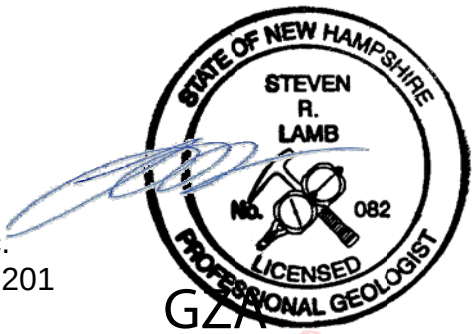
DES Waste Management Division
29 Hazen Drive; PO Box 95
Concord, NH 03302-0095

FALL 2018 MONITORING REPORT
TROY MILLS LANDFILL SUPERFUND SITE
TROY, NEW HAMPSHIRE
NHDES SITE NO. 198405082
NHDES PROJECT NO. 104
CERCLIS ID NO. NHD980520217

Prepared For:
New Hampshire Department of
Environmental Services
Waste Management Division
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Concord, NH 03302-0095
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Date of Report: June 21, 2019

GZA GeoEnvironmental, Inc.

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FALL 2018 MONITORING REPORT
TROY MILLS LANDFILL SUPERFUND SITE
TROY, NEW HAMPSHIRE

NHDES NO. 198405082
CERCLIS ID NO. NHD980520217

June 2019
04.0190325.28

Prepared for:
New Hampshire Department of Environmental Services
Hazardous Waste Remediation Bureau
Concord, New Hampshire

and

United States Environmental Protection Agency Region I
Office of Site Remediation and Restoration
Boston, Massachusetts

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June 21, 2019
File No. 04.0190325.28

Mr. Michael Summerlin, P.E.
New Hampshire Department of Environmental Services
Waste Management Division
29 Hazen Drive
P.O. Box 95
Concord, New Hampshire 03302-0095

Re: Fall 2018 Monitoring Round Data Report
Troy Mills Landfill Superfund Site (Site)
NHDES Site # 198405082
Troy, New Hampshire

Dear Michael:

GZA GeoEnvironmental, Inc. (GZA) is pleased to submit the attached fall 2018 Monitoring Round Data Report to New Hampshire Department of Environmental Services for the above-referenced Site. Routine monitoring activities at the Site included sampling and analyses of groundwater, leachate, and surface water. Supplemental monitoring activities performed at Site included screening of groundwater for per- and polyfluoroalkyl substances (PFAS) including an assessment of the feasibility of collecting PFAS samples with Site sampling equipment. This report summarizes the work performed and findings of GZA's annual monitoring, as well as our conclusions and recommendations.

We appreciate the opportunity to have worked with you on this project. Should you have any questions, please call the undersigned at (603) 232-8765.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Tanya P. Justham
Project Manager

Claire G. Lund, P.E.
Consultant/Reviewer

Steven R. Lamb, P.G., C.G.W.P.
Principal

TPJ/SRL/CGL:kr
\\GZABedford\Jobs\04Jobs\0190300s\04.0190325.00 NHDES 2015-2019 Contract\04.0190325.28 - Troy 2018 Monitoring Round\Report\2018 Monitoring Report\Text\FINAL Troy Summary 2018 Data Report 062119.docx

Attachment: Report

An Equal Opportunity Employer M/F/V/H

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1.0 INTRODUCTION

This report presents a summary of the fall 2018 monitoring round conducted by GZA GeoEnvironmental, Inc. (GZA) on behalf of the United States Environmental Protection Agency (EPA) and the New Hampshire Department of Environmental Services (NHDES) at the Troy Mills Landfill Superfund Site (Site) in Troy, New Hampshire (NHDES Site # 198405082; CERCLIS Site ID Number NHD980520217).

Monitored Natural Attenuation (MNA) is the primary component of the selected remedy in the Record of Decision (ROD)[1] to achieve the "Management of Migration" Remedial Action Objective (RAO) for the Site. Routine monitoring is conducted to evaluate the effectiveness of the MNA component and includes the sampling and chemical analysis of groundwater from an existing network of monitoring wells and surface water, sediment, leachate, and wetland soils sampling locations. Supplemental investigation activities conducted during 2018 included the collection of groundwater samples for analysis of per- and polyfluoroalkyl substances (PFAS), including an assessment of the feasibility of collecting PFAS samples with Site sampling equipment. The sampling was performed in accordance with the Hazardous Waste Remediation Bureau (HWRB) Master Quality Assurance Project Plan (QAPP) EPA RFA# 18008 current at the time of sampling and the EPA and NHDES-approved October 2018 Sampling and Analysis Plan (SAP).

Authorization to proceed on this project was granted by NHDES in accordance with our proposed Work Scope and Budget Estimate dated August 15, 2018, and NHDES' Work Scope Approvals (WSA) dated August 17, 2018 (WSA #1) and October 18, 2018 (WSA #2). The work was performed in general accordance with our *2015-2019 NHDES Contract for Site Investigations, Remediation Design and Implementation Oversight at Petroleum & Hazardous Waste Sites, and CERCLA and Brownfields Projects* approved on August 26, 2015.

This report presents GZA's field observations, results, technical opinions, and recommendations. The opinions included in this report are subject to modification based on additional information obtained by GZA or provided to GZA by other parties and the Limitations presented in **Appendix A**.

2.0 BACKGROUND SITE INFORMATION

2.1 SITE LOCATION AND DESCRIPTION

The Site is an undeveloped 2-acre former drum disposal area located in Troy, New Hampshire (Cheshire County) about 1.5 miles south of the Center of Troy (refer to **Figure 1**). The 2-acre Site is a portion of a larger 10-acre landfill within the 270-acre property formerly owned by Troy Mills, Inc. (TMI). The landfill was used by TMI for the disposal of solid wastes including fabric scraps from the textile mill. Drummed solids and liquids were primarily disposed within the 2-acre area currently referred to as the Site, including the Lower Drum Area and Upper Drum Area. The remaining 8 acres of landfill located to the north of the Site is generally referred to as the solid waste landfill (refer to **Figure 1**). Access to the Site is off Rockwood Pond Road via a separately owned, private gravel pit access road in Fitzwilliam, New Hampshire.

[1] Region 1 Record of Decision, Troy Mills Landfill Superfund Site, Troy, New Hampshire, dated September 30, 2005.

The Site is bordered by the following:

- To the north by an 8-acre solid waste landfill that is separately regulated by the NHDES Solid Waste Bureau under facility identification number 261;
- To the east by a former railroad bed currently used as a walking, all-terrain vehicle, and snowmobile trail, and beyond by undeveloped land;
- To the west by the main Site access road, a wetland area, and Rockwood Brook; and
- To the south by the eastern branch of Rockwood Brook and beyond by undeveloped land.

The Site and a portion of the 8-acre solid waste landfill is encompassed by a Groundwater Management Zone (GMZ) comprising 16.86 acres and including downgradient land beyond the landfill area. Rockwood Brook flows south to north and continues downstream to Sand Dam Pond, a recreational area located approximately 1 mile north of the Site. The former drum disposal area is located in an area outside of the 100-year floodplain of Rockwood Brook.

2.2 SITE HISTORY

TMI disposed of hazardous substances that were generated at its acrylic fabric manufacturing facility in Troy between 1967 and 1978. An estimated 6,000 to 10,000 fifty-five-gallon drums of waste liquid and sludge containing mostly plasticizers such as bis(2 ethylhexyl)phthalate (DEHP) and a petroleum-based solvent known as Varsol™ (also known as Stoddard solvent or mineral spirits) were disposed of on site. Other drummed wastes included pigments, surplus mixes, and tank residuals of vinyl resins, paint resins, and top coating products. Between 1979 and 2005, several investigations of the Site occurred that are described in **Section 2.3** below.

2.3 BRIEF SUMMARY OF PREVIOUS INVESTIGATIONS AND CONTAMINANTS-OF-CONCERN

From 1979 to the present, multiple investigations have been conducted at the Site. These investigations are briefly summarized herein and are further described in the Final Feasibility Study (FS), prepared by Metcalf & Eddy, Inc. (M&E), dated September 2005.

Under the State of New Hampshire hazardous waste remediation program, TMI completed a Phase I investigation of the drum disposal area in August 1981, a Phase II investigation in December 1981, and a Phase III investigation in July 1982. Based on the findings, TMI entered into a Consent Agreement with NHDES in January of 1985 that required TMI to submit a waste analysis plan, a preliminary risk assessment, a remedial investigation/feasibility study (RI/FS), and an engineering design of the selected remedial alternative. A preliminary human health risk assessment, completed in March 1986, concluded that a Level 2 risk assessment should be conducted since concentrations of volatile organic compounds (VOCs) in groundwater indicated a potentially elevated risk. The required remedial investigation (RI) was conducted in 1987. The risk assessment was completed during 1991 (Weston, 2003) and concluded that risk to human health was negligible; however, it was later determined that the Site had not been thoroughly characterized.

A Phase I Pre-Design study, conducted during 1995, identified light non-aqueous phase liquid (LNAPL) in newly installed wells and a leachate outbreak. Subsequent analyses indicated that concentrations of contaminants in

groundwater exceeded the New Hampshire Ambient Groundwater Quality Standards[2] (AGQS) (Weston, 2003). The Pre-Design study recommended a containment remedy and further evaluation of the potential for intrinsic remediation of Site groundwater (GEI Consultants, Inc., 1995).

A Phase II Pre-Design report, completed during September 1998, proposed the installation of a hanging slurry wall combined with product collection and a flow-through (intrinsic) treatment gate downgradient of the buried drum area and the leachate outbreak. NHDES questioned the conclusion made in the Phase II Pre-Design report that only a small percentage of the drums remaining in the drum disposal area were still intact and contained liquid. Instead, the NHDES supported a containment-based remedial action, and during April 2000 agreed to a modified version of a containment-based remedial action originally proposed during 1995 with the condition of commitment by TMI to long-term operation, maintenance, and monitoring (Weston, 2003).

During September 2000, TMI requested to defer remediation of the drum disposal area to 2003/2004 due to unfavorable corporate and financial market conditions. During December 2000, NHDES approved the deferral schedule provided based on the remote location of the Site combined with monitoring data that did not suggest an imminent and substantial threat to public health or the environment. TMI filed for Chapter 11 bankruptcy on November 2, 2001.

During September 2003, the Site was listed on the National Priorities List and a time-critical removal action was initiated. During July 2004, EPA's Superfund Remedial Program retained M&E under the Remedial Action Contract to initiate a RI to determine if additional remedial actions would be needed after the completion of the removal action. The RI documented the nature and extent of residual contamination and evaluated risks to human health and the environment from current or expected future exposures to residual contamination. Five additional wells were installed at the Site and groundwater, surface water, soils, and sediments were sampled during December 2004.

Between 2004 and 2005, the EPA completed a drum and flammable liquid and contaminated soil/sludge removal action, constructed three LNAPL interceptor trenches, and constructed a 2-foot-thick permeable soil cap over the excavation area. The 8-acre solid waste landfill was used as a staging area during the drum removal and, consequently, some grading and cover improvements were performed on portions of the solid waste landfill following completion of the drum removal. A subsequent RI of the Site was completed by M&E during July 2005 for EPA. The RI identified a plume of groundwater contamination, approximately 8 to 9 acres in area, consisting of organic contaminants (alkylbenzenes, chlorinated solvents, phthalates, and toluene). It was concluded that the contaminants of concern (COCs) were naturally biodegrading and that removal of the buried drums eliminated the primary source of on-going contamination to groundwater.

The 2005 RI/FS completed by M&E also established RAOs and preliminary remediation goals, identified and screened potential treatment and containment technologies, and developed and evaluated remedial alternatives. It was concluded by M&E that the primary contaminants posing human health risks and hazards were DEHP in leachate and various organics and inorganics in groundwater.

Pursuant to the ROD, EPA concluded that the selected remedy for contaminated groundwater, LNAPL, and residual soil contamination include the following remedial components:

[2] AGQS are included in the New Hampshire Code of Administrative Rules Env-Or 600 (Env-Or 603.03).

- Maintenance of the LNAPL interceptor trenches;
- Maintenance of a permeable soil cap;
- MNA of groundwater contaminants including the monitoring of groundwater, surface water, sediment, leachate, and wetland soil;
- Institutional controls (ICs); and
- Five-year reviews.

During 2008 and 2009, approximately 2 to 3 acres of the solid waste landfill were capped under a Consent Decree with NHDES by a third party unrelated to the Site.

The first statutory five-year review (FYR) was completed by EPA during September 2010 to document the status of the selected remedy relative to its being protective of human health and the environment. The trigger for the FYR was the initiation of the ROD-specified cleanup actions completed during the fall of 2005. The FYR documented that the remedy was currently protective of human health and the environment as envisioned by the ROD; however, in order for the remedy to be considered protective over the long term, the following actions were recommended:

- With regard to effectiveness of ICs, violations and vandalism should be reported to the State and the Town for response with appropriate follow-up monitoring and enforcement actions. Repair damaged wells, post warning signs at the inner gate and former drum disposal area, and consider fencing the former drum disposal area to restrict access by all-terrain vehicles;
- Conduct a supplemental investigation of the residual LNAPL source area and further evaluate effectiveness of the interceptor trenches in capturing remaining LNAPL;
- Perform supplemental hydrogeologic studies to confirm hydrostratigraphy and the COC fate and transport in groundwater to confirm the effectiveness of the MNA management of migration remedy at the Site and to better forecast time to cleanup; and
- Perform a hydrologic evaluation within the transition zone between groundwater and surface water in the Rockwood Brook Wetland Study area and Rockwood Brook. Review existing data from nearby groundwater monitoring wells relative to appropriate benchmark ecological risk screening values applied to receptor exposures within the groundwater – surface water transition zone.

2.4 LNAPL INVESTIGATIONS

Between 2011 and 2013, GZA performed phased supplemental LNAPL investigations to further delineate the LNAPL source area and aid the evaluation of potential focused remedial alternatives in the vicinity of the LNAPL interceptor trenches and former drum disposal area. GZA concluded the following with regard to the persistence of LNAPL:

- LNAPL present in the vicinity of the interceptor trench area appeared to be both laterally and vertically discontinuous, particularly under high water table conditions. The lack of discernible connectivity within the LNAPL in this area was likely a reflection of the combined influences of historical downgradient LNAPL

recovery from the trench network, upgradient source reduction, and hydraulic influences stemming from cap installation;

- The results of LNAPL recovery testing, when combined with the historical record of product thicknesses in wells near the interceptor trenches, indicated that the LNAPL appeared to have transitioned away from a mobile state and toward a condition where LNAPL pore concentrations exist at or below residual saturation levels under current Site conditions (i.e., an immobile state);

- While historically effective, the interceptor trenches were no longer readily recovering free product. The cessation of LNAPL recovery from the trenches may be at least partially attributed to the previously-mentioned transition toward residual-dominated (i.e., immobile LNAPL) conditions in the trench area;

- Field screening and analytical data collected during subsurface explorations, as well as the data collected during a Laser-Induced Florescence survey performed during 2012 at TRY_B10, did not support the existence of a significant continuing LNAPL source in overburden within the former drum disposal area; and

- Although based on spatially and temporally limited data, the results of the free product laboratory analysis suggested weathering and mass transfer from the LNAPL did not appear to be significantly changing the chemical composition of the LNAPL. The lack of an appreciable change in composition is consistent with the recalcitrant nature of the primary LNAPL constituent DEHP.

Pursuant to the ROD, the interceptor trenches were to "continue to be maintained and operated until LNAPL levels dissipate, at which time, they will be kept available for continued monitoring as part of the groundwater component of the remedy." The ROD further states that "if continued monitoring is no longer necessary, the interceptor trenches will be decommissioned in a manner determined appropriate at that time."

In the May 2013 Investigation Report GZA recommended that trench decommissioning coinciding with excavation, removal, and off-site disposal of accessible LNAPL-impacted soil be performed. This work was largely completed by January 2014 with final Site restoration occurring during May 2014. Work associated with the decommissioning of the interceptor trenches was summarized in "Completion Report – Trench Decommissioning" dated July 2014. The following LNAPL gauging wells (C-series wells) and groundwater monitoring wells (201-series wells) located in the vicinity of the interceptor trenches were also decommissioned during the removal of the trenches (refer to **Appendix B** for an historical figure depicting the former locations of the LNAPL trench, 201-series wells, and C-series wells):

- MW-C1S
- MW-C2S
- MW-C3S
- MW-C4S
- MW-C5S
- MW-C7S
- MW-C8S
- MW-201D
- MW-201M
- MW-201S
- MW-201P

An explanation of significant differences was issued during 2014 to document changes in the New Hampshire Ambient Groundwater Quality Standards and to update other state and federal applicable or relevant and appropriate requirements.

.

2.5 2015 FYR

The second FYR dated September 2015 stated that the remedy is currently protective of human health and the environment. In order for the remedy to be protective in the long term, however, the following actions should be considered:

- Site security options to limit trespassing and Site access. EPA will review options with State and Town officials including but not limited to: erect additional fences and signage; relocate the gate; determine in consultation with State and Town officials whether there are other effective means to limit trespassing and access. If trespassing persists, EPA will consider whether a revised human health risk assessment is needed;

- IC options to prevent potential exposure to contaminated soils. EPA, in consultation with State and Town officials, will consider modification of existing ICs, more effective enforcement of existing ICs, or implementation of additional ICs to limit exposure to contaminated soils; and

- Evaluate extent of contaminated sediment and conduct toxicity evaluation and ecological risk assessment. EPA, in consultation with State, will evaluate on-site wetlands to determine the current nature and extent of contaminated sediment and if some areas need to be re-assessed relative to ecological risk to benthic invertebrates through chemical analysis and toxicity testing.

Based on refinement of the Conceptual Site Model (CSM) indicating that the plume was limited to a narrow area within overburden groundwater along the northern side of the former drum disposal area with the primary plume axis trending along the east to west flow path, 17 on-site groundwater monitoring wells were determined to be superfluous. The following wells were decommissioned during the fall 2014 monitoring activities:

- P-1
- M-2
- M-3
- M-5
- M-6
- MW-101
- MW-109
- MW-108
- MW-502
- MW-504
- MW-505
- MW-506
- MW-507
- MW-202S
- MW-202D
- MW-602S
- MW-603

** well MW-106 was planned for decommissioning; however, it could not be located.*

A historical figure depicting the locations of the decommissioned wells and a historical table including data for all Site wells between 2004 and 2016 are included in **Appendix B**.

Site security enhancements were completed during 2017 to fulfill the recommendation for the Site access issue identified during the second FYR and with the goal of limiting unauthorized access to the Site and conveying Site exposure concerns to potential trespassers.

2.5.1 Sediment Toxicity Assessment

EPA and their contractor, Techlaw, collected sediment samples for analytical chemistry and toxicity analyses during August and October 2016. Techlaw concluded the following:

- **Sediment toxicity testing results**

  "The sediment toxicity tests identified effects on survival and biomass in both test species only in sediment sample SW-Leach A-01. This sample was collected from an orange-colored seep which supplies most of the surface water flowing through the forested wetland. Significant effects were not observed in either test species exposed to the remaining four site sediment samples. Based on this first line of evidence, it was concluded that the conditions in Rockwood Brook sediments are unlikely to result in population-level effects to the local BMI community from exposure to seepage, whereas the sediment sample collected from where orange-colored seep water originates at location SW-Leach A-01 caused measurable effects."

- **Sediment analytical chemistry data results**

  "The sediment analytical chemistry data did not identify any particular analyte to explain the toxicity measured in sediment sample SW-Leach A-01. This toxicity, while real, appears to result from unknown causes. It is plausible, but unproven, that the toxic response may be associated with specific physical-chemical conditions (e.g., iron floc) prevailing at the seep itself.

  The lack of an obvious chemical signature in the four remaining site sediment samples collected from the forested wetland area and Rockwood Brook, and the two reference samples, corroborated the toxicity test results. Based on this second line of evidence, it was concluded that the conditions in the sediment samples collected from the three Rockwood Brook seeps and seep FW-01 in the forested wetland are unlikely to result in population-level effects to the local BMI community."

- **Recommended monitoring program of sediment chemical analyses**

  "The TDF requested that ESAT develop a monitoring program based only on periodic sediment chemical analyses. Only sediment sample SW-Leach A-01 was toxic. The location from where this sample was collected is the main "source" for the orange-colored water that flows through the forested wetland. That location makes it a logical choice for future monitoring. Yet, the chemical analysis did not identify any analytes that may be responsible for the observed toxic responses.

  The lack of an obvious cause for the toxicity in SW-Leach A-01 represents a dilemma for proposing a defensible sediment monitoring program. ESAT discussed this issue with the task order contracting officer representative to try to develop a workable solution. After reviewing all the data, it was concluded that the sediment toxicity at this location was real but could not be linked to any of the measured analytes. In addition, future sampling at location SW-Leach A-01would not resolve the current disconnect between chemistry and toxicity. As such, it was determined that a sediment chemistry monitoring program could not be developed given the existing conditions at sample location SW-Leach A-01."

Refer to **Appendix C** for a copy of Techlaw's report "Review and interpretation of the sediment toxicity testing results and the sediment analytical chemistry data obtained for the Troy Mills Landfill Superfund Site, Troy, NH."

2.5.2 Supplemental Source Investigation

As a component of the Second FYR, it was concluded that DEHP is likely to persist in the aqueous phase in groundwater at the Site due to rate-limited mass transfer from remaining residual non-aqueous mass and general recalcitrance of this contaminant in anaerobic groundwater environments. This finding was supported by the

results of the trend analyses included in the second FYR that were performed using monitoring data collected prior to and during 2015. The trend analyses for DEHP included in the second FYR are currently considered unreliable due to the potential for biased data; however, relatively high concentrations of DEHP exceeding the New Hampshire AGQS were consistently observed at well MW-205 between 2005 and 2014. Because MW-205 is located outside and cross-gradient to the drum removal area, a recommendation was made in the Spring 2016 Monitoring Round Data Report to perform surficial geophysics (e.g., ground penetrating radar [GPR]) and focused test pit explorations in this area to explore whether a separate source may exist outside of the drum removal area.

Areas of possible buried metal were identified during the surficial geophysical survey conducted in May 2017 and confirmed during test pit excavations in August 2017. In general, the observed landfilled materials and soil impacts were relatively benign; Residual waste material was observed in test pit TRY_TP-1 associated with a buried 55-gallon drum, which represents a potential continuing source of contamination to groundwater. Test pit TRY_TP-1 is located within the area between monitoring wells MW-205, MW-803, and MW-804.

2.6 CONCEPTUAL SITE MODEL

The CSM compiled from historical reports is included in **Appendix D** for comparison to data collected during the fall 2018 monitoring event. The following provides a brief summary of the Site hydrogeology. Refer to **Appendix D** for additional information.

2.6.1 Summary of Site Hydrogeology

The 2005 RI reports two groundwater flow systems are present at the Site, including overburden and bedrock systems. The overburden groundwater flow system is inclusive of the sand and till units, with depth to groundwater generally ranging from about 5 to 35 feet below ground surface. Groundwater flow in the overburden is to the west or northwest, toward Rockwood Brook (**Figure 2**).

Historical water level measurements from bedrock wells along a northwest transect across the Site (MW-701, MW-602B, MW-108 (decommissioned), M-7D, and MW-702D) suggest that bulk groundwater flow direction in bedrock is toward the west/northwest consistent with that observed in overburden groundwater.

3.0 PFAS SAMPLE COLLECTION ASSESSMENT

Prior to performing the fall 2018 monitoring round, GZA performed an assessment of using Site sampling equipment (i.e., Teflon bladders and Teflon tubing installed at the Site) for the collection of PFAS samples. GZA selected the bladder pump from MW-501D for the assessment because it had a relatively recently-installed, dedicated bladder pump, and no history of detections of DEHP. GZA removed the dedicated QED T-1250 bladder pump from the well, drained the pump and associated tubing, and rinsed the exterior with laboratory supplied, PFAS-free deionized (DI) water. The pump, along with the dedicated fittings and sample tubing, were inserted into a 2-inch diameter polyvinyl chloride (PVC) riser that was capped at the bottom. The PVC riser was filled with PFAS-free DI water and approximately three pump and tubing volumes were purged from the PVC riser through the bladder pump. After the purge, the pump and riser were drained and refilled with fresh DI water. A water sample was collected through the bladder pump and submitted to Alpha Analytical of Mansfield, Massachusetts for analysis of PFAS by EPA Method 537(M) with isotope dilution. PFAS was not detected above the reporting limit for any of the 24 PFAS analytes (laboratory analytical report provided in **Appendix J**).

Based on the results of the sample collection assessment, PFAS samples were collected directly from the selected monitoring wells using the installed sampling equipment during the fall 2018 monitoring event.

4.0 2018 SAMPLING AND ANALYSIS PLAN

The SAP describes the sampling locations, field measurement procedures and criteria, sampling methods, sample container requirements, preservation, and decontamination procedures.

Relative to the MNA component of the remedy and the monitoring conducted during 2018, the primary Data Quality Objectives (DQOs) include collecting data of a known and sufficient quality to accomplish the following:

- Confirm water quality in compliance wells;
- Assess the effectiveness of MNA at the Site and whether natural attenuation processes are continuing to degrade the COCs; and
- Assess contaminated groundwater impact to leachate seeps, Rockwood Brook surface water and sediment, and wetland soil.

The NHDES- and EPA-approved October 2018 SAP is available electronically on NHDES' OneStop database (*https://www.des.nh.gov/onestop/index.htm*). Deviations from the SAP that occurred during the fall 2018 monitoring event resulting from unforeseen field conditions or changes, following discussions with NHDES and EPA, are discussed in **Section 6.0** below, as appropriate.

5.0 SUMMARY OF THE FALL 2018 MONITORING ROUND

Site activities during fall 2018 included:

- A comprehensive water level measurement round of groundwater monitoring wells;
- Groundwater quality monitoring of 32 wells; and
- Monitoring of leachate and surface water.

Refer to **Table 1** for specific media sampled and the analyses performed and **Appendix E** for copies of GZA's field notes. Each of the samples collected was submitted for laboratory analyses to one of two laboratories including NHDES' contract laboratory Absolute Resource Associates (ARA) of Portsmouth, New Hampshire, or ARA's subcontract laboratory Maxxam Analytics (Maxxam) of Mississauga, Ontario, Canada. Laboratory analyses associated with each of the laboratories included the following:

- ARA
  - Groundwater samples for VOCs, SVOCs, manganese, arsenic, and 1,4-dioxane,

  - Leachate samples for VOCs, SVOCs, manganese, arsenic, and hardness, and
  - Surface water samples for VOCs, SVOCs, manganese, arsenic, and hardness; and
- Maxxam
  - Groundwater samples for PFAS.

5.1 GENERAL SITE OBSERVATIONS AND MAINTENANCE

GZA observed the following field and maintenance related conditions:

- Two "Private Property" signs had been removed, one from a post near the northern entrance to the Site and one from the northern gate. GZA replaced both signs;
- The padlock on the northern gate appears to have been cut off and replaced with a different lock. GZA removed the lock and replaced it with one keyed the same as the lock on the southern gate. No other Site access security issues were observed;
- During the comprehensive water level round, GZA observed that the support cable for the dedicated pump at wells MW-601D and MW-701 had detached from the support collar or broken. Both pumps were removed from the well, inspected for damage, and reinstalled in their respective wells with new support cables;
- Consistent with the SAP, GZA measured the well depth at MW-702SX after purging and sampling the well and removing the non-dedicated SamplePro bladder pump. Consistent with historical measurements, the well bottom was measured at 14.8 feet below the top of PVC; and
- The landfill cap was generally observed to be in good condition; however, some loose fabric material was observed in the area of the 2017 test pits.

Prior to sampling MW-205, GZA observed that the dedicated T-1250 bladder pump had not been re-installed following the Passive Flux Meter Pilot Study[3] performed during 2016. Site practices require that dedicated pumps are installed at least two weeks prior to sampling in wells with historical DEHP detections, such as MW-205. Following discussions with NHDES, GZA removed the screen from the bladder pump and placed it in the freezer in a small container of water to create an ice sheath around the screen. The screen, with the ice sheath, was then reattached to the pump, and the pump was installed in the monitoring well. The ice was allowed to thaw and disperse from the screen for approximately an hour and then the well was purged and sampled. The 2018 detection of DEHP in the groundwater sample collected from MW-205 is consistent with historical results, indicating that the ice sheath did limit tracking of DEHP from the water table during installation of the pump.

Refer to **Appendix F** for a photographic log of the Site conditions and leachate and surface water sampling locations, as well as, from the PFAS Sampling Assessment discussed previously.

[3] For more information, refer to "Technical Memorandum – Passive Flux Meter Pilot Study, Troy Mills Landfill Superfund Site, Troy, New Hampshire, NHDES No. 198405082, CERCLIS ID NO. NHD980520217," prepared by GZA and dated June 19, 2017.

5.2 COMPREHENSIVE GROUNDWATER LEVEL MEASUREMENT ROUND

GZA performed a water level measurement round of known existing and functional overburden and bedrock groundwater monitoring wells to monitor groundwater elevations and estimate the direction of groundwater flow relative to potential COC transport. The measurement round included a total of 32 monitoring wells and was performed on October 29, 2018. Refer to **Table 2** for specific well construction information, **Table 3** for tabularized Site groundwater elevation data, **Table 4** for calculated vertical hydraulic gradients between well couplets, and **Appendix G** for the completed *Water Level Worksheet*.

Groundwater levels were measured as depth-to-water in accordance with Standard Operating Procedure (SOP) #B-2 Water Level/LNAPL Thickness Measurements using a Solinst Model 101 electronic water level indicator probe. Groundwater surface elevations were calculated by subtracting the depth-to-groundwater from the surveyed elevation of the well-specific reference measuring point (i.e., top of PVC riser or casing). The measured depth to groundwater ranged between 3.3 feet (elevation 1,029.7 feet NGVD29[4]) at well MW-104S to 33.9 feet (elevation 1,047.0 feet NGVD29) at MW-301X.

5.2.1 Surface Water Stage Measurements

Beginning with the 2009 fall monitoring round, a stage measurement has occasionally been collected from Rockwood Brook at a permanently mounted stream gage at surface water quality monitoring station SW-4 concurrent with the comprehensive water level round, sampling at well cluster MW-104, and the collection of the surface water sample at SW-4. This information is intended to be used to monitor the stream conditions year to year, assist with the development of a groundwater elevation contour plan, and to evaluate the relative change in stream flow between the beginning of the monitoring event and at the time the surface water samples were collected.

During the fall 2018 sampling event, a stage measurement was collected concurrent with water level measurements collected at well cluster MW-104 during the comprehensive water level round and sampling of the wells, and concurrent with the collection of the surface water sample at SW-4. The measured height of the water column ranged from 2.18 feet on October 30, 2018 during sampling of the MW-104 wells to 2.36 feet on November 7, 2018 during collection of surface water samples. The column of water measured during 2018 was approximately 1 foot higher than historical measurements made during 2014 and 2016.

The stage measurement was recorded on both the *Water Level Measurement Form* and the *Surface Water Worksheet*, both of which are included in **Appendix G**, and included in **Table 3** and on **Figure 2.**

5.3 GROUNDWATER SAMPLING AND METHODOLOGY

During fall 2018, groundwater sampling using low-flow sampling methodology was performed at all 32 of the planned monitoring wells to further evaluate contaminant concentrations and trends and evaluate the effectiveness of the selected MNA remedy. Groundwater sampling was conducted using a combination of dedicated and non-dedicated bladder pumps and a peristaltic pump. Dedicated bladder pumps were used within 18 wells. QED SamplePro non-dedicated bladder pumps were used within 11 more recently installed wells and wells with screens greater than 10 feet that were added to the sampling program within the last decade. A peristaltic pump and dedicated tubing was used in three wells.

[4] National Geodetic Vertical Datum of 1929

Refer to **Figure 1** for an illustration of well locations; **Table 1** for locations sampled, the sampling equipment used, and the analyses performed; **Table 2** for well construction information; and **Table 5A**, **Table 5B**, and **Table 6** for a summary of analytical and field parameter results for groundwater. Refer to **Appendix J** for the laboratory analytical reports. Refer to **Section 6.0** below for a summary of Quality Assurance and Quality Control (QA/QC) relating to groundwater sampling and the associated field calibration sheets and **Section 7.0** below for a discussion of the data results.

The following provides a summary of the groundwater sampling activities performed at the Site between October 30 and November 7, 2018.

5.3.1 Sampling Using Bladder Pumps

Collection of groundwater samples using a bladder pump included: either a dedicated (QED T1250/T1300 Bladder Pump) or a non-dedicated (QED Sample Pro Bladder Pump [100-milliliter Teflon® bladder]) pump; compressed nitrogen and an MP-10 controller; dedicated Teflon® tubing; an In-Situ SmarTroll multi-parameter sonde (SmarTroll) and flow-through cell (for specific conductance, oxidation-reduction potential [ORP], dissolved oxygen [DO], pH, and temperature); and a Hach Model 2100Q turbidity meter (Hach). For a detailed description of the procedure followed for low-flow groundwater sampling using a bladder pump, refer to SOP #B-6 Groundwater Well Sampling – Low-Flow Using a Bladder Pump included in the SAP. Refer to **Table 1** for a list of specific wells sampled using dedicated and non-dedicated bladder pumps and the analyses performed. Refer to **Appendix G** for copies of the SmarTroll *Low-Flow Test Reports*.

A flow rate of 50 milliliters per minute or greater and stabilized drawdown conditions were achieved using bladder pumps in 15 of the 29 wells with the following exceptions:

- Initial water levels were below the top of the screen in 11 of the wells sampled using a bladder pump. In accordance with SOP B-6, the modified sampling procedure was followed to collect the groundwater samples from these wells; and

- Stabilized drawdown and/or field parameters could not be achieved during sampling of four wells using this sampling methodology (MW-101D, MW-105D, MW-501X, and MW-601D). Purging activities were terminated after two hours, and grab samples were collected in accordance with SOP #B-6 Groundwater Well Sampling – Low-Flow Using a Bladder Pump.

5.3.2 Sampling Using Peristaltic Pumps

Collection of groundwater using a peristaltic pump included: a pump equipped with a pump head designed to accommodate thin wall silastic tubing; dedicated down-well Teflon® tubing; a SmarTroll multi-parameter sonde and flow-through cell (specific conductance, ORP, DO, pH, and temperature); and a Hach turbidity meter. For a detailed description of the procedure followed for low-flow groundwater sampling using a peristaltic pump, refer to the SOP #B-5 Groundwater Well Sampling – Low-Flow Using a Peristaltic Pump included in the SAP. Refer to **Table 1** for a list of specific wells sampled using a peristaltic pump and the analyses performed. Refer to **Appendix G** for copies of the SmarTroll *Low-Flow Test Reports.*

Stabilized drawdown could not be achieved during sampling of well M-7D. Purging activities were terminated after 2 hours and a grab sample was collected in accordance with SOP #B-5 Groundwater Well Sampling – Low-Flow Using a Peristaltic Pump.

Initial water levels were below the top of the screen in wells MW-A28 and MW-C6S. In accordance with SOP B-5, the modified sampling procedure was followed to collect the groundwater samples from these wells.

5.4 LEACHATE SAMPLING

The fall 2018 monitoring round included the collection of two leachate samples (SW-LEACHATE and SW-LEACH-B). SW-LEACHATE was collected within the boom area from the discharge of the culvert under the Lower Access Road. SW-LEACH-B is located immediately south of the former beaver dam on the eastern side of Rockwood Brook. Consistent with historical observations, leachate was not observed to be flowing at location SW-LEACH-A and no sample was collected at this location. Refer to **Figure 1** for the leachate sampling locations. The rationale for leachate sample collection is to monitor changes in leachate composition over time.

Consistent with our historical observations at SW-LEACHATE, the sample collection location was visibly impacted by orange-colored iron floc that has accumulated on the bottom of the leachate location at the culvert outfall. The area of the culvert outfall was observed to have approximately 6 inches of clear, running water above orange-stained leaf litter. Vegetation was observed around and within the water.

SW-LEACH-B was observed to have no obvious flow or orange-colored floc. The sample collection area was observed to have approximately 4 inches of clear water over leaf litter. Vegetation was observed around and within the water.

Leachate was collected using a dedicated, disposable, laboratory-cleaned glass jar and decanted into the sample containers in accordance with SOP #B-8 Leachate Sampling Procedure. Refer to **Table 1** for the analyses performed, **Table 7** for a summary of analytical results for leachate, and **Appendix J** for the laboratory analytical reports.

5.5 SURFACE WATER SAMPLING

The fall 2018 monitoring round included the collection of surface water samples at four locations along Rockwood Brook (SW-1, SW-3, SW-4, and SW-100). Refer to **Figure 1** for an illustration of surface water sampling locations. The rationale for sampling surface water is to monitor possible impacts from groundwater migrating downgradient from the former drum disposal area.

Surface water was collected from downstream to upstream using dedicated, disposable, laboratory-cleaned glass jars from which water is decanted into the sample containers. In-situ field parameters (temperature, specific conductivity, pH, ORP, DO, and turbidity) were collected using a Hach and a SmarTroll equipped with a probe guard. For a detailed description of the procedures followed for surface water sampling, refer to SOP #B-9 Surface Water and Stream Sediments Sampling Procedure included in the SAP. Refer to **Appendix G** for the *Surface Water/ Sediment Worksheet* and **Appendix F** for photographic documentation of the sampling locations. Refer to **Table 1** for the analyses performed, **Table 8** for a summary of analytical results for surface water, and **Appendix J** for the laboratory analytical reports.

5.6 PFAS SCREENING

PFAS are emerging contaminants. In 2016, NHDES established an AGQS of 70 nanograms per liter (ng/L) for the PFAS compounds perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS) and for both PFOA and PFOS combined where these chemicals are present together. The AGQS is based on the Reference Dose established in USEPA's Drinking Water Health Advisory for PFOA and PFOS, issued during May 2016.

