7.577	1.998	
08/17/16	8:50 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY	0.020	30.01	25.27	7.68	<6.0	<1.5	7.270	66.3	1210	604.0	<100.0	38.78	1.704	0.7054	
08/17/16	8:10 AM	Pawtuxet Cove Surface	BAY	0.001	22.03	26.21	7.48	226.0	2.79	35.70	84.6	1630	828.0	498.0	31.28	20.72	4.298	
08/17/16	7:45 AM	Edgewood Shoal Surface	BAY	0.007	28.38	25.98	7.68	12.90	<1.5	24.10	107	1410	762.0	323.0	34.13	14.81	2.925	
08/17/16	7:55 AM	Edgewood Shoal Bottom	BAY					11.40	<1.5	53.60	108	1540	763.0	273.0	36.81			
08/17/16	12:45 PM	Phillipsdale Landing Surface	BAY	0.002	28.77	26.36	7.20	469.0	8.01	49.70	238	1890	1230	821.0	21.91	20.69	5.149	
08/31/16	9:10 AM	Conimicut Point Surface	BAY	0.079	30.13	24.29	7.75	<6.0	<1.5	<7.0	55.8	1230	658.0	170.0	6.60	12.94	2.474	
08/31/16	9:20 AM	Conimicut Point Bottom	BAY					<6.0	<1.5	29.70	53.5	1170	612.0	185.0	6.89			

Table 30: River and Bay Nutrients Data

								NUTRIENT PARAMETERS							TSS AND CHLOROPHYLL PARAMETERS			
Collection Date	Collection Time	Station	Water-body	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3+NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	TSS* (ppm)	Chl a (ug/L)	Phaeo-phytin (ug/L)	COMMENTS
08/31/16	2:10 PM	Edgewood Yacht Club Surface	BAY	0.057	28.79	24.93	7.62	10.90	<1.5	14.50	79.1	1310	711.0	216.0	10.85	25.37	4.014	
08/31/16	2:15 PM	Edgewood Yacht Club Bottom	BAY					11.40	1.67	61.40	89.7	1410	716.0	259.0	18.12			
08/31/16	1:45 PM	Pomham Rocks Surface	BAY	0.062	28.26	25.08	7.73	<6.0	<1.5	<7.0	98.7	1270	765.0	214.0	6.00	39.32	4.267	
08/31/16	1:55 PM	Pomham Rocks Bottom	BAY					13.20	1.55	87.70	86.4	1360	714.0	326.0	16.12			
08/31/16	1:10 PM	India Point Park Surface	BAY	0.065	25.46	25.13	7.22	75.60	9.03	116.0	159	1530	864.0	401.0	10.82	16.19	5.180	
08/31/16	1:15 PM	India Point Park Bottom	BAY					64.60	8.77	122.0	155	1510	863.0	513.0	8.37			
08/31/16	9:30 AM	Bullock's Reach Buoy Surface	BAY	0.079	29.83	24.45	7.73	<6.0	<1.5	<7.0	56.5	1220	677.0	176.0	9.57	18.26	3.741	
08/31/16	9:30 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY	0.079	29.83	24.45	7.73	<6.0	<1.5	18.20	57	1240	662.0	164.0	5.40	17.62	4.355	
08/31/16	9:40 AM	Bullock's Reach Buoy Bottom	BAY					<6.0	<1.5	<7.0	55.9	1250	693.0	174.0	13.70			
08/31/16	8:40 AM	Pawtuxet Cove Surface	BAY	0.089	24.35	24.83	7.88	354.0	2.54	21.20	57	1620	1150	592.0	7.17	20.75	5.833	
08/31/16	8:50 AM	Pawtuxet Cove Bottom	BAY					13.80	2.06	88.10	86.7	1350	767.0	284.0	15.33			
08/31/16	8:49 AM	Phillipsdale Landing Surface	BAY	0.50	32.02	23.29	7.37	80.20	9.95	165.0	169	1550	926.0	463.0	6.32	9.335	4.025	
08/31/16	8:53 AM	Phillipsdale Landing Bottom	BAY	3.0	27.40	23.59	7.31	39.60	7.48	153.0	140	1490	1020	413.0	24.49			
09/14/16	9:00 AM	Conimicut Point Surface	BAY	0.5	30.82	22.38	7.87	<6.0	<1.5	<7.0	46	1050	1260	141.0	10.65	60.79	6.997	
09/14/16	10:30 AM	Edgewood Yacht Club Surface	BAY	0.5	29.19	22.97	7.89	<6.0	<1.5	<7.0	45.8	937.0	827.0	164.0	8.13	23.61	4.336	
09/14/16	10:30 AM	Edgewood Yacht Club Surface (Duplicate)	BAY	0.5	29.19	22.97	7.89	11.00	<1.5	<7.0	45.8	844.0	774.0	170.0	9.46	23.35	4.678	
09/14/16	10:00 AM	Pomham Rocks Surface	BAY	0.5	29.18	22.93	7.92	<6.0	<1.5	<7.0	42.3	974.0	799.0	175.0	8.45	34.13	6.184	
09/14/16	1:45 PM	India Point Park Surface	BAY	0.5	25.55	23.86	7.28	28.00	6.77	<7.0	102	919.0	868.0	240.0	7.29	52.83	8.120	
09/14/16	9:15 AM	Bullock's Reach Buoy Surface	BAY	0.5	30.29	22.55	7.74	8.710	1.77	20.00	57	1130	631.0	187.0	7.55	8.736	2.814	
09/14/16	9:45 AM	Pawtuxet Cove Surface	BAY	0.5	26.34	23.35	7.95	256.0	2.53	8.210	41.4	1320	1050	463.0	7.40	29.23	5.332	
09/14/16	2:15 PM	Edgewood Shoal Bottom	BAY					<6.0	<1.5	14.10	54	954.0	740.0	182.0	9.48			
09/14/16	1:15 PM	Phillipsdale Landing Surface	BAY	0.5	19.85	24.50	7.49	96.60	10.2	15.50	145	918.0	960.0	365.0	10.85	56.82	6.957	
09/14/16	2:10 PM	Edgewood Shoal Surface	BAY	0.5	29.28	23.68	7.46	<6.0	<1.5	<7.0	48.7	878.0	781.0	134.0	9.28	28.66	4.709	
09/28/16	8:55 AM	Conimicut Point Surface	BAY	0.5	30.87	20.11	7.74	16.40	<1.5	37.90	63.4	1380	664.0	261.0	40.43	<0.3	0.4329	
09/28/16	9:05 AM	Conimicut Point Bottom	BAY					10.70	<1.5	36.70	63.2	1410	698.0	323.0	43.70			
09/28/16	12:40 PM	Edgewood Yacht Club Surface	BAY	0.5	29.27	20.93	7.64	87.50	5.3	124.0	125	1580	858.0	501.0	47.37	1.622	1.323	
09/28/16	12:45 PM	Edgewood Yacht Club Bottom	BAY					83.90	6	124.0	121	1570	856.0	400.0	46.02			
09/28/16	10:15 AM	Pomham Rocks Surface	BAY	0.5	29.71	20.6	7.66	67.10	4.84	101.0	101	1650	807.0	406.0	34.95	3.017	1.876	
09/28/16	10:20 AM	Pomham Rocks Bottom	BAY					28.10	3.43	101.0	80.9	1460	854.0	305.0	82.80			
09/28/16	1:10 PM	India Point Park Surface	BAY	0.5	25.04	20.5	7.41	206.0	13.8	284.0	200	1690	1120	696.0	43.12	1.878	2.050	
09/28/16	1:20 PM	India Point Park Bottom	BAY					98.00	7.28	173.0	124	1580	878.0	437.0	41.91			
09/28/16	9:25 AM	Bullock's Reach Buoy Surface	BAY	0.5	30.16	20.12	7.69	37.70	3.31	70.30	77.5	1450	724.0	315.0	42.15	4.302	2.325	
09/28/16	9:25 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY	0.5	30.16	20.12	7.69	37.70	3.26	70.70	77.8	1470	698.0	290.0	36.88	5.113	2.875	
09/28/16	9:40 AM	Bullock's Reach Buoy Bottom	BAY					34.50	3.18	72.20	75.8	1430	699.0	314.0	54.17			
09/28/16	1:40 PM	Pawtuxet Cove Surface	BAY	0.5	16.23	19.52	7.52	703.0	18.3	83.60	69.2	2110	1520	1030	22.95	4.897	2.568	
09/28/16	1:45 PM	Pawtuxet Cove Bottom	BAY					101.0	6.09	69.8	108	1580	834.0	368.0	40.00			
09/28/16	10:25 AM	Phillipsdale Landing Surface	BAY		24.16	19.16	7.23	245.0	18.2	344.0	285	1860	1290	841.0	34.38	3.004	3.502	
09/28/16	10:35 AM	Phillipsdale Landing Bottom	BAY		28.62	19.95	7.31	190.0	16.2	297.0	228	1800	1140	716.0	44.60			
10/12/16	8:45 AM	Conimicut Point Surface	BAY	0.5	26.83	14.13	7.83	143	13.1	121	76.7	1080	965	412	82.08	5.553	2.264	
10/12/16	12:45 PM	Edgewood Yacht Club Surface	BAY	0.5	25.04	17.26	7.22	147	10.4	124	79.7	1090	1020	401	35.31	10.09	2.693	
10/12/16	1:00 PM	Pomham Rocks Surface	BAY	0.5	26.89	17.52	7.25	167	9.38	142	82.4	1090	1100	432	37.71	10.88	2.479	
10/12/16	1:25 PM	India Point Park Surface	BAY	0.5	21.83	17.48	7.52	234	10.2	160	87.5	1150	1110	522	32.58	6.53	3.25	
10/12/16	9:10 AM	Bullock's Reach Buoy Surface	BAY	0.5	25.55	14.87	7.79	141	11.1	153	86.9	1090	1030	429	32.04	5.902	1.097	
10/12/16	9:50 AM	Pawtuxet Cove Surface	BAY	0.5	16.69	15.60	7.47	302	20.5	135	69.3	1380	1180	569	28.42	3.382	1.541	
10/12/16	9:50 AM	Pawtuxet Cove Surface (Duplicate)	BAY	0.5	16.69	15.60	7.47	302	20	133	69.9	1390	1150	605	33.41	3.113	1.584	
10/12/16	10:15 AM	Edgewood Shoals Surface	BAY	0.5	27.78	16.75	7.80	112	8.88	124	81.3	1040	971	373	37.87	6.326	1.393	
10/12/16	10:25 AM	Edgewood Shoals Bottom	BAY					56.6	6.07	102	65.7	900	875	380	35.56			
10/12/16	1:45 PM	Phillipsdale Landing Surface	BAY	0.5	17.70	17.53	7.58	281	14.8	245	127	1370	1350	570	23.47	8.575	2.952	
10/26/16	9:10 AM	Conimicut Point Surface	BAY	0.211	28.00	13.59	7.90	66.8	5.73	37	65.7	694	801	249	29.8			

Table 30: River and Bay Nutrients Data

								NUTRIENT PARAMETERS							TSS AND CHLOROPHYLL PARAMETERS			
Collection Date	Collection Time	Station	Water-body	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3+NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	TSS* (ppm)	Chl a (ug/L)	Phaeo-phytin (ug/L)	COMMENTS
10/26/16	9:15 AM	Conimicut Point Bottom	BAY					12.3	3.44	<7.0	49.9	504	552	156	34.29			
10/26/16	8:25 AM	Edgewood Yacht Club Surface	BAY	0.217	28.95	14.04	7.82	55.5	5.71	72.4	77.9	740	664	275	34.8			
10/26/16	8:35 AM	Edgewood Yacht Club Bottom	BAY					29.4	5.04	63.9	66.5	687	614	333	47.61			
10/26/16	1:25 PM	Pomham Rocks Surface	BAY	0.222	28.51	15.42	7.81	74.3	5.31	78.4	76.5	750	674	292	36.17			
10/26/16	1:30 PM	Pomham Rocks Bottom	BAY					11.2	3.42	45.9	54.6	459	683	183	63.62			
10/26/16	2:05 PM	India Point Park Surface	BAY	0.201	28.90	15.27	7.77	73.1	5.65	88.6	69.7	808	632	309	32.61			
10/26/16	2:10 PM	India Point Park Bottom	BAY					20.4	4.19	55.3	60.1	570	511	201	33.7			
10/26/16	9:35 AM	Bullock's Reach Buoy Surface	BAY	0.209	28.12	13.69	7.90	73.7	6.57	44.4	60	770	792	274	37.55			
10/26/16	9:35 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY	0.209	28.12	13.69	7.90	73.8	6.49	43.6	56.1	767	788	270	33.96			
10/26/16	9:45 AM	Bullock's Reach Buoy Bottom	BAY					10.9	3.88	<7.0	41.5	502	472	144	38.4			
10/26/16	8:50 AM	Pawtuxet Cove Surface	BAY	0.220	11.72	12.21	7.47	236	18.6	74.6	55.2	1230	762	471	28.04			
10/26/16	8:55 AM	Pawtuxet Cove Bottom	BAY					58.5	7.34	83.5	66.3	770	651	348	30.21			
10/26/16	10:50 AM	Phillipsdale Landing Surface	BAY	0.5	12.53	11.52	7.41	289	8.64	154	91	1520	1380	771	58.57			
10/26/16	10:55 AM	Phillipsdale Landing Bottom	BAY	1.94	16.32	11.87	7.45	295	8.63	157	85.2	1540	956	716	22.95			
11/09/16	9:15 AM	Conimicut Point Surface	BAY	0.07	25.12	11.12	7.86	124	5.74	59.4	53.8	639	922	349	33.54	1.521	0.66	
11/09/16	2:15 PM	Edgewood Yacht Club Surface	BAY	0.07	24.31	13.11	7.83	172	6.36	78.2	98.8	875	1030	438	30.22	1.54	0.6959	
11/09/16	1:55 PM	Ponham Rocks Surface	BAY	0.07	24.32	12.94	7.81	140	6.47	82.4	68.3	876	1030	455	29.68	4.316	2.091	
11/09/16	1:25 PM	India Point Park Surface	BAY	0.07	22.23	13.24	7.77	194	7.54	88.7	59.8	999	969	413	22.8	2.277	1.136	
11/09/16	9:40 AM	Bullock's Reach Buoy Surface	BAY	0.07	27.41	12.31	7.91	97.8	6.08	61.2	56.4	588	843	280	28.35	5.095	1.837	
11/09/16	9:40 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY	0.07	27.41	12.31	7.91	98.4	5.91	61.9	56	585	838	376	N/R	3.494	1.263	
11/09/16	2:40 PM	Pawtuxet Cove Surface	BAY	0.07	12.67	11.43	7.62	698	4.74	56.5	49.8	1530	1500	916	20	2.027	0.8841	
11/09/16	2:00 PM	Edgewood Shoals Surface	BAY	0.07	25.23	12.47	7.83	163	7.93	77.1	88.4	835	957	488	28.82	2.065	1.277	
11/09/16	2:10 PM	Edgewood Shoals Bottom	BAY					38.3	5.79	87	54.6	564	918	310	31.83			
11/09/16	1:05 PM	Phillipsdale Landing Surface	BAY	0.5	9.08	11.54	7.39	451	7.69	90.6	74.3	1810	1360	722	10.65	1.133	1.394	
11/23/16	10:00 AM	Conimicut Point Surface	BAY	0.154	27.89	7.77	8.09	138.0	6.19	65.20	56.2	543.0	634.0	430.0	39.40	2.429	1.120	
11/23/16	10:10 AM	Conimicut Point Bottom	BAY					131.0	6.44	62.80	50.9	543.0	817.0	328.0	34.80			
11/23/16	9:30 AM	Edgewood Yacht Club Surface	BAY	0.162	28.52	8.38	8.05	99.80	6.26	71.70	52	516.0	813.0	405.0	37.23	2.922	1.171	
11/23/16	9:30 AM	Edgewood Yacht Club Surface (Duplicate)	BAY	0.162	28.52	8.38	8.05	100.0	6.37	68.50	52.1	524.0	775.0	336.0	34.40	3.993	1.781	
11/23/16	9:40 AM	Edgewood Yacht Club Bottom	BAY					127.0	6.66	68.50	54.3	522.0	801.0	414.0	35.31			
11/23/16	1:40 PM	Pomham Rocks Surface	BAY	0.161	26.69	9.07	8.03	122.0	7.1	77.30	56.2	619.0	817.0	322.0	36.67	3.146	1.483	
11/23/16	1:45 PM	Pomham Rocks Bottom	BAY					103.0	6.52	72.70	55.2	569.0	795.0	420.0	35.29			
11/23/16	1:15 PM	India Point Park Surface	BAY	0.170	27.66	10.12	7.93	126.0	7.28	79.00	50.7	593.0	850.0	309.0	33.27	3.225	1.448	
11/23/16	1:20 PM	India Point Park Bottom	BAY					55.50	6.31	69.30	45.7	410.0	774.0	314.0	36.67			
11/23/16	10:20 AM	Bullock's Reach Buoy Surface	BAY	0.152	27.92	8.10	8.09	123.0	7.92	66.90	53.6	545.0	814.0	296.0	32.75	2.561	1.267	
11/23/16	10:25 AM	Bullock's Reach Buoy Surface	BAY					48.70	5.55	46.70	39.8	341.0	708.0	523.0	43.92			
11/23/16	2:00 PM	Pawtuxet Cove Surface	BAY	0.155	26.77	9.10	8.07	1040	4.81	59.00	35.7	2140	1770	1450	16.86	1.913	1.347	
11/23/16	2:10 PM	Pawtuxet Cove Bottom	BAY					437.0	5.95	63.40	46.9	1130	1140	857.0	29.41			
11/23/16	1:39 PM	Phillipsdale Landing Surface	BAY	0.53	11.56	5.69	7.43	464.0	11.9	152.0	136	1770	1270	957.0	16.44	1.070	1.766	
11/23/16	1:44 PM	Phillipsdale Landing Bottom	BAY	1.28	25.58	8.68	7.46	470.0	12.5	149.0	135	1750	1240	947.0	16.47			
12/07/16	9:15 AM	Conimicut Point Surface	BAY	0.5	26.18	7.09	7.83	188.0	9.03	78.60	48.7	765.0	729.0	509.0	8.32	2.813	1.130	
12/07/16	10:35 AM	Edgewood Yacht Club Surface	BAY	0.5	26.16	8.43	7.82	163.0	9.56	115.0	63	715.0	801.0	407.0	5.45	1.970	1.299	
12/07/16	1:20 PM	Pomham Rocks Surface	BAY	0.5	26.86	8.39	7.82	140.0	8.21	82.40	49.3	658.0	682.0	362.0	7.96	2.480	1.173	
12/07/16	1:45 PM	India Point Park Surface	BAY	0.5	26.00	9.20	7.83	119.0	8.67	74.20	40.6	630.0	680.0	308.0	11.67	0.5519	0.5503	
12/07/16	1:45 PM	India Point Park Surface (Duplicate)	BAY	0.5	26.00	9.20	7.83	118.0	8.11	73.80	38.5	623.0	681.0	309.0	4.38	2.359	1.103	
12/07/16	9:35 AM	Bullock's Reach Buoy Surface	BAY	0.5	25.21	6.96	7.85	220.0	7.95	74.70	45.9	808.0	820.0	444.0	6.09	2.664	1.327	
12/07/16	12:55 PM	Edgewood Shoals Surface	BAY	0.5	26.65	8.78	7.80	162.0	9.56	108.0	60.2	715.0	660.0	458.0	4.40	2.177	1.190	
12/07/16	1:00 PM	Edgewood Shoals Bottom	BAY					60.20	7.68	73.10	37.8	407.0	607.0	237.0	10.20			
12/07/16	2:10 PM	Phillipsdale Landing Surface	BAY	0.5	8.80	7.55	7.37	492.0	13.2	173.0	143	1840	1180	944.0	2.82	1.480	1.595	
12/07/16	10:20 AM	Pawtuxet Cove Surface	BAY	0.5	10.67	6.53	7.52	599.0	7.37	89.50	53.2	1640	1060	884.0	5.47	2.708	1.353	