A sampling investigation of all New Hampshire Federal NPL Sites, including the Troy Landfill, was requested by NHDES because PFAS have been widely used since the 1940s in industrial applications, including waterproofing of textiles.

PFAS compounds are known to be stable, persistent, and bioacummulative in the environment. A sampling investigation was undertaken at the Site during 2018 for PFAS in groundwater to ascertain its presence and concentration. Eleven Site monitoring wells were sampled and analyzed for PFAS during the fall 2018 sampling event.

PFOS, PFOA, and perfluorobutane sulfonate (PFBS) screening levels (SLs) for groundwater were developed by EPA using the Regional Screening Levels (RSL) calculator for a residential scenario and utilizing a Hazard Index (HI) = 0.1. This is consistent with standard practices for screening to identify contaminants of potential concern during a RI. The most conservative SLs will be used to determine whether the measured concentrations represent a concern that warrants further evaluation of the potential risks by Site contaminants.

Refer to **Table 6** for a summary of analytical results for PFAS in groundwater. Refer to **Appendix J** for the laboratory analytical reports. Refer to **Section 6.0** below for a summary of quality assurance/quality control (QA/QC) measures relating to PFAS groundwater sampling and **Section 7.0** below for a discussion of the data results.

5.7 DECONTAMINATION PROCEDURES AND WASTE DISPOSAL

The decontamination of non-dedicated equipment used at the Site is achieved with a non-phosphate detergent wash and distilled water rinse for the majority of monitoring wells at the Site. Due to the presence of DEHP as a COC on the Site, a more stringent decontamination procedure using solvent rinses and wipes of pesticide-grade hexane and isopropanol was employed at certain wells with historical DEHP detections (MW-A28, MW-101D, MW-201SX, MW-205, MW-803, and MW-804). The wells associated with the more stringent decontamination procedure were purged and sampled at the end of the monitoring program and were sampled in order from least to most contaminated, as feasible.

Waste hexane and isopropanol were collected in a five-gallon plastic container with a locking lid. At the end of the monitoring program, Strategic Environmental Services, Inc. collected the container of waste and transported it to Spring Grove Resource Recovery, Inc. in Cincinnati, Ohio for appropriate disposal. Refer to **Appendix H** for the completed manifest.

6.0 PROJECT QUALITY ASSURANCE / QUALITY CONTROL SUMMARY OF FIELD WORK

QA/QC measures implemented during the fall 2018 monitoring activities are defined in the SAP.[5] Quality Control steps designed to evaluate the reliability of the monitoring data collected include: 1) field equipment maintenance and calibration; 2) field QC sample collection (i.e., duplicates, trip blanks, and equipment banks); and 3) data verification and validation. These QC steps have been established to confirm that the performance acceptance criteria are achieved relative to the project-specific DQOs outlined in the SAP.

[5] The NHDES- and EPA-approved SAP for the fall 2018 monitoring activities dated October 26, 2018 is available electronically on NHDES' OneStop database (*http://des.nh.gov/onestop/index.htm*).

Except as specifically noted herein, GZA followed the procedures outlined in the SAP. Overall, the data collected during the fall 2018 monitoring activities was found by GZA to be acceptable for its intended use. Of the samples collected, no results were rejected. From a completeness perspective, the goal of 90 percent completeness was achieved for the fall 2018 monitoring activities.

GZA notes the following sampling deviations from the SAP:

- GZA measured the water level within well MW-702SX to be below the top of the screen prior to purging the well. Due to the non-saturated screen conditions and in accordance with SOP B-6, GZA initiated the modified low flow sampling procedure; however, the initial turbidity measurement was 227 nephelometric turbidity units (NTU). GZA switched to purging the well using standard low flow methodology to allow the turbidity to reduce and stabilize prior to collecting a sample. Turbidity stabilized at 5 NTU after approximately 50 minutes of purging and with 0.03 feet of water level drawdown within the well.

Laboratories achieved the reporting limits for all media and test methods included in the SAP with the following exceptions:

Laboratory	Media	Parameter	Samples Affected	Comments
ARA	Groundwater	1,2,4-Trimethylbenzene	TRY_MW-205	Dilution was required due to matrix interference, causing internal standard suppression.
		Manganese	TRY_M-7D TRY_MW-701 TRY_MW-508X	
		Arsenic	TRY_M-7 TRY_MW-701 TRY_MW-508X TRY_MW-105S TRY_MW-601S	
Maxxam	Groundwater	6:2 Fluorotelomersulfonate (6:2 FTS) 8:2 Fluorotelomersulfonate (8:2 FTS) Perfluorooctanesulfonamide (PFOSA)	TRY_MW-101S TRY_MW-602B TRY_M-7 TRY_MW-C6S TRY_MW-C6S DUP TRY_MW-701 TRY_MW-105S	Apparent error in the SAP. Reporting limits for these compounds should have been 4.0 nanograms per liter (ng/L)
		All analyzed PFAS	TRY_MW-805 TRY_MW-205 TRY_MW-A28	Due to sample matrix, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly.
			TRY_MW-102 TRY_MW-804 TRY_MW-804 DUP	Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly.

GZA notes that leachate chemistry, specifically with respect to DEHP, is compared to both the Interim Cleanup Levels (ICLs) included in the ROD and the Water Quality Criteria for Toxic Substances (WQCTS) included in Env-Wq 1700 (*Surface Water Quality Regulations*). The current reporting limit for DEHP under the selected test method meets detection limits required to evaluate relative to the ICL; however, the reporting limit is not low enough to assess conditions relative to the Surface Water Quality Criteria.

GZA notes the following QA/QC issues (observed during the fall 2018 monitoring round) that are not specifically addressed in the subsequent sections:

- Consistent with the previous monitoring event, GZA observed water in sample tubes at several well locations periodically retract down the tubing (variable lengths, but between 0.1 feet and 1 foot down the tubing) while the bladder was in its filling cycle. This atypical movement suggests that the ball valve in the bladder pump may intermittently improperly seat due to small sediment particles entrained in groundwater. In GZA's opinion, as long as the observation remains intermittent and the water does not retract into the SmarTroll while purging or the well head while sampling, pump maintenance is not necessary at this time.

Outliers and/or inconsistencies that may indicate problems with the sampling equipment or procedures are discussed in the following sections.

6.1 FIELD EQUIPMENT MAINTENANCE AND CALIBRATION

Field equipment requiring maintenance and calibration that was used on site included the SmarTroll and Hach.

Certifications were obtained from the vendor documenting that the appropriate routine maintenance had been performed on the equipment (refer to **Appendix I** for a copy of the certification). Equipment was successfully calibrated by GZA in the office prior to the commencement of field activities to determine if the condition of the equipment and standards met the project requirements (refer to **Appendix I** for a copy of the *Instrument Calibration/Maintenance Log* for each instrument). Instruments that failed a calibration check were replaced prior to the sampling event.

The SmarTroll and Hach calibrations were checked at the beginning of the first day of sampling at the Site and the first day of the second week of sampling to determine if the instrument was calibrated properly. The calibration was checked subsequently at the end of each day of use to document daily instrument calibration. In accordance with SOP B-4 Calibration of YSI, In-Situ and HACH Field Instruments, the following describes the corrective actions taken if appropriate acceptance criteria were not met during the calibration check process:

- If the morning calibration check failed, the individual parameters were recalibrated. If the recalibration failed, the appropriate standards were replaced and a thorough inspection and/or any required cleaning or maintenance activities were performed (i.e., changing DO caps, cleaning probe heads, etc.) and then the parameter(s) were recalibrated. If the calibration failed again, the instrument was replaced with a backup instrument;

- If a calibration check at the end of the day was not within the acceptable range for that parameter, the data collected that day for that parameter was qualified in its use as noted on the SmarTroll *Low-Flow Test Reports* included in **Appendix G,** and the individual parameters were recalibrated; and

- If erratic or uncharacteristic readings occurred between calibration and checks, the instrument was recalibrated.

Calibration and associated checks of the Hach were successful and no turbidity data required qualification by GZA during the monitoring activities.

The following identifies data collected using the SmartTroll that GZA considers to be an estimate based on the acceptance criteria not being met during the calibration process:

- The end-of-day calibration check was unsuccessful for ORP for the SmarTroll unit that was used at locations MW-803 and MW-804 on November 6, 2018. The ORP data for these wells were qualified on the *Low Flow Test Reports* and in **Table 5B**.

6.2 FIELD QUALITY CONTROL SAMPLE COLLECTION

Field QC samples including field duplicates, trip blanks, field blanks, and equipment blanks were collected during the water quality monitoring activities in accordance with the SAP. The following provides a brief summary of the field quality control results. Refer to **Appendix J** for the laboratory analytical data packages.

6.2.1 Duplicate Sample Results

Refer to **Table 9** and the individual laboratory data reports for specific details regarding the calculated relative percent difference (RPD) for duplicate samples. Based on the laboratory data, two parameters exceeded the acceptance criteria for the calculated RPD (30 percent for aqueous samples). Results for the SVOCs DEHP and benzyl alcohol at well MW-804 have been qualified by GZA in **Table 5A** for not meeting the acceptance criteria.

The calculated RPD for duplicates of other parameters detected at MW-804 were all within the acceptance criteria, indicating that the discrepancy for DEHP and benzyl alcohol was not due to the sampling method. GZA does not recommend any corrective actions at this time for the RPD discrepancy.

6.2.2 Trip Blanks

Trip blanks for VOCs, 1,4-dioxane, and PFAS were found free of contamination. No corrective action was required.

6.2.3 Equipment Blanks

An equipment blank associated with the SamplePro bladder pump was collected after use of the pump at MW-805 and cleaning using the standard decontamination methodology and analyzed for VOCs, 1,4-dioxane, manganese, arsenic, and PFAS.

An equipment blank associated with the water level meter (after use at MW-804) was analyzed for SVOCs. The water level meter equipment blank was collected after use of the more stringent decontamination methodology including hexane, isopropanol, non-phosphate soap, and distilled water.

Both equipment blanks were found free of contamination. No corrective action was required.

Refer to **Table 10** for the history of equipment blank samples at the Site since 2009.

6.3 DATA VERIFICATION AND VALIDATION

As part of the data verification process, GZA performed an in-house review of the data to check that the data have been recorded, transmitted, and processed correctly, which includes the evaluation of completeness, correctness, and conformance / compliance of a specific data set. GZA found that the data generated during the fall 2018 monitoring round is complete. Outliers and/or inconsistencies that may indicate a problem with the sampling equipment or procedures were not identified, other than what has been discussed above.

Third-party validation was not required.

7.0 SUMMARY OF FALL 2018 MONITORING DATA RESULTS

The following sections provide a summary of the findings from the fall 2018 monitoring round. In accordance with the SAP, the regulatory standards used to evaluate the data included the following:

- Results of the analyses of groundwater samples were compared to the ROD ICLs for COCs that were established in the ROD for the Site, the ROD ICLs as amended in the 2014 ESD (specifically for benzo(b)fluoranthene, butanone, isopropyltoluene, dibenzo(a,h)anthracene, 1,2,4-trimethylbenzene [1,2,4-TMB], 1,3,5-trimethylbenzene [1,3,5-TMB], butylbenzene, and n-propylbenzene), and the New Hampshire AGQS as defined in State of New Hampshire Code of Administrative Rules Env-Or 600 (Contaminated Sites Management), Env-Or 603.3; and

- Results of the analyses of leachate and surface water samples were compared to the WQCTS as defined in State of New Hampshire Code of Administrative Rules Env-Wq 1700 (Surface Water Quality Regulations), Env-Wq 1703.21. Leachate results were further compared to AGQS and the ICLs for the COCs established in the ROD.

7.1 HYDRAULIC HEAD DATA EVALUATION

7.1.1 Overburden Groundwater Flow

Consistent with historical data collected by GZA and others, the predominant groundwater flow direction in the on-Site overburden, as indicated by the October 29, 2018 water level data, is toward the northwest and Rockwood Brook. Refer to **Table 3** for tabularized groundwater elevation data and **Figure 2** for overburden groundwater elevation contours inferred from the October 2018 water level measurements. These data are generally consistent with the Site and vicinity topography.

7.1.2 Bedrock Groundwater Flow

Although not contoured due to insufficient data points, current and historical water level measurements from bedrock wells along a northwest transect across the Site (MW-701, MW-602B, M-7D, and MW-702D) suggest that the bulk groundwater flow direction in bedrock is west/northwest toward Rockwood Brook, consistent with that observed in overburden groundwater. Previous reports by others and preliminary hydrostratigraphic modeling for the Site indicates that the bedrock surface slopes downward from east to west across the Site toward Rockwood Brook.

7.1.3 Vertical Gradients

Refer to **Table 4** for calculated vertical hydraulic gradients.

Water level measurements collected from the well couplets located on the Site generally indicate the presence of downward vertical components of the hydraulic head gradient, with the exception of well couplets M-7, MW-C6, and MW-501, which indicate an upward vertical gradient. Well couplets M-7, MW-C6, and MW-501 are located on the lower access road, which is consistent with discharge of groundwater to the wetland area and Rockwood Brook. In general, the magnitudes of vertical gradients were relative small. The highest magnitude of vertical gradient (0.07 foot/foot downward) was observed at well couplet MW-101 located at the top of the steep slope above the upper access road and well couplet MW-105 located on the north corner of the GMZ.

7.2 GROUNDWATER QUALITY

The laboratory analytical reports for groundwater samples are provided in **Appendix J**. Refer to **Table 5A, Table 5B,** and **Table 6** for a summary of the groundwater analytical results, which represents those contaminants detected in groundwater and identifies exceedances of applicable action limits. Refer to **Figure 3** through **Figure 6** for the distribution of VOCs, SVOCs, metals, and PFAS in Site groundwater from data collected during fall 2018.

The following summarize the groundwater analytical results for the wells sampled as part of this monitoring round.

7.2.1 Background Water Quality

- For the purposes of characterizing background water quality and confirming the eastern compliance boundary, well MW-701 (bedrock groundwater), which is situated east and hydraulically upgradient of the former drum disposal area, was sampled. Consistent with results from historical monitoring events, VOCs, SVOCs, and 1,4-dioxane were not detected above laboratory reporting limits. Manganese was also not detected above the laboratory reporting limit during 2018; however, ARA's reporting limit (0.05 milligrams per liter [mg/L]) is higher than the reporting limit for historical data analyzed by the New Hampshire Department of Health and Human Services laboratory (0.010 mg/L).

7.2.2 NH AGQS/ROD ICL Exceedances

- The only VOC detected in groundwater that exceeds the AGQS and ROD ICL is the petroleum distillate-related constituent 1,2,4-TMB. The only detected SVOC that exceeds the AGQS/ROD ICL is DEHP. Refer to **Figure 3** and **Figure 4** for an illustration of the spatial distribution of regulatory exceedances in groundwater for VOCs and SVOCs;

- Naphthalene exceeded the ROD ICL of 20 µg/L at MW-101S, MW-205, and MW-805; however, the AGQS for naphthalene was increased from 20 µg/L to 100 µg/L on September 1, 2018 and none of the detected concentrations exceeded the new AGQS;

- Detected concentrations of manganese in groundwater samples exceeded the AGQS at 19 of the 32 monitoring wells (**Figure 5**); and

- Detected concentrations of 1,4-dioxane in groundwater samples exceeded the AGQS of 0.32 µg/L for 3 of the 32 monitoring wells (**Figure 3**). Consistent with historical results, however, the detected concentrations of 1,4-dioxane did not exceed the ROD ICL of 3 µg/L.

7.2.3 VOCs and 1,4-dioxane in Groundwater

- Consistent with historical data results from the RI dated September 2005 and historical monitoring data results since 2007, the source of residual VOC contamination in groundwater is anticipated to be the former drum disposal area and an area directly north of the former drum disposal area between MW-205, MW-803, and MW-804. The spatial variability of contaminant concentrations observed is suspected to be related to the historical nature of discrete releases from drums throughout this area as evidenced by varied plume compositions;

- The area of highest contaminant concentrations (highest number of detected contaminants per well and longest traceable plume) continues to be within overburden groundwater along the northern side of the former drum disposal area with the primary plume axis trending along the east to west flow path and including wells MW-205, MW-804, MW-805, MW-601D, MW-101S, and MW-C6S. Refer to **Figure 3** which illustrates the distribution of key VOC COCs at the Site, including 1,2,4-TMB and cis-1,2-dichoroethene. The plume appears to originate just to the north of the former drum disposal area between wells MW-802/MW-803 and MW-205/MW-804. Within the plume area, contaminants are largely petroleum distillate-related and include the alkylbenzenes (sec-butylbenzene, p-isopropyltoluene, n-propylbenzene, n-butylbenzene, t-butylbenzene, 1,2,4-TMB, and 1,3,5-TMB), BTEX compounds (ethylbenzene, and xylenes), isopropylbenzene, 2-butanone, and naphthalene;

- The temporal concentration trends for petroleum-related VOCs since 2008 have generally been relatively stable or decreasing for each of the monitoring wells, with the exception of wells MW-205, MW-804, and MW-805, which have had relatively variable concentration trends for petroleum-related VOCS;

- Detected concentrations of 1,2,4-TMB in groundwater samples collected from wells MW-804, MW-805, MW-205 have been variable over the respective sampling periods (**Graph 1**, **Graph 2**, and **Graph 3,** respectively) with concentrations varying between approximately 200 µg/L and 510 µg/L in samples collected from well MW-804 and MW-805 and between 80 µg/L and 525 µg/L in samples collected from MW-205;

- One chlorinated volatile organic compound (cVOC) COC, cis-1,2-DCE, was detected during the fall 2018 monitoring round within groundwater samples collected from monitoring wells MW-C6S, MW-C6D, MW-104S, and MW-601D (refer to **Figure 3**). The detected concentrations of cis-1,2-DCE ranged from 2 µg/L at well MW-104S to 19 µg/L at well MW-C6D located immediately to the west of the former location of the interceptor trenches. Concentrations of cis-1,2-DCE in groundwater samples have historically been decreasing or generally stable at each of the well locations where cis-1,2-DCE has been detected in groundwater; and

- Concentrations of 1,4-dioxane exceeding the new AGQS[6] of 0.32 µg/L were detected within groundwater samples collected from monitoring wells M-7, MW-C6D, and MW-501D. 1,4-dioxane was detected at a concentration below the AGQS in the sample collected from monitoring well MW-201SX. Detected concentrations of 1,4-dioxane did not exceed the ROD ICL of 3 µg/L. Concentrations of 1,4-dioxane detected at well M-7, as well as the low concentration of the cVOC 1,1-dichloroethane detected, may be associated

[6] The AGQS for 1,4-dioxane was reduced from 3 µg/L to 0.32 µg/L on September 1, 2018.

with the area of the property referred to as the solid waste landfill that is located outside of the current GMZ and to the northeast of the former drum disposal area.

7.2.4 SVOCs in Groundwater

- DEHP was detected in groundwater samples collected from monitoring wells MW-803, MW-804, MW-205, and MW-A28 at concentrations that exceeded the AGQS/ROD ICL of 6 µg/L (refer to **Figure 4**). The highest concentration of DEHP was detected at MW-804 (55 µg/L), which is located just north of the defined former drum area. The fall 2018 detections of DEHP appear coincident with the petroleum-related VOC plume. The DEHP plume is located hydraulically side gradient of the former drum disposal area;

- Historically, monitoring well MW-205 is the only monitoring location with a long-term and consistent history of DEHP detections. A temporal trend of decreasing concentrations has been observed for groundwater samples collected from this well since October 2005; however, reliable sample collection began during 2008 following the installation of a dedicated bladder pump. Since 2008, concentrations of DEHP detected within MW-205 have been variable between 5 µg/L and 80 µg/L (refer to concentration trend **Graph 3**). Based on the comparison of DEHP concentrations and the calculated groundwater elevation within MW-205 since 2008, there appears to be an inverse correlation such that as groundwater level rises, concentrations of DEHP generally decrease (refer to **Graph 4**);

- Potential temporal trends of decreasing DEHP concentrations have been observed in well MW-804 (refer to **Graph 1**) and of increasing concentrations have been observed in well MW-803 (refer **to Graph 5**); however, prior to 2016 both wells were sampled using a non-dedicated SamplePro bladder pump, which may have introduced DEHP contamination to the samples; and

- Monitoring well MW-A28, which is sampled using dedicated peristaltic pump tubing, was installed during 2012. Detected concentrations of DEHP in well MW-A28 indicate an increasing temporal trend (**Graph 6**).

7.2.5 Manganese in Groundwater

- Manganese was detected at concentrations above the respective AGQS (0.84 mg/L) in groundwater samples collected from each of the sampled monitoring wells with the exception of wells M-1, M-7D, MW-A28, MW-C6D, MW-101D, MW-104D, MW-105D, MW-202P, MW-501D, MW-508X, MW-701, MW-702SX, and MW-702D. Refer to **Figure 5** for the distribution of manganese concentrations detected in Site wells sampled during the fall 2018 monitoring round. The highest manganese concentrations were generally detected in shallow overburden wells located near the axis of the contaminant plume. Detected manganese concentrations have generally been increasing since at least 2014 in individual wells over time with the exception of wells MW-204, MW-501X, and MW-602S, which display decreasing trends (**Graph 7A** and **Graph 7B**).

7.2.6 PFAS in Groundwater

Refer to **Table 6** for PFAS compounds analyzed and detected and **Figure 6** for the interpreted distribution of PFOA and PFOS concentrations.

Of the 19 PFAS compounds analyzed for during 2018, 11 were detected within the groundwater samples collected from certain wells selected for PFAS analysis.

EPA SLs for PFBS (40,000 ng/L), PFOS (40 ng/L), and PFOA (40 ng/L) were established for this screening program. Currently, PFOA and PFOS are the only PFAS compounds regulated by AGQS, and EPA Maximum Contaminant Levels[7] (MCLs) have not yet been established for any PFAS compound. The AGQS of 70 ng/L has been established for PFOA, PFOS, and the total combined concentrations of PFOA/PFOS.

Detected concentrations for PFBS and PFOS did not exceed the established SLs. Detected concentrations of PFOS did not exceed the AGQS.

The detected concentration of PFOA in the sample collected from overburden well MW-205 (47 ng/L) exceeded the SL set for the investigation, but did not exceed the AGQS. The detected concentration of PFOA exceeded the SL and AGQS, and the combined concentrations of PFOA/PFOS exceeded the AGQS, in the groundwater samples collected from wells M-7, MW-C6S, MW-101S, MW-102, MW-105S, MW-602B, MW-804, and MW-805. The highest detected concentration of PFOA (790 ng/L) was detected at well MW-804 during fall 2018.

With the exception of perfluorodecanoic acid (PFDA) and perfluoroheptanesulfonic acid (PFHpS), which were each detected within groundwater from only one well, other detected PFAS compounds were relatively consistent between the sampled monitoring wells, resulting in a Site suite consisting of approximately nine PFAS compounds.

Only a subset of the Site's monitoring wells was sampled to preliminarily understand the presence of these compounds in Site groundwater. Of the locations sampled, detected exceedances of the SLs and AGQS were observed in groundwater samples collected from all sampled wells with the exception of upgradient bedrock well MW-701 and well MW-A28, which is the most southern of the sampled wells located on the lower access road and directly downgradient of the former drum disposal area (**Figure 6**).

7.3 LEACHATE DATA RESULTS

The laboratory analytical reports for the leachate samples are provided in **Appendix J**. Refer to **Table 7** for a summary of the leachate analytical results for the samples collected during fall 2018 and to **Figure 7** for the contaminants detected within the leachate samples relative to the surface water samples. The following summarizes the leachate analytical results:

- VOCs and SVOCs were not detected above the laboratory detection limits in the samples collected from leachate location SW-LEACH-B;

- Of the VOCs detected within the sample collected from leachate location SW-LEACHATE, none exceeded their respective AGQS or WQCTS. The contaminants detected consisted of various petroleum-related VOCs including sec-butylbenzene, t-butylbenzene, isopropylbenzene, and p-isopropyltoluene, consistent with the observed groundwater contamination. Total detected VOC concentrations at SW-LEACHATE have generally displayed a decreasing trend since 2006;

- DEHP was not detected above the laboratory reporting limit of 5 µg/L in the samples collected from either leachate location. The laboratory cannot, at this time, achieve the action limit for DEHP (3 µg/L) included in the WQCTS. No other SVOCs were detected above the laboratory reporting limits in the samples collected from the leachate;

[7] MCLs are regulatory limits for the concentrations of certain contaminants in public water supplies as required under the Safe Drinking Water Act.

- The variability of the concentrations of DEHP detected within the leachate samples collected from SW-LEACHATE (**Graph 8**) is likely related to the strong tendency of DEHP to adsorb to suspended particulates and matrix particles, which may be collected in variable quantities within leachate samples, thus biasing results;

- Arsenic was not detected above the reporting limit of 0.005 mg/L in either leachate sample; and

- Manganese was detected in the samples collected from the leachate in exceedance of the AGQS at a concentration of 3.4 mg/L at SW-LEACHATE and below the AGQS at a concentration of 0.09 mg/L at SW-LEACH-B. There is currently no WQCTS or ROD ICL to evaluate the data against. The concentration detected at SW-LEACHATE is slightly lower than historical manganese concentrations detected at that location.

7.4 SURFACE WATER DATA RESULTS

The laboratory analytical reports for the surface water samples are provided in **Appendix J**. Refer to **Table 8** for a summary of the surface water analytical results for the samples collected during fall 2018 and to **Figure 7** for the distribution of contaminants detected within the surface water samples. The following summarizes the surface water analytical results:

- Consistent with historical results, concentrations of VOCs, SVOCs, and arsenic were not detected within the surface water samples collected during the fall 2018 monitoring round;

- Manganese was detected at relatively low concentrations within each of the surface water samples collected, consistent with historical results. There is currently no WQCTS or ROD ICL to evaluate the surface water manganese data against; and

- Based on the measured hardness within the collected samples of surface water, water within Rockwood Brook, both up and downgradient of the former drum disposal area, is classified as soft, which suggests metals are likely not being mobilized from sediments and subsurface soils into the surface water.

8.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the findings presented above, concentrations of VOCs, both petroleum distillate-related and cVOCs, have decreased below AGQS/ROD ICLs with the exception of 1,2,4-TMB at four monitoring wells on the main plume axis. Concentrations of the SVOC DEHP continue to exceed the AGQS/ROD ICL at MW-205, MW-803, MW-804 and MW-A28 with decreasing (one well), increasing (two wells), and variable (one well) temporal concentration trends observed at the various wells. With the decrease of the AGQS, 1,4-dioxane concentrations now exceed the AGQS at three monitoring wells, although concentration trends for 1,4-dioxane have generally been stable to decreasing.

The initial screening for PFAS in groundwater indicates that concentrations of PFOA exceeding the SL and AGQS are widespread on the Site.

Consistent with the general conditions associated with the remedy, the current monitoring program should continue on an every 18 months basis. Based on GZA's review of data collected to-date and research on the nature of DEHP, accurate, reproducible detections of DEHP are difficult to acquire; therefore, assessment of the sampling, decontamination, and analysis procedures, specifically for DEHP, should continue and measures should be evaluated and implemented in order to ensure the integrity of the monitoring data.

Continued monitoring as outlined above should be used to further evaluate: 1) concentration trends in the affected media; 2) provide the information needed to further evaluate time to closure; and 3) provide the information necessary to continue to evaluate the effectiveness of MNA and the GMZ to meet the RAOs.

In addition, GZA recommends the following:

Well Maintenance Activities

- Collection of well-bottom measurements during each future sampling event at wells M-1 and MW-702SX, which have a greater than 0.5-foot discrepancy between the reported and measured well depths, to monitor continued siltation within the wells;

- Continued observation of the groundwater in sample tubes at several well locations which periodically retract down the tubing (variable lengths, but between 0.1 feet and 1 foot down the tubing) while the bladder is in its filling cycle. As long as the observation remains intermittent, pump maintenance is not necessary at this time; however, increased observation of the water retraction will require the removal and rehabilitation of the affected bladder pump; and

- GZA also recommends continued replacement or cleaning of locks securing the well standpipes as needed due to the buildup of dirt and rust.

Groundwater Sampling

- Collect a confirmatory round of groundwater samples for analysis of PFAS from the same wells sampled during 2018. In addition, consider collection of groundwater samples for PFAS analysis from each of the remaining wells in the Site monitoring well network to further assess the lateral and vertical extent of the PFAS plume.

Tables

TABLE 1
MULTIMEDIA SAMPLING - SUMMARY OF THE FALL 2018 MONITORING ACTIVITIES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Sample Location	Date Collected	Sampling Method [1]	VOCs (8260C)	1,4-Dioxane (8260 SIM)	SVOCs (8270C)	Mn & As (SW846 6020A)	Hardness (200.7)	PFAS (537mod)	NA [2] (Field)
Groundwater Sampling Locations									
TRY_M-1	10/31/2018	QED T1300 Bladder Pump	x	x	x	x			x
TRY_M-7	10/31/2018		x	x	x	x		x	*Grab*
TRY_M-7 DUP				x					
TRY_M-7D	10/31/2018	Peristaltic Pump	x	x	x	x			x
TRY_MW-A28	11/5/2018		x	x	x	x		x	*Grab*
TRY_MW-A28 DUP					x				
TRY_MW-C6S	10/31/2018		x	x	x	x		x	*Grab*
TRY_MW-C6S DUP			x	x		x		x	
TRY_MW-C6D	10/31/2018	QED T1250 Bladder Pump	x	x	x	x			x
TRY_MW-101S	10/30/2018		x	x	x	x		x	*Grab*
TRY_MW-101D	11/6/2018		x	x	x	x			x
TRY_MW-102	11/5/2018	QED SamplePro	x	x	x	x		x	x
TRY_MW-104S	10/30/2018	QED T1250 Bladder Pump	x	x	x	x			x
TRY_MW-104D	10/30/2018		x	x	x	x			x
TRY_MW-105S	11/1/2018		x	x	x	x		x	*Grab*
TRY_MW-105D	11/1/2018	QED SamplePro	x	x	x	x			x
TRY_MW-201SX	11/6/2018	QED T1250 Bladder Pump	x	x	x	x			x
TRY_MW-202P	11/5/2018	QED SamplePro	x	x	x	x			*Grab*
TRY_MW-204	11/1/2018	QED T1250 Bladder Pump	x	x	x	x			x
TRY_MW-205	11/7/2018		x	x	x	x		x	*Grab*
TRY_MW-301X	11/5/2018	QED SamplePro	x	x	x	x			x
TRY_MW-501X	11/1/2018		x	x	x	x			*Grab*
TRY_MW-501D	11/1/2018	QED T1250 Bladder Pump	x	x	x	x			x
TRY_MW-508X	10/31/2018	QED SamplePro	x	x	x	x			*Grab*
TRY_MW-601S	11/1/2018	QED T1250 Bladder Pump	x	x	x	x			*Grab*
TRY_MW-601D	11/1/2018		x	x	x	x			x
TRY_MW-602B	10/30/2018		x	x	x	x		x	x
TRY_MW-701	10/31/2018		x	x	x	x		x	x
TRY_MW-702SX	10/30/2018	QED SamplePro	x	x	x	x			x
TRY_MW-702D	10/30/2018		x	x	x	x			x
TRY_MW-801	11/2/2018		x	x	x	x			x
TRY_MW-802	11/2/2018		x	x	x	x			*Grab*
TRY_MW-803	11/6/2018	QED T1250 Bladder Pump	x	x	x	x			*Grab*
TRY_MW-804	11/6/2018		x	x	x	x		x	*Grab*
TRY_MW-804 DUP			x		x	x		x	
TRY_MW-805	11/2/2018	QED SamplePro	x	x	x	x		x	x
Leachate Sampling Locations									
TRY_SW-LEACHATE	11/7/2018	Glass Sample Container	x		x	x	x		
TRY_SW-LEACHATE DUP			x		x	x	x		
TRY_SW-LEACH-A	*ns*								
TRY_SW-LEACH-B	11/7/2018		x		x	x	x		

TABLE 1
MULTIMEDIA SAMPLING - SUMMARY OF THE FALL 2018 MONITORING ACTIVITIES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Sample Location	Date Collected	Sampling Method [1]	VOCs (8260C)	1,4-Dioxane (8260 SIM)	SVOCs (8270C)	Mn & As (SW846 6020A)	Hardness (200.7)	PFAS (537mod)	NA [2] (Field)
Surface Water Sampling Locations									
TRY_SW-1	11/7/2018	Glass Sample Container	x		x	x	x		x
TRY_SW-3			x		x	x	x		x
TRY_SW-3 DUP			x		x	x	x		
TRY_SW-4			x		x	x	x		x
TRY_SW-100			x		x	x	x		x
Sediment Sampling Locations									
TRY_SEDSW-3	*ns*	Stainless Steel Bowl and Spoon							
TRY_SEDSW-3 DUP									
Wetland Soil Sampling Locations									
TRY_WES-01	*ns*	Stainless Steel Bowl and Spoon							
TRY_WES-02	*ns*								
TRY_WES-03	*ns*								
TRY_WES-03 DUP									
TRY_WES-04	*ns*								

TABLE KEY:
ns = not sampled
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
Mn = Manganese
As = Arsenic
PFAS = Per- and Polyfluoroalkyl Substances
NA = Natural Attenuation

SPECIFIC NOTES:
1. A non-dedicated QED SamplePro bladder pump was used with a QED MP-10 controller to sample the SamplePro pump wells. Dedicated bladder pumps were used with a QED MP-10 controller to sample the QED T1250 and T1300 pump wells. A Geotech GeoPump Series II Variable Speed 300 + 600 RPM peristaltic pump was used to sample the peristaltic pump wells.
2. Field NA parameters include water levels, specific conductance, oxidation-reduction potential (ORP), dissolved oxygen (DO), pH, temperature and turbidity using an In-Situ SmarTROLL multi-parameter meter and a Hach 2100Q turbidity meter. Grab indicates field parameter readings that were collected prior to stabilization due to partially-saturated well screen conditions.

TABLE 2
WELL CONSTRUCTION INFORMATION
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well Designation	Well Type (2-in, 1.5-in etc.)	Screened Geologic Unit	Reported Depth to Well Bottom [1] (ft, referenced to measuring point)	Screen Interval (ft, referenced to measuring point)	Screen Length (ft)	Reference Measuring Point	Height of Stickup of Measuring Point (ft)	Bladder Pump Model	Bladder Length in feet (L) / Diameter in inches (D) / & Capacity in mL (C)	Sampling Method	Historical Low Water Level [2] (ft, referenced to measuring point)	Recommended Depth of Bladder Pump Intake (ft, referenced to measuring point)	Pump Intake Distance from Top of Screen (ft, referenced to measuring point)	Distance Between Pump Intake and Bottom of Well [3] (ft, referenced to measuring point)
TRY_M-1	1 1/2-in PVC	Overburden	67.3 [4]	8.3-67.3 [4]	59	PVC	0.64	QED T1300	3.8-ft L, 1-in D, 220-mL C	Low Flow	8.76	55.0	46.7	12.3
TRY_M-7	1 1/2-in PVC	Overburden	17.3	7.8-17.3	9.5	PVC	1.61	QED T1300	3.8-ft L, 1-in D, 220-mL C	LF/Mod	8.76	15.8	8.0	1.5
TRY_M-7D	1 1/2-in PVC	Bedrock	81.4	50.8-80.8	30	PVC	1.49	N / A [6]	N / A [6]	Low Flow [7]	5.58	74.0 [6]	23.2 [6]	6.8 [6]
TRY_MW-A28	1 1/2-in PVC	Overburden	13.0	8.03	5	PVC	3.03	N / A [6]	N / A [6]	LF/Mod	9.28	11.1 [6]	3.1 [6]	1.9 [6]
TRY_MW-C6S	2-in PVC	Overburden	15.2	5.2-15.2	10	PVC	1.79	N / A [6]	N / A [6]	LF/Mod	6.80	11.0 [6,8]	5.8 [6]	4.2 [6]
TRY_MW-C6D	2-in PVC	Overburden	38.0	28.0-38.0	10	PVC	2.50	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	7.18	33.0	5.0	5.0
TRY_MW-101S	2-in PVC	Overburden	29.4	19.4-29.4	10	PVC	1.71	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	LF/Mod	21.30	24.4	5.0	5.0
TRY_MW-101D	2-in PVC	Overburden	67.1	57.1-67.1	10	PVC	2.50	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow [7]	18.86	62.1	5.0	5.0
TRY_MW-102	2-in PVC	Predominantly Overburden	36.2 [4]	21.2-36.2 [4]	15	Casing	2.89	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	25.31	34.0	13.0	2.2
TRY_MW-104S	2-in PVC	Overburden	17.7 [4]	5-17 [4]	12	PVC	2.17	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	4.39	15.5	10.5	1.5
TRY_MW-104D	2-in PVC	Overburden	52.1 [4]	37.1-52.1 [4]	15	PVC	2.48	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	4.24	48.0	10.9	4.1
TRY_MW-105S	2-in PVC	Overburden	21.1	6.5-19.5 [4]	13	PVC	---	QED T1250	1.2-ft L, 1.75 in D, 100-mL C	LF/Mod	11.58	17.5	11.0	3.6
TRY_MW-105D	2-in PVC	Bedrock	87.9	48.5-88.2 [4]	39.7	PVC	1.89	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow [7]	12.65	68.0	19.5	20.2
TRY_MW-201SX	2-in PVC	Overburden	17.2	7.2-17.2	10	PVC	1.69	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	7.54	12.2	5.0	5.0
TRY_MW-202P	4-in PVC	Overburden	61.6	4.9-59.9 [4]	55	PVC	1.96	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	LF/Mod	9.97	52.5	47.6	7.4
TRY_MW-204	2-in PVC	Overburden	32.8	22.8-32.8	10	PVC	2.6	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	21.52	31.3	8.5	1.5
TRY_MW-205	2-in PVC	Overburden	39.1	29.1-39.1	10	PVC	2.07	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	LF/Mod	33.42	37.6	8.5	1.5
TRY_MW-301X	2-in PVC	Overburden	52.5	42.5-52.5	10	PVC	2.42	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	35.55	47.5	5.0	5.0
TRY_MW-501X	2-in PVC	Overburden	14.0	4.0-14.0	10	PVC	2.02	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	LF/Mod	6.39	10.2	6.2	3.8
TRY_MW-501D	2-in PVC	Overburden	31.9	21.9-31.9	10	PVC	2.17	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	6.22	26.9	5.0	5.0
TRY_MW-508X	2-in PVC	Overburden	9.7	4.7-9.7	5	PVC	2.9	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	LF/Mod	6.45	8.1	3.4	1.6
TRY_MW-601S	2-in PVC	Overburden	29.3	14.3-29.3	15	PVC	2.69	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	LF/Mod	21.80	27.8	13.5	1.5
TRY_MW-601D	2-in PVC	Overburden	62.1	52.1-62.1	10	PVC	2.23	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow [7]	23.10	57.1	5.0	5.0
TRY_MW-602B	2-in PVC	Bedrock	47.5	37.5-47.5	10	PVC	2.12	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	21.76	42.5	5.0	5.0
TRY_MW-701	2-in PVC	Bedrock	78.3	18.3-78.3	60	PVC	3.18	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	10.70	48.3	30.0	30.0
TRY_MW-702SX	2-in PVC	Overburden	15.4 [5]	5.4-15.4	10	PVC	3.9	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	LF/Mod [9]	7.95	11.7	6.3	3.7
TRY_MW-702D	2-in PVC	Bedrock	46.4 [4,5]	19.4-46.4 [4,5]	27	PVC	2.44	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	6.55	33.0	13.6	13.4
TRY_MW-801	2-in PVC	Overburden	46.4	36.4-46.4	10	PVC	2.25	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	33.46	41.4	5.0	5.0
TRY_MW-802	2-in PVC	Overburden	35.6	25.6-35.6	10	PVC	2.1	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	LF/Mod	29.18	32.4	6.8	3.2
TRY_MW-803	2-in PVC	Overburden	32.3	22.3-32.3	10	PVC	2.15	QED T1250	1.2-ft L, 1.75 in D, 100-mL C	LF/Mod	29.12	30.7	8.4	1.6
TRY_MW-804	2-in PVC	Overburden	36.0	26.0-36.0	10	PVC	2.32	QED T1250	1.2-ft L, 1.75 in D, 100-mL C	LF/Mod	31.71	33.9	7.9	2.1
TRY_MW-805	2-in PVC	Overburden	42.4	32.4-42.4	10	PVC	2.37	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	31.41	37.4	5.0	5.0

TABLE 2
WELL CONSTRUCTION INFORMATION
Troy Mills Landfill Superfund Site
Troy, New Hampshire

TABLE KEY:

in = Inch
ft = Feet
PVC = Polyvinyl chloride
LNAPL = Light Non-aqueous Phase Liquid
L = Length
D = Diameter
C = Capacity
mL = milliliters
"---" = No data available
N / A = Not applicable
LF/Mod = Low Flow or Modified Sampling Procedure depending upon water level (i.e., the screen is bisected by water table)
Mod/IR = Modified sampling method used due to historical insufficient recharge

SPECIFIC NOTES:

1. Reported Depth to Well Bottom depths are field measured unless otherwise noted.
2. Historical low water levels are compiled from water level measurements taken from 2006 to the present. This data is checked yearly and updated as necessary. Refer to Table 3 - Groundwater Level Measurements and Elevation Data for historical groundwater levels and elevations. The historical low water level for well TRY_MW-C6S was taken from the 11/19/12 measurement included on Table 4 - Summary of LNAPL Well Observations of the June 2013 Monitoring Report.
3. The distance between pump intake and bottom of the well is calculated using the Depth to Well Bottom information.
4. Downhole information was not verified during the October 8, 2008 camera survey.
5. GZA notes that there appears to be a minor discrepancy between the historical information regarding the bottom of screen/well and that which was measured during 2014 by GZA in wells TRY_MW-702SX (14.9 feet) and TRY_MW-702D (46.7 feet).
6. Wells TRY_MW-A28 and TRY_M-7D have a 1.5-inch diameter, which is too small to accommodate a SamplePro Bladder pump; therefore, a peristaltic pump and dedicated poly tubing is used to sample these wells. The last three columns of the table (Recommended Depth of Bladder Pump Intake, etc.) refer to the intake depth of the poly tubing used for sampling. Well TRY_MW-C6S was also be sampled with a peristaltic pump during the fall 2018 sampling round due to bis(2-ethylhexyl)phthalate contamination concerns.
7. The water level in these wells did not stabilize prior to the two hour time limit during the fall 2018 sampling event.
8. The depth of the pump intake at this well should be adjusted prior to the next sampling round based on the historical low water level measurement. The proposed future tubing depth is displayed on this table, the former tubing depth was 10.2 ft.
9. For TRY_MW-702SX, the use of low flow or modified methodology for purging the well will depend on the water level in the screen and the turbidity of the water during purging.

TABLE 3
GROUNDWATER LEVEL MEASUREMENTS AND ELEVATION DATA
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well Designation	Screened Geologic Unit	Measuring Point	Measuring Point Elevation (ft)	November 2006		May 2007		June 2008		November 2008		June 2009		October 2009		June 2011	
				Depth to Water [1] (ft bmp)	Elevation (ft)	Depth to Water [1] (ft bmp)	Elevation (ft)	Depth to Water [1] (ft bmp)	Elevation (ft)	Depth to Water [1] (ft bmp)	Elevation (ft)	Depth to Water [1] (ft bmp)	Elevation (ft)	Depth to Water [1] (ft bmp)	Elevation (ft)	Depth to Water [1] (ft bmp)	Elevation (ft)
Wells Currently Sampled																	
TRY_M-1	Overburden	PVC	1,062.24	---	---	---	---	8.34	1,053.9	7.57	1,054.7	8.14	1,054.1	8.76	1,053.5	7.71	1,054.5
TRY_M-7	Overburden	PVC	1,037.41	8.46	1,029.0	8.5	1,028.9	8.76	1,028.7	8.72	1,028.7	8.51	1,028.9	8.53	1,028.9	8.26	1,029.2
TRY_M-7D	Deep Bedrock	PVC	1,036.39	4.54	1031.9	4.39	1,032.0	5.58	1,030.8	4.31	1,032.1	2.89	1,033.5	4.65	1,031.7	4.12	1,032.3
TRY_MW-A28	Overburden	PVC	1,051.06	Monitoring Wells Not Yet Installed													
TRY_MW-C6S	Overburden	PVC	1,043.83														
TRY_MW-C6D	Overburden	PVC	1,044.54														
TRY_MW-101S	Overburden	PVC	1,072.69														
TRY_MW-101D	Overburden	PVC	1,067.53														
TRY_MW-102	Predominantly Overburden	Casing	1,093.89	24.99	1,068.9	---	---	22.07	1,071.8	23.93	1,070.0	21.95	1,071.9	23.65	1,070.2	20.56	1,073.3
TRY_MW-104S	Overburden	PVC	1,032.97	3.93	1,029.0	---	---	4.39	1,028.6	4.02	1,029.0	4.17	1,028.8	3.93	1,029.0	3.62	1,029.4
TRY_MW-104D	Overburden	PVC	1,033.08	3.93	1,029.2	---	---	4.24	1,028.8	3.89	1,029.2	4.18	1,028.9	3.94	1,029.1	3.60	1,029.5
TRY_MW-105S	Overburden	PVC	1,036.75	---	---	---	---	11.58	1,025.2	10.94	1,025.8	10.96	1,025.8	10.45	1,026.3	10.35	1,026.4
TRY_MW-105D	Deep Bedrock	PVC	1,036.62	---	---	11.45	1,025.0	12.65	1,023.8	---	---	11.52	1,025.0	10.21	1,026.3	9.99	1,026.6
TRY_MW-201SX	Overburden	PVC	1,047.33	Monitoring Well Not Yet Installed													
TRY_MW-202P	Overburden	PVC	1,053.36	---	---	---	---	9.79	1,043.6	7.98	1,045.4	9.49	1,043.9	9.97	1,043.4	9.35	1,044.0
TRY_MW-204	Overburden	PVC	1,081.80	20.38	1,061.4	18.85	1,063.0	19.53	1,062.3	20.39	1,061.4	18.93	1,062.9	20.69	1,061.1	17.67	1,064.1
TRY_MW-205	Overburden	PVC	1,087.97	33.42	1,054.6	29.94	1,058.0	29.68	1,058.3	31.74	1,056.2	29.71	1,058.3	31.06	1,056.9	28.12	1,059.9
TRY_MW-301	Overburden	PVC	1,080.77	35.86	1,044.9	---	---	34.14	1,046.6	34.71	1,046.1	34.56	1,046.2	34.85	1,045.9	Decommissioned	
TRY_MW-301X	Overburden	PVC	1,080.94	Monitoring Well Not Yet Installed												34.31	1,046.6
TRY_MW-501	Overburden	PVC	1,040.49	6.57	1,033.9	9.33	1,031.2	6.58	1,033.9	6.38	1,034.1	6.58	1,033.9	6.43	1,034.1	Decommissioned	
TRY_MW-501X	Overburden	PVC	1,039.98	Monitoring Well Not Yet Installed												6.38	1,033.6
TRY_MW-501D	Overburden	PVC	1,040.25	Monitoring Well Not Yet Installed													
TRY_MW-508	Overburden	Casing	1,079.50	---	---	---	---	11.65	1,067.9	6.19	1,073.3	7.17	1,072.3	8.58	1,070.9	Decommissioned	
TRY_MW-508X	Overburden	PVC	1,080.72	Monitoring Well Not Yet Installed												6.38	1,074.3
TRY_MW-601S	Overburden	PVC	1,077.45	21.66	1,055.8	20.53	1,056.9	21.29	1,056.2	21.67	1,055.8	20.85	1,056.6	21.57	1,055.9	20.56	1,056.9
TRY_MW-601D	Overburden	PVC	1,077.72	23.1	1,054.6	21.66	1,056.1	22.38	1,055.3	22.76	1,055.0	21.84	1,055.9	22.81	1,054.9	22.98	1,054.7
TRY_MW-602B	Bedrock	PVC	1,091.35	21.39	1,070.0	17.82	1,073.5	18.39	1,073.0	20.34	1,071.0	18.28	1,073.1	20.61	1,070.7	16.40	1,075.0
TRY_MW-701	Deep Bedrock	PVC	1,106.28	---	---	5.65	1,100.6	9.99	1,096.3	7.71	1,098.6	8.64	1,097.6	10.70	1,095.6	8.17	1,098.1
TRY_MW-702S	Overburden	PVC	1,036.60	---	---	4.57	1,032.0	6.61	1,030.0	6.03	1,030.6	5.58	1,031.0	6.82	1,029.8	Decommissioned	
TRY_MW-702SX	Overburden	PVC	1,037.76	Monitoring Well Not Yet Installed												6.50	1,031.3
TRY_MW-702D	Deep Bedrock	PVC	1,036.34	---	---	3.96	1,032.4	6.2	1,030.1	5.71	1,030.6	5.30	1,031.0	6.51	1,029.8	5.08	1,031.3
TRY_MW_801	Overburden	PVC	1,088.01	Monitoring Wells Not Yet Installed												29.87	1,058.1
TRY_MW-802	Overburden	PVC	1,091.36													23.74	1,067.6
TRY_MW-803	Overburden	PVC	1,090.70													21.39	1,069.3
TRY_MW-804	Overburden	PVC	1,087.68													27.38	1,060.3
TRY_MW-805	Overburden	PVC	1,085.20													28.67	1,056.5
TRY_SW-4	Staff Gauge	zero-foot marker on gauge	1,025.99	---	---	---	---	---	---	---	---	---	---	---	---	---	---

See last page for notes.

TABLE 3
GROUNDWATER LEVEL MEASUREMENTS AND ELEVATION DATA
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well Designation	Screened Geologic Unit	Measuring Point	Measuring Point Elevation (ft)	July 2012		June 2013		October 2014		June 2015		May 2016		October 2018	
				Depth to Water [1] (ft bmp)	Elevation (ft)	Depth to Water [1] (ft bmp)	Elevation (ft)	Depth to Water [1] (ft bmp)	Elevation (ft)	Depth to Water [1] (ft bmp)	Elevation (ft)	Depth to Water [1] (ft bmp)	Elevation (ft)	Depth to Water [1] (ft bmp)	Elevation (ft)
Wells Currently Sampled															
TRY_M-1	Overburden	PVC	1,062.24	---	---	---	---	6.91	1,055.3	---	---	8.26	1,054.0	7.44	1,054.8
TRY_M-7	Overburden	PVC	1,037.41	---	---	---	---	8.34	1,029.1	---	---	8.53	1,028.9	7.93	1,029.5
TRY_M-7D	Deep Bedrock	PVC	1,036.39	---	---	---	---	4.49	1,031.9	---	---	4.76	1,031.6	3.93	1,032.5
TRY_MW-A28	Overburden	PVC	1,051.06			9.12	1,041.9	8.91	1,042.2	---	---	9.28	1,041.8	8.98	1,042.1
TRY_MW-C6S	Overburden	PVC	1,043.83					6.14	1,037.7	---	---	6.67	1,037.2	5.88	1,038.0
TRY_MW-C6D	Overburden	PVC	1,044.54	Monitoring Wells Not Yet Installed						7.18	1,037.4	7.18	1,037.4	6.34	1,038.2
TRY_MW-101S	Overburden	PVC	1,072.69							21.30	1,051.4	20.88	1,051.8	20.04	1,052.7
TRY_MW-101D	Overburden	PVC	1,067.53							18.86	1,048.7	18.53	1,049.0	17.77	1,049.8
TRY_MW-102	Predominantly Overburden	Casing	1,093.89	---	---	---	---	25.31	1,068.6	---	---	22.32	1,071.6	21.45	1,072.4
TRY_MW-104S	Overburden	PVC	1,032.97	---	---	3.68	1,029.3	3.73	1,029.2	---	---	3.57	1,029.4	3.26	1,029.7
TRY_MW-104D	Overburden	PVC	1,033.08	---	---	3.61	1,029.5	3.73	1,029.4	---	---	3.69	1,029.4	3.38	1,029.7
TRY_MW-105S	Overburden	PVC	1,036.75	---	---	---	---	10.30	1,026.5	---	---	11.50	1,025.3	8.17	1,028.6
TRY_MW-105D	Deep Bedrock	PVC	1,036.62	---	---	---	---	10.86	1,025.8	---	---	11.46	1,025.2	11.91	1,024.7
TRY_MW-201SX	Overburden	PVC	1,047.33	Monitoring Well Not Yet Installed						7.54	1,039.8	7.30	1,040.0	6.25	1,041.1
TRY_MW-202P	Overburden	PVC	1,053.36	---	---	---	---	8.93	1,044.4	---	---	9.45	1,043.9	9.13	1,044.2
TRY_MW-204	Overburden	PVC	1,081.80	---	---	---	---	21.52	1,060.3	---	---	20.33	1,061.5	18.67	1,063.1
TRY_MW-205	Overburden	PVC	1,087.97	31.55	1,056.4	30.68	1,057.3	32.84	1,055.1	---	---	30.77	1,057.2	28.80	1,059.2
TRY_MW-301	Overburden	PVC	1,080.77	Monitoring Well Decommissioned											
TRY_MW-301X	Overburden	PVC	1,080.94	---	---	35.25	1,045.7	35.55	1,045.4	---	---	34.83	1,046.1	33.90	1,047.0
TRY_MW-501	Overburden	PVC	1,040.49	Monitoring Well Decommissioned											
TRY_MW-501X	Overburden	PVC	1,039.98	---	---	6.39	1,033.6	6.31	1,033.7	---	---	6.32	1,033.7	5.96	1,034.0
TRY_MW-501D	Overburden	PVC	1,040.25	Monitoring Well Not Yet Installed						6.22	1,034.0	5.92	1,034.3	5.43	1,034.8
TRY_MW-508	Overburden	Casing	1,079.50	Monitoring Well Decommissioned											
TRY_MW-508X	Overburden	PVC	1,080.72	---	---	---	---	6.12	1,074.6	---	---	6.45	1,074.3	4.64	1,076.1
TRY_MW-601S	Overburden	PVC	1,077.45	21.80	1,055.7	20.36	1,057.1	21.57	1,055.9	---	---	21.28	1,056.2	20.36	1,057.1
TRY_MW-601D	Overburden	PVC	1,077.72	---	---	21.56	1,056.2	22.89	1,054.8	---	---	22.45	1,055.3	21.53	1,056.2
TRY_MW-602B	Bedrock	PVC	1,091.35	---	---	---	---	21.76	1,069.6	---	---	18.93	1,072.4	17.82	1,073.5
TRY_MW-701	Deep Bedrock	PVC	1,106.28	---	---	6.11	1,100.2	8.85	1,097.4	---	---	7.94	1,098.3	6.55	1,099.7
TRY_MW-702S	Overburden	PVC	1,036.60	Monitoring Well Decommissioned											
TRY_MW-702SX	Overburden	PVC	1,037.76	---	---	---	---	7.95	1,029.8	6.81	1,031.0	6.82	1,030.9	6.18	1,031.6
TRY_MW-702D	Deep Bedrock	PVC	1,036.34	---	---	---	---	6.55	1,029.8	5.36	1,031.0	5.36	1,031.0	4.79	1,031.6
TRY_MW_801	Overburden	PVC	1,088.01	32.45	1,055.6	31.94	1,056.1	33.46	1,054.6	---	---	31.83	1,056.2	30.21	1,057.8
TRY_MW-802	Overburden	PVC	1,091.36	27.82	1,063.5	26.58	1,064.8	29.18	1,062.2	---	---	26.58	1,064.8	24.59	1,066.8
TRY_MW-803	Overburden	PVC	1,090.70	27.46	1,063.2	25.45	1,065.3	29.12	1,061.6	26.92	1,063.8	26.02	1,064.7	22.99	1,067.7
TRY_MW-804	Overburden	PVC	1,087.68	30.52	1,057.2	29.28	1,058.4	31.71	1,056.0	30.17	1,057.5	29.81	1,057.9	27.96	1,059.7
TRY_MW-805	Overburden	PVC	1,085.20	30.68	1,054.5	29.91	1,055.3	31.41	1,053.8	---	---	30.20	1,055.0	28.86	1,056.3
TRY_SW-4	Staff Gauge	zero-foot marker on gauge	1,025.99	---	---	---	---	1.37	1,027.4	---	---	1.33	1,027.3	2.26	1,028.3

See last page for notes.

TABLE 3
GROUNDWATER LEVEL MEASUREMENTS AND ELEVATION DATA
Troy Mills Landfill Superfund Site
Troy, New Hampshire

TABLE KEY:
ft = feet ft
bmp = feet below measuring point
PVC = polyvinyl chloride riser
"---" = data is not readily available or groundwater level was not collected

SPECIFIC NOTES:
1. Depth to groundwater measurements are referenced to top of PVC risers or top of casing at groundwater monitoring wells as indicated. The measuring point for the surface water staff gauge is the 0-foot marker on the gauge; therefore, the gauge measures the height of the Rockwood Brook water column at the staff gauge rather than the depth of the water as indicated by the "depth to water" column heading.

GENERAL NOTES:
* The horizontal datum used to identify site monitoring wells is NAD83/96 per NHDOT Base Station, following the NH State Plane projection, in units of US Survey feet.
* Depth to groundwater measurements from 2006 through the present were collected by GZA field personnel.
* A survey of the site wells was conducted during February 2005 by Conklin & Soroka of Cheshire, Connecticut. The benchmark point used for this survey was monitoring well TRY_M-3; its elevation was established as 1037.65 (PVC) according to the plan titled "Topographic Survey Depicting Monitoring Well Locations, Land of Troy Mills Landfill."
* The 700-series wells were drilled in November 2006 by NH Boring; the x-series replacement wells were drilled during November 2010 by Expedition Drilling; the 800-series wells were drilled during May 2011 by Boart Longyear; TRY_MW-C6D, TRY_MW-101S/D, TRY_MW-201SX, and TRY_MW-501D wells were drilled during May 2015 by Cascade Drilling. The elevations of these wells were surveyed by GZA personnel using already existing on-site wells as reference points.
* A benchmark was established on the eastern side of the culvert at TRY_SW-1 on Rockwood Brook with an elevation of 1,060.98 feet.

TABLE 4
VERTICAL HYDRAULIC GRADIENTS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Lithologic Unit Screened Within	Measuring Point Elevation (ft)	Depth to Screen (ft bmp)	Screen Midpoint Elevation	Difference in Screen Elevation (ft)	Groundwater Elevation (ft)	Change in Groundwater Elevation (ft)	Magnitude of Vertical Gradient [1]	Direction of Vertical Gradient (Upward/Downward)
TRY_M-7	Overburden	1037.41	7.8-17.3	1024.9	-54.3	1,029.5	3.0	**-0.06**	**Upward**
TRY_M-7D	Bedrock	1036.39	50.8-80.8	970.6		1,032.5			
TRY_MW-C6S	Shallow Overburden	1043.83	5.2-15.2	1033.6	-22.1	1,038.0	0.3	**-0.01**	**Upward**
TRY_MW-C6D	Deep Overburden	1044.54	28.0-38.0	1011.5		1,038.2			
TRY_MW-101S	Shallow Overburden	1072.69	19.4-29.4	1048.3	-42.9	1,052.7	-2.9	**0.07**	**Downward**
TRY_MW-101D	Deep Overburden	1067.53	57.1-67.1	1005.4		1,049.8			
TRY_MW-104S	Shallow Overburden	1032.97	5-17	1022.0	-33.5	1,029.7	-0.01	**0.0003**	**Downward**
TRY_MW-104D	Deep Overburden	1033.08	37.1-52.1	988.5		1,029.7			
TRY_MW-105S	Shallow Overburden	1036.75	6.5-19.5	1023.8	-55.5	1,028.6	-3.9	**0.07**	**Downward**
TRY_MW-105D	Bedrock	1036.62	48.5-88.2	968.3		1,024.7			
TRY_MW-501X	Shallow Overburden	1039.98	4.0-14.0	1041.0	-17.6	1,034.0	0.8	**-0.05**	**Upward**
TRY_MW-501D	Deep Overburden	1040.25	21.9-31.9	1023.4		1,034.8			
TRY_MW-601S	Shallow Overburden	1077.45	14.3-29.3	1055.7	-35.0	1,057.1	-0.9	**0.03**	**Downward**
TRY_MW-601D	Deep Overburden	1077.72	52.1-62.1	1020.6		1,056.2			
TRY_MW-702SX	Shallow Overburden	1037.76	5.4-15.4	1037.4	-33.9	1,031.6	-0.03	**0.001**	**Downward**
TRY_MW-702D	Bedrock	1036.34	19.4-46.4	1003.4		1,031.6			

TABLE KEY:
ft = feet
bmp = below measuring point

SPECIFIC NOTES:

1. Magnitude of vertical gradient calculated based on the difference in screen elevations and the difference in groundwater elevations. Data reported to the level of precision of the measuring method but calculations are performed without rounding. Groundwater elevations calculated based on depth to water level measurements collected during the most recent water level round (refer to Table 3).

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	VOCs of Concern (µg/L)													
			Tetrachloroethene	*Trichloroethene*	*cis-1,2-Dichloroethene*	*Vinyl Chloride*	*1,2,4-Trimethylbenzene*	*1,3,5-Trimethylbenzene*	*2-Butanone(MEK)*	*Benzene*	*Naphthalene*	*n-Butylbenzene*	*n-Propylbenzene*	*p-Isopropyltoluene (4-cymene)*	*Tetrahydrofuran(THF)*	*Toluene*
NHAGQS			5	5	70	2	330	330	4,000	5	100 [4]	260	260	260	600	1,000
ROD ICL			5	5	70	2	330	330	4,000	5	20	260	260	260	154	1,000
TRY_M-1	**Overburden**	**Jun-11**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	**13**	**5.5**	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	**4.7**	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_M-7	**Overburden**	**Aug-04**	<2	<2	<2	<2	<2	<2	---	<2	<2	---	<2	<2	<10	<2
		Oct-05	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	<0.4	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<0.3	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Dec-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
		Oct-18 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_M-7D	**Bedrock**	**Nov-14**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-A28	**Overburden**	**Jun-13**	<2.0	<2.0	<2.0	<2.0	**18**	**15**	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	**58**	**8.3**	<10	<2.0	**2.9**	**2.9**	**6.8**	**2.9**	<10	<2.0
		Nov-14 DUP	<2.0	<2.0	<2.0	<2.0	**53**	**6.6**	<10	<2.0	**2.8**	**2.6**	**6.5**	**2.6**	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	**34**	**2.4**	<10	<2.0	<2.0	<2.0	**4.4**	**2.9**	<10	<2.0
		May-16 DUP	<2.0	<2.0	<2.0	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
		Nov-18 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	Additional VOCs (µg/L)																		Other COCs
			1,1,1-Trichloroethane	*1,1-Dichloroethane*	*1,1-Dichloroethene*	*1,2,4-Trichlorobenzene*	*1,2-Dichloroethane*	*1,4-Dichlorobenzene*	*2-Chlorotoluene*	*4-Methyl-2-pentanone (MIBK)*	*Acetone*	*Carbon Disulfide*	*Ethylbenzene*	*Isopropylbenzene (cumene)*	*Methylene Chloride (Dichloromethane)*	*sec-Butylbenzene*	*t-Butanol (TBA)*	*t-Butylbenzene*	*Trichlorofluoromethane*	*m/p-Xylene*	*o-Xylene*	*1,4-Dioxane*
NHAGQS			200	81	7	70	5	75	100	2,000	6,000	70	700	800	5	260	40	260	2,000	10, 000 [1]		0.32 [5]
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	3
TRY_M-1	**Overburden**	**Jun-11**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<10	<10	*	<2.0	**12**	<2.0	**14**	<10	**2.5**	<2.0	<2.0	<2.0	<0.20
		Nov-14	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<10	<10	*	<2.0	**2.7**	<2.0	**6.3**	<10	<2.0	<2.0	<2.0	<2.0	<0.20
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	**3.7**	<2.0	**9.6**	<10	**2**	<2.0	<4.0	<2.0	<0.25
		Oct-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	**6**	<30	<2	<2	<2	<2	<0.25
TRY_M-7	**Overburden**	**Aug-04**	**3.6**	**10**	<2	<2	<2	<2	---	<10	<10	*	<2	<2	<2	**<2**	<10	<2	---	<2	<2	*ns*
		Oct-05	**3.5**	<1.0	**3.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	*	<1.0	<1.0	<1.0	<1.0	---	<1.0	**2.0**	<2.0	<1.0	*ns*
		Jun-06	**4.0**	**8.0**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	*	<10	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Dec-06	**4.5**	**7.8**	<2.0	<2.0	<0.4	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	**2.4**	**11**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	**2.2**
		Dec-08	**2.8**	**10**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-09	**2.3**	**8.1**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Oct-09	**2.2**	**10**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	**16**	<2.0	<2.0	<2.0	<2.0	**2.7**
		Oct-09 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**2.9**
		Jun-11	<2.0	**6.4**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	**10**	<2.0	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	**7.2**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	**1.63**
		May-16	<2.0	**4.8**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<4.0	<2.0	**1.6**
		May-16 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**1.4**
		Oct-18	<2	**4**	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	**0.42**
		Oct-18 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.48**
TRY_M-7D	**Bedrock**	**Nov-14**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<4.0	<2.0	*ns*
		Oct-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	<0.25
TRY_MW-A28	**Overburden**	**Jun-13**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**7.0**	**5.5**	<2.0	**3.2**	<10	<2.0	<2.0	**3.1**	<2.0	*ns*
		Nov-14 DUP	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**6.5**	**5.1**	<2.0	**3.0**	<10	<2.0	<2.0	**2.7**	<2.0	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	**2.7**	**2.9**	<2.0	**3.2**	<10	<2.0	<2.0	<4.0	<2.0	*ns*
		May-16 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	<0.25
		Nov-18 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	SVOCs of Concern (µg/L)						Additional SVOCs (µg/L)							Metal COCs (mg/L)		Additional Metals (mg/L)					
			Benzo(a)pyrene	*Benzo(b)fluoranthene*	*Bis[Di](2-ethylhexyl) phthalate*	*Dibenzo(a,h)anthracene*	*Naphthalene*	*Pentachlorophenol*	*3 & 4-Methylphenol*	*Benzyl butyl phthalate*	*Di-n-butylphthalate*	*Benzyl alcohol*	*4-Chloro-3-methylphenol*	*2-Methylnaphthalene*	*Di-n-octylphalate*	*Arsenic*	*Manganese*	*Barium*	*Cadmium*	*Chromium*	*Lead*	*Selenium*	*Iron*
NHAGQS			0.20	0.1	6	0.1	100 [4]	1	40 [2]	na	na	na	na	280	na	0.01	0.84	2	0.005	0.1	0.015	0.05	na
ROD ICL			0.20	0.1	6	0.1	20	1	na	na	na	na	na	na	na	0.05	na	na	na	na	na	na	na
TRY_M-1	**Overburden**	**Jun-11**	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.001	**0.121**	**0.007**	<0.002	<0.005	<0.001	<0.005	**0.908**
		Nov-14	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**0.124**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.142**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**0.10 T**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_M-7	**Overburden**	**Aug-04**	<10	<10	<10	<10	<2	<25	<10	<10	<10	---	---	---	<10	*ns*	**3.69**	*ns*	*ns*	*ns*	*ns*	*ns*	<0.05
		Oct-05	<5	<5	<5	<5	<5	<5	<10	<5	<5	---	---	---	<5	<0.200	**1.2**	<0.030	<0.030	<0.030	<0.100	<0.100	<0.100
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<0.0010	**1.810**	**0.0378**	<0.0020	<0.0050	<0.0010	<0.0050	*ns*
		Dec-06	<10	<10	<10	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**3.320**	**0.0528**	<0.0020	<0.0050	<0.0010	<0.0050	<0.050
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<0.0010	**1.500**	**0.0425**	<0.0020	<0.0050	<0.0010	<0.0050	<0.050
		Jun-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**0.839**	**0.0420**	<0.0020	<0.0050	<0.0010	<0.0050	<0.050
		Dec-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**2.85**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**1.97**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**2.92**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.729**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**3.07**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**1.38**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.025	**0.86**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_M-7D	**Bedrock**	**Nov-14**	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**0.026**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.014**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	<0.05	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-A28	**Overburden**	**Jun-13**	<10	<10	**11**	<10	<10	*ns* [3]	*ns* [3]	<10	<10	---	---	---	<10	*ns*	**0.689**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	**33**	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0012**	**1.26**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14 DUP	<10	<10	**25**	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0012**	**1.28**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	**18 Q, Z, B***	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.859**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16 DUP	<10	<10	**8.5 Q, Z, B***	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	**45**	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**0.38**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18 DUP	<0.2	<0.5	**42**	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	VOCs of Concern (µg/L)													
			Tetrachloroethene	*Trichloroethene*	*cis-1,2-Dichloroethene*	*Vinyl Chloride*	*1,2,4-Trimethylbenzene*	*1,3,5-Trimethylbenzene*	*2-Butanone(MEK)*	*Benzene*	*Naphthalene*	*n-Butylbenzene*	*n-Propylbenzene*	*p-Isopropyltoluene (4-cymene)*	*Tetrahydrofuran(THF)*	*Toluene*
NHAGQS			5	5	70	2	330	330	4,000	5	100 [4]	260	260	260	600	1,000
ROD ICL			5	5	70	2	330	330	4,000	5	20	260	260	260	154	1,000
TRY_MW-C6S	**Overburden**	**Nov-14**	<2.0	<2.0	**173**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	**73**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16 DUP	<2.0	<2.0	**73**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-18	<2	<2	**11**	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
		Oct-18 DUP	<2	<2	**12**	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-C6D	**Overburden**	**Jun-15**	<1	<1	**14.7**	<1	<1	<1	<10.0	<1	<1	<1	<1	<1	<5	<1
		May-16	<2.0	<2.0	**14**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-18	<2	<2	**19**	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-101S	**Overburden**	**Jun-15**	<1	<1	**2.4**	<1	**266**	**115**	<10.0	<1	**24.2**	**31.0**	**31.8**	**19.5**	<5	<1
		May-16	<2.0	<2.0	**2.3**	<2.0	**179**	**108**	<10	<2.0	**23**	**27**	**32**	**15**	<10	<2.0
		Oct-18	<2	<2	<2	<2	**330**	**140**	<10	<2	**25**	<2	**30**	**15**	<10	<2
TRY_MW-101D	**Overburden**	**Jun-15**	<1	<1	<1	<1	<1	<1	<10.0	<1	<1	<1	<1	<1	<5	<1
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-102	**Predominantly Overburden**	**Oct-05**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
		Dec-06	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0
		Jun-10, 28.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-10, 28.5 DUP	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-104S	**Overburden**	**Aug-04**	<2	<2	**12**	<2	<2	<2	---	<2	<2	---	<2	<2	<10	<2
		Oct-05	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.4**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
		Dec-06	<2.0	<2.0	**6.8**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-08	<2.0	<2.0	**4.0**	**4.1**	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Dec-08	<2.0	<2.0	**6.5**	**2.7**	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-09	<2.0	<2.0	**2.5**	**2.2**	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09	<2.0	<2.0	**4.2**	**3.8**	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-11	<2.0	<2.0	**4.8**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-13	<2.0	<2.0	**3.0**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	**2.2**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	**2.5**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-18	<2	<2	**2**	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	Additional VOCs (µg/L)																		Other COCs
			1,1,1-Trichloroethane	*1,1-Dichloroethane*	*1,1-Dichloroethene*	*1,2,4-Trichlorobenzene*	*1,2-Dichloroethane*	*1,4-Dichlorobenzene*	*2-Chlorotoluene*	*4-Methyl-2-pentanone (MIBK)*	*Acetone*	*Carbon Disulfide*	*Ethylbenzene*	*Isopropylbenzene (cumene)*	*Methylene Chloride (Dichloromethane)*	*sec-Butylbenzene*	*t-Butanol (TBA)*	*t-Butylbenzene*	*Trichlorofluoromethane*	*m/p-Xylene*	*o-Xylene*	*1,4-Dioxane*
NHAGQS			200	81	7	70	5	75	100	2,000	6,000	70	700	800	5	260	40	260	2,000	10, 000 [1]		0.32 [5]
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	3
TRY_MW-C6S	**Overburden**	**Nov-14**	<2.0	<2.0	<2.0	<2.0	**4.4**	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**13**	<10	**3.9**	<2.0	<2.0	<2.0	**0.25**
		May-16	<2.0	<2.0	<2.0	<2.0	**2.3**	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	**10**	<10	**4.1**	<2.0	<4.0	<2.0	*ns*
		May-16 DUP	<2.0	<2.0	<2.0	<2.0	**2.4**	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	**10**	<10	**3.9**	<2.0	<4.0	<2.0	*ns*
		Oct-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	**11**	<30	**4**	<2	<2	<2	<0.25
		Oct-18 DUP	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	**11**	<30	**4**	<2	<2	<2	<0.25
TRY_MW-C6D	**Overburden**	**Jun-15**	<1	<1	<1	<1	<1	<1	<1	<10	**37.4**	**1.1**	<1	<1	<4	**2.4**	<25	**1.6**	<1	<2	<1	**0.37 B**
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<4.0	<2.0	<0.25
		Oct-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	**0.49**
TRY_MW-101S	**Overburden**	**Jun-15**	<1	<1	<1	<1	<1	<1	<1	<10	<25	<1	**49.0**	**24.8**	<4	**23.0**	<25	**5.2**	<1	**52.3**	**4.9**	<0.25
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	**50**	**23**	<2.0	**17**	<10	**4.6**	<2.0	**21**	**3.3**	*ns*
		Oct-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	**55**	**24**	<5	**13**	<30	<2	<2	**63**	**4**	<0.25
TRY_MW-101D	**Overburden**	**Jun-15**	<1	<1	<1	<1	<1	<1	<1	<10	<25	*	<1	<1	<4	<1	<25	<1	<1	<2	<1	<0.24
		May-16	<2.0	<2.0	**4.1**	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<4.0	<2.0	*ns*
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	<0.25
TRY_MW-102	**Predominantly Overburden**	**Oct-05**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	*	<1.0	<1.0	<1.0	<1.0	---	<1.0	<1.0	<2.0	<1.0	*ns*
		Dec-06	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	**11**	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-10, 28.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-10, 28.5 DUP	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<4.0	<2.0	<0.25
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	<0.25
TRY_MW-104S	**Overburden**	**Aug-04**	<2	<2	<2	<2	<2	<2	---	<10	<10	*	<2	<2	<2	<2	<10	<2	---	<2	<2	*ns*
		Oct-05	<1.0	**4.7**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	*	<1.0	<1.0	<1.0	**2.4**	---	**1.7**	<1.0	<2.0	<1.0	*ns*
		Dec-06	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Dec-08	<2.0	**2.1**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Oct-09	<2.0	**2.3**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**2.2**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-11	<2.0	**2.1**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**2.4**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**2.1**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	**3.1**	<10	**2.1**	<2.0	<4.0	<2.0	*ns*
		Oct-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	**3**	<30	**2**	<2	<2	<2	<0.25