Table 30: River and Bay Nutrients Data

								NUTRIENT PARAMETERS							TSS AND CHLOROPHYLL PARAMETERS			COMMENTS
Collection Date	Collection Time	Station	Water-body	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3+NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	TSS* (ppm)	Chl a (ug/L)	Phaeo-phytin (ug/L)	
12/21/16	9:30 AM	Conimicut Point Surface	BAY	0.180	25.36	2.05	7.86	249	8.04	67.5	43.9	764	929	440	30.32	1.3	0.8898	
12/21/16	9:35 AM	Conimicut Point Bottom	BAY					47	6.48	17.3	23	255	666	239	47.1			
12/21/16	2:00 PM	Edgewood Yacht Club Surface	BAY	0.143	24.23	3.25	7.90	238	10.2	163	76.8	869	1040	572	28.09	2.745	1.314	
12/21/16	2:15 PM	Edgewood Yacht Club Bottom	BAY					215	9.68	139	67.6	786	1050	506	30.62			
12/21/16	1:30 PM	Pomham Rocks Surface	BAY	0.152	23.67	3.36	7.86	245	10.1	166	75.1	892	1030	560	28.57	2.317	1.405	
12/21/16	1:40 PM	Pomham Rocks Bottom	BAY					200	9.13	131	63	741	912	455	28.54			
12/21/16	1:00 PM	India Point Park Surface	BAY	0.160	17.61	3.31	7.76	343	8.81	90	40.1	1200	1050	592	27.03	1.864	1.538	
12/21/16	1:10 PM	India Point Park Bottom	BAY					283	8.44	82.9	39.9	1040	980	529	24.65			
12/21/16	9:55 AM	Bullock's Reach Buoy Surface	BAY	0.164	25.54	2.47	7.90	153	7.73	51.4	38.3	562	817	336	32.81	3.442	1.101	
12/21/16	9:55 AM	Bullock's Reach Buoy Surface (Duplicate)	BAY	0.164	25.54	2.47	7.90	158	7.67	51.9	37.8	562	836	355	32.33	3.505	1.447	
12/21/16	10:00 AM	Bullock's Reach Buoy Bottom	BAY					48.2	6.44	21.6	23.9	268	690	194	51.4			
12/21/16	8:35 AM	Phillipsdale Landing Surface	BAY	0.49	10.74	1.14	6.89	611	11.7	155	52.4	1920	1400	951	16.44	0.9972	1.585	
12/21/16	8:40 AM	Phillipsdale Landing Bottom	BAY	1.7	12.80	1.42	7.12	571	11.7	140	52.4	1840	1340	912	16.82			
RIVER																		
01/06/16	8:45 AM	Blackstone River @ Slater Mill	RIVER			-0.3	7.94	945	19.4	91.4	39.7	2040	1180	1080	3			
01/06/16	1:05 PM	Pawtuxet River @ Broad St.	RIVER			0.29	7.84	997	5.55	73.5	13.4	2170	1220	1130	4			
01/06/16	1:05 PM	Pawtuxet River @ Broad St. (Duplicate)	RIVER			0.29	7.84	994	5.46	73	13.2	1840	1170	1130	4			
01/06/16	11:15 AM	Woonasquatucket River @ Valley St.	RIVER			-0.24	7.77	646	1.77	7.21	<5.00	2000	734	732	< 2			
01/06/16	11:50 AM	Moshassuck River @ Mill St.	RIVER			0.58	7.62	488	4	91.3	6.04	3160	645	685	7			
01/06/16	9:10 AM	Moshassuck River @ Higginson Ave.	RIVER			0.61	7.81	368	3.53	29.2	5.87	2590	529	503	< 2			
01/06/16	10:30 AM	Ten Mile River @ Omega Pond	RIVER			1.31	7.7	1600	9.11	37.5	25.1	3170	1730	1730	< 2			
01/20/16	2:27 PM	Runnins River @ River Rd.	RIVER	0.5	0.09	0.15	7.98	573	4.33	23.3	7.7	1010	956	927	4			
01/20/16	1:53 PM	Coles River @ Milford Rd.	RIVER	0.51	0.12	0.98	7.68	277	2.79	<7.0	19.7	4440	742	827	< 2			
01/20/16	1:23 PM	Warren Reservoir/Kickemuit River	RIVER	0.403	0.15	1.91	7.53	606	7.22	63.5	11.3	848	1100	1100	< 2			
01/20/16	2:44 PM	Palmer River @ Rt. 6	RIVER	0.51	0.15	0.44	7.38	317	2.72	16.9	10.5	337	757	700	2			
01/20/16	3:00 PM	Pawtuxet River @ Broad St.	RIVER	0.208	0.16	0.29	8.21	1210	4.71	67.9	13.8	2210	1560	1570	4			
01/20/16	3:00 PM	Pawtuxet River @ Broad St. (Duplicate)	RIVER	0.208	0.16	0.29	8.21	1150	4.8	65.3	13.4	2710	1570	1570	< 2			
01/20/16	1:09 PM	Woonasquatucket River @ Valley St.	RIVER	0.202	0.18	0.41	8.29	429	2.05	<7.0	<5.00	764	655	624	< 2			
01/20/16	12:50 PM	Woonasquatucket River @ Manton Ave.	RIVER	0.048	0.18	0.34	8.59	557	15.3	14.3	5.66	1950	866	841	2			
01/20/16	1:28 PM	Moshassuck River @ Mill St.	RIVER	0.234	0.28	0.55	8.01	626	4.34	92	7.36	2650	917	1020	< 2			
01/20/16	8:35 AM	Blackstone River @ Slater Mill	RIVER			-0.9		626	11.5	47	15.9	546	967	927	< 2			
01/20/16	10:08 AM	Blackstone River @ Stateline	RIVER			-0.95	8.94	645	34	238	37.6	935	960	1050	< 2			
01/20/16	9:15 AM	Blackstone River @ Bikepath Bridge	RIVER			-0.95	8.94	645	34.3	261	37.5	624	969	1140	< 2			
01/20/16	9:08 AM	Taunton River @ Berkley Bridge	RIVER			0	8.1	596	7.43	61.6	19	487	1080	1030	6			
01/20/16	10:02 AM	Ten Mile River @ Omega Pond	RIVER			0.14	7.87	1300	10.8	56.8	20.4	1500	1840	1750	6			
01/20/16	10:26 AM	Ten Mile River @ Central Ave.	RIVER			0.83	7.57	1800	20.8	163	19	2030	2420	2350	2			
01/20/16	10:26 AM	Ten Mile River @ Central Ave. (Duplicate)	RIVER			0.83	7.57	1850	21.6	160	19.7	1670	2380	2340	< 2			
02/02/16	2:15 PM	Pawtuxet River @ Broad St.	RIVER	0.529	0.18	5.82	7.16	1220	5.99	52.9	12.6	3770	1480	1170	5			
02/02/16	2:15 PM	Pawtuxet River @ Broad St. (Duplicate)	RIVER	0.529	0.18	5.82	7.16	1210	5.41	47.8	13	3550	1450	1440	3.33			
02/02/16	1:10 PM	Woonasquatucket River @ Valley St.	RIVER	0.483	0.18	5.06	7.46	566	1.72	<7.0	<5.00	2280	725	694	2.05			
02/02/16	12:50 PM	Woonasquatucket River @ Manton Ave.	RIVER	0.505	0.18	5.74	7.67	505	1.98	<7.0	<5.00	2130	723	653	5.64			
02/02/16	8:25 AM	Blackstone River @ Slater Mill	RIVER	0.526	0.22	4	7.91	708	8.75	32.3	18.3	2760	1560	870	63.26			
02/02/16	1:30 PM	Moshassuck River @ Mill St.	RIVER	0.574	0.28	5.85	7.24	597	4.28	43.5	7.03	3030	792	779	3			
02/02/16	10:10 AM	Ten Mile River @ Omega Pond	RIVER	0.541	0.3	4.03	7.85	1860	16	29.9	16.8	3110	2310	2080	3.54			
02/17/16	10:15 AM	Coles River @ Milford Rd.	RIVER	0.502	0.14	1.22	7.63	468.00	3.75	12.90	19.50	1200.0	878.0	818	3.04			
02/17/16	9:00 AM	Taunton River @ Berkley Bridge	RIVER	0.451	0.21	0.8	7.17	609.00	13.20	130.00	25.80	1380.0	1120.0	1030	13.25			
02/17/16	10:40 AM	Warren Reservoir/Kickemuit River	RIVER	0.385	0.25	1.07	7.5	390.00	4.73	44.60	23.40	770.0	902.0	791	5.48			
02/17/16	11:05 AM	Palmer River @ Rt. 6	RIVER	0.446	0.28	0.88	7.36	554.00	4.49	69.10	67.50	1350.0	1140.0	1040	9.25			
02/17/16	1:00 PM	Runnins River @ River Rd.	RIVER	0.599	0.34	0.5	7.38	594.00	6.88	65.70	13.00	1850.0	1060.0	948	4.59			