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	SVOCs of Concern (µg/L)						Additional SVOCs (µg/L)							Metal COCs (mg/L)		Additional Metals (mg/L)					
			Benzo(a)pyrene	*Benzo(b)fluoranthene*	*Bis[Di](2-ethylhexyl) phthalate*	*Dibenzo(a,h)anthracene*	*Naphthalene*	*Pentachlorophenol*	*3 & 4-Methylphenol*	*Benzyl butyl phthalate*	*Di-n-butylphthalate*	*Benzyl alcohol*	*4-Chloro-3-methylphenol*	*2-Methylnaphthalene*	*Di-n-octylphalate*	*Arsenic*	*Manganese*	*Barium*	*Cadmium*	*Chromium*	*Lead*	*Selenium*	*Iron*
NHAGQS			0.20	0.1	6	0.1	100 [4]	1	40 [2]	na	na	na	na	280	na	0.01	0.84	2	0.005	0.1	0.015	0.05	na
ROD ICL			0.20	0.1	6	0.1	20	1	na	na	na	na	na	na	na	0.05	na	na	na	na	na	na	na
TRY_MW-C6S	**Overburden**	**Nov-14**	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**10.6**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**11.3**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16 DUP	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**11.2**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**11**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<0.005	**11**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-C6D	**Overburden**	**Jun-15**	<0.05	<0.05	<5.6	<0.05	<0.19	<0.75	<18.7	<9.3	<9.3	---	---	---	<9.3	0.001	**0.262**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.315**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**0.27**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-101S	**Overburden**	**Jun-15**	<0.05	<0.05	<6.1	<0.05	**9.6**	<0.81	<10.1	<10.1	<10.1	---	---	---	<10.1	<0.001	**6.5**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	**16**	<20	<10	<10	<10	---	---	---	<10	*ns*	**5.89**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	<0.2	<0.5	<5	<0.5	**9.5**	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**5.2**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-101D	**Overburden**	**Jun-15**	<0.05	<0.05	**5.80**	<0.05	<0.19	<0.77	<19.2	<9.6	<9.6	---	---	---	<9.6	<0.001	**0.331**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.288**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**0.39**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-102	**Predominantly Overburden**	**Oct-05**	<5	<5	<5	<5	<5	<5	<10	<5	<5	---	---	---	<5	<0.200	**1.10**	**0.041**	<0.030	<0.030	<0.100	<0.100	**57.7**
		Dec-06	<10	<10	<10	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**3.15**	**0.0434**	<0.0020	0.0064	<0.0010	<0.0050	**57.7**
		Jun-10, 28.5	<10	<10	<5 J	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**3.58**	**0.0332**	<0.0020	<0.0050	<0.0010	<0.0050	**62.4**
		Jun-10, 28.5 DUP	<10	<10	**9.3 J**	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**3.64**	**0.0332**	<0.0020	<0.0050	<0.0010	<0.0050	**63.0**
		Jun-11	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.001	**1.51**	**0.0319**	<0.002	<0.005	<0.001	<0.005	**5.28**
		Nov-14	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0011**	**5.49 B***	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**6.09**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**3.3 T**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-104S	**Overburden**	**Aug-04**	<10	<10	<10	<10	<2	<25	<10	<10	<10	---	---	---	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	<5	<5	<5	<5	<5	<5	<10	<5	<5	---	---	---	<5	<0.200	**19**	**0.041**	<0.030	<0.030	<0.100	<0.100	**1.1**
		Dec-06	<10	<10	<10	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**14.2**	**0.0199**	<0.0020	<0.0050	<0.0010	<0.0050	**37.5**
		Jun-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	0.0010	**6.63**	**0.0286**	<0.0020	<0.0050	<0.0010	<0.0050	**36.4**
		Dec-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**13.7**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**9.13**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**14.9**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**11**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	<10	<10	<5.0	<10	<10	*ns* [3]	*ns* [3]	<10	<10	---	---	---	<10	*ns*	**9.62**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	<5.0	<10	<10	<20 Q	<10 Q	<10	<10	---	---	---	<10	**0.0021**	**10.7**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**14**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**15**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	VOCs of Concern (µg/L)													
			Tetrachloroethene	*Trichloroethene*	*cis-1,2-Dichloroethene*	*Vinyl Chloride*	*1,2,4-Trimethylbenzene*	*1,3,5-Trimethylbenzene*	*2-Butanone(MEK)*	*Benzene*	*Naphthalene*	*n-Butylbenzene*	*n-Propylbenzene*	*p-Isopropyltoluene (4-cymene)*	*Tetrahydrofuran(THF)*	*Toluene*
NHAGQS			5	5	70	2	330	330	4,000	5	100 [4]	260	260	260	600	1,000
ROD ICL			5	5	70	2	330	330	4,000	5	20	260	260	260	154	1,000
TRY_MW-104D	**Overburden**	**Oct-05**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
		Dec-06	<0.4	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<0.3	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-105S	**Overburden**	**Oct-09**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-105D	**Bedrock**	**Oct-09**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-201SX	**Overburden**	**Jun-15**	<1	<1	**2.2**	<1	<1	<1	<10.0	<1	<1	<1	<1	<1	<5	<1
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-202P	**Overburden**	**Jun-11**	<2.0	<2.0	**2.9**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	**12**	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	**15**	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	**12**	<2.0
		Nov-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-204	**Overburden**	**Oct-05**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**9.4**	**4.8**	**1.0**	**8.5**	<1.0
		Dec-06	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-07	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**6.7**	**2.7**	<2.0	<2.0	<2.0
		Jun-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	**3.0**	<2.0	**4.1**	<10	<2.0
		Dec-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	Additional VOCs (µg/L)																		Other COCs
			1,1,1-Trichloroethane	*1,1-Dichloroethane*	*1,1-Dichloroethene*	*1,2,4-Trichlorobenzene*	*1,2-Dichloroethane*	*1,4-Dichlorobenzene*	*2-Chlorotoluene*	*4-Methyl-2-pentanone (MIBK)*	*Acetone*	*Carbon Disulfide*	*Ethylbenzene*	*Isopropylbenzene (cumene)*	*Methylene Chloride (Dichloromethane)*	*sec-Butylbenzene*	*t-Butanol (TBA)*	*t-Butylbenzene*	*Trichlorofluoromethane*	*m/p-Xylene*	*o-Xylene*	*1,4-Dioxane*
NHAGQS			200	81	7	70	5	75	100	2,000	6,000	70	700	800	5	260	40	260	2,000	10, 000 [1]		0.32 [5]
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	3
TRY_MW-104D	**Overburden**	**Oct-05**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	*	<1.0	<1.0	<1.0	<1.0	---	<1.0	<1.0	<2.0	<1.0	*ns*
		Dec-06	<2.0	<2.0	<2.0	<2.0	<0.4	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Oct-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<4.0	<2.0	*ns*
		Oct-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	<0.25
TRY_MW-105S	**Overburden**	**Oct-09**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	**0.24**
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<4.0	<2.0	<0.25
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	<0.25
TRY_MW-105D	**Bedrock**	**Oct-09**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<0.20
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<4.0	<2.0	<0.25
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	<0.25
TRY_MW-201SX	**Overburden**	**Jun-15**	<1	<1	<1	<1	<1	<1	<1	<10	<25	<1	<1	<1	<4	**7.0**	<25	**3.1**	<1	<2	<1	<0.23
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	**11**	<10	**3.7**	<2.0	<4.0	<2.0	*ns*
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	**6**	<30	**2**	<2	<2	<2	**0.27**
TRY_MW-202P	**Overburden**	**Jun-11**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	**14**	<2.0	**9.7**	<2.0	**2.2**	<2.0	<2.0	<2.0	**0.41**
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	**15**	<2.0	**13**	<2.0	**2.7**	<2.0	<2.0	<2.0	**0.64**
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	**13**	<2.0	**14**	<10	**2.9**	<2.0	<4.0	<2.0	**0.65**
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	**8**	<5	**15**	<30	**3**	<2	<2	<2	<0.25
TRY_MW-204	**Overburden**	**Oct-05**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	*	**1.6**	**13**	<1.0	**9.7**	---	**1.5**	<1.0	<2.0	<1.0	*ns*
		Dec-06	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	**5.9**	**6.1**	*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
		May-07	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*	<2.0	**10**	<2.0	**8.1**	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	**3.9**	<2.0	**6.7**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Dec-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	**5.1**	<2.0	**7.7**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	**2.7**	<2.0	**4.7**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Oct-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	**4.2**	<2.0	**6.5**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**4.1**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**4.7**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	**5.3**	<2.0	**14**	<10	**4.6**	<2.0	<4.0	<2.0	*ns*
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	**5**	<30	<2	<2	<2	<2	<0.25

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	SVOCs of Concern (µg/L)						Additional SVOCs (µg/L)							Metal COCs (mg/L)		Additional Metals (mg/L)					
			Benzo(a)pyrene	*Benzo(b)fluoranthene*	*Bis[Di](2-ethylhexyl) phthalate*	*Dibenzo(a,h)anthracene*	*Naphthalene*	*Pentachlorophenol*	*3 & 4-Methylphenol*	*Benzyl butyl phthalate*	*Di-n-butylphthalate*	*Benzyl alcohol*	*4-Chloro-3-methylphenol*	*2-Methylnaphthalene*	*Di-n-octylphalate*	*Arsenic*	*Manganese*	*Barium*	*Cadmium*	*Chromium*	*Lead*	*Selenium*	*Iron*
NHAGQS			0.20	0.1	6	0.1	100 [4]	1	40 [2]	na	na	na	na	280	na	0.01	0.84	2	0.005	0.1	0.015	0.05	na
ROD ICL			0.20	0.1	6	0.1	20	1	na	na	na	na	na	na	na	0.05	na	na	na	na	na	na	na
TRY_MW-104D	**Overburden**	**Oct-05**	<5	<5	<5	<5	<5	<5	<10	<5	<5	---	---	---	<5	<0.200	**0.630**	**0.041**	<0.030	<0.030	<0.100	<0.100	**0.10**
		Dec-06	<10	<10	<10	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0011**	**0.409**	**0.0063**	<0.0020	<0.0050	<0.0010	<0.0050	**0.55**
		Oct-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.227**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	<10	<10	<5.0	<10	<10	*ns* [3]	*ns* [3]	<10	<10	---	---	---	<10	*ns*	**0.27**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0015**	**0.717**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.095**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**0.24**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-105S	**Overburden**	**Oct-09**	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**34.4**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**4.13**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**4.14**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.131**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.025	**2.4**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-105D	**Bedrock**	**Oct-09**	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**2.39**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**4.39**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	--	--	--	<10	<0.0010	**2.05 B***	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.124**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**0.19**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-201SX	**Overburden**	**Jun-15**	<0.05	<0.05	**7.2**	<0.05	<0.19	<0.75	<9.3	<9.3	<9.3	---	---	---	<9.3	**0.0015**	**8.59**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	----	----	----	<10	*ns*	**13**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**8.7**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-202P	**Overburden**	**Jun-11**	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**0.108**	**0.0122**	<0.0020	<0.0050	<0.100	<0.0050	**2.29**
		Nov-14	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**0.144 B***	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.168**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**0.23**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-204	**Overburden**	**Oct-05**	<5	<5	<5	<5	**5.0**	<5	<10	<5	<5	---	---	---	<5	<0.200	**8.5**	<0.030	<0.030	<0.030	<0.100	<0.100	**11**
		Dec-06	<10	<10	<10	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**14.1**	**0.0118**	<0.0020	<0.0050	<0.0010	<0.0050	**12.3**
		May-07	<10	<10	<10	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**14.5**	**0.0112**	<0.0020	<0.0050	<0.0010	<0.0050	**11.5**
		Jun-08	<10	<10	<5.0	<10	<10	<20	<10	<10	**11**	**---**	**---**	**---**	<10	<0.0010	**14.1**	**0.0084**	<0.0020	<0.0050	<0.0010	<0.0050	**25.80**
		Dec-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	**---**	**---**	**---**	<10	*ns*	**13.8**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	**---**	**---**	**---**	<10	*ns*	**11.1**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	<10	<10	**28**	<10	<10	<20	<10	<10	<10	**---**	**---**	**---**	<10	*ns*	**10.3**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	**---**	**---**	**---**	<10	*ns*	**9.15**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	**---**	**---**	**---**	<10	<0.0010	**6.52**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	**---**	**---**	**---**	<10	*ns*	**10.4**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**7.7**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	VOCs of Concern (µg/L)													
			Tetrachloroethene	*Trichloroethene*	*cis-1,2-Dichloroethene*	*Vinyl Chloride*	*1,2,4-Trimethylbenzene*	*1,3,5-Trimethylbenzene*	*2-Butanone(MEK)*	*Benzene*	*Naphthalene*	*n-Butylbenzene*	*n-Propylbenzene*	*p-Isopropyltoluene (4-cymene)*	*Tetrahydrofuran(THF)*	*Toluene*
NHAGQS			5	5	70	2	330	330	4,000	5	100 [4]	260	260	260	600	1,000
ROD ICL			5	5	70	2	330	330	4,000	5	20	260	260	260	154	1,000
TRY_MW-205	**Overburden**	**Oct-05**	<1.0	<1.0	<1.0	<1.0	**83**	**33**	<1.0	<1.0	**13**	<1.0	**11**	**2.9**	<1.0	**12.0**
		Dec-06	<2.0	<2.0	<2.0	<2.0	**195**	**77**	<20	<2.0	**19**	<2.0	**16**	**9.2**	**10**	**40**
		Dec-06 DUP	<4.0	<4.0	<4.0	<4.0	**201**	**73**	<20	<4.0	**19**	<4.0	**16**	**8.5**	<20	**80**
		May-07	<4.0	<4.0	<4.0	<4.0	**294**	**92**	<20	<4.0	**28**	*ns*	**30**	**17**	<20	**117**
		Jun-08	<2.0	<2.0	<2.0	<2.0	**314**	**186**	<10	<2.0	**55**	**34**	**45**	**26**	<10	<2.0
		Dec-08	<2.0	<2.0	<2.0	<2.0	**159**	**120**	<10	**2.6**	**59**	<2.0	**60**	**11**	<10	**6.3**
		Dec-08 DUP	<2.0	<2.0	<2.0	<2.0	**172**	**125**	<10	**2.6**	**61**	<2.0	**62**	**12**	<10	**6.8**
		Jun-09	<2.0	<2.0	<2.0	<2.0	**444**	**223**	<10	<2.0	**44**	<2.0	**34**	**29**	<10	<2.0
		Jun-09 DUP	<2.0	<2.0	<2.0	<2.0	**435**	**216**	<10	<2.0	**43**	<2.0	**34**	**28**	<10	<2.0
		Oct-09	<10	<10	<10	<10	**477**	**154**	<50	<10	**40**	<10	**49**	**31**	<50	<10
		Oct-09 DUP	<10	<10	<10	<10	**522**	**183**	<50	<10	**45**	<10	**55**	**33**	<50	<10
		Jun-11	<10	<10	<10	<10	**394**	**203**	<50	<10	**58**	**32**	**39**	**22**	<50	<10
		Jun-11 DUP	<10	<10	<10	<10	**423**	**213**	<50	<10	**61**	**34**	**41**	**25**	<50	<10
		Jun-13	<4	<4	<4	<4	**222**	**44**	<20	<4	**29**	<4	**20**	**10**	<20	<4
		Jun-13 DUP	<4	<4	<4	<4	**212**	**39**	<20	<4	**28**	<4	**20**	**9.6**	<20	<4
		Nov-14	<10	<10	<10	<10	**433**	**144**	<50	<10	**44**	**28**	**53**	**23**	<50	<10
		May-16	<2.0	<2.0	<2.0	<2.0	**119**	**16**	<10	<2.0	**19**	<2.0	**17**	**4.3**	<10	<2.0
		Nov-18	<2	<2	<2	<2	**450**	**260**	<10	<2	**70**	<2	**44**	**25**	<10	<2
TRY_MW-301	**Overburden**	**Oct-05**	<1.0	<1.0	**1.2**	<1.0	**1.1**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
		Dec-06	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Dec-08	<2.0	<2.0	**3.1**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09	<2.0	<2.0	**2.4**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
TRY_MW-301X	**Overburden**	**Jun-11**	<2.0	<2.0	**2.4**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-13	<2.0	<2.0	**2.5**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	Additional VOCs (µg/L)																		Other COCs
			1,1,1-Trichloroethane	*1,1-Dichloroethane*	*1,1-Dichloroethene*	*1,2,4-Trichlorobenzene*	*1,2-Dichloroethane*	*1,4-Dichlorobenzene*	*2-Chlorotoluene*	*4-Methyl-2-pentanone (MIBK)*	*Acetone*	*Carbon Disulfide*	*Ethylbenzene*	*Isopropylbenzene (cumene)*	*Methylene Chloride (Dichloromethane)*	*sec-Butylbenzene*	*t-Butanol (TBA)*	*t-Butylbenzene*	*Trichlorofluoromethane*	*m/p-Xylene*	*o-Xylene*	*1,4-Dioxane*
NHAGQS			200	81	7	70	5	75	100	2,000	6,000	70	700	800	5	260	40	260	2,000	10, 000 [1]		0.32 [5]
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	3
TRY_MW-205	**Overburden**	**Oct-05**	<1.0	**2.7**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	*	**39**	**21**	<1.0	**3.3**	---	**2.2**	<1.0	**27**	**21**	*ns*
		Dec-06	<2.0	**3.8**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**55**	**13**	<2.0	**5**	<10	**2.2**	<2.0	**42**	**39**	<2.0
		Dec-06 DUP	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<20	<20	*	**55**	**12**	<4.0	**4.5**	<20	<4.0	<4.0	**47**	**40**	<2.0
		May-07	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<20	<20	*	**74**	**25**	<4.0	**15**	<20	<4.0	<4.0	**96**	**68**	*ns*
		Jun-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**93**	**36**	<2.0	**23**	<10	**6**	<2.0	**88**	**43**	<2.0
		Dec-08	<2.0	**3.5**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	**12**	*	**127**	**46**	<2.0	**25**	<10	**7.4**	<2.0	**101**	**46**	*ns*
		Dec-08 DUP	<2.0	**3.5**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	**13**	*	**130**	**47**	<2.0	**26**	<10	**7.5**	<2.0	**108**	**50**	*ns*
		Jun-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**78**	**23**	<2.0	**20**	<10	<2.0	<2.0	**141**	**62**	*ns*
		Jun-09 DUP	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**77**	**24**	<2.0	**20**	<10	<2.0	<2.0	**137**	**61**	*ns*
		Oct-09	<10	<10	<10	<10	<10	<10	<10	<50	<50	*	**123**	**39**	<10	**22**	<50	<10	<10	**185**	**115**	*ns*
		Oct-09 DUP	<10	<10	<10	<10	<10	<10	<10	<50	<50	*	**122**	**40**	<10	**23**	<50	<10	<10	**189**	**114**	*ns*
		Jun-11	<10	<10	<10	<10	<10	<10	<10	<50	<50	*	**92**	**30**	<10	**18**	<50	<10	<10	**97**	**55**	*ns*
		Jun-11 DUP	<10	<10	<10	<10	<10	<10	<10	<50	<50	*	**95**	**31**	<10	**20**	<50	<10	<10	**96**	**55**	*ns*
		Jun-13	<4	<4	<4	<4	<4	<4	<4	<20	<20	*	**47**	**18**	<4	**8.1**	<20	<4	<4	**49**	<4	*ns*
		Jun-13 DUP	<4	<4	<4	<4	<4	<4	<4	<20	<20	*	**44**	**17**	<4	**7.7**	<20	<4	<4	**46**	<4	*ns*
		Nov-14	<10	<10	<10	<10	<10	<10	<10	<50	<50	*	**128**	**44**	<10	**20**	<50	<10	<10	**190**	<10.0	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	**28**	**16**	<2.0	**6.4**	<10	**2.3**	<2.0	**19**	<2.0	*ns*
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	**110**	**48**	<5	**28**	<30	<2	<2	**130**	<2	<0.25
TRY_MW-301	**Overburden**	**Oct-05**	<1.0	**4.4**	<1.0	<1.0	<1.0	**1.2**	**5.8**	<1.0	<1.0	*	<1.0	<1.0	<1.0	<1.0	---	<1.0	<1.0	<2.0	<1.0	*ns*
		Dec-06	<2.0	**4.5**	<2.0	<2.0	<2.0	<2.0	**6.0**	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-08	<2.0	**5**	<2.0	<2.0	<2.0	**2.6**	**19**	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Dec-08	<2.0	**4.2**	<2.0	<2.0	<2.0	<2.0	**11**	<2.0	<2.0	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-09	<2.0	**2.9**	<2.0	<2.0	<2.0	<2.0	**4.3**	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Oct-09	<2.0	**3.8**	<2.0	<2.0	<2.0	<2.0	**13**	<10	<10	*	<2.0	<2.0	<2.0	**2.7**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
TRY_MW-301X	**Overburden**	**Jun-11**	<2.0	**2.3**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**4.5**	<10	<2.0	<2.0	<2.0	<2.0	**0.29**
		Jun-13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**5.2**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**4.6**	<10	<2.0	<2.0	<2.0	<2.0	**0.20**
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	**4.5**	<10	<2.0	<2.0	<4.0	<2.0	<0.25
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	<0.25

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	SVOCs of Concern (µg/L)						Additional SVOCs (µg/L)							Metal COCs (mg/L)		Additional Metals (mg/L)					
			Benzo(a)pyrene	*Benzo(b)fluoranthene*	*Bis[Di](2-ethylhexyl) phthalate*	*Dibenzo(a,h)anthracene*	*Naphthalene*	*Pentachlorophenol*	*3 & 4-Methylphenol*	*Benzyl butyl phthalate*	*Di-n-butylphthalate*	*Benzyl alcohol*	*4-Chloro-3-methylphenol*	*2-Methylnaphthalene*	*Di-n-octylphalate*	*Arsenic*	*Manganese*	*Barium*	*Cadmium*	*Chromium*	*Lead*	*Selenium*	*Iron*
NHAGQS			0.20	0.1	6	0.1	100 [4]	1	40 [2]	na	na	na	na	280	na	0.01	0.84	2	0.005	0.1	0.015	0.05	na
ROD ICL			0.20	0.1	6	0.1	20	1	na	na	na	na	na	na	na	0.05	na	na	na	na	na	na	na
TRY_MW-205	**Overburden**	**Oct-05**	<5	<5	**510**	<5	<5	<5	<10	<5	<5	---	---	---	**72**	<0.200	**1.10**	**0.0650**	<0.030	<0.030	<0.100	<0.100	**39.0**
		Dec-06	<50	<50	**316**	<50	<50	<100	<50	<50	<50	---	---	---	<50	**0.0029**	**1.48**	**0.0912**	<0.0020	<0.0050	<0.0010	<0.0050	**36.8**
		Dec-06 DUP	<40	<40	**227**	<40	<40	<80	<40	---	<40	---	---	---	<40	**0.0031**	**1.48**	**0.0897**	<0.0020	<0.0050	<0.0010	**0.0052**	**38.7**
		May-07	<500	<500	**5,070**	<500	**901**	<1000	<500	<500	<500	---	---	---	**852**	**0.0044**	**1.78**	**0.0721**	<0.0020	<0.0050	<0.0010	0.0108	**94.0**
		Jun-08	<10	<10	**35**	<10	**32**	<20	<10	<10	<10	---	---	---	<10	**0.0044**	**1.78**	**0.0833**	<0.0020	<0.0050	<0.0010	0.0153	**124**
		Dec-08	<10	<10	**49**	<10	**40**	<20	<10	<10	<10	---	---	---	<10	*ns*	**2.01**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08 DUP	<10	<10	**38**	<10	**30**	<20	<10	<10	<10	---	---	---	<10	*ns*	**1.99**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	<10	<10	**10.0**	<10	**26**	<20	<10	<10	<10	---	---	---	<10	*ns*	**1.60**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09 DUP	<10	<10	**7.8**	<10	**25**	<20	<10	<10	<10	---	---	---	<10	*ns*	**1.60**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	<10	<10	**37**	<10	**26**	<20	<10	<10	<10	---	---	---	<10	*ns*	**1.69**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09 DUP	<10	<10	**40**	<10	**21**	<20	<10	<10	<10	---	---	---	<10	*ns*	**1.71**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<10	<10	**8.4**	<10	**34**	<20	<10	<10	<10	---	---	---	<10	*ns*	**1.63**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11 DUP	<10	<10	**9.3**	<10	**34**	<20	<10	<10	<10	---	---	---	<10	*ns*	**1.62**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	<10	<10	**21**	<10	**17**	*ns* [3]	*ns* [3]	<10	<10	---	---	---	<10	*ns*	**1.36**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13 DUP	<10	<10	**26**	<10	**17**	*ns* [3]	*ns* [3]	<10	<10	---	---	---	<10	*ns*	**1.39**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	**77**	<10	**36**	<20	<10	<10	<10	---	---	---	**11**	**0.0041**	**1.91**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	**5.3 Q, B***	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**1.29**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	**13**	<0.5	**34**	<10	<2	<5	<5	<2	<2	**4.1**	<5	<0.005	**1.5**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-301	**Overburden**	**Oct-05**	<5	<5	<5	<5	<5	<5	<10	<5	<5	---	---	---	<5	<0.200	**7.8**	**0.057**	<0.030	<0.030	<0.100	<0.100	**62**
		Dec-06	<10	<10	**12**	<10	<10	<25	<10	<10	<10	---	---	---	<10	**0.0610**	**4.57**	**0.2951**	<0.0020	0.0394	**0.0370**	<0.0050	**107**
		Jun-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0017**	**4.32**	**0.0558**	<0.0020	<0.0050	<0.0010	<0.0050	**61.2**
		Dec-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**4.78**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**6.35**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**6.85**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-301X	**Overburden**	**Jun-11**	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.001	**1.47**	**0.0125**	<0.002	<0.005	<0.001	<0.005	**1.56**
		Jun-13	<10	<10	<5.0	<10	<10	*ns* [3]	*ns* [3]	<10	<10	---	---	---	<10	*ns*	**0.651**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**0.713 B***	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**1.11**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**1.8**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	VOCs of Concern (µg/L)													
			Tetrachloroethene	*Trichloroethene*	*cis-1,2-Dichloroethene*	*Vinyl Chloride*	*1,2,4-Trimethylbenzene*	*1,3,5-Trimethylbenzene*	*2-Butanone(MEK)*	*Benzene*	*Naphthalene*	*n-Butylbenzene*	*n-Propylbenzene*	*p-Isopropyltoluene (4-cymene)*	*Tetrahydrofuran(THF)*	*Toluene*
NHAGQS			5	5	70	2	330	330	4,000	5	100 [4]	260	260	260	600	1,000
ROD ICL			5	5	70	2	330	330	4,000	5	20	260	260	260	154	1,000
TRY_MW-501	**Overburden**	**Oct-05**	<1.0	<1.0	**40**	<1.0	**2.1**	<1.0	<1.0	**1.0**	<1.0	**1.0**	**2.8**	<1.0	<1.0	<1.0
		Jun-06	<2.0	<2.0	**29**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	**2.5**	<2.0	<10	<2.0
		Dec-06	<2.0	<2.0	**24**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-07	<2.0	<2.0	**12**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-08	<2.0	<2.0	**19**	**2.5**	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-08 DUP	<2.0	<2.0	**21**	**2.6**	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Dec-08	<2.0	<2.0	**14**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Dec-08 DUP	<2.0	<2.0	**14**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-09	<2.0	<2.0	**8.7**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-09 DUP	<2.0	<2.0	**8.9**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09	<2.0	<2.0	**5.2**	**3.4**	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09 DUP	<2.0	<2.0	**6.4**	**4.0**	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
TRY_MW-501X	**Overburden**	**Jun-11**	<2.0	<2.0	**2**	<2.0	<2.0	<2.0	**12**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-501D	**Overburden**	**Jun-15**	<1	<1	<1	<1	<1	<1	<10.0	<1	<1	<1	<1	<1	<5	<1
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-508	**Overburden**	**Jun-09**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
TRY_MW-508X	**Overburden**	**Jun-11**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	Additional VOCs (µg/L)																		Other COCs
			1,1,1-Trichloroethane	*1,1-Dichloroethane*	*1,1-Dichloroethene*	*1,2,4-Trichlorobenzene*	*1,2-Dichloroethane*	*1,4-Dichlorobenzene*	*2-Chlorotoluene*	*4-Methyl-2-pentanone (MIBK)*	*Acetone*	*Carbon Disulfide*	*Ethylbenzene*	*Isopropylbenzene (cumene)*	*Methylene Chloride (Dichloromethane)*	*sec-Butylbenzene*	*t-Butanol (TBA)*	*t-Butylbenzene*	*Trichlorofluoromethane*	*m/p-Xylene*	*o-Xylene*	*1,4-Dioxane*
NHAGQS			200	81	7	70	5	75	100	2,000	6,000	70	700	800	5	260	40	260	2,000	10, 000 [1]		0.32 [5]
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	3
TRY_MW-501	**Overburden**	**Oct-05**	<1.0	<1.0	<1.0	<1.0	**2**	<1.0	<1.0	<1.0	<1.0	*	**8.8**	**3.7**	<1.0	**3.1**	---	**1.6**	<1.0	<2.0	<1.0	*ns*
		Jun-06	<2.0	**5.0**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	*	**8.0**	**3.7**	<2.0	**3.1**	---	**1.6**	<2.0	<2.0	<2.0	*ns*
		Dec-06	<2.0	<2.0	**3.2**	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**5.7**	**3.2**	<2.0	**3.0**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		May-07	<2.0	**3.3**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**2.9**	**2.7**	<2.0	**2.5**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-08	<2.0	**4.1**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**3.6**	**3.4**	<2.0	**4.7**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-08 DUP	<2.0	**3.9**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**3.9**	**3.9**	<2.0	**5.2**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Dec-08	<2.0	**2.4**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**3.3**	**2.5**	<2.0	**3.3**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Dec-08 DUP	<2.0	**2.4**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**3.5**	**2.7**	<2.0	**3.6**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-09	<2.0	**2.1**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**3.0**	**3.6**	<2.0	**4.4**	<10	**2.0**	<2.0	<2.0	<2.0	*ns*
		Jun-09 DUP	<2.0	**2.1**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**3.3**	**3.9**	<2.0	**4.8**	<10	**2.0**	<2.0	<2.0	<2.0	*ns*
		Oct-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**2.7**	**3.6**	<2.0	**4.6**	<10	**2.1**	<2.0	<2.0	<2.0	*ns*
		Oct-09 DUP	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**3.0**	**3.7**	<2.0	**4.2**	<10	**2.1**	<2.0	<2.0	<2.0	*ns*
TRY_MW-501X	**Overburden**	**Jun-11**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	**0.39**
		Jun-13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	**50**	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<0.20
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	**15**	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<4.0	<2.0	**0.26**
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	<0.25
TRY_MW-501D	**Overburden**	**Jun-15**	<1	<1	<1	<1	<1	<1	<1	<10	<25	*	<1	<1	<4	<1	<25	<1	<1	<2	<1	**0.25 B**
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<4.0	<2.0	*ns*
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	**0.33**
TRY_MW-508	**Overburden**	**Jun-09**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0
		Oct-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
TRY_MW-508X	**Overburden**	**Jun-11**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<0.20
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<0.20
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<4.0	<2.0	<0.25
		Oct-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	<0.25

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	SVOCs of Concern (µg/L)						Additional SVOCs (µg/L)							Metal COCs (mg/L)		Additional Metals (mg/L)					
			Benzo(a)pyrene	*Benzo(b)fluoranthene*	*Bis[Di](2-ethylhexyl) phthalate*	*Dibenzo(a,h)anthracene*	*Naphthalene*	*Pentachlorophenol*	*3 & 4-Methylphenol*	*Benzyl butyl phthalate*	*Di-n-butylphthalate*	*Benzyl alcohol*	*4-Chloro-3-methylphenol*	*2-Methylnaphthalene*	*Di-n-octylphalate*	*Arsenic*	*Manganese*	*Barium*	*Cadmium*	*Chromium*	*Lead*	*Selenium*	*Iron*
NHAGQS			0.20	0.1	6	0.1	100 [4]	1	40 [2]	na	na	na	na	280	na	0.01	0.84	2	0.005	0.1	0.015	0.05	na
ROD ICL			0.20	0.1	6	0.1	20	1	na	na	na	na	na	na	na	0.05	na	na	na	na	na	na	na
TRY_MW-501	**Overburden**	**Oct-05**	<5	<5	**10**	<5	<5	<5	<10	<5	<5	---	---	---	<5	<0.200	**14**	**0.0450**	<0.030	<0.030	<0.100	<0.100	**47**
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<0.0010	**13.4**	**0.0577**	<0.0020	<0.0050	<0.0010	<0.0050	**63.4**
		Dec-06	<10	<10	<10	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**13.5**	**0.0504**	<0.0020	<0.0050	<0.0010	<0.0050	**130.0**
		May-07	<10	<10	<10	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**2.56**	**0.535**	<0.0020	<0.0050	<0.0010	<0.0050	**130**
		Jun-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**12.7**	**0.0585**	<0.0020	<0.0050	<0.0010	<0.0050	**62**
		Jun-08 DUP	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**12.5**	**0.0593**	<0.0020	<0.0050	<0.0010	<0.0050	**61.1**
		Dec-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**12**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08 DUP	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**12.3**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**9.82**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09 DUP	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**9.91**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**9.78**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09 DUP	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**9.57**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-501X	**Overburden**	**Jun-11**	<10	<10	<5.0	<10	<10	<20	**11**	<10	<10	---	---	---	<10	<0.001	**5.24**	**0.0458**	<0.002	<0.005	**0.0017**	<0.005	**64.4**
		Jun-13	<10	<10	<5.0	<10	<10	*ns* [3]	*ns* [3]	<10	<10	---	---	---	<10	*ns*	**1.93**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0011**	**3.82 B***	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**5.78**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**4.0 T**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-501D	**Overburden**	**Jun-15**	<0.05	<0.05	<5.6	<0.05	<0.19	<0.75	<18.7	<9.3	<9.3	---	---	---	<9.3	<0.001	**0.151**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.1**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**0.10**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-508	**Overburden**	**Jun-09**	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**0.057**	**0.0529**	<0.0020	<0.0050	**0.0011**	<0.0050	**2.45**
		Oct-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.058**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-508X	**Overburden**	**Jun-11**	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.001	**0.353**	**0.0357**	<0.002	<0.005	<0.001	<0.005	**1.47**
		Nov-14	<10	<10	<5.0	<10	<10	<20 Q	<10 Q	<10	<10	---	---	---	<10	<0.0010	**0.020 B***	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.015**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.025	<0.05	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	VOCs of Concern (µg/L)													
			Tetrachloroethene	*Trichloroethene*	*cis-1,2-Dichloroethene*	*Vinyl Chloride*	*1,2,4-Trimethylbenzene*	*1,3,5-Trimethylbenzene*	*2-Butanone(MEK)*	*Benzene*	*Naphthalene*	*n-Butylbenzene*	*n-Propylbenzene*	*p-Isopropyltoluene (4-cymene)*	*Tetrahydrofuran(THF)*	*Toluene*
NHAGQS			5	5	70	2	330	330	4,000	5	100 [4]	260	260	260	600	1,000
ROD ICL			5	5	70	2	330	330	4,000	5	20	260	260	260	154	1,000
TRY_MW-601S	**Overburden**	**Oct-05**	<1.0	<1.0	**3.1**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**6.4**	**1.4**	<1.0	**9.9**	<1.0
		Dec-06	<0.4	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<0.3	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-07	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-08	<2.0	<2.0	**2.1**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Dec-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-09 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-601D	**Overburden**	**Oct-05**	**1.4**	**1.2**	**9.4**	**1.6**	<1.0	<1.0	<1.0	**3.2**	<1.0	<1.0	**12.0**	<1.0	**9.5**	<1.0
		Dec-06	<0.4	<2.0	**8.7**	<2.0	<2.0	**59**	<10	**2.6**	<2.0	<2.0	**8.4**	<2.0	<10	<2.0
		May-07	<2.0	<2.0	**11**	<2.0	<2.0	<2.0	<10	**3**	<2.0	<2.0	**11**	<2.0	<10	<2.0
		Jun-08	<2.0	<2.0	**11**	<2.0	<2.0	<2.0	<10	**2.5**	<2.0	<2.0	**5.9**	<2.0	<10	<2.0
		Dec-08	<2.0	<2.0	**15**	<2.0	<2.0	<2.0	<10	**2.2**	<2.0	<2.0	**4.5**	<2.0	<10	<2.0
		Jun-09	<2.0	<2.0	**12**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09	<2.0	<2.0	**14**	<2.0	<2.0	<2.0	<10	**2.5**	**3.9 J***	<2.0	<2.0	<2.0	<10	<2.0
		Jun-11	<2.0	<2.0	**14**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-13	<2.0	<2.0	**12**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	**2.4**	**18**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	**14**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-18	<2	<2	**14**	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-602B	**Bedrock**	**Oct-05**	<1.0	<1.0	**10**	<1.0	**47**	**11**	<1.0	**1.6**	**19**	**7.4**	**9.6**	<1.0	**42**	<1.0
		Dec-06	<0.4	<2.0	**3.0**	<2.0	**2**	**4.1**	<10	<0.3	**9.5**	**4.7**	**4.7**	<2.0	<10	<2.0
		May-07	<2.0	<2.0	**2.1**	<2.0	**6.8**	**4.9**	<10	<2.0	**8.1**	**2.8**	**4.8**	**3**	<10	<2.0
		Jun-08	<2.0	<2.0	**2.6**	<2.0	**23**	<2.0	<10	<2.0	**6.8**	**8.1**	**10**	<2.0	<10	<2.0
		Dec-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-09	<2.0	<2.0	<2.0	<2.0	**6.9**	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	**4.8 J***	<2.0	<2.0	<2.0	<10	<2.0
		Jun-11	<2.0	<2.0	<2.0	<2.0	**19**	<2.0	<10	<2.0	<2.0	<2.0	**3.3**	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	**2.8**	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	Additional VOCs (µg/L)																		Other COCs
			1,1,1-Trichloroethane	*1,1-Dichloroethane*	*1,1-Dichloroethene*	*1,2,4-Trichlorobenzene*	*1,2-Dichloroethane*	*1,4-Dichlorobenzene*	*2-Chlorotoluene*	*4-Methyl-2-pentanone (MIBK)*	*Acetone*	*Carbon Disulfide*	*Ethylbenzene*	*Isopropylbenzene (cumene)*	*Methylene Chloride (Dichloromethane)*	*sec-Butylbenzene*	*t-Butanol (TBA)*	*t-Butylbenzene*	*Trichlorofluoromethane*	*m/p-Xylene*	*o-Xylene*	*1,4-Dioxane*
NHAGQS			200	81	7	70	5	75	100	2,000	6,000	70	700	800	5	260	40	260	2,000	10, 000 [1]		0.32 [5]
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	3
TRY_MW-601S	**Overburden**	**Oct-05**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	*	<1.0	**12**	<1.0	**9.6**	---	**1.5**	<1.0	<2.0	<1.0	*ns*
		Dec-06	<2.0	<2.0	<2.0	<2.0	<0.4	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		May-07	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	**4.5**	<2.0	**10**	<10	<2.0	<2.0	<2.0	<2.0	<2.0
		Dec-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**3.8**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**4.0**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-09 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**3.2**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**6.1**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**3.5**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**2.6**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	**3.5**	<10	<2.0	<2.0	<4.0	<2.0	*ns*
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	**5**	<30	<2	<2	<2	<2	<0.25
TRY_MW-601D	**Overburden**	**Oct-05**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.1**	*	**51**	**18**	<1.0	**1.4**	---	**1.2**	<1.0	<2.0	<1.0	*ns*
		Dec-06	<2.0	<2.0	<2.0	<2.0	<0.4	<2.0	<2.0	<10	<10	*	**29**	**9.4**	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0
		May-07	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**39**	**16**	<2.0	**2.2**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**31**	**11**	<2.0	**11**	<10	<2.0	<2.0	<2.0	<2.0	<2.0
		Dec-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**21**	**10**	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**8.5**	**6.8**	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Oct-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	**20**	*	**8.5**	**13**	<2.0	**2.8**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**7.6**	**10**	<2.0	**2.2**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	**10**	<2.0	**2.5**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**3.3**	**26**	<2.0	**7.8**	<10	**2.2**	<2.0	<2.0	<2.0	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	**3.8**	**24**	<2.0	**8.1**	<10	**2.4**	<2.0	<4.0	<2.0	*ns*
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	**2**	**29**	<5	**10**	<30	**3**	<2	<2	<2	<0.25
TRY_MW-602B	**Bedrock**	**Oct-05**	**1.2**	**2.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	*	**17**	**13**	<1.0	**9.8**	---	**1.4**	<1.0	**5.5**	<1.0	*ns*
		Dec-06	<2.0	<2.0	<2.0	<2.0	<0.4	<2.0	<2.0	<10	<10	*	**5.2**	**6.9**	<2.0	**11**	<10	<2.0	<2.0	<2.0	<2.0	<2.0
		May-07	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**5.9**	**6.8**	<2.0	**11**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**14**	**11**	<2.0	**19**	<10	**2.7**	<2.0	<2.0	<2.0	<2.0
		Dec-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**21**	**10**	<2.0	**10**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	2.0	<2.0	**11**	<10	**2.0**	<2.0	<2.0	<2.0	*ns*
		Oct-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**11**	<10	**2.3**	<2.0	<2.0	<2.0	*ns*
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**3.4**	**3.3**	<2.0	**13**	<10	**2.5**	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**8.0**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	**6.9**	<10	<2.0	<2.0	<4.0	<2.0	*ns*
		Oct-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	**9**	<30	**2**	<2	<2	<2	<0.25