Table 30: River and Bay Nutrients Data

								NUTRIENT PARAMETERS							TSS AND CHLOROPHYLL PARAMETERS			
Collection Date	Collection Time	Station	Water-body	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3+NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	TSS* (ppm)	Chl a (ug/L)	Phaeo-phytin (ug/L)	COMMENTS
02/17/16	2:50 PM	Ten Mile River @ Omega Pond	RIVER	0.212	0.34	3.44	7.21	1850.00	11.30	24.80	17.00	2950.0	2270.0	2090	4.88			
02/17/16	1:35 PM	Ten Mile River @ Central Ave.	RIVER	0.422	0.37	3.51	7.12	1250.00	10.90	125.00	17.70	2030.0	1800.0	1630	8.57			
02/17/16	1:35 PM	Ten Mile River @ Central Ave. (Duplicate)	RIVER	0.422	0.37	3.51	7.12	1250.00	16.00	119.00	17.70	1930.0	1810.0	1660	9.38			
02/17/16	8:40 AM	Blackstone River @ Slater Mill	RIVER			1.76	8.62	861.00	25.80	230.00	15.10	2460.0	1450.0	1290	21.05			
02/17/16	10:22 AM	Blackstone River @ Stateline	RIVER			1.63	7.72	698.00	30.50	485.00	20.90	2280.0	1700.0	1450	12.24			
02/17/16	9:15 AM	Blackstone River @ Bikepath Bridge	RIVER			1.23	8.13	733.00	23.80	379.00	25.20	2610.0	1530.0	1350	13.91			
02/17/16	2:43 PM	Pawtuxet River @ Broad St.	RIVER			2.76	7.61	971.00	5.96	84.80	12.00	2210.0	1430.0	1320	9.79			
02/17/16	2:43 PM	Pawtuxet River @ Broad St. (Duplicate)	RIVER			2.76	7.61	985.00	5.90	89.60	11.90	2120.0	1380.0	1210	9.35			
02/17/16	1:51 PM	Woonasquatucket River @ Valley St.	RIVER			3.95	7.72	630.00	5.99	<7.0	7.12	2200.0	915.0	843	4.3			
02/17/16	1:04 PM	Moshassuck River @ Higginson Ave.	RIVER			2.76	7.73	550.00	3.45	13.20	10.10	2630.0	886.0	779	4.69			
02/17/16	2:11 PM	Moshassuck River @ Mill St.	RIVER			3.37	7.5	608.00	4.81	22.80	8.29	2780.0	826.0	733	6.19			
03/02/16	10:35 AM	Coles River @ Milford Rd.	RIVER	0.546	0.08	7.31	7.03	258	2.16	<7.0	9.96	863	668	638	< 2			
03/02/16	11:05 AM	Warren Reservoir/Kickemuit River	RIVER	0.541	0.13	8.75	6.78	455	5.27	8.24	5.47	1160	1070	841	11.58			
03/02/16	11:25 AM	Palmer River @ Rt. 6	RIVER	0.524	0.17	7.29	6.67	334	2.42	18.3	11.2	1290	712	706	2.45			
03/02/16	9:40 AM	Taunton River @ Berkley Bridge	RIVER	0.569	0.17	7.14	7.11	577	11.6	72.7	22.4	1530	956	1000	2.01			
03/02/16	9:00 AM	Blackstone River @ Stateline	RIVER		0.18	5.33	7.24	552	22.6	157	12.4	2490	960	954	3.08			
03/02/16	10:45 AM	Blackstone River @ Slater Mill	RIVER		0.19	5.77	7.32	644	47	143	18.2	2320	1050	1060	3.94			
03/02/16	1:15 PM	Woonasquatucket River @ Valley St.	RIVER		0.19	6.68	7.3	636	2.3	<7.0	<5	2110	836	837	3.08			
03/02/16	12:50 PM	Woonasquatucket River @ Manton Ave.	RIVER		0.19	5.4	7.41	632	2.13	8.89	<5	2030	845	821	2.63			
03/02/16	9:30 AM	Blackstone River @ Bikepath Bridge	RIVER		0.2	5.5	7.21	614	54.4	199	23.9	2670	1050	1050	3.52			
03/02/16	3:00 PM	Pawtuxet River @ Broad St.	RIVER		0.22	8.09	7.33	1730	12.5	126	40	3090	2080	2100	3.51			
03/02/16	3:00 PM	Pawtuxet River @ Broad St. (Duplicate)	RIVER		0.22	8.09	7.33	1690	12.5	119	36.8	3280	2130	2150	3.72			
03/02/16	2:50 PM	Ten Mile River @ Omega Pond	RIVER	0.578	0.24	7.52	7.05	1180	9.26	<7.0	13.1	2320	1670	1530	2.45			
03/02/16	1:45 PM	Moshassuck River @ Mill St.	RIVER		0.25	7.27	7.22	618	6.18	33.7	6.21	2130	906	885	6.89			
03/02/16	1:10 PM	Runnins River @ River Rd.	RIVER	0.515	0.26	7.72	6.87	688	4.39	15.1	7.89	2610	1010	1030	< 2			
03/02/16	1:45 PM	Ten Mile River @ Central Ave.	RIVER	0.503	0.28	8.58	6.77	1560	8.54	24.8	12.8	2540	1880	1880	5.97			
03/02/16	1:45 PM	Ten Mile River @ Central Ave. (Duplicate)	RIVER	0.503	0.28	8.58	6.77	1590	8.67	15.1	13.1	2290	1900	1930	3.35			
03/16/16	9:40 AM	Blackstone River @ Slater Mill	RIVER	0.527	0.21	8.86	7.59	932	62.1	261	14.2	2360	1620	1390	18.06			
03/16/16	12:50 PM	Woonasquatucket River @ Manton Ave.	RIVER	0.52	0.21	9.38	7.15	545	2.1	14.6	<5	2480	743	732	< 2			
03/16/16	1:10 PM	Woonasquatucket River @ Valley St.	RIVER	0.535	0.22	9.81	7.01	572	2.17	<7.0	<5	2360	758	844	2.24			
03/16/16	1:35 PM	Moshassuck River @ Mill St.	RIVER	0.535	0.27	9.76	6.95	471	3.82	27.5	<5	2050	747	671	7.58			
03/16/16	1:35 PM	Moshassuck River @ Mill St. (Duplicate)	RIVER	0.535	0.27	9.76	6.95	475	3.6	28.4	5.01	2020	726	681	7.88			
03/16/16	8:30 AM	Ten Mile River @ Omega Pond	RIVER	0.5	0.27	9.49	6.55	1340	7.8	<7.0	8.61	1860	1700	1630	8.42			
03/16/16	10:15 AM	Moshassuck River @ Higginson Ave.	RIVER	0.5	0.29	8.92	7.18	362	3.55	8.28	<5	1480	567	570	2.32			
03/16/16	2:20 PM	Pawtuxet River @ Broad St.	RIVER	0.504	21.91	7.36	6.8	696	5.43	46.4	10.3	1570	1150	959	19.58			
03/30/16	10:21 AM	Coles River @ Milford Rd.	RIVER	0.458	0.09	8.14	8.06	271	2.69	<7.0	7.83	337	690	630	< 2			
03/30/16	1:41 PM	Warren Reservoir/Kickemuit River	RIVER	0.402	0.14	10.47	7.74	390	7.11	23.8	6.64	753	916	758	4			
03/30/16	9:00 AM	Taunton River @ Berkley Bridge	RIVER	0.424	0.18	7.05	8.44	649	15	32.6	21.3	1120	1050	985	2.11			
03/30/16	9:00 AM	Taunton River @ Berkley Bridge (Duplicate)	RIVER	0.474	0.18	7.05	8.44	648	15	45.3	20.9	1110	1040	1000	< 2			
03/30/16	9:45 AM	Blackstone River @ Slater Mill	RIVER	0.39	0.2	7.96	8.13	815	15	11.1	13.4	1830	1220	1040	14.73			
03/30/16	8:30 AM	Blackstone River @ Stateline	RIVER	0.37	0.2	7.61	8.62	620	34.2	95.8	13.5	1660	973	985	4.95			
03/30/16	3:05 PM	Woonasquatucket River @ Valley St.	RIVER	0.3	0.21	11.08	7.56	711	5.76	<7.0	<5	1780	878	775	< 2			
03/30/16	9:45 AM	Blackstone River @ Slater Mill (Duplicate)	RIVER	0.4	0.22	7.96	8.13	799	16.8	23.3	13.7	1840	1230	1080	14.13			
03/30/16	12:45 PM	Pawtuxet River @ Broad St.	RIVER	0.33	0.28	9.54	7.35	1370	6.98	29.6	6.54	2400	1690	1700	2.83			
03/30/16	2:15 PM	Moshassuck River @ Higginson Ave.	RIVER	0.37	0.29	10.38	7.53	223	2.11	<7.0	<5	1160	483	436	2.25			
03/30/16	2:45 PM	Moshassuck River @ Mill St.	RIVER	0.3	0.29	9.75	7.49	411	3.75	17.2	<5	1620	640	633	3.11			
03/30/16	1:01 PM	Runnins River @ River Rd.	RIVER	0.484	0.29	6	7.79	621	2.16	<7.0	5.88	2110	934	915	2.11			
03/30/16	2:40 PM	Ten Mile River @ Central Ave.	RIVER	0.29	0.33	9.39	7.45	1840	5.96	<7.0	7	1970	2120	2180	4.13			
03/30/16	3:22 PM	Ten Mile River @ Omega Pond	RIVER	0.315	0.39	8.53	6.96	1110	5.31	8.93	11.5	1040	1910	1330	36.96			

Table 30: River and Bay Nutrients Data

								NUTRIENT PARAMETERS							TSS AND CHLOROPHYLL PARAMETERS			
Collection Date	Collection Time	Station	Water-body	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3+NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	TSS* (ppm)	Chl a (ug/L)	Phaeo-phytin (ug/L)	COMMENTS
03/30/16	10:49 AM	Palmer River @ Rt. 6	RIVER	0.436	0.52	7.14	7.4	373	3.42	17.3	10.2	838	822	731	7.23			
04/13/16	11:05 AM	Pawtuxet River @ Broad St.	RIVER	0.503	0.15	9.89	7.17	1090	5.78	50.5	8.15	2120	1370	1250	3.54			
04/13/16	9:50 AM	Woonasquatucket River @ Valley St.	RIVER	0.507	0.21	8.61	7.01	629	4.37	16.4	5.57	1590	844	783	< 2			
04/13/16	9:50 AM	Woonasquatucket River @ Valley St. (Duplicate)	RIVER	0.507	0.21	8.61	7.01	626	4.4	18.4	<5	1690	877	797	< 2			
04/13/16	2:35 PM	Ten Mile River @ Omega Pond	RIVER	0.512	0.25	9.57	8.34	812	4.1	7.25	9.5	1420	1190	1100	5.05			
04/13/16	10:25 AM	Moshassuck River @ Mill St.	RIVER	0.534	0.28	8.2	6.99	480	3.26	27.1	<5	2230	716	667	2.7			
04/13/16	1:05 PM	Moshassuck River @ Higginson Ave.	RIVER	0.507	0.29	10.59	7.17	361	2.68	<7.0	<5	2060	598	539	< 2			
04/13/16	8:15 AM	Blackstone River @ Slater Mill	RIVER	0.524	0.5	8.89	6.74	561	21.8	45.8	10.3	1930	914	782	3.91			
04/13/16	9:20 AM	Woonasquatucket River @ Manton Ave.	RIVER	0.502	0.51	8.33	6.97	575	6.15	22.6	<5	1490	844	754	< 2			
04/27/16	9:50 AM	Coles River @ Milford Rd.	RIVER	0.62	0.1	13.13	7.14	121.0	3.25	8.600	6.98	227.0	622.0	546.0	< 2			
04/27/16	11:00 AM	Warren Reservoir/Kickemuit River	RIVER	0.6	0.18	11.61	7.85	418.0	9.24	66.50	8.15	763.0	1030	938.0	3.66			
04/27/16	1:40 PM	Woonasquatucket River @ Manton Ave.	RIVER	0.5	0.19	13.39	7.36	777.0	7.18	55.50	<5	1190	1090	993.0	< 2			
04/27/16	2:05 PM	Woonasquatucket River @ Valley St.	RIVER	0.31	0.2	13.96	7.23	784.0	6.04	28.90	<5	1320	1040	1050	< 2			
04/27/16	10:35 AM	Blackstone River @ Stateline	RIVER	0.56	0.21	11.81	7.06	612.0	10.6	41.40	10.1	1560	925.0	872.0	5.43			
04/27/16	8:35 AM	Blackstone River @ Slater Mill	RIVER	0.519	0.22	12.63	7.2	661.0	17.7	141.0	10.4	1260	1130	1060	6.25			
04/27/16	9:40 AM	Blackstone River @ Bikepath Bridge	RIVER	0.536	0.22	12.76	7.13	630.0	14.7	101.0	12	1500	1030	1000	3.19			
04/27/16	9:10 AM	Taunton River @ Berkley Bridge	RIVER	0.61	0.22	12.28	7.03	1010	15.6	53.30	81.1	1160	1570	1540	2.32			
04/27/16	11:30 AM	Runnins River @ River Rd.	RIVER	0.61	0.27	9.11	6.97	481.0	1.93	<7.0	<5	1730	907.0	731.0	< 2			
04/27/16	2:30 PM	Moshassuck River @ Mill St.	RIVER	0.194	0.29	13.66	7.21	425.0	4.26	25.40	<5	1880	718.0	650.0	< 2			
04/27/16	2:30 PM	Ten Mile River @ Omega Pond	RIVER	0.57	0.31	13.85	6.67	613.0	5.34	14.00	<5	405.0	1640	880.0	41.13			
04/27/16	2:30 PM	Ten Mile River @ Omega Pond (Duplicate)	RIVER	0.57	0.31	13.85	6.67	600.0	5.45	17.70	<5	398.0	1620	914.0	42.00			
04/27/16	1:30 PM	Ten Mile River @ Central Ave.	RIVER	0.69	0.32	12.82	7.22	827.0	5.39	10.90	6.13	1880	1220	1150	2.64			
04/27/16	12:45 PM	Pawtuxet River @ Broad St.	RIVER	0.592	0.48	13.09	6.98	884.0	6.59	44.80	15.7	2010	1200	1110	< 2			
04/27/16	12:45 PM	Pawtuxet River @ Broad St. (Duplicate)	RIVER	0.592	0.48	13.09	6.98	881.0	6.5	46.50	16	2600	1200	1150	< 2			
04/27/16	10:30 AM	Palmer River @ Rt. 6	RIVER	0.57	13.78	11.29	6.16	125.0	2.98	26.20	<5	720.0	759.0	443.0	9.46			
05/11/16	10:55 AM	Pawtuxet River @ Broad St.	RIVER	0.328	0.14	14.21	7.44	779.0	4.44	<7.0	7.8	1930	1010	968.0	< 2			
05/11/16	10:55 AM	Pawtuxet River @ Broad St. (Duplicate)	RIVER	0.328	0.14	14.21	7.44	775.0	4.43	<7.0	8.23	1940	1020	945.0	2.45			
05/11/16	8:55 AM	Woonasquatucket River @ Manton Ave.	RIVER	0.359	0.18	14.05	7.63	457.0	9.61	47.20	<5	855.0	702.0	663.0	< 2			
05/11/16	1:25 PM	Blackstone River @ Slater Mill	RIVER	0.473	0.19	14.99	7.52	446.0	4.53	<7.0	11.1	1400	894.0	683.0	30.00			
05/11/16	9:25 AM	Woonasquatucket River @ Valley St.	RIVER	0.535	0.19	13.97	7.49	524.0	7.06	15.00	<5	861.0	798.0	709.0	7.16			
05/11/16	2:05 PM	Ten Mile River @ Omega Pond	RIVER	0.544	0.27	14.19	7.76	474.0	4.57	<7.0	<5	307.0	927.0	703.0	8.72			
05/11/16	10:00 AM	Moshassuck River @ Mill St.	RIVER	0.582	0.29	13.29	7.22	422.0	6.21	37.00	5.18	2050	671.0	622.0	4.95			
05/11/16	12:50 PM	Moshassuck River @ Higginson Ave.	RIVER	0.504	0.3	16.25	7.65	161.0	3.89	<7.0	7.01	1840	421.0	389.0	5.43			
05/25/16	1:40 PM	Coles River @ Milford Rd.	RIVER	0.541	0.1	21.18	7.87	54.70	3.52	39.80	19.6	367.0	1060	728.0	25.11			
05/25/16	1:00 PM	Warren Reservoir/Kickemuit River	RIVER	0.451	0.15	21.3	8.08	73.20	9	48.10	9.78	152.0	1150	767.0	5.38			
05/25/16	3:00 PM	Pawtuxet River @ Broad St.	RIVER	0.75	0.17	19	7.58	1070	16.8	111.0	10.7	2210	1600	1580	< 2			
05/25/16	3:00 PM	Pawtuxet River @ Broad St. (Duplicate)	RIVER	0.75	0.17	19	7.58	1070	16.9	111.0	10.1	2080	1660	1590	2.13			
05/25/16	2:00 PM	Woonasquatucket River @ Valley St.	RIVER	0.401	0.21	19.86	7.73	672.0	5.25	32.60	<5	1160	1160	1120	4.09			
05/25/16	10:00 AM	Blackstone River @ Stateline	RIVER	2	0.22	17.42	7.7	557.0	11.1	52.00	13.6	1040	1080	995.0	5.05			
05/25/16	9:30 AM	Blackstone River @ Bikepath Bridge	RIVER	0.567	0.22	17.92	7.93	515.0	10.5	48.10	31.2	1170	1050	941.0	3.30			
05/25/16	8:30 AM	Blackstone River @ Slater Mill	RIVER	0.633	0.23	17.5	8.22	563.0	10.5	47.50	23.3	1090	1040	983.0	2.83			
05/25/16	10:30 AM	Ten Mile River @ Omega Pond	RIVER	0.55	0.28	18.08	7.95	432.0	10.6	34.60	12.3	200.0	1140	860.0	5.42			
05/25/16	1:30 PM	Moshassuck River @ Mill St.	RIVER	0.308	0.29	17.99	7.9	408.0	11.8	97.20	6.28	2360	892.0	841.0	2.95			
05/25/16	1:00 PM	Moshassuck River @ Higginson Ave.	RIVER	0.485	0.3	19.4	8.07	94.30	3.73	34.00	9.23	1340	514.0	465.0	2.13			
05/25/16	9:55 AM	Ten Mile River @ Central Ave.	RIVER	0.486	0.35	16.39	8.02	1050	14.6	63.00	16.5	2540	1730	1500	4.89			
05/25/16	9:55 AM	Ten Mile River @ Central Ave. (Duplicate)	RIVER	0.486	0.35	16.39	8.02	1030	14.7	38.50	42.2	2530	1730	1540	5.00			
05/25/16	8:45 AM	Taunton River @ Berkley Bridge	RIVER	0.496	0.36	17.77	8.93	1230	9.01	50.50	75.1	1260	1870	1720	3.52			
05/25/16	2:45 PM	Runnins River @ River Rd.	RIVER	0.546	0.38	18.67	7.87	506.0	6.92	9.360	5.62	2510	993.0	995.0	< 2			
05/25/16	2:15 PM	Palmer River @ Rt. 6	RIVER	0.498	10.52	19.06	6.96	128.0	4.41	40.20	7.3	707.0	864.0	683.0	9.90			

Table 30: River and Bay Nutrients Data

								NUTRIENT PARAMETERS							TSS AND CHLOROPHYLL PARAMETERS			
Collection Date	Collection Time	Station	Water-body	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3+NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	TSS* (ppm)	Chl a (ug/L)	Phaeo-phytin (ug/L)	COMMENTS
06/09/16	2:30 PM	Woonasquatucket River @ Manton Ave.	RIVER	0.385	0.18	21.37	7.32	425.0	8.9	107.0	5.78	1290	752.0	709.0	< 2			
06/09/16	2:00 PM	Woonasquatucket River @ Valley St.	RIVER	0.335	0.2	20.43	7.61	587.0	8.33	43.40	5.24	1530	788.0	835.0	5.11			
06/09/16	1:05 PM	Moshassuck River @ Higginson Ave.	RIVER	0.357	0.21	19.2	7.39	146.0	8.86	145.0	9.45	1840	513.0	564.0	< 2			
06/09/16	8:30 AM	Ten Mile River @ Omega Pond	RIVER	0.112	0.22	21	7.18	433.0	22.6	120.0	9.6	1020	1000	876.0	4.47			
06/09/16	10:30 AM	Blackstone River @ Slater Mill	RIVER	0.528	0.23	20.26	7.80	792.0	28.9	106.0	37.3	2230	1280	1270	12.50			
06/09/16	1:30 PM	Moshassuck River @ Mill St.	RIVER	0.239	0.29	17.21	7.46	472.0	16.8	149.0	6.62	3140	813.0	876.0	3.96			
06/22/16	1:50 PM	Coles River @ Milford Rd.	RIVER	1.247	0.14	20.4	7.10	221.0	11.5	97.30	24.3	2480	1000	908.0	< 2			
06/22/16	2:15 PM	Warren Reservoir/Kickemuit River	RIVER	0.729	0.15	22.8	6.87	<6.0	<1.5	8.540	7.89	66.90	685.0	669.0	2.42			
06/22/16	3:00 PM	Pawtuxet River @ Broad St.	RIVER	0.05	0.22	23.12	7.90	1240	55.8	67.90	21.6	2500	1690	1620	< 2			
06/22/16	3:00 PM	Pawtuxet River @ Broad St. (Duplicate)	RIVER	0.05	0.22	23.12	7.90	1240	54.2	61.30	21.5	2230	1650	1600	< 2			
06/22/16	1:00 PM	Woonasquatucket River @ Manton Ave.	RIVER	0.05	0.22	23.14	8.04	497.0	7.36	31.90	<5	981.0	780.0	795.0	< 2			
06/22/16	1:30 PM	Woonasquatucket River @ Valley St.	RIVER	0.05	0.25	21.13	7.88	593.0	3.87	<7.0	<5	1160	584.0	817.0	2.71			
06/22/16	8:30 AM	Blackstone River @ Slater Mill	RIVER	0.05	0.28	21.97	8.60	786.0	9.23	39.80	20.6	1580	1390	1140	26.74			
06/22/16	10:05 AM	Ten Mile River @ Omega Pond	RIVER	1.115	0.28	23.14	7.36	254.0	13.1	10.20	6.46	418.0	819.0	745.0	4.49			
06/22/16	10:30 AM	Blackstone River @ Stateline	RIVER	0.05	0.3	22.98	7.82	836.0	9.33	24.40	18.2	1590	1330	1250	19.12			
06/22/16	9:20 AM	Blackstone River @ Bikepath Bridge	RIVER	0.05	0.3	22.84	7.98	880.0	10.9	34.70	22	1930	1290	1240	2.34			
06/22/16	1:45 PM	Moshassuck River @ Mill St.	RIVER	0.05	0.31	19.18	7.74	499.0	19.5	101.0	<5	3830	791.0	875.0	6.17			
06/22/16	12:50 PM	Runnins River @ River Rd.	RIVER	0.514	0.32	19.38	6.87	268.0	4.22	<7.0	5.18	3690	655.0	662.0	2.47			
06/22/16	9:35 AM	Ten Mile River @ Central Ave.	RIVER	0.71	0.37	20.83	7.24	974.0	12.6	81.60	17.1	2690	1440	1450	3.51			
06/22/16	8:35 AM	Taunton River @ Berkley Bridge	RIVER	0.501	0.56	22.67	7.27	1310	9.87	53.20	119	2600	1920	1810	5.26			
06/22/16	8:35 AM	Taunton River @ Berkley Bridge (Duplicate)	RIVER	0.501	0.56	22.67	7.27	1260	10.2	54.70	119	2570	1910	1640	5.21			
06/22/16	1:10 PM	Palmer River @ Rt. 6	RIVER	0.569	17.61	24.1	7.24	6.070	<1.5	<7.0	<5	660.0	717.0	353.0	12.45			
07/06/16	1:10 PM	Woonasquatucket River @ Manton Ave.	RIVER	0.248	0.21	24.81	7.32	234.0	5.65	28.20	7.4	1210	475.0	544.0	4.79			
07/06/16	1:40 PM	Woonasquatucket River @ Valley St.	RIVER	0.298	0.23	24.39	7.67	327.0	3.25	<7.0	5.72	1470	570.0	529.0	8.22			
07/06/16	1:40 PM	Woonasquatucket River @ Valley St. (Duplicate)	RIVER	0.298	0.23	24.39	7.67	323.0	3.31	<7.0	5.74	1550	540.0	583.0	7.67			
07/06/16	3:10 PM	Pawtuxet River @ Broad St.	RIVER	0.49	0.24	24.42	7.29	1180	6.5	<7.0	27.8	2480	1430	1490	3.27			
07/06/16	10:35 AM	Blackstone River @ Slater Mill	RIVER	0.499	0.27	23.72	7.55	806.0	8.26	20.60	35.8	1470	1180	1170	19.15			
07/06/16	11:05 AM	Moshassuck River @ Higginson Ave.	RIVER	0.48	0.27	22.36	7.22	129.0	5.35	55.00	9.64	1820	414.0	465.0	3.33			
07/06/16	2:20 PM	Moshassuck River @ Mill St.	RIVER	0.141	0.28	21.94	7.32	440.0	18.1	78.30	6.04	3620	652.0	744.0	3.30			
07/06/16	9:30 AM	Ten Mile River @ Omega Pond	RIVER	1.532	0.31	24.17	7.72	<6.0	<1.5	8.400	8.86	930.0	538.0	404.0	6.74			
07/20/16	10:05 AM	Coles River @ Milford Rd.	RIVER	0.48	0.13	22.76	7.08	89.20	4.14	35.00	13.6	317.0	747.0	692.0	2.67			
07/20/16	10:35 AM	Warren Reservoir/Kickemuit River	RIVER	0.499	0.17	21.4	6.90	20.80	<1.5	<7.0	<5	787.0	1110	626.0	23.49			
07/20/16	2:45 PM	Pawtuxet River @ Broad St.	RIVER	0.898	0.21	25.52	7.52	1130	12.2	27.90	24.6	2460	1460	1500	2.71			
07/20/16	1:40 PM	Woonasquatucket @ Valley St.	RIVER	0.501	0.25	23.71	7.70	597.0	2.89	9.270	5.43	1240	746.0	794.0	< 2			
07/20/16	1:40 PM	Woonasquatucket @ Valley St. (Duplicate)	RIVER	0.501	0.25	23.71	7.70	560.0	3.02	9.420	5.47	1320	766.0	814.0	< 2			
07/20/16	1:00 PM	Moshassuck River @ Higginson Ave.	RIVER	0.427	0.25	19.31	7.63	314.0	7.34	67.50	12.9	4610	516.0	566.0	< 2			
07/20/16	8:45 AM	Blackstone River @ Slater Mill	RIVER	0.608	0.28	24.6	7.40	736.0	8.48	46.70	41.5	1170	1230	1060	17.55			
07/20/16	10:45 AM	Blackstone River @ Stateline	RIVER	0.372	0.28	23.64	7.72	697.0	5.85	19.30	27	1430	1080	1100	4.35			
07/20/16	9:30 AM	Blackstone River @ Bikepath Bridge	RIVER	0.645	0.3	25.09	7.40	879.0	8.35	34.20	50.9	1690	1260	1300	< 2			
07/20/16	2:15 PM	Ten Mile River @ Omega Pond	RIVER	0.728	0.33	24.04	7.74	<6.0	<1.5	<7.0	5.59	1490	987.0	357.0	13.04			
07/20/16	2:15 PM	Moshassuck River @ Mill St.	RIVER	0.33	0.34	21.51	7.54	801.0	31.3	73.20	7.91	5020	985.0	1050	10.43			
07/20/16	12:55 PM	Runnins River @ River Rd.	RIVER	0.503	0.36	18.86	7.09	506.0	4.59	25.90	6.9	4200	774.0	930.0	3.91			
07/20/16	1:30 PM	Ten Mile River @ Central Ave.	RIVER	0.485	0.4	21.55	7.46	1360	6.06	19.60	25.2	1660	1720	1790	3.70			
07/20/16	8:45 AM	Taunton River @ Berkley Bridge	RIVER	0.519	13.03	25.02	7.41	447.0	10.5	81.50	82.7	1060	1350	1000	24.17			
07/20/16	8:45 AM	Taunton River @ Berkley Bridge (Duplicate)	RIVER	0.519	13.03	25.02	7.41	447.0	10.7	84.30	82.7	1030	1100	977.0	22.34			
07/20/16	11:00 AM	Palmer River @ Rt. 6	RIVER	0.524	24.1	24.21	7.70	6.030	<1.5	<7.0	54.3	1110	1110	333.0	39.78			
08/03/16	12:53 PM	Moshassuck River @ Higginson Ave.	RIVER	0.096	0.25	18.35	7.42	381.0	6.67	62.30	13	5400	607.0	617.0	11.01			
08/03/16	1:46 PM	Woonasquatucket River @ Valley St.	RIVER	0.302	0.27	21.80	7.75	537.0	2.68	<7.0	<5	1640	696.0	784.0	< 2			
08/03/16	2:00 PM	Woonasquatucket River @ Manton Ave.	RIVER	0.314	0.29	19.72	7.50	444.0	4.36	<7.0	5.08	856.0	649.0	748.0	< 2			

Table 30: River and Bay Nutrients Data

								NUTRIENT PARAMETERS							TSS AND CHLOROPHYLL PARAMETERS			
Collection Date	Collection Time	Station	Water-body	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3+NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	TSS* (ppm)	Chl a (ug/L)	Phaeo-phytin (ug/L)	COMMENTS
08/03/16	1:14 PM	Moshassuck River @ Mill St.	RIVER	0.247	0.29	19.82	7.58	667.0	14.5	21.30	6.99	5310	895.0	935.0	8.74			
08/03/16	8:34 AM	Ten Mile River @ Omega Pond	RIVER	1.20	0.34	23.45	7.28	64.50	5.13	139.0	15.7	1770	752.0	647.0	8.14			
08/03/16	10:09 AM	Blackstone River @ Slater Mill	RIVER	0.52	0.50	22.15	7.45	706.0	5.74	33.00	25.1	849.0	1280	980.0	19.13			
08/03/16	10:46 AM	Pawtuxet River @ Broad St.	RIVER	1.52	27.13	23.23	7.45	1320	21.5	123.0	124	2390	1890	1740	8.76			
08/03/16	10:46 AM	Pawtuxet River @ Broad St. (Duplicate)	RIVER	1.52	27.13	23.23	7.45	1320	21.4	129.0	126	2510	1810	1740	8.48			
08/17/16	10:22 AM	Blackstone River @ Stateline	RIVER	0.493	0.21	24.80	7.42	702.0	8.05	30.30	33.4	1550	922.0	1020	4.78			
08/17/16	2:00 PM	Pawtuxet River @ Broad St.	RIVER	0.347	0.21	25.72	7.16	1280	11	17.60	45.3	2440	1410	1570	2.17			
08/17/16	10:50 AM	Warren Reservoir/Kickemuit River	RIVER	0.49	0.21	24.68	7.70	20.90	<1.5	<7.0	5.16	896.0	1180	777.0	9.36			
08/17/16	1:15 PM	Woonasquatucket River @ Valley St.	RIVER	0.194	0.23	24.81	7.72	339.0	2.15	<7.0	<5	1240	490.0	570.0	4.79			
08/17/16	1:15 PM	Woonasquatucket River @ Valley St. (Duplicate)	RIVER	0.194	0.23	24.81	7.72	338.0	2.14	<7.0	<5	1240	535.0	682.0	3.04			
08/17/16	9:20 AM	Coles River @ Milford Rd.	RIVER	1.12	0.24	20.36	7.50	388.0	11	47.10	9.29	2080	854.0	796.0	3.40			
08/17/16	8:19 AM	Blackstone River @ Slater Mill	RIVER	0.314	0.25	25.13	7.60	812.0	5.9	25.90	37.7	1250	1210	1250	7.25			
08/17/16	12:15 PM	Moshassuck River @ Higginson Ave.	RIVER	0.562	0.26	21.13	7.07	280.0	5.77	55.40	11.1	4650	548.0	587.0	< 2			
08/17/16	9:20 AM	Blackstone River @ Bikepath Bridge	RIVER	0.566	0.27	25.59	7.60	900.0	7.34	30.70	43.6	1500	1140	1300	2.95			
08/17/16	12:50 PM	Moshassuck River @ Mill St.	RIVER	0.190	0.31	22.14	7.41	664.0	24.1	60.20	5.57	4700	845.0	1170	3.33			
08/17/16	1:15 PM	Ten Mile River @ Omega Pond	RIVER	1.29	0.35	25.60	7.70	37.00	2.91	82.70	15.6	1170	944.0	600.0	28.94			
08/17/16	2:00 PM	Ten Mile River @ Central Ave.	RIVER	0.68	0.40	24.86	7.33	991.0	5.93	31.20	24.2	2130	2340	1440	107.50			
08/17/16	10:20 AM	Runnins River @ River Rd.	RIVER	1.17	0.42	21.61	7.57	515.0	4.47	22.40	<5	4500	776.0	788.0	3.74			
08/17/16	8:40 AM	Taunton River @ Berkley Bridge	RIVER	0.20	10.34	26.50	7.53	276.0	4.25	60.50	113	1460	1240	677.0	28.44			
08/17/16	8:40 AM	Taunton River @ Berkley Bridge (Duplicate)	RIVER	0.20	10.34	26.50	7.53	275.0	4.49	65.30	114	1430	1220	671.0	28.26			
08/17/16	9:55 AM	Palmer River @ Rt. 6	RIVER	1.14	27.19	26.92	6.98	50.80	<1.5	<7.0	44	1080	1090	403.0	38.54			
08/31/16	1:34 PM	Woonasquatucket River @ Manton Ave.	RIVER	0.314	0.25	22.66	7.22	417.0	3.72	26.00	<5	902.0	1230	708.0	45.53			
08/31/16	1:04 PM	Blackstone River @ Slater Mill	RIVER	0.44	0.29	23.02	7.66	772.0	6.1	56.50	27.5	1160	1210	1140	5.00			
08/31/16	1:55 PM	Woonasquatucket @ Valley St.	RIVER	0.37	0.30	21.31	7.70	567.0	2.59	11.10	<5	1960	807.0	759.0	3.52			
08/31/16	12:32 PM	Moshassuck River @ Higginson Ave.	RIVER	0.377	0.30	17.45	7.50	363.0	5.67	33.30	9.3	6170	594.0	565.0	< 2			
08/31/16	2:28 PM	Moshassuck River @ Mill St.	RIVER	0.25	0.35	19.50	7.72	948.0	23.2	52.70	<5	5490	1210	1070	18.48			
08/31/16	8:19 AM	Ten Mile River @ Omega Pond	RIVER	0.68	0.36	23.75	7.83	6.400	<1.5	<7.0	5.99	1330	1030	421.0	8.79			
08/31/16	10:13 AM	Pawtuxet River @ Broad St.	RIVER	1.52	28.63	23.63	7.43	1450	9.77	44.80	37.6	2480	2040	1790	6.30			
08/31/16	10:13 AM	Pawtuxet River @ Broad St. (Duplicate)	RIVER	1.52	28.63	23.63	7.43	1460	9.53	44.90	33.8	2430	2080	1830	5.43			
09/14/16	1:10 PM	Woonasquatucket River @ Manton Ave.	RIVER	0.068	0.27	21.64	7.04	600.0	6.24	22.90	<5	1090	970.0	813.0	2.30			
09/14/16	1:35 PM	Woonasquatucket River @ Valley St.	RIVER	0.027	0.31	20.87	7.00	808.0	3.78	28.60	<5	2170	1150	986.0	2.50			
09/14/16	10:35 AM	Blackstone River @ Stateline	RIVER	1.051	0.32	20.96	6.91	1520	5.84	17.30	36	1610	2030	1830	2.00			
09/14/16	2:00 PM	Moshassuck River @ Mill St.	RIVER	0.049	0.34	20.06	7.00	789.0	17.8	46.60	7.76	5390	1280	1130	7.45			
09/14/16	8:40 AM	Blackstone River @ Slater Mill	RIVER	0.019	0.35	21.11	5.92	1140	6.17	37.50	20.4	1250	1600	1450	2.42			
09/14/16	9:30 AM	Blackstone River @ Bikepath Bridge	RIVER	0.339	0.36	21.69	6.22	1070	5.17	21.80	23.3	1480	1630	1480	< 2			
09/14/16	2:00 PM	Ten Mile River @ Omega Pond	RIVER	1.18	0.37	22.82	8.44	26.90	3.14	<7.0	<5	1100	1080	394.0	17.26			
09/14/16	2:45 PM	Ten Mile River @ Central Ave.	RIVER	0.629	0.50	21.97	7.74	1050	3.57	8.730	15.5	1580	1720	1490	4.83			
09/14/16	2:50 PM	Pawtuxet River @ Broad St.	RIVER	0.050	0.82	22.18	7.10	1790	6.33	13.40	15.1	3150	2400	2140	< 2			
09/14/16	2:50 PM	Pawtuxet River @ Broad St. (Duplicate)	RIVER	0.050	0.82	22.18	7.10	1800	6.24	13.40	15.2	3070	2300	2160	< 2			
09/14/16	1:00 PM	Palmer River @ Rt. 6	RIVER	1.90	25.24	23.95	7.87	<6.0	<1.5	<7.0	<5	1510	1530	521.0	33.70			
09/14/16	10:15 AM	Coles River @ Milford Rd.	RIVER					191.0	3.66	13.30	<5	1100	709.0	529.0	2.50			
09/14/16	11:00 AM	Runnins River @ River Rd.	RIVER					704.0	3.77	27.50	<5	4780	942.0	871.0	8.09			
09/14/16	9:15 AM	Taunton River @ Berkley Bridge	RIVER					823.0	14.1	<7.0	136	1470	1750	1190	11.30			
09/14/16	9:15 AM	Taunton River @ Berkley Bridge (Duplicate)	RIVER					829.0	14.5	<7.0	137	1460	1800	1150	10.52			
09/28/16	1:50 PM	Pawtuxet River @ Broad St.	RIVER		0	13.66	7.53	1440	34.3	21.80	16.4	2570	1870	1730	2.60			
09/28/16	9:30 AM	Moshassuck River @ Higginson Ave.	RIVER		0.26	13.9	7.82	357.0	7.08	65.70	8.05	5940	670.0	586.0	5.11			
09/28/16	12:50 PM	Woonasquatucket River @ Manton Ave.	RIVER		0.27	16.75	7.96	631.0	3.33	17.70	<5	993.0	896.0	843.0	4.33			
09/28/16	9:55 AM	Moshassuck River @ Mill St.	RIVER		0.28	14.95	7.75	567.0	8.94	14.60	<5	4520	743.0	726.0	3.47			
09/28/16	1:10 PM	Woonasquatucket River @ Valley St.	RIVER		0.3	15.96	7.88	794.0	2.23	8.360	<5	1790	1070	954.0	3.33			