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	SVOCs of Concern (µg/L)						Additional SVOCs (µg/L)							Metal COCs (mg/L)		Additional Metals (mg/L)					
			Benzo(a)pyrene	*Benzo(b)fluoranthene*	*Bis[Di](2-ethylhexyl) phthalate*	*Dibenzo(a,h)anthracene*	*Naphthalene*	*Pentachlorophenol*	*3 & 4-Methylphenol*	*Benzyl butyl phthalate*	*Di-n-butylphthalate*	*Benzyl alcohol*	*4-Chloro-3-methylphenol*	*2-Methylnaphthalene*	*Di-n-octylphalate*	*Arsenic*	*Manganese*	*Barium*	*Cadmium*	*Chromium*	*Lead*	*Selenium*	*Iron*
NHAGQS			0.20	0.1	6	0.1	100 [4]	1	40 [2]	na	na	na	na	280	na	0.01	0.84	2	0.005	0.1	0.015	0.05	na
ROD ICL			0.20	0.1	6	0.1	20	1	na	na	na	na	na	na	na	0.05	na	na	na	na	na	na	na
TRY_MW-601S	**Overburden**	**Oct-05**	<5	<5	<5	<5	<5	<5	<10	<5	<5	---	---	---	<5	<0.200	**5.2**	<0.030	<0.030	<0.030	<0.100	<0.100	**0.055**
		Dec-06	<10	<10	<10	<10	<10	<25	<10	<10	<10	---	---	---	<10	<0.0010	**9.85**	**0.0089**	<0.0020	<0.0050	<0.0010	<0.0050	**0.124**
		May-07	<10	<10	**11**	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**9.450**	**0.0525**	<0.0020	0.0071	0.0027	<0.0050	**7.360**
		Jun-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**15.7**	**0.0109**	<0.0020	<0.0050	<0.0010	<0.0050	**0.196**
		Dec-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**14.5**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**13.8**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**10.7**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**10.8**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	<10	<10	<5.0	<10	<10	*ns* [3]	*ns* [3]	<10	<10	---	---	---	<10	*ns*	**8.02**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**5.01**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**7.36**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.025	**11**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-601D	**Overburden**	**Oct-05**	<5	<5	<5	<5	<5	<5	<10	<5	<5	---	---	---	<5	**0.0014**	**0.884**	<0.030	<0.030	<0.030	<0.100	<0.100	**1.8**
		Dec-06	<10	<10	<10	<10	<10	<25	<10	<10	<10	---	---	---	<10	**0.0014**	**0.884**	**0.0148**	<0.0020	<0.0050	<0.0010	<0.0050	**2.26**
		May-07	<10	<10	<10	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0012**	**0.821**	**0.0161**	<0.0020	<0.0050	<0.0010	<0.0050	**1.72**
		Jun-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0012**	**0.821**	**0.013**	<0.0020	<0.0050	<0.0010	<0.0050	**2.32**
		Dec-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.935**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.901**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.939**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**1.03**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	<10	<10	<5.0	<10	<10	*ns* [3]	*ns* [3]	<10	<10	---	---	---	<10	*ns*	**1.18**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0012**	**1.35**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**1.3**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**1.5**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-602B	**Bedrock**	**Oct-05**	<5	<5	<5	<5	**10**	<5	<10	<5	<5	---	---	---	<5	<0.200	**9.3**	<0.030	<0.030	<0.030	<0.100	<0.100	**12**
		Dec-06	<10	<10	<10	<10	<10	<25	<10	<10	<10	---	---	---	<10	**0.0041**	**8.44**	**0.0266**	<0.0020	<0.0050	<0.0010	<0.0050	**8.48**
		May-07	<10	<10	<10	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0034**	**6.910**	**0.0269**	<0.0020	<0.0050	<0.0010	<0.0050	**6.3**
		Jun-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0024**	**8.52**	**0.0298**	<0.0020	<0.0050	<0.0010	<0.0050	**9.53**
		Dec-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**7.65**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**7.16**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**6.58**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**6.67**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0033**	**6.81**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**7.31**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**8.8**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	VOCs of Concern (µg/L)													
			Tetrachloroethene	*Trichloroethene*	*cis-1,2-Dichloroethene*	*Vinyl Chloride*	*1,2,4-Trimethylbenzene*	*1,3,5-Trimethylbenzene*	*2-Butanone(MEK)*	*Benzene*	*Naphthalene*	*n-Butylbenzene*	*n-Propylbenzene*	*p-Isopropyltoluene (4-cymene)*	*Tetrahydrofuran(THF)*	*Toluene*
NHAGQS			5	5	70	2	330	330	4,000	5	100 [4]	260	260	260	600	1,000
ROD ICL			5	5	70	2	330	330	4,000	5	20	260	260	260	154	1,000
TRY_MW-701	**Bedrock**	**Dec-06**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Dec-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-702S	**Overburden**	**Dec-06**	<0.4	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<0.3	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
TRY_MW-702SX	**Overburden**	**Jun-11**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15 (resample)	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-702D	**Bedrock**	**Dec-06**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09, 25.9'	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09, 35.9'	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-09, 44.4'	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Apr-10, 25.9'	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Apr-10, 25.9' DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15 (resample)	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Oct-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	Additional VOCs (µg/L)																		Other COCs
			1,1,1-Trichloroethane	*1,1-Dichloroethane*	*1,1-Dichloroethene*	*1,2,4-Trichlorobenzene*	*1,2-Dichloroethane*	*1,4-Dichlorobenzene*	*2-Chlorotoluene*	*4-Methyl-2-pentanone (MIBK)*	*Acetone*	*Carbon Disulfide*	*Ethylbenzene*	*Isopropylbenzene (cumene)*	*Methylene Chloride (Dichloromethane)*	*sec-Butylbenzene*	*t-Butanol (TBA)*	*t-Butylbenzene*	*Trichlorofluoromethane*	*m/p-Xylene*	*o-Xylene*	*1,4-Dioxane*
NHAGQS			200	81	7	70	5	75	100	2,000	6,000	70	700	800	5	260	40	260	2,000	10, 000 [1]		0.32 [5]
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	3
TRY_MW-701	**Bedrock**	**Dec-06**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Dec-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Oct-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Jun-13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<4.0	<2.0	*ns*
		Oct-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	<0.25
TRY_MW-702S	**Overburden**	**Dec-06**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Oct-09	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0
TRY_MW-702SX	**Overburden**	**Jun-11**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<0.20
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<0.20
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15 (resample)	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<4.0	<2.0	<0.25
		Oct-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	<0.25
TRY_MW-702D	**Bedrock**	**Dec-06**	<2.0	<2.0	<2.0	<2.0	<0.4	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Oct-09, 25.9'	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0
		Oct-09, 35.9'	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0
		Oct-09, 44.4'	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0
		Apr-10, 25.9'	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Apr-10, 25.9' DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<0.20
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15 (resample)	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<4.0	<2.0	<0.25
		Oct-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	<0.25

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	SVOCs of Concern (µg/L)						Additional SVOCs (µg/L)							Metal COCs (mg/L)		Additional Metals (mg/L)					
			Benzo(a)pyrene	*Benzo(b)fluoranthene*	*Bis[Di](2-ethylhexyl) phthalate*	*Dibenzo(a,h)anthracene*	*Naphthalene*	*Pentachlorophenol*	*3 & 4-Methylphenol*	*Benzyl butyl phthalate*	*Di-n-butylphthalate*	*Benzyl alcohol*	*4-Chloro-3-methylphenol*	*2-Methylnaphthalene*	*Di-n-octylphalate*	*Arsenic*	*Manganese*	*Barium*	*Cadmium*	*Chromium*	*Lead*	*Selenium*	*Iron*
NHAGQS			0.20	0.1	6	0.1	100 [4]	1	40 [2]	na	na	na	na	280	na	0.01	0.84	2	0.005	0.1	0.015	0.05	na
ROD ICL			0.20	0.1	6	0.1	20	1	na	na	na	na	na	na	na	0.05	na	na	na	na	na	na	na
TRY_MW-701	**Bedrock**	**Dec-06**	<10	<10	<10	<10	<10	<25	<10	<10	<10	---	---	---	<10	**0.0010**	**0.037**	**0.0101**	<0.0020	<0.0050	<0.0010	<0.0050	**0.244**
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<0.0010	**0.023**	**0.0093**	<0.0020	<0.0050	<0.0010	<0.0050	**0.088**
		Jun-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**0.018**	**0.0129**	<0.0020	<0.0050	<0.0010	<0.0050	**<0.050**
		Dec-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**0.025**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.020**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.020**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.016**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	<10	<10	<5.0	<10	<10	*ns* [3]	*ns* [3]	<10	<10	---	---	---	<10	*ns*	**0.019**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**0.018**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.013**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.025	<0.05	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-702S	**Overburden**	**Dec-06**	<10	<10	<10	<10	<10	<25	<10	<10	<10	---	---	---	<10	**0.0010**	**1.45**	**0.0227**	<0.0020	<0.0050	<0.0010	<0.0050	**3.06**
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<0.0010	**0.555**	**0.0272**	<0.0020	<0.0050	<0.0010	<0.0050	**2.220**
		Jun-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**0.254**	**0.0423**	<0.0020	<0.0050	<0.0010	<0.0050	**0.281**
		Oct-09	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.185**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-702SX	**Overburden**	**Jun-11**	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	**0.039**	**0.0222**	<0.0020	<0.0050	<0.0010	<0.0050	**0.112**
		Nov-14	<10	<10	**16 B***	<10	<10	<20	<10	**10 B***	<10	---	---	---	<10	<0.0010	**0.025 B***	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	<0.05	<0.05	**7.4 B****	<0.05	<0.19	<0.75	<18.9	<9.4	<9.4	---	---	---	<9.4	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15 (resample)	*ns*	*ns*	<5	*ns*	*ns*	*ns*	<18.9	<5	<5	---	---	---	<5	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.017**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**0.05**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-702D	**Bedrock**	**Dec-06**	<10	<10	<10	<10	<10	<25	<10	<10	<10	---	---	---	<10	<0.0010	<0.010	<0.0050	<0.0020	<0.0050	<0.0010	<0.0050	**0.066**
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<0.0010	<0.010	0.0050	<0.0020	<0.0050	<0.0010	<0.0050	**0.067**
		Jun-08	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	<0.0010	<0.010	<0.0050	<0.0020	<0.0050	<0.0010	<0.0050	**0.077**
		Oct-09, 25.9'	<10	<10	**14 J***	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.118**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09, 35.9'	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.198**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09, 44.4'	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.720**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Apr-10, 25.9'	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Apr-10, 25.9' DUP	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**0.012**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	**22 B***	<10	<10	<20	<10	**15 B***	<10	---	---	---	<10	<0.0010	<0.010	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	<0.05	<0.05	**173 B****	<0.05	<0.19	<0.75	<18.9	<9.4	<9.4	---	---	---	<9.4	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15 (resample)	*ns*	*ns*	<5	*ns*	*ns*	*ns*	<18.9	<5	<5	---	---	---	<5	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	<0.010	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	<0.01	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	VOCs of Concern (µg/L)													
			Tetrachloroethene	*Trichloroethene*	*cis-1,2-Dichloroethene*	*Vinyl Chloride*	*1,2,4-Trimethylbenzene*	*1,3,5-Trimethylbenzene*	*2-Butanone(MEK)*	*Benzene*	*Naphthalene*	*n-Butylbenzene*	*n-Propylbenzene*	*p-Isopropyltoluene (4-cymene)*	*Tetrahydrofuran(THF)*	*Toluene*
NHAGQS			5	5	70	2	330	330	4,000	5	100 [4]	260	260	260	600	1,000
ROD ICL			5	5	70	2	330	330	4,000	5	20	260	260	260	154	1,000
TRY_MW-801	**Overburden**	**Jun-11**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Jun-13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		Nov-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-802	**Overburden**	**Jun-11**	<2.0	<2.0	<2.0	<2.0	**148 J***	**12 J***	<10	<2.0	**8.4 J***	**11 J***	**17 J***	**7.9 J***	<10	<2.0
		Jun-13	<2.0	<2.0	<2.0	<2.0	**7**	<2.0	<10	<10	2.3	<2.0	<2.0	**3.7**	<10	<2.0
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	**2**	<10	<2.0
		Nov-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-803	**Overburden**	**Jun-11**	<2.0	<2.0	<2.0	<2.0	**12**	**5**	<10	<2.0	**2**	**2.5**	<2.0	<2.0	<10	**2**
		Jun-13	<10	<10	<10	<10	**664**	**222**	<50	<10	**42**	<10	**61**	**24**	<50	**118**
		Jun-15	<1	<1	**1.6**	<1	**130**	**25.2**	<10.0	**1.2**	**2.2**	<1	**13.9**	**4.8**	<5	<1
		May-16	<2.0	<2.0	<2.0	<2.0	**28**	**18**	<10	<2.0	**2**	<2.0	**3.5**	<2.0	<10	**5**
		Nov-18	<2	<2	<2	<2	<2	<2	<10	<2	<5	<2	<2	<2	<10	<2
TRY_MW-804	**Overburden**	**Jun-11**	<10	<10	<10	<10	**412**	**97**	<50	<10	**41**	**48**	**58**	**28**	<50	<10
		Jun-11 DUP	<10	<10	<10	<10	**415**	**97**	<50	<10	**44**	**47**	**56**	**28**	<50	<10
		Jun-13	<4.0	<4.0	<4.0	<4.0	**223**	**70**	<20	<4.0	**18**	<4.0	**36**	**19**	<20	<4.0
		Jun-13 DUP	<4.0	<4.0	<4.0	<4.0	**211**	**67**	<20	<4.0	**17**	<4.0	**34**	**18**	<20	<4.0
		Nov-14	<4.0	<4.0	<4.0	<4.0	**305**	**77**	<20	<4.0	**31**	**39**	**62**	**23**	<20	<4.0
		Nov-14 DUP	<4.0	<4.0	<4.0	<4.0	**330**	**92**	<20	<4.0	**32**	**39**	**66**	**25**	<20	<4.0
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	**437**	**126**	<10	<2.0	**35**	<2.0	**63**	**31**	<10	<2.0
		May-16 DUP	<2.0	<2.0	<2.0	<2.0	**448**	**129**	<10	<2.0	**37**	<2.0	**64**	**32**	<10	<2.0
		Nov-18	<2	<2	<2	<2	**360**	**120**	**15 J**	<2	**15**	<2	**39**	**44**	<10	<2
		Nov-18 DUP	<2	<2	<2	<2	**400**	**130**	**16 J**	<2	**17**	<2	**48**	**45**	<10	<2
TRY_MW-805	**Overburden**	**Jun-11**	<10	<10	<10	<10	**509**	**218**	<50	<10	**36**	**46**	**69**	**37**	<50	248
		Jun-13	<4.0	<4.0	<4.0	<4.0	**353**	**43**	<20	<4.0	**29**	<4.0	**39**	**20**	<20	10
		Nov-14	<10	<10	<10	<10	**386**	**170**	<50	<10	**23**	**32**	**53**	**26**	<50	<10
		May-16	<2.0	<2.0	<2.0	<2.0	**478**	**198**	<10	<2.0	**29**	<2.0	**52**	**29**	<10	<2.0
		Nov-18	<2	<2	<2	<2	**370**	**130**	<10	<2	**20**	<2	**38**	**27**	<10	<2

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	Additional VOCs (µg/L)																		Other COCs
			1,1,1-Trichloroethane	*1,1-Dichloroethane*	*1,1-Dichloroethene*	*1,2,4-Trichlorobenzene*	*1,2-Dichloroethane*	*1,4-Dichlorobenzene*	*2-Chlorotoluene*	*4-Methyl-2-pentanone (MIBK)*	*Acetone*	*Carbon Disulfide*	*Ethylbenzene*	*Isopropylbenzene (cumene)*	*Methylene Chloride (Dichloromethane)*	*sec-Butylbenzene*	*t-Butanol (TBA)*	*t-Butylbenzene*	*Trichlorofluoromethane*	*m/p-Xylene*	*o-Xylene*	*1,4-Dioxane*
NHAGQS			200	81	7	70	5	75	100	2,000	6,000	70	700	800	5	260	40	260	2,000	10, 000 [1]		0.32 [5]
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	3
TRY_MW-801	**Overburden**	**Jun-11**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**3.6**	**3.9**	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<0.20
		Jun-13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**6.3**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	**5.3**	<10	<2.0	<2.0	<2.0	<2.0	<0.20
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	**2.2**	<10	<2.0	<2.0	<4.0	<2.0	<0.25
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	**5**	<30	<2	<2	<2	<2	<0.25
TRY_MW-802	**Overburden**	**Jun-11**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**27 J***	**11 J***	<2.0	**10 J***	<10	<2.0	<2.0	**16 J***	**2.8 J***	<0.20
		Jun-13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	**2.3**	<2.0	**5.9**	<10	<2.0	<2.0	<2.0	<2.0	*ns*
		Nov-14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<0.20
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	**4.1**	<2.0	**2.2**	<10	<2.0	<2.0	<4.0	<2.0	*ns*
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	<0.25
TRY_MW-803	**Overburden**	**Jun-11**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	*	**2.9**	<2.0	<2.0	<2.0	<10	<2.0	<2.0	**4.5**	**3.4**	<0.20
		Jun-13	<10	<10	<10	<10	<10	<10	<10	<50	<50	*	**209**	**47**	<10	**18**	<50	<10	<10	**336**	**276**	*ns*
		Jun-15	<1	**1.2**	<1	<1	<1	<1	<1	<10	<25	*	**54.9**	**11.9**	<4	<1	<25	**1.7**	<1	**50.4**	**19.9**	<0.23
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	20	<2.0	**35**	**2.6**	<2.0	<2.0	<10	<2.0	<2.0	**56**	**68**	*ns*
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	<2	<2	<5	<2	<30	<2	<2	<2	<2	<0.25
TRY_MW-804	**Overburden**	**Jun-11**	<10	<10	<10	<10	<10	<10	<10	<50	<50	*	**75**	**32**	<10	**35**	<50	<10	<10	**54**	**26**	**0.53**
		Jun-11 DUP	<10	<10	<10	<10	<10	<10	<10	<50	<50	*	**76**	**34**	<10	**34**	<50	<10	<10	**55**	**27**	**0.52**
		Jun-13	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<20	<20	*	**59**	**20**	<4.0	**17**	<20	<4.0	<4.0	**49**	**40**	*ns*
		Jun-13 DUP	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<20	<20	*	**56**	**19**	<4.0	**16**	<20	<4.0	<4.0	**48**	**39**	*ns*
		Nov-14	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<20	<20	*	**90**	**38**	<4.0	**31**	<20	**4.2**	<4.0	**46 Z**	**28 Z**	<0.20
		Nov-14 DUP	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<20	<20	*	**101**	**40**	<4.0	**31**	<20	**4.4**	<4.0	**64 Z**	**44 Z**	<0.20
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	**80**	**34**	<2.0	**31**	<10	<2.0	<2.0	**92**	**27**	*ns*
		May-16 DUP	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	**87**	**36**	<2.0	**31**	<10	<2.0	<2.0	**99**	**26**	*ns*
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	**22**	**28**	<5	**42**	<30	<2	<2	**15**	**9**	<0.25
		Nov-18 DUP	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	**25**	**30**	<5	**45**	<30	<2	<2	**16**	**9**	*ns*
TRY_MW-805	**Overburden**	**Jun-11**	<10	<10	<10	<10	<10	<10	<10	<50	<50	*	**117**	**46**	<10	**31**	<50	<10	<10	**177**	**123**	<0.20
		Jun-13	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<20	<20	*	**70**	**26**	<4.0	**20**	<20	<4.0	<4.0	**119**	**48**	*ns*
		Nov-14	<10	<10	<10	<10	<10	<10	<10	<50	<50	*	**107**	**39**	<10	**22**	<50	<10	<10	**125**	<10	<0.20
		May-16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	**100**	**36**	<2.0	**24**	<10	<2.0	<2.0	**169**	<2.0	*ns*
		Nov-18	<2	<2	<1	<2	<2	<2	<2	<10	<50	<2	**63**	**37**	<5	**28**	<30	<2	<2	**83**	<2	<0.25

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	SVOCs of Concern (µg/L)						Additional SVOCs (µg/L)							Metal COCs (mg/L)		Additional Metals (mg/L)					
			Benzo(a)pyrene	*Benzo(b)fluoranthene*	*Bis[Di](2-ethylhexyl) phthalate*	*Dibenzo(a,h)anthracene*	*Naphthalene*	*Pentachlorophenol*	*3 & 4-Methylphenol*	*Benzyl butyl phthalate*	*Di-n-butylphthalate*	*Benzyl alcohol*	*4-Chloro-3-methylphenol*	*2-Methylnaphthalene*	*Di-n-octylphalate*	*Arsenic*	*Manganese*	*Barium*	*Cadmium*	*Chromium*	*Lead*	*Selenium*	*Iron*
NHAGQS			0.20	0.1	6	0.1	100 [4]	1	40 [2]	na	na	na	na	280	na	0.01	0.84	2	0.005	0.1	0.015	0.05	na
ROD ICL			0.20	0.1	6	0.1	20	1	na	na	na	na	na	na	na	0.05	na	na	na	na	na	na	na
TRY_MW-801	**Overburden**	**Jun-11**	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0017**	**6.530**	**0.0233**	<0.0020	<0.0050	<0.0010	<0.0050	**19.3**
		Jun-13	<10	<10	<5.0	<10	<10	*ns* [3]	*ns* [3]	<10	<10	---	---	---	<10	*ns*	**7.31**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0019**	**6.85 B***	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**6.59**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**7.9**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-802	**Overburden**	**Jun-11**	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.0015**	**1.220**	**0.0605**	<0.0020	<0.0050	<0.0010	<0.0050	**19.5**
		Jun-13	<10	<10	<5.0	<10	<10	*ns* [3]	*ns* [3]	<10	<10	---	---	---	<10	*ns*	**2.88**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	<5.0	<10	<10	<20	<10	<10	<10	---	---	---	<10	**0.001**	**2.71 B***	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	<10	<20	<10	<10	<10	---	---	---	<10	*ns*	**4.38**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	<5	<0.5	<0.5	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**4.1**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-803	**Overburden**	**Jun-11**	<10	<10	<5.0	<10	<10	<20	**11**	<10	<10	---	---	---	<10	**0.0013**	**2.420**	**0.0124**	<0.0020	<0.0050	<0.0010	<0.0050	**123**
		Jun-13	<10	<10	**32**	<10	**27**	*ns* [3]	*ns* [3]	<10	<10	---	---	---	<10	*ns*	**3.15**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	<0.05	<0.05	**12.9 B****	<0.05	**1.76**	<0.75	<18.7	<9.3	<9.3	---	---	---	<9.3	**0.0013**	**1.73**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	**35 B***	<10	<10	<20	**63**	<10	<10	---	---	---	<10	*ns*	**2.93**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	**7**	<0.5	<0.5	<10	<2	<5	<5	<2	**4**	<0.5	<5	<0.005	**2**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-804	**Overburden**	**Jun-11**	<200	<200	**990**	<200	<200	<400	<200	<200	<200	---	---	---	<200	<0.0010	**6.350**	**0.0752**	<0.0020	<0.0050	<0.0010	<0.0050	**71.6**
		Jun-11 DUP	<200	<200	**818**	<200	<200	<400	<200	<200	<200	---	---	---	<200	<0.0010	**6.440**	**0.0725**	<0.0020	<0.0050	<0.0010	<0.0050	**72.2**
		Jun-13	<10	<10	**67**	<10	<10	*ns* [3]	*ns* [3]	**47**	<10	---	---	---	<10	*ns*	**5.96**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13 DUP	<10	<10	**68**	<10	<10	*ns* [3]	*ns* [3]	**47**	<10	---	---	---	<10	*ns*	**5.83**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<100	<100	**439 B*Z**	<100	<100	<200	<100	<100	<100	---	---	---	<100	**0.0010**	**6.12 B***	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14 DUP	<10	<10	**62 B*Z**	<10	**14**	<20	<10	**28 B***	<10	---	---	---	<10	<0.0010	**6.08 B***	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	<0.05	<0.05	**194 B****	<0.05	**18.2**	<0.76	<19	<9.5	<9.5	---	---	---	<9.5	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	**18 Q, Z, B***	<10	**27**	<20	<10	**22 Q**	<10	---	---	---	<10	*ns*	**6.48**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16 DUP	<10	<10	**10 Q, Z, B***	<10	**26**	<20	<10	**20 Q**	<10	---	---	---	<10	*ns*	**6.39**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	**55 Z**	<0.5	**5.4**	<10	<2	**11**	<5	**4 Z**	<2	<0.5	<5	<0.005	**4.8**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18 DUP	<0.2	<0.5	**18 Z**	<0.5	**7.0**	<10	<2	**13**	<5	**6 Z**	<2	<0.5	<5	<0.005	**4.5**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-805	**Overburden**	**Jun-11**	<10	<10	<5.0	<10	**20**	<20	<10	<10	<10	---	---	---	<10	**0.0019**	**2.630**	**0.0335**	<0.0020	<0.0050	<0.0010	<0.0050	**95.4**
		Jun-13	<10	<10	<5.0	<10	**20**	*ns* [3]	*ns* [3]	<10	<10	---	---	---	<10	*ns*	**3.15**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	<10	<10	<5.0	<10	**16**	<20	<10	<10	<10	---	---	---	<10	**0.0022**	**2.75 B***	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	<10	<10	<5	<10	**22**	<20	<10	<10	<10	---	---	---	<10	*ns*	**6.41**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	<0.2	<0.5	<5	<0.5	**8.3**	<10	<2	<5	<5	<2	<2	<0.5	<5	<0.005	**1.8**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5A
SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

TABLE KEY:
AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.3)
ROD ICL = Record of Decision, Interim Cleanup Levels
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
µg/L = micrograms per liter
mg/L = milligrams per liter
na = no standard applies
ns = not sampled
< = analyte not detected above the laboratory reporting limit
J = estimated concentration qualified by the laboratory (NHDPHS or EPA) or by Environmental Data Services (third party data validation), see laboratory report for explanation
J* = estimated concentration qualified by GZA due to observed field conditions
B = analyte detected in method blank, its presence in the sample may be suspect
B* = analyte detected in the equipment blank for the sampling equipment used at these wells, its presence in the sample may be suspect
B** = analyte detected in the 2014 equipment blank for the sampling equipment used at these wells, its presence in the sample may be suspect
Z = concentration qualified by GZA, based on the RPD being outside the acceptance criteria (refer to Table 9)
Q = the concentration has been qualified by the laboratory, see laboratory report for explanation
T = metal analytical result qualified because the turbidity was greater than 25 NTUs at the time of sampling
"---" = available historical data is unclear as to whether the parameter was not sampled, or sampled but not detected
"*" = historical data for analyte will be identified and entered as part of the next monitoring round
Bold = parameter was detected above the laboratory reporting detection limit
Grey shading indicates the detected concentration exceeds either the AGQS or ROD ICL (if a ROD ICL applies)
Green shading indicates the detected concentration exceeds both the AGQS and ROD ICL
Orange shading = most recent round of sample results

GENERAL NOTES:
* The analytical test methods for each compound analyzed during the 2018 monitoring round are as follows: VOCs by NHDES 8260C; 1,4-dioxane by 8260C Selected Ion Monitoring; SVOCs by 8270D; and Metals by EPA Method 6020A.
* Groundwater samples collected during fall 2018 were collected using bladder pumps or peristaltic pumps and dedicated tubing. Refer to **Table 2** for the sampling equipment used at each well.

SPECIFIC NOTES:
1. The individual xylene isomers (m/p-xylene and o-xylene) do not have separate AGQS values; the AGQS for xylene (mixed isomers) is 10,000 µg/L.
2. The AGQS for 4-methylphenol was used for comparison to the 3 & 4 methylphenol result.
3. Groundwater samples submitted to the laboratory for SVOC analyses were not analyzed for the acid fraction compounds in 2013 due to an error on the chain of custody in the SAP.
4. The AGQS for naphthalene was increased from 20 µg/L to 100 µg/L on September 1, 2018.
5. The AGQS for 1,4-dioxane was decreased from 3 µg/L to 0.32 µg/L on September 1, 2018.

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Laboratory																
													Volatile Fatty Acids (mg/L)						
			Methane (µg/L)	*Ethane (µg/L)*	*Ethene (µg/L)*	*Alkalinity (mg/L)*	*Chloride (mg/L)*	*Nitrite-Nitrogen (mg/L)*	*Nitrate+Nitrite-Nitrogen (mg/L)*	*Nitrate-Nitrogen (mg/L)*	*Sulfate, as SO4 (mg/L)*	*Total Organic Carbon (mg/L)*	*Carbon Dioxide (mg/L)*	*Acetic acid*	*Butyric acid*	*Lactic acid and HIBA*	*Pentanoic acid*	*Propionic acid*	*Pyruvic acid*
NHAGQS			na	na	na	na	na	1	na	10	500	na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
TRY_M-1	**Overburden**	**Jun-11**	**1400**	**0.058**	**0.044**	**72.4**	**5**	<0.050	**0.26**	**0.25**	**9**	**2.1**	**230**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_M-7	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	**60**	**2.8**	<0.03	*ns*	**0.93**	*ns*	**1.8**	*ns*	<1	<1	<25	*ns*	<1	<10
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**31**	<10	<10	**75.4**	**10**	<0.05	**0.38**	**0.36**	**34**	**11**	**350**	<1	<1	<25	*ns*	<1	<10
		May-07	**13**	<10	<10	*ns*	**9**	<0.050	**0.36**	**0.36**	**31**	**12**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	*ns*	*ns*	*ns*	**87.9**	**9.0**	<0.050	**0.25**	**0.24**	**42**	**16**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	**12**	**0.003**	**0.011**	**85.2**	**9.3**	<0.050	**0.38**	**0.37**	**52**	*ns*	**340**	<1.0	<1.0	<25.0	*ns*	<1.0	<10.0
		Jun-09	**800**	**0.012 J**	**0.120**	**85.6**	**7.8**	*ns*	*ns*	*ns*	**47**	**9.1**	**84**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	**57**	<0.025	**0.056**	**94.0**	**7.9**	*ns*	*ns*	*ns*	**47**	**2.5**	**330**	<1.0 UJ	<1.0 UJ	<25.0 UJ	*ns*	<1.0 UJ	<10.0 UJ
		Oct-09 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	**22**	<0.025	**0.014 J**	**96.7**	**7.3**	<0.05	**0.3**	**0.29**	**51**	**3.9**	**350**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_M-7D	**Bedrock**	**Nov-14**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-A28	**Overburden**	**Jun-13**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-C6S	**Overburden**	**Nov-14**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-C6D	**Overburden**	**Jun-15**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-101S	**Overburden**	**Jun-15**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Field Screening							
			pH (SU)	*ORP (mV)*	*Specific Conductance (µS/cm)*	*Dissolved Oxygen (mg/L)*	*Turbidity (ntu)*	*Temperature (°C)*	*Ferrous Iron (mg/L)*	*Nitrate (mg/L)*
NHAGQS			na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na
TRY_M-1	**Overburden**	**Jun-11**	**5.8**	**97**	**212**	**0.6**	<5	**11**	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	**5.7**	**105**	**164**	**0.6**	<5	**10**	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**5.9**	**123**	**170**	<0.5	**119**	**10**	*ns*	*ns*
		Oct-18	**5.9**	**108**	**145**	<0.5	**151**	**11**	*ns*	*ns*
TRY_M-7	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	**7.98**	*ns*	**188**	**1.2**	**0.1**	---	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**5.71**	**279**	**214**	**0.1**	**0.0**	---	*ns*	*ns*
		May-07	**8.08**	**69**	**80**	**1.7**	**50.8**	---	*ns*	*ns*
		Jun-08	**5.76**	**278**	**206**	**0.55**	**1.11**	**11**	*ns*	*ns*
		Dec-08	**5.7**	**245**	**297**	**0.2**	<1	**9**	*ns*	*ns*
		Jun-09	**5.2**	**1.32 J***	**290**	**0.4**	<1	**9**	**0.05**	**0.5**
		Oct-09	**5.9**	**116**	**292**	**0.3**	<1	**10**	**0.01**	**0.3**
		Oct-09 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	**5.7**	**100**	**326**	**2.0**	<5	**9**	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	**5.8**	**82**	**350**	<0.5	<5	**9**	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**5.9**	**197**	**326**	<0.5	<5	**9**	*ns*	*ns*
		Oct-18	**5.9 g**	**130 g**	**296 g**	**1.4 g**	<5 g	**8.9 g**	*ns*	*ns*
TRY_M-7D	**Bedrock**	**Nov-14**	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**8.6**	**-117**	**117**	**1.0**	<5	**9**	*ns*	*ns*
		Oct-18	**8.2**	**31**	**117**	**0.8**	<5	**8**	*ns*	*ns*
TRY_MW-A28	**Overburden**	**Jun-13**	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Nov-14	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Nov-14 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**6.3**	**-35**	**189**	**0.9**	<5	**15**	*ns*	*ns*
		Nov-18	**6.5 g**	**10 g**	**201 g**	**1.5 g**	<5 g	**8 g**	*ns*	*ns*
TRY_MW-C6S	**Overburden**	**Nov-14**	**6.1**	**89**	**309**	**1.0**	<5	**10**	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**6.2**	**117**	**363**	**1.1**	**12**	**13**	*ns*	*ns*
		Oct-18	**6.1 g**	**87 g**	**375 g**	**2.9 g**	**9 g**	**12 g**	*ns*	*ns*
TRY_MW-C6D	**Overburden**	**Jun-15**	**7.8**	**-204**	**240**	**0.7**	**70**	**12**	*ns*	*ns*
		May-16	**7.9**	**-152**	**303**	<0.5	**9**	**10**	*ns*	*ns*
		Oct-18	**8.0**	**-63**	**251**	<0.5	<5	**8**	*ns*	*ns*
TRY_MW-101S	**Overburden**	**Jun-15**	**6.3**	**-50**	**379**	<0.5	<5	**12**	*ns*	*ns*
		May-16	**6.4**	**-54**	**542**	<0.5	<5	**12**	*ns*	*ns*
		Oct-18	**6.3 g**	**16 g**	**402 g**	**1.8 g**	**14 g**	**10 g**	*ns*	*ns*