Table 30: River and Bay Nutrients Data

								NUTRIENT PARAMETERS							TSS AND CHLOROPHYLL PARAMETERS			
Collection Date	Collection Time	Station	Water-body	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3+NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	TSS* (ppm)	Chl a (ug/L)	Phaeo-phytin (ug/L)	COMMENTS
09/28/16	8:30 AM	Blackstone River @ Slater Mill	RIVER		0.37	17.13	7.84	1420	5.52	26.10	21.1	1190	1920	1670	12.63			
09/28/16	8:30 AM	Blackstone River @ Slater Mill (Duplicate)	RIVER		0.37	17.13	7.84	1390	5.53	30.20	21.3	1190	1980	1670	11.37			
09/28/16	10:45 AM	Ten Mile River @ Omega Pond	RIVER		0.38	18.07	8.27	66.50	3.64	48.00	6.12	206.0	762.0	469.0	5.60			
10/12/16	9:30 AM	Coles River @ Milford Rd.	RIVER	1.18	0.15	12.80	7.83	43.9	<1.5	<7.0	<5	494	456	320	< 2			
10/12/16	1:40 PM	Pawtuxet River @ Broad St.	RIVER	0.5	0.16	13.17	7.50	840	21.8	40.6	12.4	2100	1170	1110	9.2			
10/12/16	1:40 PM	Pawtuxet River @ Broad St. (Duplicate)	RIVER	0.5	0.16	13.17	7.50	844	21.5	44.2	12.3	2160	1180	1080	7.68			
10/12/16	10:10 AM	Blackstone River @ Stateline	RIVER	0.5	0.24	11.28	7.48	1050	7.14	<7.0	28	1810	1420	1330	4.79			
10/12/16	9:00 AM	Blackstone River @ Slater Mill	RIVER	0.5	0.26	12.38	7.96	1150	3.54	<7.0	23.2	1620	1470	1350	3.64			
10/12/16	9:40 AM	Blackstone River @ Bikepath Bridge	RIVER	0.5	0.27	12.16	7.67	1380	4.77	<7.0	28.8	1750	1740	1700	4.33			
10/12/16	12:50 PM	Woonasquatucket River @ Valley St.	RIVER	0.5	0.27	12.51	7.59	439	2.49	<7.0	<5	1590	686	599	2.68			
10/12/16	11:00 AM	Moshassuck River @ Higginson Ave.	RIVER	0.5	0.27	11.45	7.46	153	2.77	33	6.46	3450	491	369	2.5			
10/12/16	1:15 PM	Moshassuck River @ Mill St.	RIVER	0.5	0.30	12.06	7.37	487	7.93	48.7	<5	4090	732	668	2.47			
10/12/16	12:45 PM	Runnins River @ River Rd.	RIVER	0.962	0.35	10.87	7.61	476	2.45	14.5	<5	3730	743	600	2.86			
10/12/16	1:30 PM	Ten Mile River @ Outlet of Omega Pond	RIVER	1.63	0.37	14.74	7.48	124	3.3	<7.0	14.7	508	702	398	11.25			
10/12/16	2:00 PM	Ten Mile River @ Central Ave.	RIVER	0.673	0.39	13.91	7.58	1320	4.5	<7.0	10.5	2770	1850	1580	14.64			
10/12/16	10:00 AM	Warren Reservoir/Kickemuit River	RIVER	0.886	6.69	17.11	6.56	62.2	6.81	558	16.5	566	2030	1170	20.22			
10/12/16	8:45 AM	Taunton River @ Berkley Bridge	RIVER	0.728	8.85	14.13	6.73	1160	8.79	45.5	94.5	2130	1930	1420	15.43			
10/12/16	8:45 AM	Taunton River @ Berkley Bridge (Duplicate)	RIVER	0.728	8.85	14.13	6.73	1180	8.88	<7.0	94.6	2190	1920	1370	12.83			
10/12/16	11:00 AM	Palmer River @ Rt. 6	RIVER	1.061	9.82	13.67	7.51	69.7	4.16	7.72	<5	2590	1220	312	21.67			
10/26/16	2:45 PM	Pawtuxet River @ Broad Street	RIVER	0.51	0.18	10.39	7.24	734	34.3	19.5	12.8	1770	1090	1070	3.75			
10/26/16	10:00 AM	Woonasquatucket River @ Manton Ave.	RIVER	0.30	0.21	9.31	7.30	348	1.88	20.7	<5	1280	698	587	6.81			
10/26/16	1:35 PM	Woonasquatucket River @ Valley St.	RIVER	0.45	0.22	9.63	7.60	377	<1.5	8.53	<5	1420	627	579	3.9			
10/26/16	1:35 PM	Woonasquatucket River @ Valley St. (Duplicate)	RIVER	0.45	0.22	9.63	7.60	378	1.59	9.12	<5	1310	658	601	3.81			
10/26/16	9:15 AM	Blackstone River @ Slater Mill	RIVER	0.45	0.23	9.70	7.48	560	4.15	43.3	24.9	1470	898	978	8.94			
10/26/16	8:50 AM	Moshassuck River @ Higginson Ave.	RIVER	0.50	0.31	8.17	6.98	157	2.53	29.1	<5	2840	485	401	2.71			
10/26/16	2:10 PM	Moshassuck River @ Mill St.	RIVER	0.19	0.33	8.55	7.51	412	5.53	75.1	<5	3370	679	736	6.51			
10/26/16	12:55 PM	Ten Mile River @ Omega Pond	RIVER	0.43	0.41	11.68	7.56	177	5.82	29.5	10.8	1150	765	521	12.27			
11/09/16	9:37 AM	Blackstone River @ Bikepath Bridge	RIVER	0.072	0.00	7.61	6.72	611	6.34	23.2	17.3	2140	1010	928	3.58			
11/09/16	11:33 AM	Pawtuxet River @ Broad Street	RIVER	0.054	0.00	11.72	7.13	1390	2.5	24	31.1	2520	1700	1610	3.4			
11/09/16	1:30 PM	Woonasquatucket River @ Manton Ave.	RIVER	0.273	0.17	9.01	7.30	333	1.72	13.3	<5	1150	628	568	2.8			
11/09/16	2:38 PM	Wonnasquatucket River @ Valley St.	RIVER	0.238	0.18	9.10	7.31	380	1.76	<7.0	<5	1270	610	553	< 2			
11/09/16	2:38 PM	Woonasquatucket River @ Valley St. (Duplicate)	RIVER	0.238	0.18	9.10	7.31	382	1.84	<7.0	<5	1260	670	556	< 2			
11/09/16	10:28 AM	Blackstone River @ Stateline	RIVER	0.200	0.19	7.35	7.27	777	9.28	19.5	18.1	1870	1160	1020	3.67			
11/09/16	9:55 AM	Coles River @ Milford Rd.	RIVER	1.0	0.19	7.32	7.98	64.6	<1.5	<7.0	<5	1610	463	371	< 2			
11/09/16	8:40 AM	Blackstone River @ Slater Mill	RIVER	0.496	0.20	7.69	7.25	630	7.39	39.5	15.8	2130	1040	917	4.04			
11/09/16	3:09 PM	Moshassuck @ Mill St.	RIVER	0.145	0.31	9.07	7.15	598	11.3	126	5.04	4320	955	918	2.92			
11/09/16	12:59 PM	Runnins River @ River Rd.	RIVER	1.0	0.49	6.24	7.63	581	3.82	39.7	<5	4000	845	793	2.98			
11/09/16	2:15 PM	Ten Mile River @ Central Avenue	RIVER	0.3	0.49	8.72	7.95	3520	5.6	11.2	6.7	2850	3770	3760	3.16			
11/09/16	9:00 AM	Taunton River @ Berkley Bridge	RIVER	1.5	3.74	8.03	7.83	1780	6.13	36.2	164	3330	2720	2160	5.71			
11/09/16	10:37 AM	Warren Reservoir/Kickemuit River	RIVER	1.0	5.58	11.23	7.24	20.2	11	342	<5	528	1980	1030	26.67			
11/09/16	1:40 PM	Ten Mile River @ Outlet of Omega Pond	RIVER	1.0	17.42	10.98	7.75	192	6.38	<7.0	<5	1550	933	472	8.3			
11/09/16	11:13 AM	Palmer River @ Rt. 6	RIVER	1.25	19.42	7.64	7.79	11.7	2.48	<7.0	<5	2380	1040	249	22.83			
11/09/16	9:00 AM	Taunton River @ Berkley Bridge (Duplicate)	RIVER					1780	6.12	38	165	3240	2720	2110	5.53			
11/23/16	8:49 AM	Moshassuck River @ Mill St.	RIVER	0.27	0.12	4.78	7.49	416.0	3.9	62.60	<5	3630	736.0	725.0	2.55			
11/23/16	10:36 AM	Woonasquatucket River @ Valley St.	RIVER	0.09	0.15	3.89	7.58	461.0	<1.5	<7.0	<5	1270	813.0	706.0	< 2			
11/23/16	10:36 AM	Woonasquatucket River @ Valley St. (Duplicate)	RIVER	0.09	0.15	3.89	7.58	463.0	<1.5	<7.0	<5	1280	805.0	696.0	< 2			
11/23/16	8:10 AM	Pawtuxet River @ Broad St.	RIVER	0.32	0.16	4.52	7.61	1550	2.55	<7.0	22	2880	2060	1920	2.71			
11/23/16	10:10 AM	Woonasquatucket River @ Manton Ave.	RIVER	0.20	0.17	3.23	7.57	418.0	<1.5	7.980	<5	1230	784.0	609.0	< 2			
11/23/16	2:25 PM	Ten Mile River @ Omega Pond	RIVER	0.37	0.25	3.85	7.65	830.0	11.2	<7.0	<5	2170	1420	1080	4.75			
11/23/16	12:50 PM	Moshassuck River @ Higginson Ave.	RIVER	0.38	0.26	4.02	7.61	150.0	1.75	19.20	<5	2770	461.0	336.0	< 2			

Table 30: River and Bay Nutrients Data

								NUTRIENT PARAMETERS							TSS AND CHLOROPHYLL PARAMETERS			COMMENTS
Collection Date	Collection Time	Station	Water-body	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3+NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	TSS* (ppm)	Chl a (ug/L)	Phaeo-phytin (ug/L)	
11/23/16	12:27 PM	Blackstone River @ Slater Mill	RIVER	0.39	1.13	3.79	7.13	659.0	10.8	43.70	14.3	2320	1180	1020	2.35			
12/07/16	8:30 AM	Blackstone River @ Slater Mill	RIVER	0.352	0.10	4.01	8.21	726.0	10.5	22.60	13.4	2680	1120	1030	3.44			
12/07/16	8:30 AM	Blackstone River @ Slater Mill (Duplicate)	RIVER	0.352	0.10	4.01	8.21	709.0	10.6	34.00	13.1	2680	1120	1010	4.39			
12/07/16	1:55 PM	Coles River @ Milford Rd.	RIVER	0.102	0.14	4.78	7.44	77.00	1.92	<7.0	<5	3880	605.0	473.0	< 2			
12/07/16	1:45 PM	Woonasquatucket @ Valley St.	RIVER	0.464	0.18	4.36	7.95	361.0	1.68	<7.0	<5	1510	718.0	580.0	2.04			
12/07/16	10:15 AM	Blackstone River @ Stateline	RIVER	0.897	0.22	3.04	7.97	844.0	16.1	53.20	15.6	2670	1350	1220	2.78			
12/07/16	9:15 AM	Blackstone River @ Bikepath Bridge	RIVER	0.524	0.24	3.13	8.41	755.0	13	29.10	14.6	2850	1220	1100	5.38			
12/07/16	10:15 AM	Ten Mile River @ Outlet of Omega Pond	RIVER	0.561	0.24	3.97	7.16	1400	12.4	<7.0	8.48	2420	1960	1810	6.64			
12/07/16	12:30 PM	Moshassuck @ Higginson Ave.	RIVER	0.660	0.27	4.36	7.92	131.0	2.82	33.40	<5	2550	481.0	354.0	3.01			
12/07/16	1:15 PM	Moshassuck @ Mill St.	RIVER	0.221	0.32	4.96	7.72	370.0	6.29	79.10	7.24	2840	789.0	724.0	3.62			
12/07/16	2:40 PM	Runnins River @ River Rd.	RIVER	0.102	0.34	4.19	8.22	587.0	4.61	53.50	7.85	4530	1150	1070	2.15			
12/07/16	9:55 AM	Ten Mile River @ Central Ave.	RIVER	0.161	0.35	3.84	7.03	1980	7.66	48.80	20.6	3790	2530	2400	2.89			
12/07/16	8:50 AM	Taunton River @ Berkley Bridge	RIVER	0.143	0.42	4.24	7.10	982.0	11.7	376.0	89.6	4100	1950	1790	3.51			
12/07/16	8:50 AM	Taunton River @ Berkley Bridge (Duplicate)	RIVER	0.143	0.42	4.24	7.10	974.0	12.6	376.0	87.8	3840	1880	1790	2.87			
12/07/16	1:25 PM	Warren Reservoir/Kickemuit River	RIVER	0.120	0.71	4.77	7.31	310.0	10.6	273.0	16.2	3240	1370	1100	3.20			
12/07/16	2:45 PM	Pawtuxet River @ Broad St.	RIVER	1.88	20.17	5.95	7.72	1280	3.99	49.30	22.2	3150	1830	1620	3.79			
12/07/16	2:20 PM	Palmer River @ Rt. 6	RIVER	0.331	23.24	4.76	7.44	121.0	4.84	8.840	15.4	1220	812.0	322.0	9.05			
12/21/16	1:20 PM	Woonasquatucket River @ Manton Ave.	RIVER	0.43	0.17	1.27	7.53	419	<1.5	12.4	<5	1730	697	667	3.26			
12/21/16	1:45 PM	Woonasquatucket River @ Valley St.	RIVER	0.44	0.18	1.30	7.38	448	<1.5	<7.0	<5	1600	799	684	3.5			
12/21/16	10:45 AM	Pawtuxet River @ Broad St.	RIVER	0.98	0.19	1.47	7.23	1410	3.86	37.3	21.8	3110	1910	1760	3.96			
12/21/16	12:50 PM	Moshassuck River @ Higginson Ave.	RIVER	0.57	0.29	2.42	7.23	202	3.51	61.4	<5	2910	615	460	4.44			
12/21/16	2:15 PM	Moshassuck River @ Mill St.	RIVER	0.20	0.30	1.91	7.19	421	4.17	98.6	<5	3140	828	727	3.49			
12/21/16	9:35 AM	Ten Mile River @ Omega Pond	RIVER	0.37	0.31	1.21	6.80	1470	10.9	88.7	31	2580	2180	1850	14			
12/21/16	10:10 AM	Blackstone River @ Slater Mill	RIVER	0.43	0.34	0.37	7.65	964	17.3	107	17.6	2920	1500	1350	4.32			
12/21/16	10:10 AM	Blackstone River @ Slater Mill (Duplicate)	RIVER	0.43	0.34	0.37	7.65	978	17.6	90.1	17.8	2900	1530	1370	3.96			
NUTRIENT BLANKS																		
01/06/16	10:15 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100				
02/02/16	8:45 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
03/02/16	8:45 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
03/16/16	3:00 PM	Nutrient Blank						14.5	<1.5	<7.0	<5	<20	<200.0	<100.0				
03/30/16	8:40 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
04/13/16	2:25 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
04/27/16	10:10 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
05/11/16	12:50 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
05/25/16	10:00 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
06/09/16	2:00 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
06/22/16	8:15 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
07/06/16	8:15 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
07/20/16	2:20 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
08/03/16	10:00 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	56.60	<200.0	<100.0				
08/17/16	9:10 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
08/31/16	1:30 PM	Nutrient Blank						<6	<1.5	<7.0	<5	<20	<200.0	<100.0				
09/14/16	8:50 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	169.0				
09/28/16	2:00 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
10/12/16	8:40 AM	Nutrient Blank						8.91	<1.5	8.6	<5	32.2	<200.0	<100.0				
10/26/16	1:00 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
11/09/16	8:45 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
12/07/16	1:30 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
12/21/16	10:15 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
01/06/16	2:00 PM	Nutrient Blank						36	<1.5	<7.0	<5	<20	<200.0	<100.0				
01/20/16	10:12 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
01/20/16	9:14 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
02/02/16	10:30 AM	Nutrient Blank						48.7	<1.5	<7.0	<5	<20	<200.0	<100.0				
02/17/16	10:30 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
02/17/16	1:49 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
03/02/16	11:00 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
03/02/16	2:55 PM	Nutrient Blank						18.3	<1.5	<7.0	<5	<20	<200.0	<100.0				
03/16/16	9:50 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				

Table 30: River and Bay Nutrients Data

								NUTRIENT PARAMETERS							TSS AND CHLOROPHYLL PARAMETERS			COMMENTS
Collection Date	Collection Time	Station	Water-body	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3+NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	TSS* (ppm)	Chl a (ug/L)	Phaeo-phytin (ug/L)	
03/30/16	10:00 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
03/30/16	1:09 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
04/13/16	2:45 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
04/27/16	2:45 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
04/27/16	9:06 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
05/11/16	10:15 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
05/25/16	9:45 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
05/25/16	10:45 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
06/09/16	01/00/00	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
06/22/16	2:00 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
06/22/16	10:15 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
07/06/16	2:30 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
07/20/16	2:55 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
07/20/16	2:40 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
08/03/16	8:46 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
08/17/16	10:45 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
08/17/16	10:00 AM	Nutrient Blank						11.50	<1.5	<7.0	<5	<20	<200.0	<100.0				
08/31/16	8:16 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20		<100.0				
09/14/16	10:55 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
09/14/16	2:15 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
09/28/16	2:00 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
10/12/16	1:10 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
10/12/16	9:00 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
10/26/16	1:07 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
11/09/16	1:48 PM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
11/09/16	10:05 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
11/23/16	8:25 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
12/07/16	9:00 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
12/07/16	10:25 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
12/21/16	9:09 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				
11/23/16	9:15 AM	Nutrient Blank						<6.0	<1.5	<7.0	<5	<20	<200.0	<100.0				

Table 30: River and Bay Nutrients Data

River Fecal Coliform Results 2016
(MPN/100 mL)

	Woonasquatucket River								West River					Providence River	Seekonk River
Date	W9-Manton Ave. Bridge	W8D-Parking Bridge at Olneyville	W8C-Delaine St.	W7C-Eagle St. Bridge		W7B-Pleasant Valley Pkwy.	W7BA-Footbridge at Bath St.	W7A-Kinsley St. at Park St.	WE10-Douglas Ave. Bridge	Charles St.	Hawkins St.	WE12-Veazie St. Bridge	WE11-West River St. Bridge	PR12-Crawford St.	SR5-Pitman St.
1/4/2016	70	<30	<30	40	40	430		90						230	
1/5/2016				<30				90	90			90	430	230	
1/11/2016	230	1500	430	430	930		4300	430						2300	2300
1/12/2016				2300				230	430			230	230	930	
1/19/2016	<30	230	<30	<30	<30		<30	40						40	750
1/20/2016				90				40	30			90	150	150	
1/25/2016	90	90	40	150	90		150	70						150	
1/26/2016				230				430	40			90	230	430	
2/1/2016	<30	<30	<30	40	40		<30	90						230	<30
2/2/2016				40				<30	40			<30	90	40	
2/8/2016	40	<30	90	<30	40		<30	<30						2100	
2/9/2016				40				<30	70			<30	430	430	
2/15/2016	40	<30	40	<30	40		<30	<30							90
2/16/2016				230				230	230			<30	40	230	
2/22/2016	<30	<30	<30	<30	40		40	<30						750	40
2/23/2016				<30				<30	<30			230	230	40	
2/29/2016	<30	<30	40	<30	40		<30	40						230	90
3/1/2016				<30				<30	40			90	40	<30	
3/7/2016	<30	90	40	<30	<30		40	<30						<30	<30
3/8/2016				40				<30	<30			40	230	40	
3/14/2016	<30	<30	40	40	40		<30	40						<30	<30
3/15/2016				430				150	430			430	430	90	
3/21/2016	40	<30	90	40	90		40	90						430	<30
3/22/2016				40				40	40			150	90	90	
3/28/2016	40	40	90	150	430		930	430						2300	
3/29/2016				230				40	90			150	230	150	
4/4/2016	90	<30	230	150	70		40	40						40	90
4/5/2016				40				90	40			90	1500	430	
4/11/2016	<30	40	40	40	40		90	90						150	90
4/12/2016				<30				<30	40			70	40	<30	
4/18/2016	<30	40	40	<30	150		<30	90						230	90
4/19/2016				<30				40	<30			90	7500	90	
4/21/2016									150				110000		
4/25/2016	<30	40	<30	230	40		930	90		430	930		430	230	40
4/26/2016				430				90	150			430	90	40	
5/2/2016	<30	90	<30	230	430		<30	<30						<30	<30
5/3/2016				2300				430	430			430	230	2300	
5/9/2016	<30	<30	40	40	40		<30	430						230	<30
5/10/2016				<30				40	430			930	4300	<30	
5/12/2016									46000				46000		
5/16/2016	40	230	230	230	40		230	90						90	
5/17/2016				<30				230	230			230	2300	230	
5/23/2016	40	90	90	230	230		430	430						2300	90
5/24/2016				9300				2300	2300			2300	2300	930	
5/31/2016	1500	2300	1500	1500	430		1500	930						280	2300
6/1/2016				430				2300	2300			4300	15000	930	
6/6/2016	2300	430	930	430	930		930	930						4300	2300
6/7/2016				930				430	230			2300	2300	1500	
6/13/2016	90	230	230	230	430		930	1500						930	430
6/14/2016				430				750	750			430	930	430	
6/20/2016	210	230	430	230	430		390	230						750	<30
6/21/2016				24000				24000	46000			46000	110000	46000	
6/27/2016	90	430	230	230	930		930	2300						430	<30
6/28/2016				430				2100	750			110000	930	930	
7/5/2016	750	4300	15000	15000	15000		110000	>240000						24000	40
7/6/2016				430				930	930			2300	24000	2300	
7/11/2016	70	930	230	4300	930		4300	4300						4300	<30
7/12/2016				210				930	930			430	930	930	
7/18/2016	930	430	1500	4300	4300		15000	2100						9300	90
7/19/2016				2300				750	2300			390	4300	230	
7/25/2016	930	930	430	230	390		430	430						930	<30
7/26/2016				430				430	930			2300	930	930	
8/1/2016	2300	930	2300	930	930		430	2300						430	40
8/2/2016				46000				>240000	9300			46000	9300	>240000	
8/9/2016	230	430	430	230	430		4300	4300						750	<30
8/10/2016				24000				>240000	2300			430	4300	4300	
8/15/2016	930	2300	930	2300	2300		230	9300						4300	150
8/16/2016				930				2100	4300			430	2300	4300	
8/22/2016	4300	7500	24000	9300	9300		2300	7500						110000	70
8/23/2016				4300				9300	430			1500	1500	4300	
8/29/2016	230	930	230	430	750		930	230						230	<30
8/30/2016				230				930	930			230	43000	230	
9/1/2016														930	
9/6/2016	230	230	430	930	930		9300	4300						2300	<30
9/7/2016				230				4300	430			2300	2300	9300	
9/12/2016	230	90	430	230	230		430	930						750	<30
9/13/2016				4300				9300	430			230	2300	4300	
9/19/2016	230	230	930	230	430		750	430						430	<30
9/20/2016				4300				4300	750			4300	9300	4300	
9/26/2016	<30	430	230	430	430		230	230						230	<30
9/27/2016				9300				9300	9300			4300	4300	46000	
10/3/2016	150	430	90	90	930		430	750						230	40
10/4/2016				430				4300	430			90	2100	150	
10/11/2016	930	930	430	430	430		930	750						46000	230
10/12/2016				90				430	430			210	930	150	
10/17/2016	90	430	70	90	90		230	750						230	<30
10/18/2016				230				430	230			150	390	430	
10/24/2016	230	150	230	230	90		230	230						750	2300
10/25/2016				430				430	150			90	430	390	
10/31/2016	230	430	930	150	200		90	430						230	230

Table 31: Woonasquatucket, West, Providence, and Seekonk Rivers Fecal Coliform Data

River Fecal Coliform Results 2016
(MPN/100 mL)

	Woonasquatucket River								West River					Providence River	Seekonk River
Date	W9- Manton Ave. Bridge	W8D- Parking Bridge at Olneyville	W8C- Delaine St.	W7C-Eagle St. Bridge		W7B- Pleasant Valley Pkwy.	W7BA- Footbridge at Bath St.	W7A- Kinsley St. at Park St.	WE10- Douglas Ave. Bridge	Charles St.	Hawkins St.	WE12- Veazie St. Bridge	WE11- West River St. Bridge	PR12- Crawford St.	SR5- Pitman St.
11/1/2016				230				230	230			90	930	230	
11/7/2016	<30	40	40	230	430		430	430						430	<30
11/9/2016				40				90	430			90	90	40	
11/14/2016	<30	40	<30	<30	90		90	230						90	<30
11/15/2016				70				230	230			230	430	40	
11/21/2016	<30	<30	40	<30	90		<30	30						390	<30
11/22/2016				40				<30	930			230	430	230	
11/28/2016	<30	<30	<30	<30	40		40	70						430	<30
11/29/2016				<30				40	230			90	930	40	
12/5/2016	<30	<30	90	230	90		<30	40						70	
12/6/2016				230				<30	430			90	90	<30	
12/12/2016	430	2300	430	1500	930		4300	4300						930	40
12/13/2016				40				110	430			70	230	150	
12/19/2016	90	90	40	90	90		<30	150						750	230
12/20/2016				40				40	90			40	430	230	
12/27/2016	90	<30	90	<30	930		230	150						230	<30
12/28/2016				<30				40	150			150	930	90	

Table 31: Woonasquatucket, West, Providence, and Seekonk Rivers Fecal Coliform Data

River Fecal Coliform Results 2016
(MPN/100 mL)