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Laboratory																
													Volatile Fatty Acids (mg/L)						
			Methane (µg/L)	*Ethane (µg/L)*	*Ethene (µg/L)*	*Alkalinity (mg/L)*	*Chloride (mg/L)*	*Nitrite-Nitrogen (mg/L)*	*Nitrate+Nitrite-Nitrogen (mg/L)*	*Nitrate-Nitrogen (mg/L)*	*Sulfate, as SO4 (mg/L)*	*Total Organic Carbon (mg/L)*	*Carbon Dioxide (mg/L)*	*Acetic acid*	*Butyric acid*	*Lactic acid and HIBA*	*Pentanoic acid*	*Propionic acid*	*Pyruvic acid*
NHAGQS			na	na	na	na	na	1	na	10	500	na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
TRY_MW-101D	**Overburden**	**Jun-15**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-102	**Predominantly Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	**62**	**13**	<0.03	*ns*	**3.6**	*ns*	**7.7**	*ns*	<1	<1	<25	*ns*	<1	<10
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**1100**	<10	<10	**37.8**	**19**	<0.25	<0.5	<0.25	**41**	**20**	**340**	<1	<1	<25	*ns*	<1	<10
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-10, 28.5	**2,200**	**0.027**	**0.044**	**133**	**7.8**	**0.053**	<0.050	<0.050	**25**	**17**	**390**	<1	<1	<25	*ns*	<1	<10
		Jun-10, 28.5 DUP	**2,700**	**0.033**	**0.073**	**133**	**7.9**	**0.053**	**0.064**	<0.050	**25**	**17**	**420**	<1	<1	<25	*ns*	<1	<10
		Jun-11	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-104S	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	**270**	**2.9**	<0.03	*ns*	**0.06**	*ns*	**7.3**	*ns*	<1	<1	<25	*ns*	<1	<10
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**590**	<10	<10	**131**	**10**	<0.25	<0.5	<0.25	**8**	**17**	**99**	<1	<1	<25	*ns*	<1	<10
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	**1,100**	**0.007**	**0.110**	**168**	**8.8**	*ns*	*ns*	*ns*	**1.3**	**20**	**110**	<1.0	<1.0	<25.0	*ns*	<1.0	<10.0
		Dec-08	**1,100**	**0.049**	**0.085**	**138**	**6.3**	*ns*	*ns*	*ns*	**2.3**	**16**	**140**	**0.9**	<1.0	<25.0	*ns*	<1.0	<10.0
		Jun-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	**2,800**	**0.039**	**0.170**	**191**	**3.9**	*ns*	*ns*	*ns*	**2.6**	**26**	**230**	<1.0 UJ	<1.0 UJ	<25.0 UJ	*ns*	**0.6 J**	<10.0 UJ
		Jun-11	*ns*	*ns*	*ns*	**189**	<3.0	*ns*	*ns*	*ns*	**5.5**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Field Screening							
			pH (SU)	*ORP (mV)*	*Specific Conductance (µS/cm)*	*Dissolved Oxygen (mg/L)*	*Turbidity (ntu)*	*Temperature (°C)*	*Ferrous Iron (mg/L)*	*Nitrate (mg/L)*
NHAGQS			na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na
TRY_MW-101D	**Overburden**	**Jun-15**	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*
		May-16	**7.2**	**-4.5**	**129**	<0.5	**26**	**13**	*ns*	*ns*
		Nov-18	**7.4**	**-10 J***	**116**	<0.5	**16**	**10**	*ns*	*ns*
TRY_MW-102	**Predominantly Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	**5.54**	**134.8**	**310**	**0.7**	**1.4**	---	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**5.75**	**64.8**	**287**	**0.5**	**8.1**	---	*ns*	*ns*
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-10, 28.5	**5.8**	**63**	**367**	**0.4**	**6**	**13**	**2.4 J***	*ns*
		Jun-10, 28.5 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**5.8 J***	*ns*
		Jun-11	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	**5.8**	**46**	**470**	**1.0**	**82**	**11**	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**6.1**	**60**	**432**	**0.7**	**40**	**11**	*ns*	*ns*
		Nov-18	**6.1**	**89**	**427**	<0.5	**96**	**10**	*ns*	*ns*
TRY_MW-104S	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	**6.3**	**161.8**	**416**	**0.2**	**0.7**	---	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**6.54**	**-38.3**	**352**	**0.2**	**6.4**	---	*ns*	*ns*
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	**6.06**	**-97.8**	**378**	**0.18**	**13.2**	**15**	*ns*	*ns*
		Dec-08	**6.4**	**-39**	**377**	**0.1**	**1**	**6**	**1.29**	*ns*
		Jun-09	**6.9**	**15**	**376**	**1.1**	**3**	**11**	*ns*	*ns*
		Oct-09	**6.4**	**18**	**405**	**0.2**	<1	**12**	**0.86**	**0.4**
		Jun-11	**6.2**	**-18**	**375**	<0.5	<5	**11**	*ns*	*ns*
		Jun-13	**6.3**	**-10**	**349**	<0.5	<5	**10**	*ns*	*ns*
		Nov-14	**6.4**	**-22**	**393**	**0.7**	**12**	**10**	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**6.6**	**0**	**417**	<0.5	**4**	**8**	*ns*	*ns*
		Oct-18	**6.4**	**-12**	**466**	<0.5	**9**	**11**	*ns*	*ns*

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Laboratory																
													Volatile Fatty Acids (mg/L)						
			Methane (µg/L)	*Ethane (µg/L)*	*Ethene (µg/L)*	*Alkalinity (mg/L)*	*Chloride (mg/L)*	*Nitrite-Nitrogen (mg/L)*	*Nitrate+Nitrite-Nitrogen (mg/L)*	*Nitrate-Nitrogen (mg/L)*	*Sulfate, as SO4 (mg/L)*	*Total Organic Carbon (mg/L)*	*Carbon Dioxide (mg/L)*	*Acetic acid*	*Butyric acid*	*Lactic acid and HIBA*	*Pentanoic acid*	*Propionic acid*	*Pyruvic acid*
NHAGQS			na	na	na	na	na	1	na	10	500	na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
TRY_MW-104D	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	**46**	**0.1**	<0.03	*ns*	<0.050	*ns*	**0.5**	*ns*	<1	<1	<25	*ns*	<1	<10
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**10**	<10	<10	**46.9**	<3	<0.50	<0.10	<0.50	**6.0**	**1.3**	**2.7**	<1	<1	<25	*ns*	<1	<10
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	*ns*	*ns*	*ns*	**46.9**	<3.0	*ns*	*ns*	*ns*	**5.3**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-105S	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-105D	**Bedrock**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Field Screening							
			pH (SU)	*ORP (mV)*	*Specific Conductance (µS/cm)*	*Dissolved Oxygen (mg/L)*	*Turbidity (ntu)*	*Temperature (°C)*	*Ferrous Iron (mg/L)*	*Nitrate (mg/L)*
NHAGQS			na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na
TRY_MW-104D	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	**7.1**	**90.4**	**181**	**0.6**	**1.2**	---	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**7.86**	**221.2**	**103**	**0.8**	**4.7**	---	*ns*	*ns*
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	**7.7**	**-64**	**107**	**0.4**	**8**	**12**	*ns*	*ns*
		Jun-11	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Jun-13	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Nov-14	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**8.0**	**73**	**112**	**0.9**	**8**	**9**	*ns*	*ns*
		Oct-18	**7.8**	**31**	**109**	<0.5	**9**	**10**	*ns*	*ns*
TRY_MW-105S	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	**6.1**	**161**	**366**	**0.7**	<1	**11**	*ns*	*ns*
		Jun-11	**5.8**	**233**	**259**	<0.5	<5	**11**	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	**5.9**	**94**	**338**	<0.5	<5	**10**	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**6.0**	**286**	**160**	**4.7**	<5	**9**	*ns*	*ns*
		Nov-18	**5.9 g**	**45 g**	**161 g**	**1.7 g**	<5 g	**11 g**	*ns*	*ns*
TRY_MW-105D	**Bedrock**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	**6.4**	**-24**	**193**	**1.8**	**7**	**9**	*ns*	*ns*
		Jun-11	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**6.0**	**276**	**138**	**2.1 J***	<5	**11**	*ns*	*ns*
		Nov-18	**5.9**	**53**	**117**	**1.1**	**6**	**10**	*ns*	*ns*

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Laboratory																
													Volatile Fatty Acids (mg/L)						
			Methane (µg/L)	*Ethane (µg/L)*	*Ethene (µg/L)*	*Alkalinity (mg/L)*	*Chloride (mg/L)*	*Nitrite-Nitrogen (mg/L)*	*Nitrate+Nitrite-Nitrogen (mg/L)*	*Nitrate-Nitrogen (mg/L)*	*Sulfate, as SO4 (mg/L)*	*Total Organic Carbon (mg/L)*	*Carbon Dioxide (mg/L)*	*Acetic acid*	*Butyric acid*	*Lactic acid and HIBA*	*Pentanoic acid*	*Propionic acid*	*Pyruvic acid*
NHAGQS			na	na	na	na	na	1	na	10	500	na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
TRY_MW-201SX	**Overburden**	**Jun-15**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-202P	**Overburden**	**Jun-11**	**320**	**0.008 J**	**0.039**	**96.7**	<3.0	<0.05	<0.05	<0.05	**8.1**	**1.7**	**42**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-204	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	**74**	**0.90**	<0.03	*ns*	<0.02	*ns*	**3.9**	*ns*	<1	<1	<25	*ns*	<1	<10
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**1,200**	<10	<10	**74**	**25**	**0.06**	**4.3**	**4.3**	**44**	**16**	**320**	<1	<1	<25	*ns*	<1	<10
		May-07	**1,700**	<20	<20	*ns*	**12**	<0.050	**0.87**	**0.84**	**70**	**23**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	*ns*	*ns*	*ns*	**102**	<3.0	<0.050	<0.050	<0.050	**97**	**22**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	**3,600**	**0.160**	**0.039**	**97.8**	<3.0	<0.050	<0.050	<0.050	**84**	**11**	**240**	<1.0	<1.0	<25.0	*ns*	<1.0	<10.0
		Jun-09	**2,300**	**0.055**	**0.033**	**75.9**	<3.0	*ns*	*ns*	*ns*	**66**	**33**	**210**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	**4,100**	**0.073**	**0.037**	**77.3**	<3.0	*ns*	*ns*	*ns*	**53**	**15**	**210**	<1.0 UJ	<1.0 UJ	**2.5 J**	*ns*	<1.0 UJ	<10.0 UJ
		Jun-11	**2,000**	**0.024 J**	**0.07**	**96.5**	<3.0	<0.05	<0.05 J	<0.05 J	**30**	**5.2**	**180**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-205	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	**180**	**1.7**	<0.03	*ns*	**0.47**	*ns*	**20**	*ns*	<1	<1	<25	*ns*	<1	<10
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**1,400**	<20	<20	**165**	**13**	<0.05	<1	<0.50	**10**	**47**	**410**	<1	<1	<25	*ns*	<1	<10
		Dec-06 DUP	**1,400**	<20	<20	**180**	**13**	<0.05	<1	**0.07**	**9.9**	**64**	**420**	<1	<1	<25	*ns*	<1	<10
		May-07	**2,300**	<20	<20	*ns*	**13**	**0.070**	<0.050	<0.050	**11**	**57**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	**5,400**	<0.025	**0.021**	**274**	**14**	**0.0053**	<0.050	<0.050	**7.4**	**67**	**370**	<1.0	<1.0	<25.0	*ns*	<1.0	<10.0
		Dec-08	**5,000**	**0.018**	**0.069**	**395**	**10**	**0.088**	<0.050	<0.050	**1.7**	**58**	**330**	**1.4**	<1.0	<25.0	*ns*	<1.0	<10.0
		Dec-08 DUP	**4,700**	**0.026**	**0.099**	**362**	**9.1**	**0.072**	<0.050	<0.050	**1.6**	**63**	**350**	**1.8**	<1.0	<25.0	*ns*	<1.0	<10.0
		Jun-09	**5,700**	< 0.025	**0.062**	**216**	**6.9**	*ns*	*ns*	*ns*	**2.9**	**47**	**350**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09 DUP	**5,100**	< 0.025	**0.052**	**214**	**7.0**	*ns*	*ns*	*ns*	**2.3**	**38**	**360**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	**8,600**	**0.041**	**0.120**	**258**	**4.6**	*ns*	*ns*	*ns*	**<1.0**	**55**	**300**	<1.0 UJ	<1.0 UJ	<25.0 UJ	*ns*	**0.5 J**	<10.0 UJ
		Oct-09 DUP	**8,500**	**0.040**	**0.110**	**224**	**4.7**	*ns*	*ns*	*ns*	**<1.0**	**56**	**290**	<1.0 UJ	<1.0 UJ	**1.8 J**	*ns*	<1.0 UJ	<10.0 UJ
		Jun-11	**3,500**	**<0.025**	**0.062**	**198**	**6.1**	**0.081**	<0.050 J	<0.050 J	**1.2**	**41**	**330**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11 DUP	**3,600**	<0.025	**0.070**	**202**	**6.0**	**0.077**	<0.050 J	<0.050 J	**1.2**	**42**	**320**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Field Screening							
			pH (SU)	*ORP (mV)*	*Specific Conductance (µS/cm)*	*Dissolved Oxygen (mg/L)*	*Turbidity (ntu)*	*Temperature (°C)*	*Ferrous Iron (mg/L)*	*Nitrate (mg/L)*
NHAGQS			na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na
TRY_MW-201SX	**Overburden**	**Jun-15**	**6.5**	**-55**	**399**	**0.4**	**6**	**12**	*ns*	*ns*
		May-16	**6.5**	**-71**	**509**	<0.5	<5	**11**	*ns*	*ns*
		Nov-18	**6.6**	**-42**	**551**	<0.5	<5	**11**	*ns*	*ns*
TRY_MW-202P	**Overburden**	**Jun-11**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**6.5**	**27**	**281**	**0.8**	<5	**11**	*ns*	*ns*
		Nov-18	**7.6 g**	**25 g**	**287 g**	**4 g**	**9 g**	**8 g**	*ns*	*ns*
TRY_MW-204	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	**5.97**	**350**	**234**	**0.2**	**0.7**	---	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**5.74**	**119.1**	**316**	**0.2**	**2.0**	---	*ns*	*ns*
		May-07	**5.11**	**76.4**	**371**	**3.4**	**31.9**	---	*ns*	*ns*
		Jun-08	**5.70**	**172.1**	**291**	**2.3**	**1.4**	**12**	*ns*	*ns*
		Dec-08	**5.80**	**59**	**366**	**0.3**	**2**	**8**	**2.08**	*ns*
		Jun-09	**6.3 J***	**43 J***	**279**	**0.3**	**3**	**10**	**1.15**	**0.2**
		Oct-09	**6.1**	**4**	**276**	**0.3**	**2**	**9**	**0.61**	**0.0 J***
		Jun-11	**5.8**	**56**	**243**	**0.5**	**<0.5**	**9**	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	**6.0**	**37**	**213**	<0.5	<5	**8**	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**6.3**	**7**	**405**	<0.5	<5	**10**	*ns*	*ns*
		Nov-18	**6.2**	**54**	**232**	<0.5	**9**	**10**	*ns*	*ns*
TRY_MW-205	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	**6.02**	**7.2**	**383**	**0.5**	**4.2**	---	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**6.12**	**0.9**	**486**	**0.1**	**9.7**	---	*ns*	*ns*
		Dec-06 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-07	**5.98**	**-51.1**	**613**	**2.1**	**501**	---	*ns*	*ns*
		Jun-08	**6.10**	**-55.8**	**765**	**4.36**	**5.9**	**14**	*ns*	*ns*
		Dec-08	**6.1**	**-11**	**787**	**0.4**	**5**	**9**	*ns*	*ns*
		Dec-08 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	**6.3**	**-56**	**714**	**0.9**	**3**	**12**	**2.94 J***	**0.1**
		Jun-09 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**1.33 J***	*ns*
		Oct-09	**6.6**	**-94**	**619**	**0.3**	**2**	**11**	**1.11**	0.0 J*
		Oct-09 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**1.20**	**0.4 J***
		Jun-11	**6.1**	**-50**	**665**	<0.5	<5	**14**	*ns*	*ns*
		Jun-11 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	**6.0**	**-39**	**474**	**0.8**	**6**	**12**	*ns*	*ns*
		Jun-13 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	**6.3**	**-63**	**592**	<0.5	**7**	**10**	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**6.0**	**-17**	**360**	<0.5	<5	**13**	*ns*	*ns*
		Nov-18	**7.4 g**	**-35 g**	**601 g**	**2.8 g**	<5 g	**13 g**	*ns*	*ns*

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Laboratory																
													Volatile Fatty Acids (mg/L)						
			Methane (µg/L)	*Ethane (µg/L)*	*Ethene (µg/L)*	*Alkalinity (mg/L)*	*Chloride (mg/L)*	*Nitrite-Nitrogen (mg/L)*	*Nitrate+Nitrite-Nitrogen (mg/L)*	*Nitrate-Nitrogen (mg/L)*	*Sulfate, as SO4 (mg/L)*	*Total Organic Carbon (mg/L)*	*Carbon Dioxide (mg/L)*	*Acetic acid*	*Butyric acid*	*Lactic acid and HIBA*	*Pentanoic acid*	*Propionic acid*	*Pyruvic acid*
NHAGQS			na	na	na	na	na	1	na	10	500	na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
TRY_MW-301	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	**190**	**3.1**	<0.03	*ns*	**0.13**	*ns*	**16**	*ns*	<1	<1	<25	*ns*	<1	<10
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**1,600**	<20	<20	**79.7**	**12**	<0.05	<1	<0.50	**45**	**30**	**320**	<1	<1	<25	*ns*	<1	<10
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	*ns*	*ns*	*ns*	**144**	<10.0	<0.050	<0.050	<0.050	**39**	**29**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	**810**	**0.011**	**0.027**	**133**	**8.3**	<0.050	<0.050	<0.050	**42**	**26**	**420**	<1.0	<1.0	<25.0	*ns*	<1.0	<10.0
		Jun-09	**720**	**0.011 J**	**0.058**	**116**	**6.3**	*ns*	*ns*	*ns*	**37**	**21**	**370**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	**1,400**	**0.015 J**	**0.061**	**124**	**5.1**	*ns*	*ns*	*ns*	**35**	**19**	**400**	<1.0 UJ	<1.0 UJ	<25.0 UJ	*ns*	<1.0 UJ	<10.0 UJ
TRY_MW-301X	**Overburden**	**Jun-11**	**880**	**0.15**	**0.34**	**91.9**	**4.5**	<0.050	<0.050 J	<0.050 J	**18**	**2.9**	**250**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-501	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	**180**	**4.6**	<0.03	*ns*	<0.02	*ns*	**12**	*ns*	<1	<1	<25	*ns*	<1	<10
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**1,800**	<20	<20	**138**	**11**	<0.25	<0.5	<0.25	**37**	**19**	**210**	<1	<1	<25	*ns*	<1	<10
		May-07	**640**	<10	<10	*ns*	**6**	<0.050	<0.050	<0.050	**36**	**31**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	**1,800**	**0.024**	**0.100**	**181**	**7.3**	<0.050	<0.050	<0.050	**8.7**	**24**	**210**	<1.0	<1.0	<25.0	*ns*	<1.0	<10.0
		Jun-08 DUP	**1,800**	**0.013**	**0.090**	**180**	**7.4**	<0.050	<0.050	<0.050	**8.8**	**23**	**210**	<1.0	<1.0	<25.0	*ns*	<1.0	<10.0
		Dec-08	**1,600**	**0.039**	**0.110**	**150**	**6.4**	<0.050	<0.050	<0.050	**13**	**20**	**200**	<1.0	<1.0	<25.0	*ns*	<1.0	<10.0
		Dec-08 DUP	**1,400**	**0.016**	**0.096**	**152**	**6.3**	<0.050	<0.050	<0.050	**13**	**21**	**180**	<1.0	<1.0	<25.0	*ns*	<1.0	<10.0
		Jun-09	**2,000**	**0.018 J**	**0.091 J**	**152**	**5.3**	*ns*	*ns*	*ns*	**7.6**	**20**	**190**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09 DUP	**1,800**	**0.022 J**	**0.130 J**	**150**	**4.9**	*ns*	*ns*	*ns*	**8.5**	**23**	**200**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	**4,000**	**0.021 J**	**0.130**	**150**	**3.8**	*ns*	*ns*	*ns*	**1.8**	**24**	**190**	**0.8 J**	<1.0 UJ	<25.0 UJ	*ns*	**1.0 J**	<10.0 UJ
		Oct-09 DUP	**3,200**	**0.018 J**	**0.130**	**173**	**3.8**	*ns*	*ns*	*ns*	**1.8**	**20**	**200**	**1.6 J**	<1.0 UJ	<25.0 UJ	*ns*	<1.0 UJ	<10.0 UJ
TRY_MW-501X	**Overburden**	**Jun-11**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-501D	**Overburden**	**Jun-15**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-508	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	**0.043 J**	< 0.025 UJ	< 0.025 UJ	<1	<3.0	*ns*	*ns*	*ns*	**7.8**	**1.9**	**25 J**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	**0.540**	<0.025	**0.075**	**1.8**	<3.0	*ns*	*ns*	*ns*	**8.2**	**3.6**	**56**	<1.0 UJ	<1.0 UJ	<25.0 UJ	*ns*	<1.0 UJ	<10.0 UJ

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Field Screening							
			pH (SU)	*ORP (mV)*	*Specific Conductance (µS/cm)*	*Dissolved Oxygen (mg/L)*	*Turbidity (ntu)*	*Temperature (°C)*	*Ferrous Iron (mg/L)*	*Nitrate (mg/L)*
NHAGQS			na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na
TRY_MW-301	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	**6.05**	**44.5**	**447**	**0.4**	**0.7**	---	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**6.07**	**-10.7**	**310**	**0.9**	*ns*	---	*ns*	*ns*
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	**5.92**	**24.5**	**426**	**1.75**	**0.80**	**12**	*ns*	*ns*
		Dec-08	**6.0**	**-32**	**463**	**0.15**	<1	**10**	**0.25**	*ns*
		Jun-09	**6.4 J***	**21 J***	**464**	**0.3**	<1	**12**	**1.21**	**0.0**
		Oct-09	**6.2**	**-2**	**485**	**0.5**	<1	**11**	**1.58**	**0.6 J***
TRY_MW-301X	**Overburden**	**Jun-11**	**5.7**	**33**	**232**	**0.5**	**9**	**11**	*ns*	*ns*
		Jun-13	**5.8**	**106**	**224**	**0.7**	<5	**12**	*ns*	*ns*
		Nov-14	**6.5**	**111**	**229**	**0.6**	<5	**11**	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**5.9**	**91**	**240**	**0.7**	<5	**13**	*ns*	*ns*
		Nov-18	**5.8**	**129**	**255**	**0.8**	<5	**9**	*ns*	*ns*
TRY_MW-501	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	**7.18**	**-10.8**	**575**	**0.2**	**0.8**	---	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**6.44**	**-40.4**	**487**	**0.3**	**9.7**	---	*ns*	*ns*
		May-07	**8.53**	**-36**	**528**	**8.0**	**503.0**	---	*ns*	*ns*
		Jun-08	**6.08**	**-29.7**	**479**	**0.44**	**0.92**	**17**	*ns*	*ns*
		Jun-08 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**10.65**	**0.0**
		Jun-09 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**2.09 J***	**0.4 J***
		Oct-09 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**1.21 J***	**0.6 J***
TRY_MW-501X	**Overburden**	**Jun-11**	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Jun-13	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Nov-14	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Nov-18	**7.2 g**	**-37 g**	**348 g**	**3.3 g**	**538 g**	**11 g**	*ns*	*ns*
TRY_MW-501D	**Overburden**	**Jun-15**	**8**	**-196**	**101**	**0.5**	**142**	**12**	*ns*	*ns*
		May-16	**8.3**	**-40**	**123**	<0.5	**7**	**9**	*ns*	*ns*
		Nov-18	**8.1**	**75**	**121**	**1.3**	<5	**11**	*ns*	*ns*
TRY_MW-508	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-07	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.18**	**0.3**
		Oct-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.10**	**0.1**

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Laboratory																
													Volatile Fatty Acids (mg/L)						
			Methane (µg/L)	*Ethane (µg/L)*	*Ethene (µg/L)*	*Alkalinity (mg/L)*	*Chloride (mg/L)*	*Nitrite-Nitrogen (mg/L)*	*Nitrate+Nitrite-Nitrogen (mg/L)*	*Nitrate-Nitrogen (mg/L)*	*Sulfate, as SO4 (mg/L)*	*Total Organic Carbon (mg/L)*	*Carbon Dioxide (mg/L)*	*Acetic acid*	*Butyric acid*	*Lactic acid and HIBA*	*Pentanoic acid*	*Propionic acid*	*Pyruvic acid*
NHAGQS			na	na	na	na	na	1	na	10	500	na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
TRY_MW-508X	**Overburden**	**Jun-11**	**0.180**	**0.04**	**0.027**	<1.0	<3.0	<0.050	<0.050	<0.050	**6.8**	**1.6**	**34**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-601S	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	*ns*	**1.1**	<0.03	*ns*	<0.02	*ns*	**3.2**	*ns*	<1	<1	<25	*ns*	<1	<10
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**800**	<10	<10	**52.6**	**34**	<0.050	**3.7**	**3.7**	**5**	**10**	**320**	<1	<1	<25	*ns*	<1	<10
		May-07	**380**	<10	<10	*ns*	**23**	<0.05	**6.2**	**6.2**	**8**	**16**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	**1,200**	**0.070**	**0.074**	**105**	**8.8**	<0.050	<0.050	<0.050	**29**	**11**	**300**	<1.0	<1.0	<25.0	*ns*	<1.0	<10.0
		Dec-08	**1,400**	**0.065**	**0.069**	**78.0**	**5.2**	<0.050	**0.36**	**0.35**	**64**	**19**	**320**	<1.0	<1.0	<25.0	*ns*	<1.0	<10.0
		Jun-09	**1,700**	**0.054**	**0.042**	**75.4**	<3.0	*ns*	*ns*	*ns*	**71**	**12**	**250**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	**1,700**	**0.045**	**0.046**	**59.2**	<3.0	*ns*	*ns*	*ns*	**75**	<0.50	**260**	<1.0 UJ	<1.0 UJ	<25.0 UJ	*ns*	**0.6 J**	<10.0 UJ
		Jun-11	**1,200**	**0.009 J**	**0.021 J**	**77.1**	<3.0	<0.050	<0.050	<0.050	**43**	**4**	**230**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-601D	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	**55**	**1.9**	<0.03	*ns*	<0.02	*ns*	**1.5**	*ns*	<1	<1	<25	*ns*	<1	<10
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**830**	<10	<10	**74.5**	<3	<0.050	<0.10	<0.050	**4.0**	**4.0**	**47**	<1	<1	<25	*ns*	<1	<10
		May-07	**520**	<10	<10	*ns*	<3.0	<0.050	<0.050	<0.050	**4.0**	**4.2**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	**840**	**0.047**	**0.700**	**51.2**	<3.0	<0.050	<0.050	<0.050	**8.9**	**4.3**	**14**	<1.0	<1.0	<25.0	*ns*	<1.0	<10.0
		Dec-08	**800**	**0.049**	**0.640**	**74.4**	<3.0	<0.050	<0.050	<0.050	**4.5**	**6.6**	**30**	<1.0	<1.0	<25.0	*ns*	<1.0	<10.0
		Jun-09	**770**	**0.041**	**0.890**	**75.9**	<3.0	*ns*	*ns*	*ns*	**3.4**	**3.5**	**29**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	**1,300**	**0.066**	**1.500**	**82.7**	<3.0	*ns*	*ns*	*ns*	**2.9**	**3.3**	**32**	<1.0 UJ	<1.0 UJ	<25.0 UJ	*ns*	**0.6 J**	<10.0 UJ
		Jun-11	**1,000**	**0.027**	**0.740**	**87.9**	<3.0	<0.050	**0.053**	**0.051**	**3.5**	**1.3**	**26**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Field Screening							
			pH (SU)	*ORP (mV)*	*Specific Conductance (µS/cm)*	*Dissolved Oxygen (mg/L)*	*Turbidity (ntu)*	*Temperature (°C)*	*Ferrous Iron (mg/L)*	*Nitrate (mg/L)*
NHAGQS			na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na
TRY_MW-508X	**Overburden**	**Jun-11**	**5**	**197**	**28**	**7.3**	**11**	**14**	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	**4.9**	**192**	**24**	**9.2**	<5	**9**	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**5.2**	**263**	**26**	**7.9**	<5	**10**	*ns*	*ns*
		Oct-18	**5.0 g**	**85 g**	**22 g**	**9 g**	**38 g**	**9 g**	*ns*	*ns*
TRY_MW-601S	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	**5.61**	**336**	**224**	**0.2**	**0.2**	---	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**5.5**	**208.8**	**190**	**0.5**	**0.3**	---	*ns*	*ns*
		May-07	**5.4**	**228**	**259**	**5.2**	**271.0**	---	*ns*	*ns*
		Jun-08	**5.60**	**321.6**	**255**	**2.72**	**16.9**	**14**	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.12**	*ns*
		Jun-09	**5.8**	**203**	**283**	**0.9**	**1**	**10**	**0.11**	**0.3**
		Jun-09 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.4**
		Oct-09	**6.0**	**108**	**279**	**0.3**	<1	**10**	**0.07**	**0.1 J***
		Jun-11	**5.6**	**203**	**224**	<0.5	<5	**12**	*ns*	*ns*
		Jun-13	**5.6**	**208**	**199**	<0.5	<5	**10**	*ns*	*ns*
		Nov-14	**5.5**	**116**	**163**	<0.5	<5	**10**	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**6.0**	**132**	**197**	<0.5	<5	**11**	*ns*	*ns*
		Nov-18	**6.5 g**	**98 g**	**205 g**	**0.9 g**	**7 g**	**11 g**	*ns*	*ns*
TRY_MW-601D	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	**6.56**	**-25.5**	**170**	**0.3**	**0.8**	---	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**6.46**	**-1.7**	**113**	**0.2**	**4.4**	---	*ns*	*ns*
		May-07	**6.78**	**-24**	**106**	**4.0**	**35.6**	---	*ns*	*ns*
		Jun-08	**6.82**	**-58.6**	**122**	**0.77**	**23.6**	**20**	*ns*	*ns*
		Dec-08	**6.7**	**-13**	**163**	**0.60**	**67.0**	**7**	**1.70**	*ns*
		Jun-09	**6.6**	**11**	**148**	**0.9**	**15**	**14**	**1.19**	**0.0**
		Oct-09	**6.8**	**-75**	**169**	**0.2**	**4**	**11**	**0.63**	**0.7 J***
		Jun-11	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Jun-13	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Nov-14	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**6.9**	**-6**	**249**	**1.1**	<5	**13**	*ns*	*ns*
		Nov-18	**6.9**	**-12**	**244**	**0.6**	**12**	**11**	*ns*	*ns*

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Laboratory																
													Volatile Fatty Acids (mg/L)						
			Methane (µg/L)	*Ethane (µg/L)*	*Ethene (µg/L)*	*Alkalinity (mg/L)*	*Chloride (mg/L)*	*Nitrite-Nitrogen (mg/L)*	*Nitrate+Nitrite-Nitrogen (mg/L)*	*Nitrate-Nitrogen (mg/L)*	*Sulfate, as SO4 (mg/L)*	*Total Organic Carbon (mg/L)*	*Carbon Dioxide (mg/L)*	*Acetic acid*	*Butyric acid*	*Lactic acid and HIBA*	*Pentanoic acid*	*Propionic acid*	*Pyruvic acid*
NHAGQS			na	na	na	na	na	1	na	10	500	na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
TRY_MW-602B	**Bedrock**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	**120**	**2.5**	<0.03	*ns*	<0.02	*ns*	**3.9**	*ns*	<1	<1	<25	*ns*	<1	<10
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**1,800**	<20	<20	**100**	**7.0**	<0.050	<0.10	<0.050	**9**	**18**	**160**	<1	<1	<25	*ns*	<1	<10
		May-07	**1,000**	<10	<10	*ns*	**5.0**	<0.050	<0.050	<0.050	**9**	**12**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	**2,900**	**0.069**	**0.056**	**108**	**4.9**	<0.050	<0.050	<0.050	**9.0**	**8.7**	**160**	1.1	<1.0	<25.0	*ns*	<1.0	<10.0
		Dec-08	**1,500**	**0.090**	**0.036**	**96.4**	**4.4**	<0.050	<0.050	<0.050	**13**	**9.9**	**160**	<1.0	<1.0	<25.0	*ns*	<1.0	<10.0
		Jun-09	**2,400**	**0.079**	**0.049**	**82.1**	**3.4**	*ns*	*ns*	*ns*	**11**	**5.6**	**140**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	**2,400**	**0.082**	**0.066**	**87.8**	**3.2**	*ns*	*ns*	*ns*	**11**	**12**	**170**	<1.0 UJ	<1.0 UJ	<25.0 UJ	*ns*	<1.0 UJ	<10.0 UJ
		Jun-11	**4,500**	**0.049**	**0.088**	**99.4**	<3	<0.050	<0.050 J	<0.050 J	**8**	**2.8**	**130**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-701	**Bedrock**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	<10	<10	<10	**8**	<3.0	<0.050	**0.27**	**0.27**	**11**	**1**	**28**	<1	<1	<25	*ns*	<1	<10
		May-07	<10	<10	<10	*ns*	<3.0	<0.050	**0.06**	**0.06**	**9**	**1.8**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	**0.083**	<0.025	<0.025	**2.3**	<3.0	<0.050	**0.063**	**0.062**	**7.1**	**1.3**	**30**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	**1**	**0.01**	**0.036**	**5.5**	<3.0	<0.050	**0.055**	**0.055**	**8.3**	**3.2**	**43**	<1.0	<1.0	<25.0	*ns*	<1.0	<10.0
		Jun-09	**1.2**	<0.025	**0.06**	**4.5**	<3.0	*ns*	*ns*	*ns*	**7.1**	**1.5**	**32**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	**0.072 J**	<0.025	**0.017 J**	**4.7**	<3.0	*ns*	*ns*	*ns*	**7.8**	**1.6**	**36**	<1.0 UJ	<1.0 UJ	<25.0 UJ	*ns*	**0.5 J**	<10.0 UJ
		Jun-11	**0.038 J**	<0.025	**0.015 J**	**3.6**	<3.0	<0.050	<0.050	<0.050	**7.2**	<0.050	**25**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-702S	**Overburden**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	<10	<10	<10	**17.1**	<3.0	<0.050	<0.10	<0.050	**10**	**2.9**	**23**	<1	<1	<25	*ns*	<1	<10
		May-07	<10	<10	<10	*ns*	<3.0	<0.050	<0.050	<0.050	**14**	**21**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	*ns*	*ns*	*ns*	<1	<3.0	<0.050	<0.050	<0.050	**8.9**	**2.4**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-702SX	**Overburden**	**Jun-11**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Field Screening							
			pH (SU)	*ORP (mV)*	*Specific Conductance (µS/cm)*	*Dissolved Oxygen (mg/L)*	*Turbidity (ntu)*	*Temperature (°C)*	*Ferrous Iron (mg/L)*	*Nitrate (mg/L)*
NHAGQS			na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na
TRY_MW-602B	Bedrock	Aug-04	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	6.19	250.4	243	0.8	0.8	---	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	6.2	-2.6	236	0.2	0.5	---	*ns*	*ns*
		May-07	7.15	11.3	257	6.5	37.8	---	*ns*	*ns*
		Jun-08	5.73	25.2	261	0.50	27.8	12	*ns*	*ns*
		Dec-08	6.0	22	219	0.3	5.0	8	0.64	*ns*
		Jun-09	6.1	-1	207	0.7	3.0	10	2.23	0.2
		Oct-09	6.3	2	211	0.6	<1	11	0.84	0.5 J*
		Jun-11	6.0	29	221	1.9	<5	9	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	5.9	9	206	<0.5	<5	9	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	6.2	14	226	<0.5	<5	12	*ns*	*ns*
		Oct-18	6.2	26	229	<0.5	5	9	*ns*	*ns*
TRY_MW-701	Bedrock	Aug-04	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	5.84	180.1	32	10.0	0.6	---	*ns*	*ns*
		May-07	7.41	160	33	3.0	20.9	---	*ns*	*ns*
		Jun-08	5.22	345.7	32	12.71	0.47	12	*ns*	*ns*
		Dec-08	5.4	235	38	6.9	5.0	8	0.06	*ns*
		Jun-09	6.2	71	36	6.8	5.0	8.0	0.08	0.2
		Oct-09	5.7	117	37	4.8	20	10	0.03	0.4
		Jun-11	5.5	156	32	8.5	<5	10	*ns*	*ns*
		Jun-13	5.4	222	32	9.2	<5	9	*ns*	*ns*
		Nov-14	5.4	85	34	7.6	<5	9	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	5.6	291	30	9.7	<5	9	*ns*	*ns*
		Oct-18	5.6	68	34	8.3	5	8	*ns*	*ns*
TRY_MW-702S	Overburden	Aug-04	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	6.15	50.5	47	1.3	2.3	---	*ns*	*ns*
		May-07	5.8	99.1	48	5.8	532.0	---	*ns*	*ns*
		Jun-08	4.76	306	28	5.36	8.6	15	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-702SX	Overburden	Jun-11	5.0	172	19	9.3	<5	12	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	4.9	220	25	8.2	<5	10	*ns*	*ns*
		Jun-15	5.1	272	17 J*	8.3	8	12	*ns*	*ns*
		May-16	5.3	208	20	9.7	<5	9.8	*ns*	*ns*
		Oct-18	5.1	152	22	4	5	10	*ns*	*ns*