	Moshassuck River												Blackstone River		Pawtuxet River	
Date	M1- Higginson Ave.	M4C- Grotto Ave. Bridge	M4D- St. Francis Cemetery	M4B- End of Moshassuck St.		M4A- Grenville St.		M4- Cemetery St. Bridge	M5A- Stevens St. Bridge	M5- Footbridge at Mill St.		M6- Park Row Bridge	B2- Whipple Bridge	B3- Slater Mill	PX13- Broad St.	
1/4/2016										2300	430		90	150	<30	90
1/5/2016	230		430	430	930			750	90	230	230	90				
1/11/2016										1500	4300		230	930	2300	930
1/12/2016	430		750	430	930			930	430	430	430	2300				
1/19/2016										230	90		<30	90	<30	90
1/20/2016	150		40	150	230			210	230	230	280	150				
1/25/2016										2300	930		<30	<30	230	90
1/26/2016	90		750	2300	930			230	230	230	230	430				
2/1/2016										230	230		<30	40	<30	40
2/2/2016	230		230	90	90			90	40	230	40	<30				
2/8/2016										1500	4300		<30	40	<30	40
2/9/2016	40		110	230	90			430	430	4300	930	230				
2/11/2016									430	230	90	40				
2/15/2016										1500	930		<30	90	<30	40
2/16/2016	40		230	230	430			4300	230	430	930	4300				
2/22/2016										2300	46000		40	<30	<30	90
2/23/2016	430		90	150	40			150	230	430	430	230				
2/29/2016										<30	40		<30	<30	<30	<30
3/1/2016	<30		90	40	430			230	150	90	90	230				
3/7/2016										90	930		<30	<30	<30	<30
3/8/2016	230		40	230	930			930	750	430	430	90				
3/14/2016										230	430		<30	<30	<30	<30
3/15/2016	90		230	230	430			90	930	230	930	430				
3/21/2016										230	230		<30	40	<30	<30
3/22/2016	430		230	230	930			750	430	40	40	230				
3/28/2016										430	930		40	<30	<30	40
3/29/2016	2300		1500	430	430			2300	90	40	90	230				
4/4/2016										3900	9300		90	<30	40	90
4/5/2016	40		<30	<30	90			90	430	1200	430	230				
4/11/2016										2100	2300		<30	<30	70	90
4/12/2016	4300		1500	230	2300			4300	90	230	90	70				
4/18/2016										280	4300		<30	<30	40	90
4/19/2016	70		230	430	90			930	110000	2300	9300	750				
4/21/2016								230	2300	150	210	430				
4/25/2016										430	930		<30	40	<30	90
4/26/2016	40		90	230	430			930	230	230	230	2300				
5/2/2016										1500	4300		<30	<30	40	70
5/3/2016	90		230	230	90			230	930	2300	4300	930				
5/9/2016										<30	2300		<30	90	230	90
5/10/2016	930		2300	230	90			430	4300	230	4300	230				
5/12/2016	2300		230	930	930			24000	2300	7500	9300	9300				
5/16/2016										230	230		<30	<30	<30	90
5/17/2016	<30		150	230	230			430	430	230	230	230				
5/23/2016										230	2300		<30	90	150	750
5/24/2016	90		430	430	930			210	4300	4300	4300	750				
5/31/2016										280	3900		230	90	430	9300
6/1/2016	430		230	2300	2300			930	2300	1500	430	430				
6/6/2016										4300	4300		430	2300	2300	430
6/7/2016	230			930	930			430	2300	4300	930	430				
6/13/2016										2300	2300		150	230	150	750
6/14/2016	140		90	150	2300			430	4300	430	930	2300				
6/20/2016										2300	2300		40	930	430	930
6/21/2016	24000		110000	24000	24000			46000	24000	110000	46000	>240000				
6/27/2016										230	750		<30	90	230	90
6/28/2016	110		4300	1500	2300			430	430	2300	430	750				
7/5/2016										110000	46000		90	2300	230	430
7/6/2016			4300	2300	930			930	4300	2300	4300	7500				
7/11/2016										4300	930		430	430	150	930
7/12/2016	430		2300	750	930			930	9300	9300	9300	4300				
7/18/2016										2300	930		70	1500	4300	930
7/19/2016	2300		930	430	930			2300	2300	1500	2300	930				
7/25/2016										4300	930		40	150	430	90
7/26/2016	750		930	430	430			230	930	430	930	930				
8/1/2016										930	9300		230	930	230	40
8/2/2016	4300		46000	24000	46000			4300	24000	24000	24000	110000				
8/9/2016										1500	2300		<30	1500	40	90
8/10/2016	1500		1500	4300	4300			2300	46000	110000	24000	24000				
8/15/2016										1500	2300		230	150	2300	750
8/16/2016	930		4300	230	2300			930	1500	2300	4300	1500				
8/22/2016										110000	110000		110000	110000	2300	7500
8/23/2016	430		930	430	4300			930	4300	1500	2300	930				
8/29/2016										2300	4300		430	230	230	230
8/30/2016	930		4300	930	930			2300	750	2300	930	<30				
9/1/2016												1500 2300				
9/6/2016										2300	4300		90	390	140	90
9/7/2016	2300		430	2300	2300			430	230	230	430	430				
9/12/2016										2300	750		90	230	230	4300
9/13/2016	230	2300	930	230	2300			430	430	230	430	230				
9/19/2016										930	930		40	430	430	930
9/20/2016	430	2300	4300	4300	9300			2300	4300	9300	9300	2300				
9/26/2016										230	230		40	230	230	40
9/27/2016	1500	2300	930	24000	9300	9300		2300	24000	4300	46000	24000				
10/3/2016										230	930		150	430	1500	930
10/4/2016	430	2300	230	230	930	1500	930	430	930	2300	2300	230				
10/11/2016										2300	930		90	230	150	150
10/12/2016	200	930	230	230	430	430	750	430	930	230	430	750				
10/17/2016										150	750		90	40	40	90
10/18/2016	930	390	930	230	390	200	930	230	230	230	93	930				
10/24/2016										1500	2300		430	2300	230	430
10/25/2016	390	430				230	430	930	90	430	90	90				
10/31/2016										930	930		70	90	230	90
11/1/2016	430	230				430	930	430	230	1500	1500	430				
11/7/2016										430	930		<30	<30	<30	40
11/9/2016	2300	750				1500	430	2300	40	230	230	40				
11/14/2016										230	40		<30	<30	30	40
11/15/2016	90	230				150	230	40	90	430	90	90				

Table 32: Moshassuck, Blackstone, and Pawtuxet Rivers Fecal Coliform Data

River Fecal Coliform Results 2016
(MPN/100 mL)

	Moshassuck River											Blackstone River		Pawtuxet River	
Date	M1- Higginson Ave.	M4C- Grotto Ave. Bridge	M4D- St. Francis Cemetery	M4B- End of Moshassuck St.	M4A- Grenville St.		M4- Cemetery St. Bridge	M5A- Stevens St. Bridge	M5- Footbridge at Mill St.		M6- Park Row Bridge	B2- Whipple Bridge	B3- Slater Mill	PX13- Broad St.	
11/21/2016									230	90		<30	<30	<30	40
11/22/2016	930	930			230	40	430	430	1500	430	230				
11/28/2016									430	90		40	<30	<30	40
11/29/2016	230	40			230	230	230	430	150	930	90				
12/5/2016									1500	4300		<30	40	<30	140
12/6/2016	90	230			230	90	230	90	230	90	750				
12/12/2016									430	930		90	150	430	430
12/13/2016	930	430			230	930	4300	430	150	930	230				
12/19/2016									230	430		150	230	230	230
12/20/2016	40	150			150	230	430	750	230	430	230				
12/27/2016									430	930		40	230	<30	<30
12/28/2016	90	430			430	930	930	430	430	930	70				

Table 32: Moshassuck, Blackstone, and Pawtuxet Rivers Fecal Coliform Data

Results are in MPN/100 mL or Most Probable Number/100 mL

	Date	1/27/2016	2/24/2016	3/9/2016	3/23/2016	3/31/2016	4/20/2016	5/4/2016	5/18/2016	6/2/2016	6/16/2016	6/29/2016	7/13/2016
Seekonk River	**Division St Dock**	93	43	23	11		9	43	<3	93	43	4300	150
	Bishop Pt	93	23	9	15		23	93	23	43	43	46000	43
	Off BP Outfall	43	23	23	23		9	93	23	430	93	24000	93
	Phillipsdale Landing	23	43	<3	23		23	43	9	230	150	2100	7
	Phillipsdale Landing Duplicate	43	23	93	23		93	23	23	4	43	930	9
	Narr Boating Center	230	43	43	230		23	43	23	93	230	230	7
	Crook Pt	43	43	9	43		23	75	230	43	43	230	23
Providence River	**Comm. Boating Center**	93	43	23	43		43	75	23	4	21	230	93
	Point St Bridge	93	430	93	430		150	930	230	930	930	240000	1500
	Collier Pt Park	43	93	4	93		9	230	4	4	23	75	39
	Off FP Outfall	23	23	4	d		<3	93	23	93	21	930	21
	South FP East	43	43	4	4	9	<3	43	4	43	4	43	3
	Save the Bay	23	9	<3	4		<3	43	<3	23	3	9	4
	Edgewood Yacht Club	23	9	23	23	9	<3	93	<3	93	9	23	4
	Pawt/Prov Junction	43	15	23	75	23	<3	93	43	23	430	150	93
	Gaspee Pt	15	9	23	10	<3	4	23	23	230	23	23	<3
	Bullock Neck	93	23	93	<3		23	9	9	43	<3	4	<3
	Bullocks Reach Buoy	23	23	4	<3	4	4	150	4	230	7	15	4300
	Shawomet	21	<3	9	4	4	4	20	<3	23	<3	23	<3
	North of Nayatt Point	43	9	4	<3		<3	<3	<3	9	<3	<3	<3
	Conimicut Pt	23	4	4	<3	<3	9	9	9	23	<3	<3	4
	Conimicut Pt Duplicate	43	9	4	3	<3	4	15	<3	9	4	<3	<3
	Seekonk River Geometric Mean	62	33	18	30		21	53	21	67	73	2,423	25
	Providence River Geometric Mean	36	18	10	11	5	7	45	9	37	12	44	17
	Daily Max	230	430	93	430	23	150	930	230	930	930	240,000	4,300
	Overall Geometric Mean	**43**	**22**	**12**	**15**	**5**	**10**	**47**	**12**	**44**	**22**	**157**	**19**
	Percent Greater than 400 MPN/100 mL	0%	5%	0%	5%	0%	0%	5%	0%	9%	9%	32%	9%
	Number of Samples (including duplicates)	22	22	22	21	8	22	22	22	22	22	22	22
	Bay Fecal Coliform Blank	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Rain Data*	Rain total - day of sampling (in time prior to sampling)	T	0.78	0	T	T	0	0	0	0	0	0.04	0
	Rain total - 1 day prior to sampling	T	0.02	0	0	0	T	0.3	0	0	0	0.17	0
	Rain total - 2 days prior to sampling	0	T	0	0.23	0	0	0.15	0	0	0	0	0
	Rain total - 3 days prior to sampling	0	0	0	T	0.33	0	0.1	0	1.5	0	0	0.03
	Rain total - 4 days prior to sampling	0.31	0.01	0	0	0	0	0	T	T	0	0	T
	Rain total - 5 days prior to sampling	0	T	T	0.02	0	0	T	0.36	0	0.14	0	0.01
	Total Rainfall	**0.31**	**0.81**	**0**	**0.25**	**0.33**	**0**	**0.55**	**0.36**	**1.5**	**0.14**	**0.21**	**0.04**
Tides**	High Tide	10:08	9:00	7:55	8:57	13:51	7:52	6:28	6:38	6:05	5:56	16:13	15:55
	Low Tide	15:21	14:16	13:24	14:08	7:22	12:53	11:49	11:44	11:19	11:02	8:56	8:35

T = Trace rainfall

*Rain data are from TF Green

**Tide data are from USHarbors.com

Table 33: Bay Fecal Coliform Data

Results are in MPN/100 mL or Most Probable Number/100 mL

	Date	7/27/2016	8/11/2016	8/24/2016	9/1/2016	9/8/2016	9/21/2016	10/5/2016	10/19/2016	11/2/2016	11/16/2016	11/30/2016
Seekonk River	**Division St Dock**	23	2300	430	210	150	23	43	150	43	150	230
	Bishop Pt	9	2300	150	43	43	43	23	930	93	210	230
	Off BP Outfall	4	2300	23	93	43	93	9	230	43	750	230
	Phillipsdale Landing	4	2300	150	9	43	230	23	43	23	4300	230
	Phillipsdale Landing Duplicate	9	1500	23	23	15	43	4	93	93	1500	230
	Narr Boating Center	23	2300	150	23	43	43	4	9	43	930	2300
	Crook Pt	23	2300	93	23	39	93	15	9	23	430	230
Providence River	**Comm. Boating Center**	4	930	93	43	43	93	43	43	23	750	230
	Point St Bridge	23	24000	430	230	1500	230	93		230		230
	Collier Pt Park	9	430	93	23	390	43	43	93	230	1500	430
	Off FP Outfall	9	230	43	4	75	43	11	4	93	43	230
	South FP East	<3	230	9		230	93	7	4	43	39	43
	Save the Bay	<3	93	9		43	93	43	4	93	150	2300
	Edgewood Yacht Club	9	430	43		230	15	23	39	23	230	4300
	Pawt/Prov Junction	43	150	23		93	<3	<3	<3	23	39	2300
	Gaspee Pt	<3	23	9		14	4	9	4	23	23	23
	Bullock Neck	4	4	4		<3	4	<3	<3	<3	9	9
	Bullocks Reach Buoy	4	<3	9		15	430	23	4	9	230	43
	Shawomet	<3	9	9		<3	93	23	<3	<3	9	7
	North of Nayatt Point	4	<3	<3		<3	23	<3	<3	4	4	23
	Conimicut Pt	4	<3	<3		4	43	4	<3	<3	43	43
	Conimicut Pt Duplicate	<3	<3	4		4	23	<3	<3	<3	15	15
	Seekonk River Geometric Mean	11	2,164	95	37	44	62	13	72	45	671	320
	Providence River Geometric Mean	6	57	16	31	32	36	12	6	19	56	111
	Daily Max	43	24,000	430	230	1,500	430	93	930	230	4,300	4,300
	Overall Geometric Mean	**7**	**181**	**28**	**35**	**35**	**43**	**12**	**14**	**25**	**128**	**155**
	Percent Greater than 400 MPN/100 mL	0%	50%	9%	0%	5%	5%	0%	5%	0%	33%	23%
	Number of Samples (including duplicates)	22	22	22	11	22	22	22	21	22	21	22
	Bay Fecal Coliform Blank	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Rain Data*	Rain total - day of sampling (in time prior to sampling)	0	0	0	0.11	T	0	0	0	0	0	0
	Rain total - 1 day prior to sampling	0	0.33	0	T	0.01	0.05	T	0	0	1.13	1.58
	Rain total - 2 days prior to sampling	T	0	0.74	0	0.15	0.83	0	0	0	0	0
	Rain total - 3 days prior to sampling	0	0	T	0	0.02	T	0	0	0.49	0	0
	Rain total - 4 days prior to sampling	0.8	0	0	0	0	0	0.55	0	T	0	0
	Rain total - 5 days prior to sampling	0.91	T	0	0	0	0	0.54	0	0.18	0	0.11
	Total Rainfall	**1.71**	**0.33**	**0.74**	**0.11**	**0.18**	**0.88**	**1.09**	**0**	**0.67**	**1.13**	**1.69**
Tides**	High Tide	14:54	15:03	13:38	21:03	13:31	12:21	11:25	11:05	10:13	8:54	8:12
	Low Tide	7:26	7:41	6:03	2:00	6:01	4:52	4:07	3:44	3:01	1:36	0:58

T = Trace rainfall

*Rain data are from TF Green

**Tide data are from USHarbors.com

Table 33: Bay Fecal Coliform Data

Results are in MPN/100 mL or Most Probable Number/100 mL

	Date	12/14/2016	Annual Geomean	Annual Min	Annual Max
Seekonk River	**Division St Dock**	93	79	<3	4,300
	Bishop Pt	43	80	9	46,000
	Off BP Outfall	43	79	4	24,000
	Phillipsdale Landing	43	53	<3	4,300
	Phillipsdale Landing Duplicate	93			
	Narr Boating Center	93	73	4	2,300
	Crook Pt	43	56	9	2,300
Providence River	**Comm. Boating Center**	43	55	4	930
	Point St Bridge		511	23	240,000
	Collier Pt Park	43	55	4	1,500
	Off FP Outfall	43	32	<3	930
	South FP East	9	16	<3	230
	Save the Bay	4	16	<3	2,300
	Edgewood Yacht Club	9	30	<3	4,300
	Pawt/Prov Junction	23	36	<3	2,300
	Gaspee Pt	9	12	<3	230
	Bullock Neck	9	8	<3	93
	Bullocks Reach Buoy	9	19	<3	4,300
	Shawomet	9	7	<3	93
	North of Nayatt Point	4	5	<3	43
	Conimicut Pt	7	6	<3	43
	Conimicut Pt Duplicate	9			

	Seekonk River Geometric Mean	60
	Providence River Geometric Mean	12
	Daily Max	93
	Overall Geometric Mean	**20**
	Percent Greater than 400 MPN/100 mL	0%
	Number of Samples (including duplicates)	21
	Bay Fecal Coliform Blank	<3
Rain Data*	Rain total - day of sampling (in time prior to sampling)	0
	Rain total - 1 day prior to sampling	0
	Rain total - 2 days prior to sampling	0.24
	Rain total - 3 days prior to sampling	0.08
	Rain total - 4 days prior to sampling	0
	Rain total - 5 days prior to sampling	0
	Total Rainfall	**0.32**
Tides**	High Tide	6:28
	Low Tide	11:57

T = Trace rainfall

*Rain data are from TF Green

**Tide data are from USHarbors.com

Bay Enterococci Data 2016

Results are in MPN/100 mL or Most Probable Number/100 mL

Date	1/27/2016	2/24/2016	3/9/2016	3/23/2016	4/20/2016	5/4/2016	5/18/2016	6/2/2016	6/16/2016	6/29/2016	7/27/2016	8/11/2016	8/24/2016	9/1/2016
Phillipsdale Landing	41	<10	<10	20	<10	<10	<10	108	10	185	<10	31	30	<10
Phillipsdale Landing Duplicate	31	<10	<10	<10	<10	10	<10	132	41	341	<10	10	20	<10
Point St Bridge	52	132	52	10	<10	63	97	148	97	12033	<10	408	41	86
South FP East	10	<10	<10	<10	<10	<10	10	31	<10	10	<10	10	<10	
Gaspee Pt	20	<10	<10	<10	<10	<10	<10	20	10	<10	<10	<10	<10	
Conimicut Pt	<10	<10	<10	<10	<10	10	<10	10	<10	<10	<10	<10	<10	
Conimicut Pt Duplicate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Seekonk River Geometric Mean	36	10	10	14	10	10	10	119	20	251	10	18	24	10
Providence River Geometric Mean	16	17	14	10	10	14	16	25	16	41	10	21	13	86
Daily Max	52	132	52	20	10	63	97	148	97	12033	10	408	41	86
Final Sample Day Geomean	**20**	**14**	**13**	**11**	**10**	**13**	**14**	**39**	**17**	**69**	**10**	**20**	**16**	**20**

Table 34: Bay Enterococci Data

Bay Enterococci Data 2016

Results are in MPN/100 mL or Most Probable Number/100 mL

Date	9/8/2016	9/21/2016	10/5/2016	10/19/2016	11/2/2016	11/16/2016	11/30/2016	12/14/2016	Annual Min	Annual Max	Annual Geomean
Phillipsdale Landing	10	10	20	<10	<10	265	616	41	<10	763	23
Phillipsdale Landing Duplicate	20	<10	<10	<10	10	341	763	10			
Point St Bridge	131	<10	10		41		1497		<10	12,033	75
South FP East	20	<10	<10	20	<10	75	185	10	<10	185	14
Gaspee Pt	<10	10	<10	<10	<10	10	181	10	<10	181	12
Conimicut Pt	<10	<10	<10	<10	<10	41	41	<10	<10	41	11
Conimicut Pt Duplicate	<10	<10	<10	<10	<10	20	41	<10			
Seekonk River Geometric Mean	14	10	14	10	10	301	686	20			
Providence River Geometric Mean	19	10	10	12	13	28	153	10			
Daily Max	131	10	20	20	41	341	1497	41			
Final Sample Day Geomean	**18**	**10**	**11**	**11**	**12**	**62**	**235**	**13**			

Table 34: Bay Enterococci Data

All samples are from CSO wet weather overflow at Bucklin Brook (NBC CSO # 218)

Sample Date	Sample Time	Parameter	Result	Units
12/29/2016	18:00	BOD SM 5210B	23.3	ppm
12/29/2016	18:00	Fresh Water Total Nitrogen	2.659	ppm
12/29/2016	18:00	Chromium, Total	<10	ug/L
12/29/2016	18:00	Nickel, Total	<10	ug/L
12/29/2016	18:00	Cadmium, Total	<2.5	ug/L
12/29/2016	18:00	Iron, Total	1193	ug/L
12/29/2016	18:00	Lead, Total	13.27	ug/L
12/29/2016	18:00	Copper, Total	18.31	ug/L
12/29/2016	18:00	Zinc, Total	65.01	ug/L
12/29/2016	18:00	Aluminum, Total	710.3	ug/L
12/29/2016	18:00	Silver, Dissolved	<0.020	ppb
12/29/2016	18:00	Cadmium, Dissolved	<0.020	ppb
12/29/2016	18:00	Lead, Dissolved	0.326	ppb
12/29/2016	18:00	Nickel, Dissolved	0.345	ppb
12/29/2016	18:00	Aluminum, Dissolved	17.497	ppb
12/29/2016	18:00	Chromium, Dissolved	2.308	ppb
12/29/2016	18:00	Copper, Dissolved	2.908	ppb
12/29/2016	18:00	Zinc, Dissolved	23.225	ppb
12/29/2016	18:00	Iron, Dissolved	33.754	ppb
12/29/2016	18:00	Arsenic	0.671	ppb
12/29/2016	18:00	NH3-N EPA 350.1 - Ammonia	0.828	ppm
12/29/2016	18:00	NO2-N EPA 353.2 - Nitrite	0.0164	mg/L
12/29/2016	18:00	NO3NO2 EPA Method 353.2	0.249	mg/L
12/29/2016	18:00	TKN - Copper Sulfate Digestion - TKN	2.41	mg N/L
12/29/2016	18:00	Total_Phosphorus-P	0.43	mg/L
12/29/2016	18:00	TSS SM 5240D - TSS	59	ppm
12/29/2016	19:00	BOD SM 5210B	24.09	ppm
12/29/2016	19:00	Fresh Water Total Nitrogen	3.079	ppm
12/29/2016	19:00	Chromium, Total	<10	ug/L
12/29/2016	19:00	Nickel, Total	<10	ug/L
12/29/2016	19:00	Lead, Total	<10	ug/L
12/29/2016	19:00	Cadmium, Total	<2.5	ug/L
12/29/2016	19:00	Copper, Total	14.68	ug/L
12/29/2016	19:00	Aluminum, Total	428.3	ug/L
12/29/2016	19:00	Zinc, Total	48.94	ug/L
12/29/2016	19:00	Iron, Total	765.5	ug/L
12/29/2016	19:00	Cadmium, Dissolved	0.042	ppb
12/29/2016	19:00	Silver, Dissolved	0.068	ppb
12/29/2016	19:00	Lead, Dissolved	0.302	ppb
12/29/2016	19:00	Nickel, Dissolved	0.533	ppb
12/29/2016	19:00	Chromium, Dissolved	1.953	ppb
12/29/2016	19:00	Aluminum, Dissolved	17.304	ppb
12/29/2016	19:00	Zinc, Dissolved	20.494	ppb
12/29/2016	19:00	Copper, Dissolved	3.184	ppb
12/29/2016	19:00	Iron, Dissolved	39.13	ppb
12/29/2016	19:00	Arsenic	<0.500	ppb
12/29/2016	19:00	NH3-N EPA 350.1 - Ammonia	1.12	ppm
12/29/2016	19:00	NO2-N EPA 353.2 - Nitrite	0.0113	mg/L
12/29/2016	19:00	NO3NO2 EPA Method 353.2	0.299	mg/L
12/29/2016	19:00	TKN - Copper Sulfate Digestion - TKN	2.78	mg N/L
12/29/2016	19:00	Total_Phosphorus-P	0.535	mg/L
12/29/2016	19:00	TSS SM 5240D - TSS	30	ppm

All samples are from CSO Wet Weather Overflow at Moshassuck Street (NBC CSO # 220)

Sample Date	Sample Time	Parameter	Result	Units
12/29/2016	18:00	BOD SM 5210B	17.81	ppm
12/29/2016	18:00	Fresh Water Total Nitrogen	2.555	ppm
12/29/2016	18:00	Chromium, Total	<10	ug/L
12/29/2016	18:00	Nickel, Total	<10	ug/L
12/29/2016	18:00	Cadmium, Total	<2.5	ug/L
12/29/2016	18:00	Zinc, Total	101.8	ug/L
12/29/2016	18:00	Iron, Total	1557	ug/L
12/29/2016	18:00	Copper, Total	23.71	ug/L
12/29/2016	18:00	Lead, Total	37.2	ug/L
12/29/2016	18:00	Aluminum, Total	843.6	ug/L
12/29/2016	18:00	Silver, Dissolved	<0.020	ppb
12/29/2016	18:00	Cadmium, Dissolved	<0.020	ppb
12/29/2016	18:00	Nickel, Dissolved	0.358	ppb
12/29/2016	18:00	Lead, Dissolved	0.778	ppb
12/29/2016	18:00	Chromium, Dissolved	1.225	ppb
12/29/2016	18:00	Aluminum, Dissolved	12.755	ppb
12/29/2016	18:00	Copper, Dissolved	2.799	ppb
12/29/2016	18:00	Zinc, Dissolved	20.723	ppb
12/29/2016	18:00	Iron, Dissolved	26.313	ppb
12/29/2016	18:00	Arsenic	0.573	ppb
12/29/2016	18:00	NH3-N EPA 350.1 - Ammonia	0.707	ppm
12/29/2016	18:00	NO2-N EPA 353.2 - Nitrite	0.0117	mg/L
12/29/2016	18:00	NO3NO2 EPA Method 353.2	0.135	mg/L
12/29/2016	18:00	TKN - Copper Sulfate Digestion - TKN	2.42	mg N/L
12/29/2016	18:00	Total_Phosphorus-P	0.368	mg/L
12/29/2016	18:00	TSS SM 5240D - TSS	32	ppm
12/29/2016	19:00	BOD SM 5210B	23.45	ppm
12/29/2016	19:00	Fresh Water Total Nitrogen	2.85	ppm
12/29/2016	19:00	Chromium, Total	<10	ug/L
12/29/2016	19:00	Nickel, Total	<10	ug/L
12/29/2016	19:00	Cadmium, Total	<2.5	ug/L
12/29/2016	19:00	Iron, Total	1421	ug/L
12/29/2016	19:00	Copper, Total	21.88	ug/L
12/29/2016	19:00	Lead, Total	34.21	ug/L
12/29/2016	19:00	Zinc, Total	80.3	ug/L
12/29/2016	19:00	Aluminum, Total	897.5	ug/L
12/29/2016	19:00	Silver, Dissolved	<0.020	ppb
12/29/2016	19:00	Cadmium, Dissolved	<0.020	ppb
12/29/2016	19:00	Nickel, Dissolved	0.326	ppb
12/29/2016	19:00	Lead, Dissolved	0.744	ppb
12/29/2016	19:00	Chromium, Dissolved	0.982	ppb
12/29/2016	19:00	Aluminum, Dissolved	11.516	ppb
12/29/2016	19:00	Copper, Dissolved	2.885	ppb
12/29/2016	19:00	Iron, Dissolved	20.146	ppb
12/29/2016	19:00	Zinc, Dissolved	21.992	ppb
12/29/2016	19:00	Arsenic	0.665	ppb
12/29/2016	19:00	NH3-N EPA 350.1 - Ammonia	0.507	ppm
12/29/2016	19:00	NO2-N EPA 353.2 - Nitrite	0.0116	mg/L
12/29/2016	19:00	NO3NO2 EPA Method 353.2	0.15	mg/L
12/29/2016	19:00	TKN - Copper Sulfate Digestion - TKN	2.7	mg N/L
12/29/2016	19:00	Total_Phosphorus-P	2	mg/L
12/29/2016	19:00	TSS SM 5240D - TSS	103	ppm
12/29/2016	20:00	BOD SM 5210B	19.5	ppm
12/29/2016	20:00	Fresh Water Total Nitrogen	2.541	ppm
12/29/2016	20:00	Chromium, Total	<10	ug/L
12/29/2016	20:00	Copper, Total	<10	ug/L
12/29/2016	20:00	Nickel, Total	<10	ug/L
12/29/2016	20:00	Lead, Total	<10	ug/L

All samples are from CSO Wet Weather Overflow at Moshassuck Street (NBC CSO # 220)

Sample Date	Sample Time	Parameter	Result	Units
12/29/2016	20:00	Cadmium, Total	<2.5	ug/L
12/29/2016	20:00	Aluminum, Total	218.6	ug/L
12/29/2016	20:00	Zinc, Total	27.87	ug/L
12/29/2016	20:00	Iron, Total	382.5	ug/L
12/29/2016	20:00	Silver, Dissolved	<0.020	ppb
12/29/2016	20:00	Cadmium, Dissolved	0.022	ppb
12/29/2016	20:00	Nickel, Dissolved	0.469	ppb
12/29/2016	20:00	Lead, Dissolved	0.772	ppb
12/29/2016	20:00	Chromium, Dissolved	1.117	ppb
12/29/2016	20:00	Aluminum, Dissolved	14.616	ppb
12/29/2016	20:00	Zinc, Dissolved	21.038	ppb
12/29/2016	20:00	Copper, Dissolved	3.721	ppb
12/29/2016	20:00	Iron, Dissolved	31.298	ppb
12/29/2016	20:00	Arsenic	<0.500	ppb
12/29/2016	20:00	NH3-N EPA 350.1 - Ammonia	0.599	ppm
12/29/2016	20:00	NO2-N EPA 353.2 - Nitrite	0.0105	mg/L
12/29/2016	20:00	NO3NO2 EPA Method 353.2	0.231	mg/L
12/29/2016	20:00	TKN - Copper Sulfate Digestion - TKN	2.31	mg N/L
12/29/2016	20:00	Total_Phosphorus-P	0.308	mg/L
12/29/2016	20:00	TSS SM 5240D - TSS	17.5	ppm

All samples are from CSO wet weather overflow at Sheridan Street (NBC CSO # 54)

Sample Date	Sample Time	Parameter	Result	Units
12/29/2016	9:00	BOD SM 5210B	<2.00	ppm
12/29/2016	9:00	Fresh Water Total Nitrogen	<0.500	ppm
12/29/2016	9:00	Chromium, Total	<10	ug/L
12/29/2016	9:00	Copper, Total	<10	ug/L
12/29/2016	9:00	Nickel, Total	<10	ug/L
12/29/2016	9:00	Lead, Total	<10	ug/L
12/29/2016	9:00	Cadmium, Total	<2.5	ug/L
12/29/2016	9:00	Zinc, Total	13.23	ug/L
12/29/2016	9:00	Aluminum, Total	26.52	ug/L
12/29/2016	9:00	Iron, Total	266.8	ug/L
12/29/2016	9:00	Silver, Dissolved	<0.020	ppb
12/29/2016	9:00	Lead, Dissolved	<0.300	ppb
12/29/2016	9:00	Cadmium, Dissolved	0.027	ppb
12/29/2016	9:00	Chromium, Dissolved	0.68	ppb
12/29/2016	9:00	Nickel, Dissolved	0.726	ppb
12/29/2016	9:00	Iron, Dissolved	116.313	ppb
12/29/2016	9:00	Zinc, Dissolved	14.712	ppb
12/29/2016	9:00	Copper, Dissolved	2.118	ppb
12/29/2016	9:00	Aluminum, Dissolved	9.884	ppb
12/29/2016	9:00	Arsenic	<0.500	ppb
12/29/2016	9:00	NH3-N EPA 350.1 - Ammonia	<0.1	ppm
12/29/2016	9:00	NO2-N EPA 353.2 - Nitrite	<0.0100	mg/L
12/29/2016	9:00	NO3-N EPA 353.2	0.473	ppm-n
12/29/2016	9:00	NO3NO2 EPA Method 353.2	0.473	mg/L
12/29/2016	9:00	TKN - Copper Sulfate Digestion - TKN	<0.500	mg N/L
12/29/2016	9:00	Total_Phosphorus-P	<0.20	mg/L
12/29/2016	9:00	TSS SM 5240D - TSS	< 2	ppm