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Laboratory																
													Volatile Fatty Acids (mg/L)						
			Methane (µg/L)	*Ethane (µg/L)*	*Ethene (µg/L)*	*Alkalinity (mg/L)*	*Chloride (mg/L)*	*Nitrite-Nitrogen (mg/L)*	*Nitrate+Nitrite-Nitrogen (mg/L)*	*Nitrate-Nitrogen (mg/L)*	*Sulfate, as SO4 (mg/L)*	*Total Organic Carbon (mg/L)*	*Carbon Dioxide (mg/L)*	*Acetic acid*	*Butyric acid*	*Lactic acid and HIBA*	*Pentanoic acid*	*Propionic acid*	*Pyruvic acid*
NHAGQS			na	na	na	na	na	1	na	10	500	na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
TRY_MW-702D	**Bedrock**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	<10	<10	<10	**16.0**	<3.0	<0.050	<0.10	<0.050	**7.0**	**0.81**	**6.2**	<1	<1	<25	*ns*	<1	<10
		May-07	<10	<10	<10	*ns*	<3.0	<0.050	**0.090**	**0.090**	**6.0**	**1.7**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-08	*ns*	*ns*	*ns*	**18.6**	<3.0	<0.050	**0.075**	**0.073**	**5.8**	**0.87**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09, 25.9'	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09, 35.9'	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09, 44.4'	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Apr-10, 25.9'	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Apr-10, 25.9' DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-801	**Overburden**	**Jun-11**	**1200**	**0.082**	**0.096**	**126**	**3.2**	<0.050	<0.050	<0.050	**32**	**8.9**	**360**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-802	**Overburden**	**Jun-11**	**1,400 J***	**0.024 J**	**0.15 J***	**118**	**3.4**	<0.050	<0.050 J	<0.050 J	**37**	**18**	**290**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-803	**Overburden**	**Jun-11**	**4100**	**0.031**	**0.1**	**255**	**3.9**	0.083	<0.050 J	<0.050 J	**3.8**	**57**	**260**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Field Screening							
			pH (SU)	*ORP (mV)*	*Specific Conductance (µS/cm)*	*Dissolved Oxygen (mg/L)*	*Turbidity (ntu)*	*Temperature (°C)*	*Ferrous Iron (mg/L)*	*Nitrate (mg/L)*
NHAGQS			na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na
TRY_MW-702D	**Bedrock**	**Aug-04**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-05	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-06	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Dec-06	**6.69**	**146**	**38**	**3.9**	**2.6**	---	*ns*	*ns*
		May-07	**6.14**	**73**	**54**	**8.3**	**990.0**	---	*ns*	*ns*
		Jun-08	**6.58**	**312**	**43**	**5.75**	**7.3**	**16**	*ns*	*ns*
		Dec-08	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-09	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09, 25.9'	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09, 35.9'	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Oct-09, 44.4'	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Apr-10, 25.9'	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Apr-10, 25.9' DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11	**6.6**	**96**	**52**	**5.7**	**50**	**10**	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	**6.6**	**180**	**52**	**6.0**	**11**	**11**	*ns*	*ns*
		Jun-15	**6.7**	**189**	**42**	**5.2**	**40**	**12**	*ns*	*ns*
		May-16	**6.8**	**145**	**55**	**5.5**	**11**	**9.1**	*ns*	*ns*
		Oct-18	**6.6**	**147**	**50**	**5.6**	**11**	**9**	*ns*	*ns*
TRY_MW-801	**Overburden**	**Jun-11**	**5.7**	**79**	**313**	**0.9**	<5	**14**	*ns*	*ns*
		Jun-13	**5.7**	**55**	**324**	**1.0**	<5	**12**	*ns*	*ns*
		Nov-14	**6.0**	**41**	**429**	<0.5	<5	**10**	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**5.9**	**34**	**385**	**0.8**	<5	**12**	*ns*	*ns*
		Nov-18	**6**	**7.8**	**380**	<0.5	<5	**12**	*ns*	*ns*
TRY_MW-802	**Overburden**	**Jun-11**	**5.8**	**30**	**407**	<0.5	<5	**14**	*ns*	*ns*
		Jun-13	**5.8**	**51**	**444**	**0.8**	**9**	**12**	*ns*	*ns*
		Nov-14	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**6.3**	**10**	**521**	**0.6**	**5**	**12**	*ns*	*ns*
		Nov-18	**6.2 g**	**-21 g**	**476 g**	**0.8 g**	<5 g	**14 g**	*ns*	*ns*
TRY_MW-803	**Overburden**	**Jun-11**	**6.2**	**-71**	**729**	**<0.5**	<5	**12**	*ns*	*ns*
		Jun-13	**6.2**	**-50**	**701**	**1.0**	**8**	**13**	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	*ns*
		May-16	**6.6**	**-53**	**831**	<0.5	**82**	**12**	*ns*	*ns*
		Nov-18	**6.6 g**	**25 g, J***	**773 g**	**1.1 g**	**15 g**	**10 g**	*ns*	*ns*

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Laboratory																
													Volatile Fatty Acids (mg/L)						
			Methane (µg/L)	*Ethane (µg/L)*	*Ethene (µg/L)*	*Alkalinity (mg/L)*	*Chloride (mg/L)*	*Nitrite-Nitrogen (mg/L)*	*Nitrate+Nitrite-Nitrogen (mg/L)*	*Nitrate-Nitrogen (mg/L)*	*Sulfate, as SO4 (mg/L)*	*Total Organic Carbon (mg/L)*	*Carbon Dioxide (mg/L)*	*Acetic acid*	*Butyric acid*	*Lactic acid and HIBA*	*Pentanoic acid*	*Propionic acid*	*Pyruvic acid*
NHAGQS			na	na	na	na	na	1	na	10	500	na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
TRY_MW-804	**Overburden**	**Jun-11**	**710**	**0.015 J**	**0.12**	**155**	<3.0	**0.061**	<0.050 J	<0.050 J	**41**	**17**	**240**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-11 DUP	**1,800**	**0.071**	**0.1**	**153**	<3.0	**0.062**	<0.050 J	<0.050 J	**41**	**17**	**260**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_MW-805	**Overburden**	**Jun-11**	**1200**	**0.011 J**	**0.065**	**224**	**4.6**	**0.092**	<0.050 J	<0.050 J	**4.3**	**24**	**270**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 5B
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Field Screening							
			pH (SU)	*ORP (mV)*	*Specific Conductance (µS/cm)*	*Dissolved Oxygen (mg/L)*	*Turbidity (ntu)*	*Temperature (°C)*	*Ferrous Iron (mg/L)*	*Nitrate (mg/L)*
NHAGQS			na	na	na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na	na	na
TRY_MW-804	**Overburden**	**Jun-11**	**5.7**	**15**	**422**	<0.5	<5	**12**	*ns*	*ns*
		Jun-11 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-13	**5.8**	**20**	**380**	**0.9**	<5	**11**	*ns*	*ns*
		Jun-13 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Nov-14	**6.0**	**-17**	**360**	**0.6**	<5	**10**	*ns*	*ns*
		Nov-14 DUP	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		Jun-15	**6.1**	**-55**	**287 J***	**0.6**	<5	**12**	*ns*	*ns*
		May-16	**6.3**	**-33**	**365**	<0.5	<5	**13**	*ns*	*ns*
		Nov-18	**6.2 g**	**84 g, J***	**390 g**	**1.0 g**	**7 g**	**10 g**	*ns*	*ns*
TRY_MW-805	**Overburden**	**Jun-11**	**6.3**	**-23**	**662**	**1.8**	<5	**12**	*ns*	*ns*
		Jun-13	**6.3**	**-28**	**550**	<0.5	<5	**11**	*ns*	*ns*
		Nov-14	**6.2**	**-25**	**555**	**3.9**	**7**	**9**	*ns*	*ns*
		Jun-15	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
		May-16	**6.5**	**-51**	**605**	<0.5	<5	**12**	*ns*	*ns*
		Nov-18	**6.3**	**-27**	**562**	<0.5	**22**	**12**	*ns*	*ns*

TABLE 5B
SUMMARY OF NATURAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

TABLE KEY:

AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.3)
ROD ICL = Record of Decision, Interim Cleanup Levels
MNA = Monitored Natural Attenuation
na = no standard applies
ns = not sampled
ns/ir = insufficient recharge well, field parameters were not collected
< = analyte not detected above the laboratory or field reporting limit
ORP = Oxidation Reduction Potential
µg/L = micrograms per Liter
mg/L = milligrams per Liter
SU = Standard Units
mV = milliVolts
µS/cm = micro Siemens per centimeter
ntu = Nephelometric Turbidity Units
^{o}C = degrees Celsius
g = field measurement collected as a grab sample, no stabilization
J = estimated concentration qualified by the laboratory (NHDPHS, EPA, or Microseeps) or by Environmental Data Services (third party data validation), see laboratory report for explanation
J* = estimated field measurement qualified by GZA due to end of day calibration check issues or failure of parameter to stabilize, or estimated concentration qualified by GZA due to observed field conditions
UJ = the compound was analyzed for, but not detected, the associated numerical value is the estimated sample quantitation limit. UJ is used for data qualified by Environmental Data Services.
"---" = available historical data is unclear as to whether the parameter was not sampled, or sampled but not detected
"*" = historical data for analyte will be identified and entered as part of the next monitoring round
Bold = parameter was detected above the laboratory reporting detection limit
Grey shading = concentration exceeds the Ambient Groundwater Quality Standards
Orange shading = most recent round of sample results

GENERAL NOTES:

* Groundwater samples collected during fall 2018 were collected using bladder pumps or peristaltic pumps and dedicated tubing. Refer to **Table 2** for the sampling equipment used at each well.
* The low-flow field screening parameter readings reported represent the last round of readings prior to sample collection.

TABLE 6
SUMMARY OF DETECTED PFAS COMPOUNDS IN GROUNDWATER
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Stratigraphic Unit	Sample Date	Carboxylic Acids											Sulfonic Acids					Potential Precursors			Parameter Calculations			
			Perfluorobutanoic acid (PFBA) [4]	Perfluoropentanoic Acid (PFPeA) [5]	Perfluorohexanoic Acid (PFHxA) [6]	Perfluoroheptanoic Acid (PFHpA) [7]	Perfluorooctanoic Acid (PFOA) [8]	Perfluorononanoic Acid (PFNA) [9]	Perfluorodecanoic Acid (PFDA) [10]	Perfluoroundecanoic Acid (PFUnA) [11]	Perfluorododecanoic Acid (PFDoA) [12]	Perfluorotridecanoic Acid (PFTRDA) [13]	Perfluorotetradecanoic Acid (PFTEDA) [14]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	6:2 Fluorotelomer sulfonate (6:2FTS)	8:2 Fluorotelomer sulfonate (8:2FTS)	Perfluorooctane Sulfonamide (PFOSA)	PFOA and PFOS Combined Total	Total PFAS	% PFOS vs. Total PFOS+PFOA	% PFOS+PFOA vs. Total PFAS
	CAS		375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	27619-97-2	39108-34-4	754-91-6	N/A	N/A	N/A	N/A
	EPA SLs (ng/L)		*na*	*na*	*na*	*na*	40	*na*	*na*	*na*	*na*	*na*	*na*	40,000	*na*	*na*	40	*na*	*na*	*na*	*na*	*na*	*na*	*na*	*na*
	AGQS (ng/L)		*na*	*na*	*na*	*na*	70 [1]	*na*	*na*	*na*	*na*	*na*	*na*	*na*	*na*	*na*	70 [1]	*na*	*na*	*na*	*na*	70 [1]	*na*	*na*	*na*
Field Samples																									
TRY_M-7	Overburden	10/31/2018	**56**	**130**	**200**	**220**	**200**	**4.3**	<2.0	<2.0	<2.0	<2.0	<2.0	**14**	**5.8**	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	**200**	**830.1**	0.0%	24%
TRY_MW-C6S	Overburden	10/31/2018	**47**	**150**	**160**	**190**	**420**	**12**	<2.0	<2.0	<2.0	<2.0	<2.0	**7.9**	**11**	<2.0	**3.8**	<2.0	<4.0	<4.0	<4.0	**423.8**	**1,002**	0.9%	42%
TRY_MW-C6S DUP	Overburden	10/31/2018	**53**	**140**	**170**	**190**	**440**	**9.6**	<2.0	<2.0	<2.0	<2.0	<2.0	**8.1**	**11**	<2.0	**4.3**	<2.0	<4.0	<4.0	<4.0	**444.3**	**1,026**	1.0%	43%
TRY_MW-A28	Overburden	11/5/2018	**21**	**23**	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<4.0 [2]	<4.0	<4.0	ND	**44**	0.0%	0%
TRY_MW-101S	Overburden	10/30/2018	**82**	**160**	**210**	**260**	**480**	**5.6**	<2.0	<2.0	<2.0	<2.0	<2.0	**17**	**10**	<2.0	**3.7**	<2.0	<4.0	<4.0	<4.0	**483.7**	**1,228**	0.8%	39%
TRY_MW-102	Predominantly Overburden	11/5/2018	**120**	**270**	**440**	**570**	**610**	<20	<20	<20	<20	<20	<20	**37**	<20	<20	<20	<20	<40 [2]	<40	<20	**610**	**2,047**	0.0%	30%
TRY_MW-105S	Overburden	11/1/2018	**44**	**87**	**150**	**170**	**260**	**31**	<2.0	<2.0	<2.0	<2.0	<2.0	**20**	**5.7**	**5.3**	**10**	<2.0	<4.0	<4.0	<4.0	**270**	**783**	3.7%	34%
TRY_MW-205	Overburden	11/7/2018	**78**	**100**	**62**	**83**	**47**	**24**	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<4.0 [2]	<40	<40	**47**	**394**	0.0%	12%
TRY_MW-602B	Bedrock	10/30/2018	**35**	**85**	**120**	**140**	**270**	**8.1**	**2.6**	<2.0	<2.0	<2.0	<2.0	**9.9**	**4.8**	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	**270**	**675**	0.0%	40%
TRY_MW-701	Bedrock	10/31/2018	<2.0	<2.0	<2.0	<2.0	<2.0	**3.7**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	ND	**3.7**	0.0%	0%
TRY_MW-804	Overburden	11/6/2018	**110**	**220**	**280**	**400**	**790**	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<40 [2]	<40	<20	**790**	**1,800**	0.0%	44%
TRY_MW-804 DUP	Overburden	11/6/2018	**110**	**220**	**290**	**410**	**770**	<20	<20	<20	<20	<20	<20	**20**	<20	<20	<20	<20	<40 [2]	<40	<20	**770**	**1,820**	0.0%	42%
TRY_MW-805	Overburden	11/2/2018	**55**	**110**	**150**	**170**	**130**	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<4.0 [2]	<40	<40	**130**	**615**	0.0%	21%
Field Quality Control Samples																									
TRIP BLANK	N/A	10/30/2018	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	ND	ND	N/A	N/A
TRIP BLANK	N/A	11/2/2018	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0 [2]	<4.0	<4.0	ND	ND	N/A	N/A
FIELD BLANK-MURPHY	N/A	10/30/2018	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	ND	ND	N/A	N/A
FIELD BLANK-BERGEN	N/A	10/31/2018	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	ND	ND	N/A	N/A
FIELD BLANK-DYRNESS	N/A	10/31/2018	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	ND	ND	N/A	N/A
EQUIP BLANK (SamplePro/805)	N/A	11/2/2018	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0 [2]	<4.0	<4.0	ND	ND	N/A	N/A

TABLE KEY:
PFAS = per- and polyfluoroalkyl substances
[4] = Number of fluorinated carbon chains for perfluorinated carboxylic acids
[4S] = Number of fluorinated carbon chains for perfluorinated sulfonates
AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.03)
na = no current standard available
N/A = not applicable
ND =not detected above the laboratory reporting limit
< = analyte not detected above the laboratory reporting limit
ng/L = nanograms per liter
Bold indicates that the concentration was detected above the laboratory reporting detection limit
Grey shading indicates that concentration exceeds the site-specific screening level
Green shading indicates that the concentration exceeds the AGQS.

GENERAL NOTES:
* GZA collected the fall 2018 samples for PFAS analysis and submitted the samples to ARA's subcontract laboratory Maxxam of Mississauga, Ontario, Canada for analysis by US EPA Method 537 (modified) with isotope dilution.
* All concentrations reported in nanograms per liter (ng/L) which are roughly equivalent to parts per trillion (ppt).
* Values in light gray were not detected above the Reporting Limit, as indicated by a "<" symbol preceding the Reporting Limit value.
* A total of 19 PFAS compounds were measured by the analyses. The presence or absence of other compounds has not been confirmed.

SPECIFIC NOTES:
1. The AGQS of 70 nanograms per liter (equivalent to parts per trillion) has been established for Perfluorooctanoic Acid (PFOA), Perfluorooctanesulfonic Acid (PFOS), and the total combined concentration of PFOA and PFOS.
2. The laboratory noted the analysis was performed past the method defined holding time. Because of their chemical structure, PFAS are chemically and biologically stable in the environment and resist typical environmental degradation processes. This would suggest a hold time exceedance would not have a significant impact on the data.

TABLE 7
SUMMARY OF DETECTED COMPOUNDS IN LEACHATE SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Leachate Sample Location ID	Sampling Event Date	SVOCs of Concern (µg/L)	VOCs (µg/L)											Metals (mg/L)		
		Bis(2-ethylhexyl) phthalate	*Ethylbenzene*	*n-Propylbenzene*	*n-Butylbenzene*	*m/p-Xylene*	*sec-Butylbenzene*	*cis-1,2-Dichloroethene*	*Naphthalene*	*1,2,4-Trimethylbenzene*	*t-Butylbenzene*	*Isopropylbenzene (cumene)*	*p-Isopropyltoluene (4-cymene)*	*Arsenic*	*Manganese*	*Hardness*
NH AGQS		6	700	260	260	10,000 [3]	260	70	100 [4]	330	260	800	260	0.01	0.84	na
NH WQCTS [1]		3 [2]	32,000	na	na	na	na	11,600	620	na	na	na	na	0.15	na	na
ROD ICL		40	na	na	na	na	na	na	na	na	na	na	na	na	na	na
TRY_SW-LEACHATE	**Dec-06**	<10	**23.5**	**15.5**	**6.4**	<2	**8.5**	**21**	**12.5**	**7.4**	**2.3**	**10**	**7.4**	**0.005**	**7.92**	*ns*
	May-07	<10	**23**	**14.5**	**6.3**	<2	**8.1**	**16**	**11**	**36**	**2.2**	**12**	**8.6**	**0.0016**	**7.22**	*ns*
	Jul-08	**16**	**26**	**18**	**6.7**	<2.0	**10**	**16**	**10.3**	**9.6**	**2.9**	**13**	**7.3**	**0.0013**	**7.60**	*ns*
	Nov-08	**5.2**	**23**	**16**	**6.1**	<2.0	**9.1**	**14**	**12**	**6.0**	**2.5**	**11**	<2.0	*ns*	**7.75**	**112.6**
	Jun-09	<5.0	**23**	**16**	**5.7**	<2.0	**8.4**	**8.5**	<2.0	**2.9**	**2.1**	**11**	**12**	*ns*	**6.12**	**104.8**
	Oct-09	<5.0	**23**	**16**	**5.6**	**2.7**	**8.5**	**9.6**	**9.8**	<2.0	**2.4**	**12**	**3.1**	*ns*	**6.4**	**102.8**
	Jun-11	<5.0	**23**	**17**	**5.7**	<2.0	**9.6**	**5.0**	**2.8**	**4.0**	**2.8**	**12**	<2.0	*ns*	**5.73**	**113.5**
	Jun-11 DUP	<5.0	**23**	**17**	**5.8**	<2.0	**10**	**5.0**	**3**	**4.1**	**2.9**	**12**	<2.0	*ns*	**5.77**	**112.3**
	Jun-13	<5.0	**14**	**8.9**	<2.0	<2.0	**8.4**	**2.1**	<2.0	<2.0	**2.3**	**8.8**	<2.0	*ns*	**4.47**	**96.63**
	Jun-13 DUP	**5.2**	**14**	**8.5**	<2.0	<2.0	**7.9**	**2.0**	<2.0	<2.0	**2.3**	**8.4**	<2.0	*ns*	**4.31**	**95.07**
	Nov-14	<5.0 Z	**6.9**	<2.0	<2.0	<2.0	**7.0**	<2.0	<2.0	<2.0	**2.0**	**7.9**	<2.0	<0.0010	**5.09**	**109**
	Nov-14 DUP	**13 Z**	**6.7**	<2.0	<2.0	<2.0	**6.9**	<2.0	<2.0	<2.0	**2.0**	**7.7**	<2.0	<0.0010	**5.06**	**110**
	May-16	<5.0	<2.0	<2.0	<2.0	<4.0	**8.5**	<2.0	<2.0	<2.0	**2.6**	**8.4**	<2.0	<0.001	**4.81**	**110**
	May-16 DUP	<5.0	<2.0	<2.0	<2.0	<4.0	**7.7**	<2.0	<2.0	<2.0	**2.5**	**8.3**	<2.0	<0.001	**5.00**	**111**
	Nov-18	<5	<2	<2	<2	<2	**8**	<2	<5	<2	**2**	**7**	**4**	<0.005	**3.3**	**110**
	Nov-18 DUP	<5	<2	<2	<2	<2	**9**	<2	<5	<2	**2**	**8**	**4**	<0.005	**3.4**	**110**
TRY_SW-LEACH-B	**May-16**	<5.0	<2.0	<2.0	<2.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<0.001	**2.64**	**59.6**
	Nov-18	<5	<2	<2	<2	<2	<2	<2	<5	<2	<2	<2	<2	<0.005	**0.09**	**21**

TABLE 7
SUMMARY OF DETECTED COMPOUNDS IN LEACHATE SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

TABLE KEY:

VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.03).
WQCTS = Water Quality Criteria for Toxic Substances
ROD ICL = Record of Decision, Interim Cleanup Levels
ns = not sampled
Z = estimated concentration qualified by GZA, based on the RPD being outside the acceptance criteria
µg/L = micrograms per liter
mg/L = milligrams per liter
na = no standard applies
Bold = parameter was detected above the laboratory reporting detection limit
Grey shading indicates the concentration exceeds either the WQCTS or the AGQS
Green shading indicates the concentration exceeds both the WQCTS and the AGQS
Orange shading = most recent round of sample results

GENERAL NOTES:

* The analytical test methods for each compound are as follows: VOCs by NHDES Method 8260C, SVOCs by Method 8270D, Metals by Method 6020A, and Hardness by Method 2340B.

SPECIFIC NOTES:

1. Water Quality Criteria for Toxic Substances (WQCTS) were obtained from the NHDES' Surface Water Quality Regulations (Env-Wq 1703.21 Water Quality Criteria for Toxic Substances) and assumes the Protection of Aquatic Life in Freshwaters with chronic criteria. If a chronic criteria standard has not been established, the Freshwater Acute Criteria was used.
2. The laboratory cannot achieve the action limit for the only leachate Contaminant of Concern, Bis (2-ethylhexyl) phthalate. As the concentrations approach the action limits, an evaluation of the need for alternative test methods that could achieve the necessary RDLs will be needed.
3. The individual xylene isomers (m/p-xylene and o-xylene) do not have separate AGQS values; the AGQS for xylene (mixed isomers) is 10,000 µg/L.
4. The AGQS for naphthalene was increased from 20 µg/L to 100 µg/L on September 1, 2018.

TABLE 8
SUMMARY OF DETECTED COMPOUNDS IN SURFACE WATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Surface Water Sample Location ID	Sampling Event Date	VOCs (µg/L)	SVOCs (µg/L)	Metals (mg/L)			MNA Parameters - Field					
				Arsenic	*Manganese*	*Hardness*	*pH (SU)*	*ORP (mV)*	*Specific Conductance (µS/cm)*	*Dissolved Oxygen (mg/L)*	*Turbidity (ntu)*	*Temperature (°C)*
NH WQCTS [1]				0.15	na	na	na	na	na	>5 [2]	na	na
TRY_SW-1	**Dec-06**	ND	ND	<0.0010	**0.019**	**5.42**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	May-07	ND	ND	<0.0010	**0.030**	**4.743**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	Jun-08	ND	ND	<0.0010	**0.023**	**5.309**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	Jun-08 DUP	ND	ND	<0.0010	**0.023**	**5.237**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	Nov-08	ND	ND	*ns*	**0.036**	**6.195**	**6.9**	**112**	**34**	**14**	**0.7**	**1**
	Nov-08 DUP	ND	ND	*ns*	**0.036**	**6.189**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	Jun-09	ND	ND	*ns*	**0.027**	**4.739**	**6.0**	**144**	**29**	**9.1**	<1	**20**
	Oct-09	ND	ND	*ns*	**0.019**	**4.677**	**6.8**	**98**	**29**	**8.9**	<1	**15**
	Jun-11	ND	ND	*ns*	**0.04**	**5.414**	**5.9**	**183**	**29**	**8.1**	**1**	**21**
	Nov-14	ND	ND	<0.0010	**0.022**	**4.79**	**5.0**	**229**	**28**	**9.1**	**1**	**8**
	May-16	ND	ND	<0.0010	**0.018**	**5.29**	**6.7**	**196**	**32**	**10.1**	<5	**19**
	Nov-18	ND	ND	<0.005	**0.02**	**4**	**6.9**	**126**	**28**	**11.3**	<5	**8**
TRY_SW-3	**Dec-06**	ND	ND	<0.0010	**0.065**	<3	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	Dec-06 DUP	ND	ND	<0.0010	**0.064**	<3	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	May-07	ND	ND	<0.0010	**0.046**	<3	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	May-07 DUP	ND	ND	<0.0010	**0.047**	<3	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	Jun-08	ND	ND	<0.0010	**0.062**	**5.857**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	Nov-08	ND	ND	*ns*	**0.231**	**7.467**	**7.1**	**112**	**30**	**13**	**0.8**	**2**
	Jun-09	ND	ND	*ns*	**0.061**	**5.576**	**5.9**	**93**	**28**	**8.8**	<1	**17**
	Jun-09 DUP	ND	ND	*ns*	**0.060**	**5.436**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	Oct-09	ND	ND	*ns*	**0.231**	**6.879**	**8.2**	**104**	**32**	**8**	<1	**11**
	Oct-09 DUP	ND	ND	*ns*	**0.232**	**6.922**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	Jun-11	ND	ND	*ns*	**0.11**	**7.527**	**6.2**	**126**	**29**	**9.1**	**2**	**27**
	Jun-11 DUP	ND	ND	*ns*	**0.112**	**7.376**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	Nov-14	ND	ND	<0.0010	**0.048**	**5.32**	**5.4**	**203**	**31**	**9.0**	**6**	**8**
	Nov-14 DUP	ND	ND	<0.0010	**0.043**	**5.09**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	May-16	ND	ND	<0.0010	**0.157**	**7.71**	**6.5**	**133**	**34**	**10.1**	<5	**17**
	Nov-18	ND	ND	<0.005	**0.06**	**5**	**7.4**	**119**	**24**	**11.1**	<5	**9**
	Nov-18 DUP	ND	ND	<0.005	**0.05**	**5**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
TRY_SW-4	**Jun-08**	ND	ND	<0.0010	**0.034**	**5.227**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	Nov-08	ND	ND	*ns*	**0.026**	**6.76**	**7.0**	**111**	**35**	**13**	**1.1**	**1**
	Jun-09	ND	ND	*ns*	**0.028**	**4.683**	**6.1**	**110**	**29**	**10.1**	<1	**20**
	Oct-09	ND	ND	*ns*	**0.020**	**4.951**	**6.9**	**86**	**29**	**8.8**	<1	**13**
	Jun-11	ND	ND	*ns*	**0.041**	**5.532**	**5.9**	**183**	**29**	**8.1**	**1**	**20**
	Nov-14	ND	ND	<0.0010	**0.018**	**4.78**	**4.9**	**228**	**28**	**9.1**	**2**	**8**
	May-16	ND	ND	<0.0010	**0.028**	**5.53**	**6.6**	**190**	**30**	**10.1**	<5	**18**
	May-16 DUP	ND	ND	<0.0010	**0.028**	**5.59**	**6.6**	**190**	**30**	**10.1**	<5	**18**
	Nov-18	ND	ND	<0.005	**0.04**	**4**	**7.0**	**125**	**25**	**11.2**	<5	**9**
TRY_SW-100	**May-16**	ND	ND	<0.001	**0.176**	**8.15**	**6.9**	**26**	**35**	**10**	<5	**16**
	Nov-18	ND	ND	<0.005	**0.05**	**4**	**8.0**	**106**	**23**	**11.0**	<5	**9**

TABLE 8
SUMMARY OF DETECTED COMPOUNDS IN SURFACE WATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

TABLE KEY:
NH WQCTS = New Hampshire Water Quality Criteria for Toxic Substances
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
µg/L = micrograms per liter
mg/L = milligrams per liter
ND = no parameter within this category was detected above the laboratory reporting limit
na = no current standard available
ns = not sampled
< = analyte not detected above the laboratory or field reporting limit
MNA = Monitored Natural Attenuation
SU = Standard Units
ORP = Oxidation Reduction Potential
mV = milliVolts
µS/cm = micro Siemens per centimeter
ntu = Nephelometric Turbidity Units
^{o}C = degrees Celsius
Bold = parameter was detected above the laboratory reporting detection limit
Gray shading = concentration exceeds the NH WQCTS
Orange shading = most recent round of sample results

GENERAL NOTES:
* There are no site Contaminants of Concern or Record of Decision Interim Cleanup Goals for Surface Water.
* The analytical test methods for each compound as follows: VOCs by 8260C; SVOCs by 8270D; Metals and Hardness by EPA Method 6020A.

SPECIFIC NOTES:
1. Water Quality Criteria for Toxic Substances (WQCTS) were obtained from the NHDES' Surface Water Quality Regulations (Env-Wq 1703.21 Water Quality Criteria for Toxic Substances) and assumes the Protection of Aquatic Life in Freshwaters with chronic criteria. If a chronic criteria standard has not been established, the Freshwater Acute Criteria was used.
2. The standard for dissolved oxygen in surface waters is from Env-Wq 1703.07 (b) Dissolved oxygen in class B waters included in the New Hampshire Code of Administrative Rules Env-Wq 1700 Surface Water Quality Regulations

TABLE 9
RELATIVE PERCENT DIFFERENCE (RPD) CALCULATIONS FOR DUPLICATE SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Stratigraphic Unit	Monitoring Well ID	Sample Date	Carboxylic Acids (ng/L)						Sulfonic Acids (ng/L)			VOCs (µg/L)														SVOCs (µg/L)				Metals (mg/L)			
			Perfluorobutanoic acid (PFBA) [4]	Perfluoropentanoic Acid (PFPeA) [5]	Perfluorohexanoic Acid (PFHxA) [6]	Perfluoroheptanoic Acid (PFHpA) [7]	Perfluorooctanoic Acid (PFOA) [8]	Perfluorononanoic Acid (PFNA) [9]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	2-Butanone(MEK)	Naphthalene	n-Propylbenzene	p-isopropyltoluene (4-cymene)	cis-1,2-Dichloroethene	Ethylbenzene	Isopropylbenzene (cumene)	sec-Butylbenzene	t-Butylbenzene	m/p-Xylene	o-Xylene	1,4-Dioxane	Benzyl alcohol	Benzyl butyl phthalate	Naphthalene	Bis[Di](2-ethylhexyl) phthalate	Manganese	Calcium	Magnesium	Hardness
Overburden	TRY_M-7	10/30/18	**56**	**130**	**200**	**220**	**200**	**4.3**	**14**	**5.8**	<2.0	<2	<2	<10	<5	<2	<2	<2	<2	<2	<2	<2	<2	**0.42**	<2	<5	<0.5	<5	**0.86**	*ns*	*ns*	*ns*
	TRY_M-7 DUP		*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.48**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
	RPD		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**13.3%**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Overburden	TRY_MW-A28	11/5/18	**21**	**23**	<20	<20	<20	<20	<20	<20	<20	<2	<2	<10	<5	<2	<2	<2	<2	<2	<2	<2	<2	<0.25	<2	<5	<0.5	**45**	**0.38**	*ns*	*ns*	*ns*
	TRY_MW-A28 DUP		*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2	<5	<0.5	**42**	*ns*	*ns*	*ns*	*ns*
	RPD		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**6.9%**	N/A	N/A	N/A	N/A
Overburden	TRY_MW-C6S	10/30/18	**47**	**150**	**160**	**190**	**420**	**12**	**7.9**	**11**	**3.8**	<2	<2	<10	<5	<2	<2	**11**	<2	<2	**11**	**4**	<2	<2	<0.25	<2	<5	<0.5	<5	**11**	*ns*	*ns*	*ns*
	TRY_MW-C6S DUP		**53**	**140**	**170**	**190**	**440**	**9.6**	**8.1**	**11**	**4.3**	<2	<2	<10	<5	<2	<2	**12**	<2	<2	**11**	**4**	<2	<2	<0.25	*ns*	*ns*	*ns*	*ns*	**11**	*ns*	*ns*	*ns*
	RPD		**12.0%**	**6.9%**	**6.1%**	**0.0%**	**4.7%**	**22.2%**	**2.5%**	**0.0%**	**12.3%**	N/A	N/A	N/A	N/A	N/A	N/A	**8.7%**	N/A	N/A	**0.0%**	**0.0%**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.0%**	N/A	N/A	N/A
Overburden	TRY_MW-804	11/6/18	**110**	**220**	**280**	**400**	**790**	<20	<20	<20	<20	**360**	**120**	**15 J**	**15**	**39**	**44**	<2	**22**	**28**	**42**	<2	**15**	**9**	<0.25	**4**	**11**	**5.4**	**55**	**4.8**	*ns*	*ns*	*ns*
	TRY_MW-804 DUP		**110**	**220**	**290**	**410**	**770**	<20	**20**	<20	<20	**400**	**130**	**16 J**	**17**	**48**	**45**	<2	**25**	**30**	**45**	<2	**16**	**9**	*ns*	**6**	**13**	**7.0**	**18**	**4.5**	*ns*	*ns*	*ns*
	RPD		**0.0%**	**0.0%**	**3.5%**	**2.5%**	**2.6%**	N/A	N/A	N/A	N/A	**10.5%**	**8.0%**	**6.5%**	**12.5%**	**20.7%**	**2.2%**	N/A	**12.8%**	**6.9%**	**6.9%**	N/A	**6.5%**	**0.0%**	N/A	**40.0%**	**16.7%**	**25.8%**	**101.4%**	**6.5%**	N/A	N/A	N/A
Surface Water	TRY_SW-3	11/7/18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2	<2	<10	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	*ns*	<2	<5	<0.5	<5	**0.06**	**1.3**	**0.3**	**5**
	TRY_SW-3 DUP		*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2	<2	<10	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	*ns*	<2	<5	<0.5	<5	**0.05**	**1.2**	**0.3**	**5**
	RPD		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**18.2%**	**8.0%**	**0.0%**	**0.0%**
Leachate	TRY_SW-LEACHATE	11/7/18	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2	<2	<10	<5	<2	**4**	<2	<2	**7**	**8**	**2**	<2	<2	*ns*	<2	<5	<0.5	<5	**3.3**	**34**	**4.8**	**110**
	TRY_SW-LEACHATE DUP		*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2	<2	<10	<5	<2	**4**	<2	<2	**8**	**9**	**2**	<2	<2	*ns*	<2	<5	<0.5	<5	**3.4**	**34**	**4.8**	**110**
	RPD		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.0%**	N/A	N/A	**13.3%**	**11.8%**	**0.0%**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**3.0%**	**0.0%**	**0.0%**	**0.0%**

TABLE KEY:
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
ng/L = nanograms per liter
µg/L = micrograms per liter
mg/L = milligrams per liter
ns = not sampled
ND = analyte not detected above the laboratory reporting limit
N/A = not applicable
J = estimated concentration qualified by the laboratory (ARA), see laboratory report for explanation
Bold indicates that the concentration was detected above the laboratory reporting detection limit
Green shading indicates the RPD exceeded the acceptance criteria of 30% for aqueous samples

TABLE 10

HISTORICAL EQUIPMENT BLANK SAMPLES AND RESULTS

Troy Mills Landfill Superfund Site

Troy, New Hampshire

Equipment	Sampling Event	Well Sampled Prior to Equipment Blank Collection	Results of Equipment Blank	Decon Method
QED SamplePro Bladder Pump	Fall 2018	TRY_MW-805	ND	Liquinox & water
Water Level Probe		TRY_MW-804	ND	includes Hexane & 2-Propanol
QED SamplePro Bladder Pump	Spring 2016	TRY_MW-202P	ND	Liquinox & water
Water Level Probe		TRY_MW-601D	ND	Liquinox & water
Water Level Probe		TRY_MW-804	Contaminants: DEHP	includes Hexane & 2-Propanol
Water Level Probe	Fall 2014	TRY_MW-601D	ND	Liquinox & water
QED SamplePro Bladder Pump		TRY_MW-804	Contaminants: DEHP, benzyl butyl phalate, and manganese	includes Hexane & 2-Propanol
QED SamplePro Bladder Pump	Spring 2013	End of program (801, 802, or 301x)	ND	includes Hexane & 2-Propanol
Oil-Water interface probe		TRY_MW-201S	ND	includes Hexane & 2-Propanol
Oil-Water interface probe	Spring 2011	TRY_MW-201S	ND	includes Hexane & 2-Propanol
DI-Water		Prior to Sampling	ND	N/A
QED SamplePro Bladder Pump		Prior to Sampling	ND	Liquinox & water
DI-Water	Fall 2009	Prior to Sampling	ND	N/A
Oil-Water interface probe		TRY_MW-201S	ND	includes Hexane & 2-Propanol
Hand Auger/ sampling equipment		After Sampling Wetland Soil	ND	includes Hexane & 2-Propanol
Stainless Steel Bailer		After Sampling	ND	includes Hexane & 2-Propanol
Kemmerer Sampler		Prior to Sampling Well TRY_MW-702D	Contaminants: DEHP	includes Hexane & 2-Propanol
DI-Water	Spring 2009	Prior to Sampling	ND	N/A
Oil-Water interface probe		TRY_MW-201S	ND	includes Hexane & 2-Propanol
Bailer		TRY_MW-202S	ND	includes Hexane & 2-Propanol
SW Leachate Container		Prior to Sampling Leachate	ND	N/A

TABLE KEY:

ND = No Detections

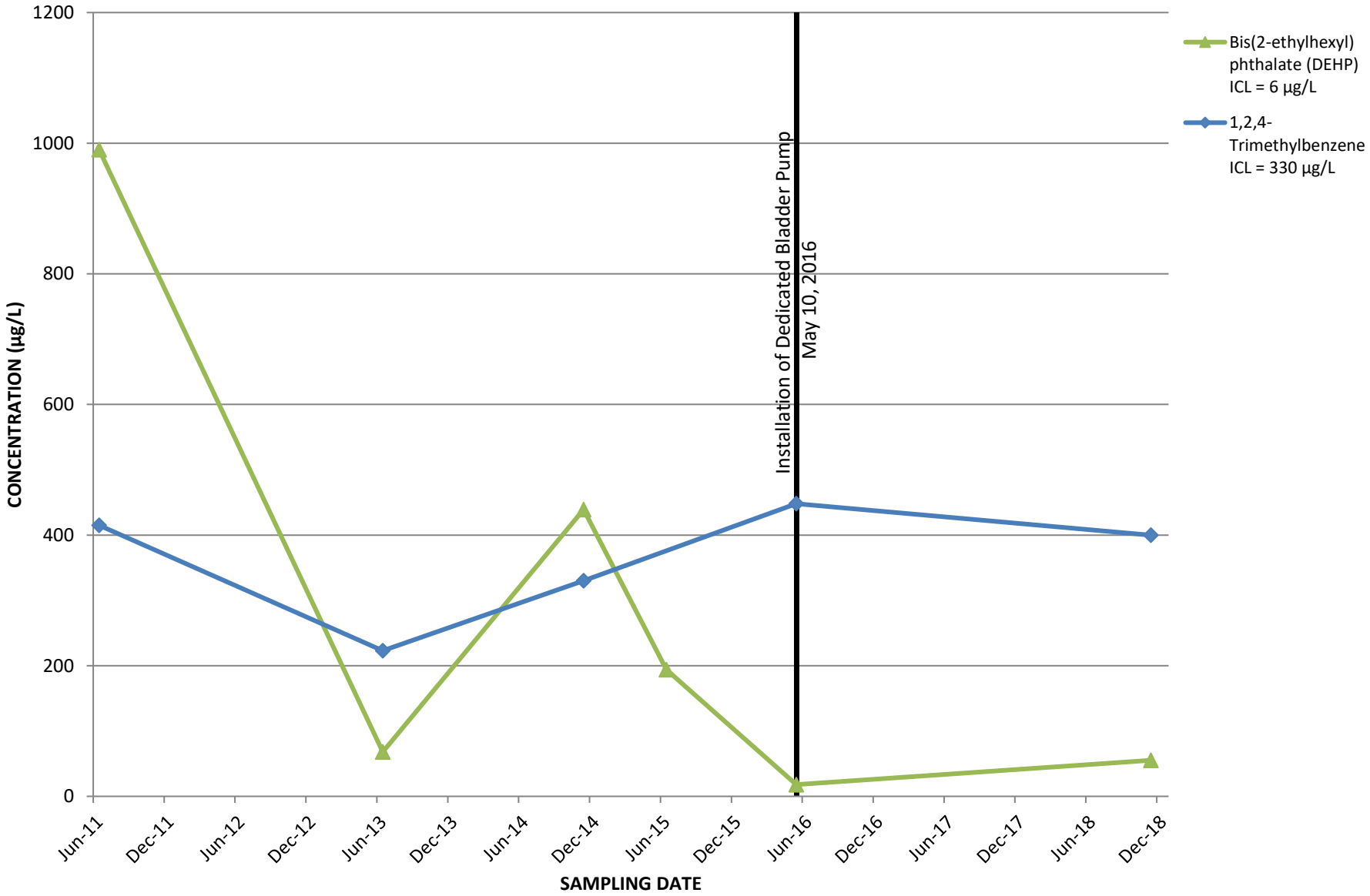
DI = Deionized water

DEHP = bis(2-ethylhexyl)phthalate

Green shaded entries indicate wells with consistent DEHP contamination.

Graphs

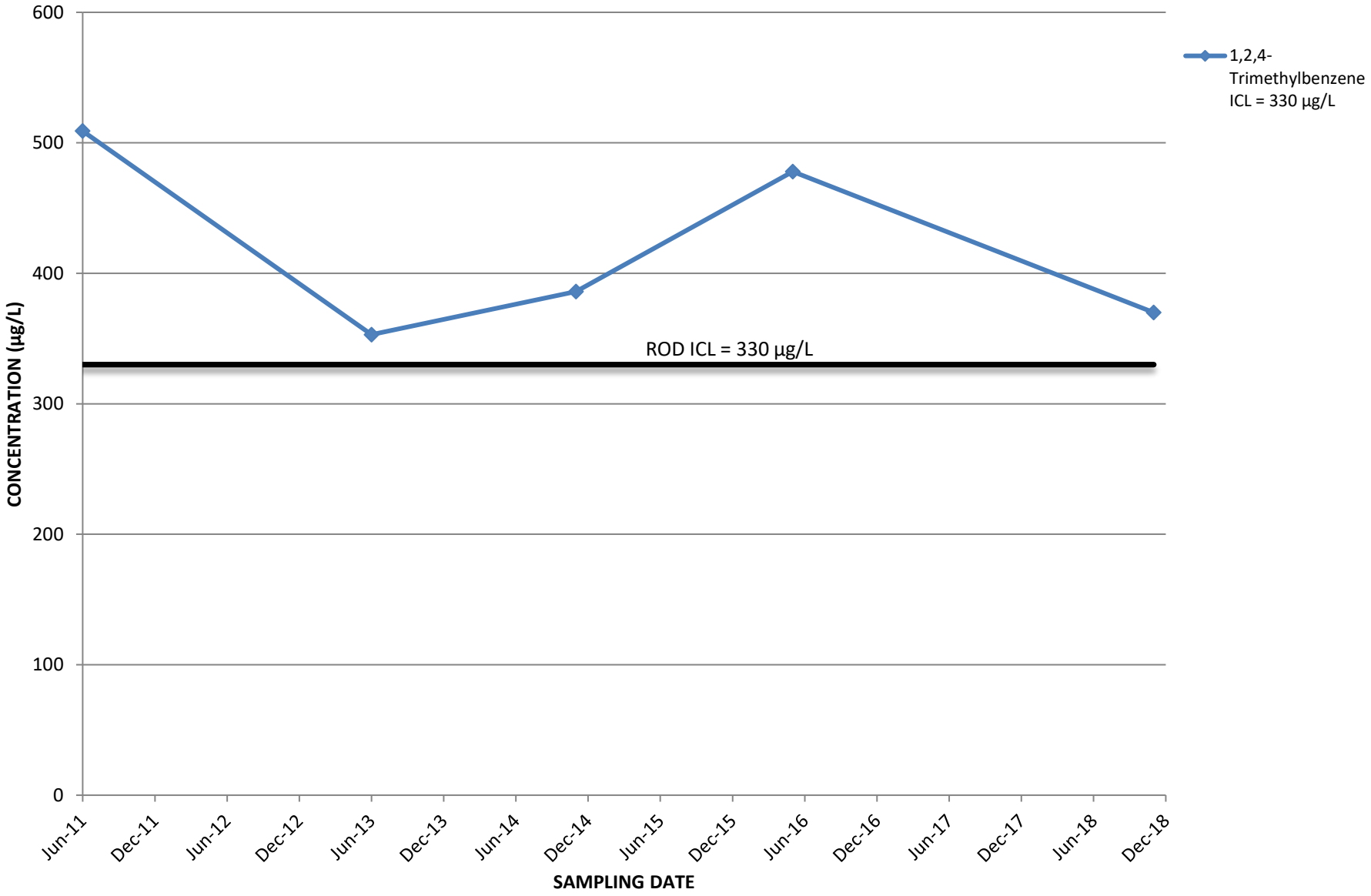
Graph 1
Interim Cleanup Level (ICL) Exceedances at TRY_MW-804
Troy Mills Landfill Superfund Site
Concentration Trend Graph



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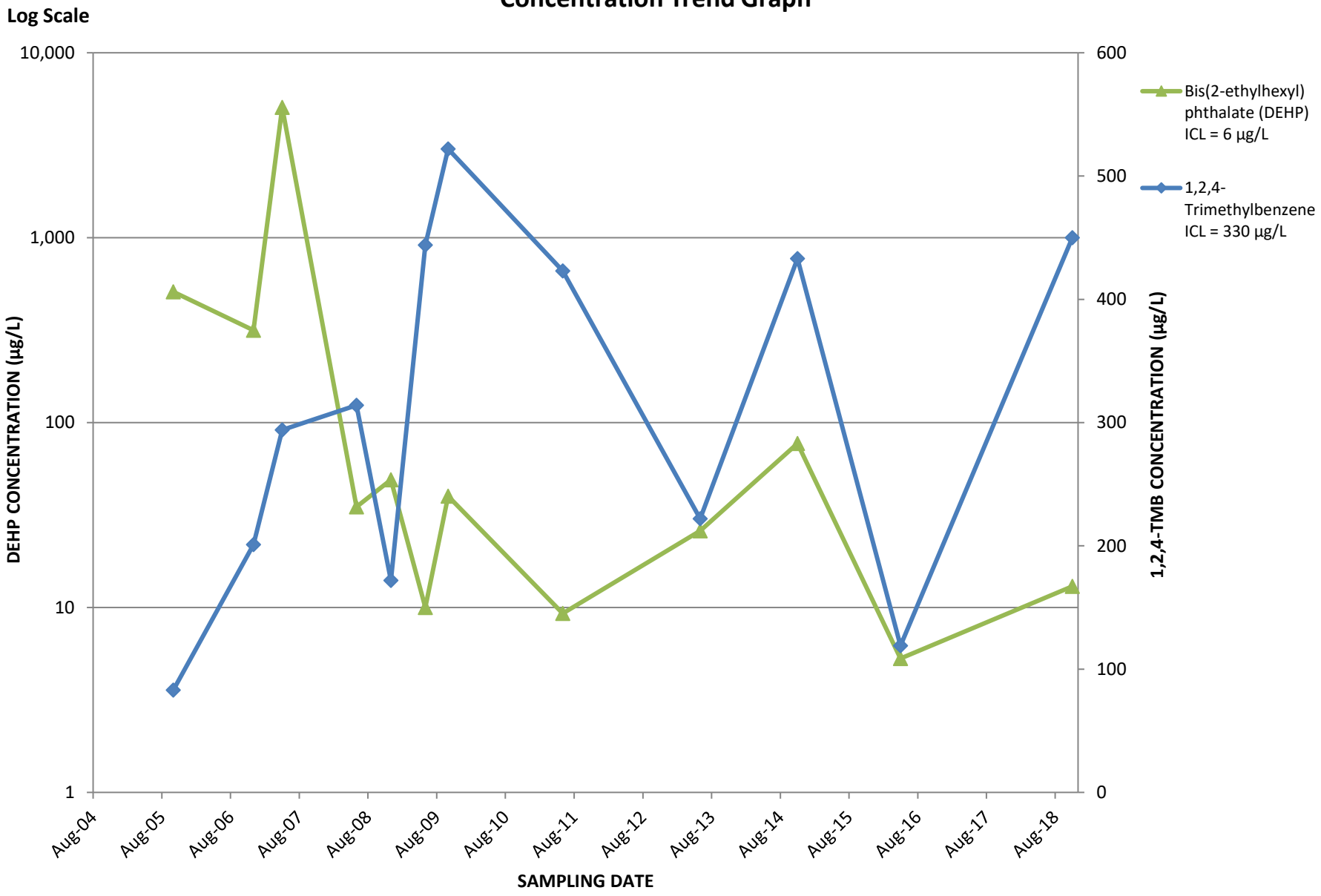
Graph 2
Interim Cleanup Level (ICL) Exceedances at TRY_MW-805
Troy Mills Landfill Superfund Site
Concentration Trend Graph



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Trend Graphs 122618.xlsx2 TRY_MW-805

GZA GeoEnvironmental, Inc.

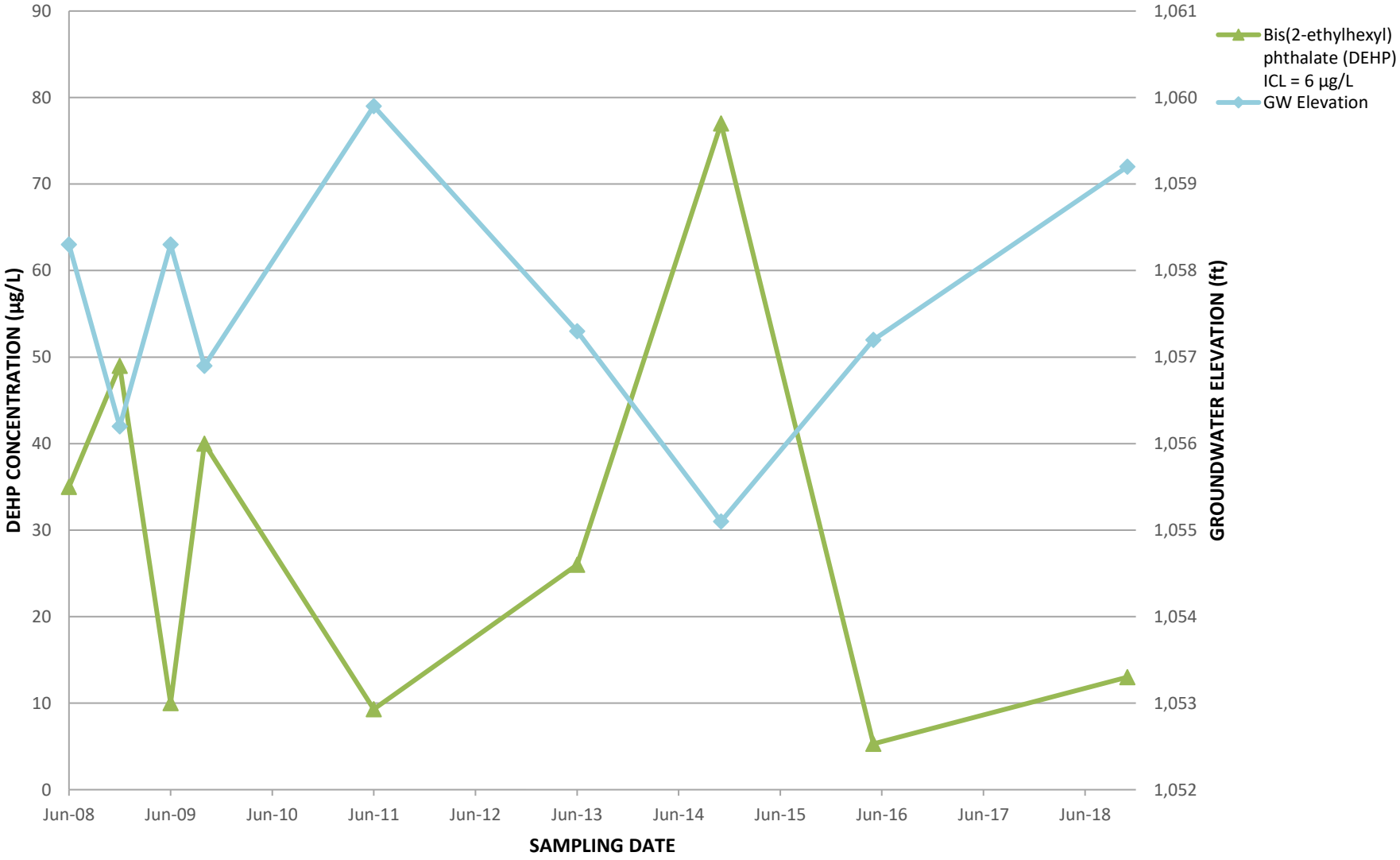
Graph 3
Interim Cleanup Level (ICL) Exceedances at TRY_MW-205
Troy Mills Landfill Superfund Site
Concentration Trend Graph



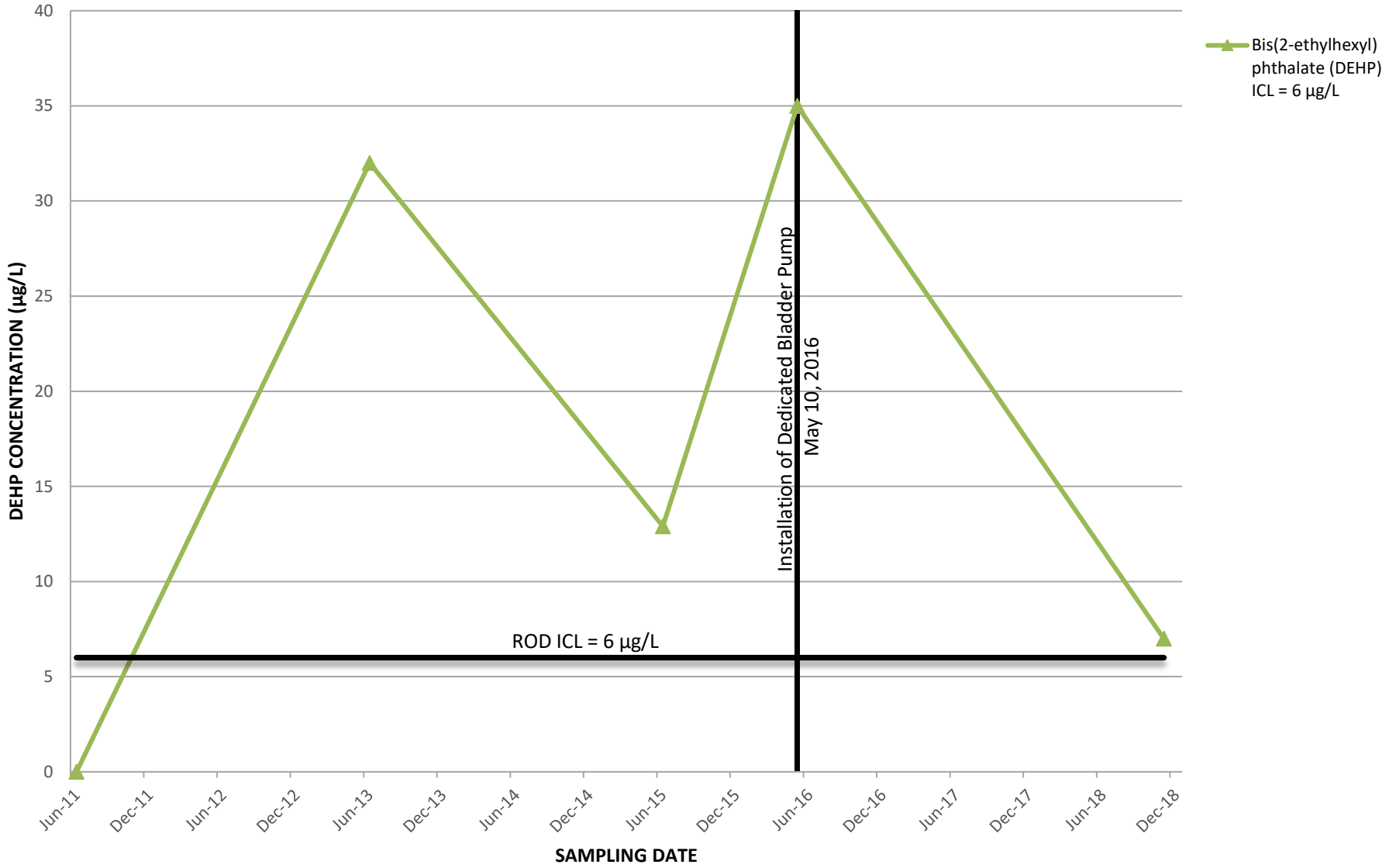
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Trend Graphs 122618.xlsx3 TRY_MW-205

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Graph 4
DEHP Concentrations vs. Groundwater Elevation at TRY_MW-205
Troy Mills Landfill Superfund Site
Concentration Trend Graph



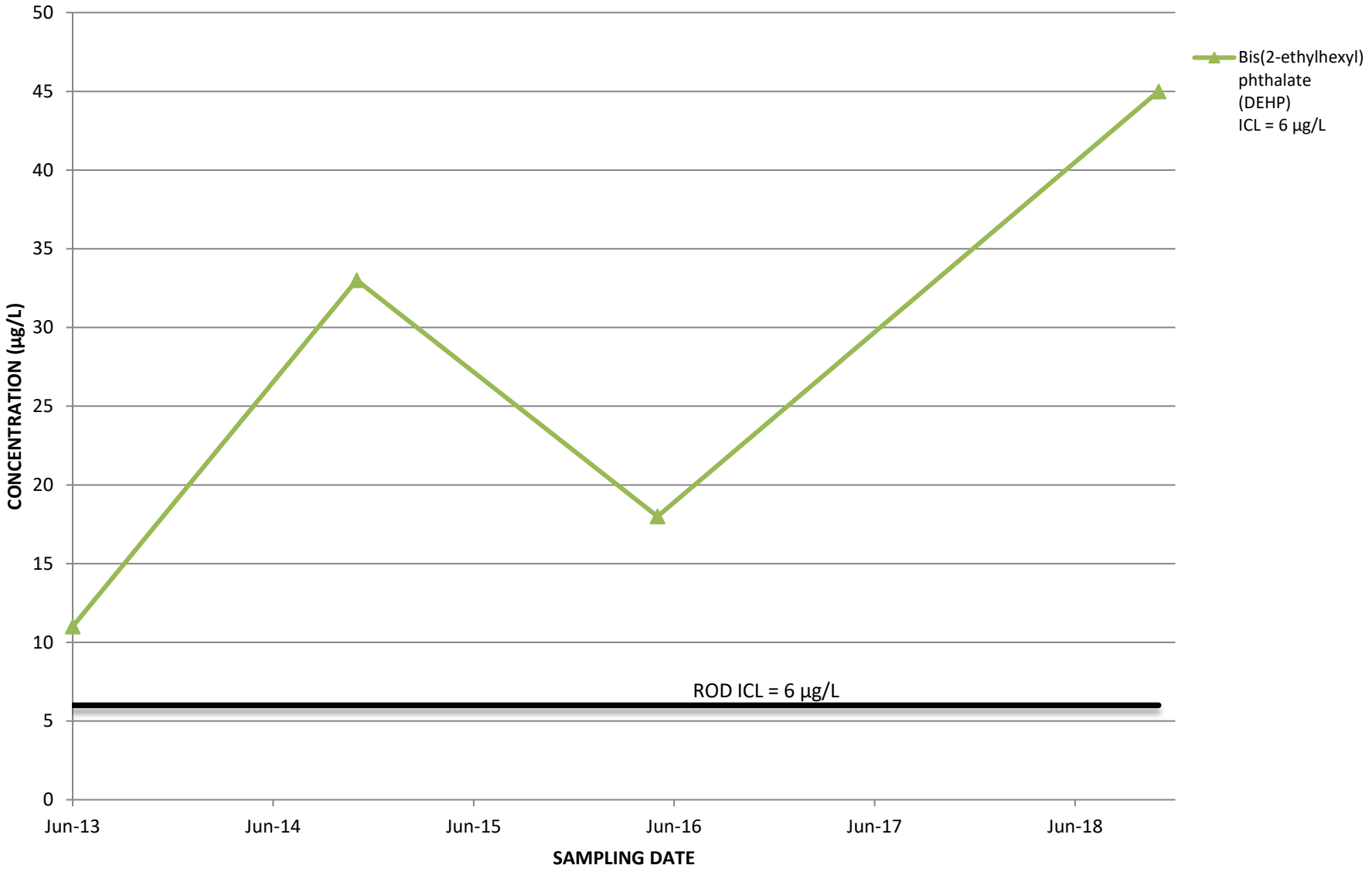
Graph 5
Interim Cleanup Level (ICL) Exceedances at TRY_MW-803
Troy Mills Landfill Superfund Site
Concentration Trend Graph



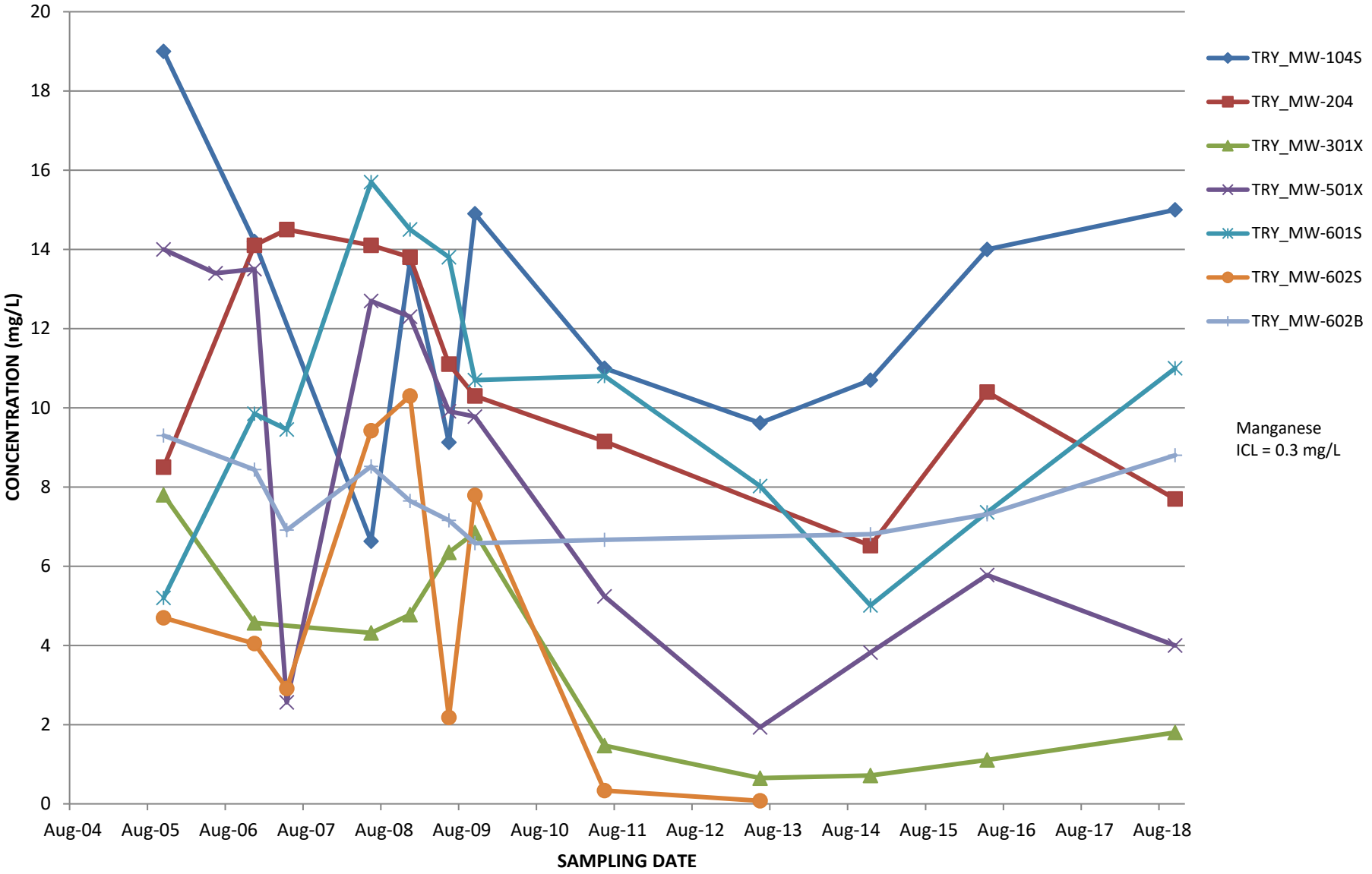
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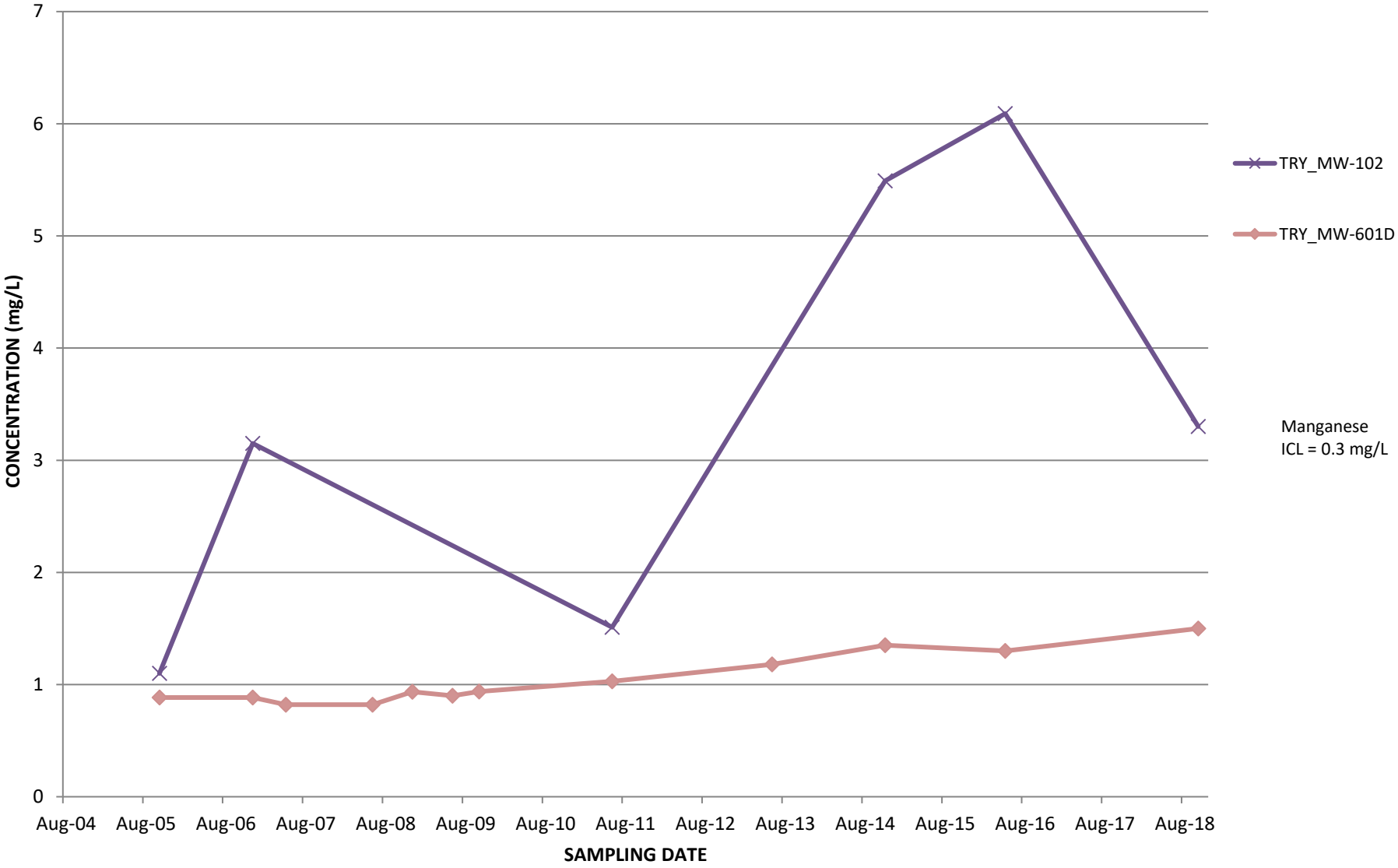
Graph 6
Interim Cleanup Level (ICL) Exceedances at TRY_MW-A28
Troy Mills Landfill Superfund Site
Concentration Trend Graph



Graph 7A
Interim Cleanup Level (ICL) Exceedances of Manganese Exceeding 5 mg/L
Troy Mills Landfill Superfund Site
Concentration Trend Graph



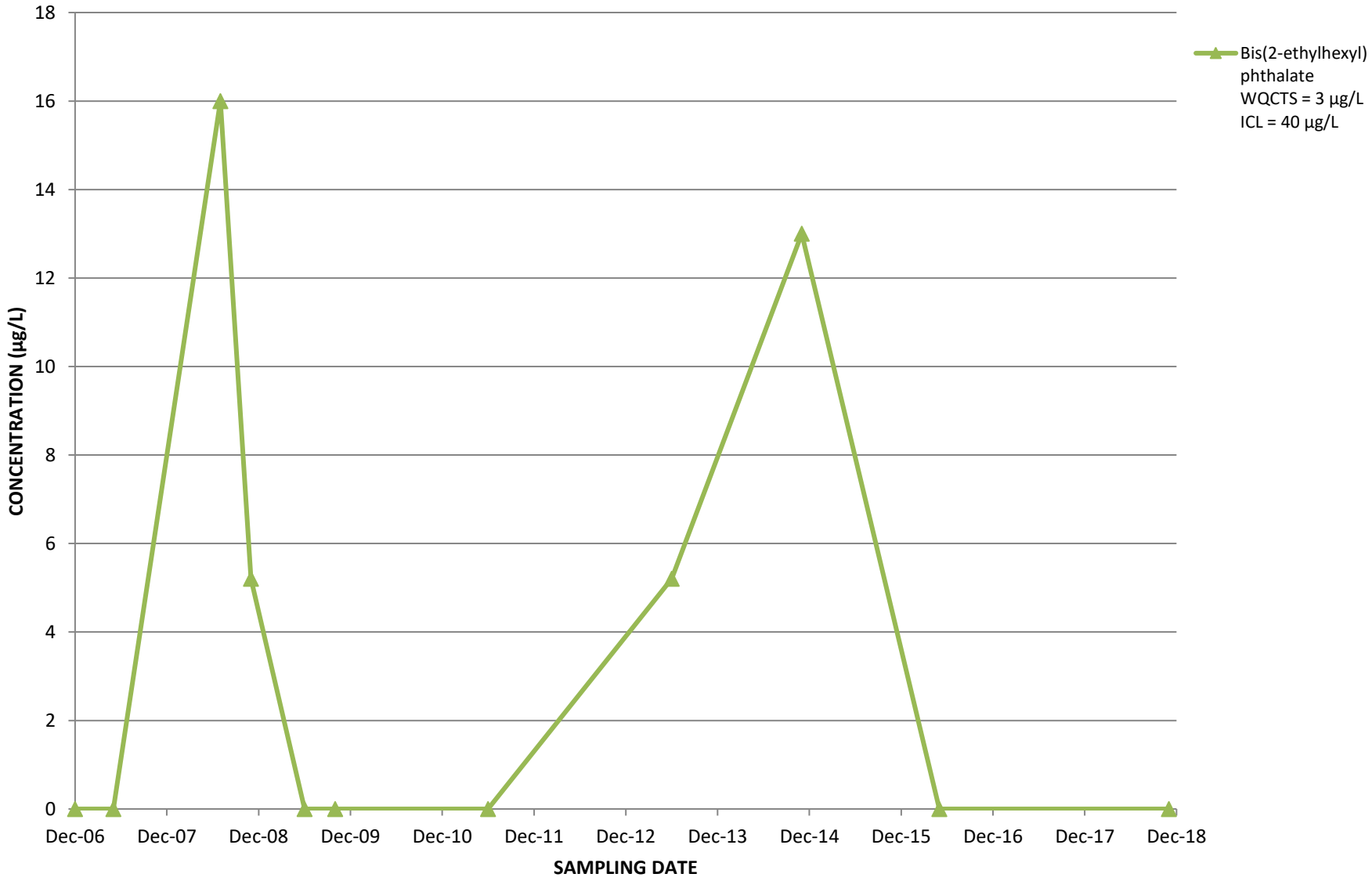
Graph 7B
Interim Cleanup Level (ICL) Exceedances of Manganese at TRY_MW-102 and TRY_MW-601D
Troy Mills Landfill Superfund Site
Concentration Trend Graph



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Trend Graph 7 122618.xlsx

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Graph 8
Water Quality Criteria for Toxic Substances Exceedances at TRY_SW-LEACHATE
Troy Mills Landfill Superfund Site
Concentration Trend Graph



Figures

SEE INSET

INSET

TRY_MW-105D
TRY_MW-105S
TRY_SW-LEACH-B
TRY_SW-100
ROCKWOOD BROOK
GMZ/AUR LINE
LOWER ACCESS ROAD
UPPER ACCESS ROAD
TRY_M-7D
TRY_M-7
TRY_SW-3 / TRY_SED-3
TRY_MW-702D
TRY_MW-702SX
SOLID WASTE LANDFILL
WESTERN WETLAND BOUNDARY NOT DELINEATED
TRY_SW-4
TRY_WES-01
TRY_WES-02
TRY_MW-104S
TRY_MW-104D
TRY_MW-501D
TRY_MW-501X
TRY_WES-03
TRY_SW-LEACH-A
TRY_SW-LEACHATE
TRY_WES-04
TRY_MW-201SX
TRY_MW-301X
TRY_MW-801
TRY_MW-102
TRY_MW-802
TRY_MW-205
TRY_MW-C6S
TRY_MW-C6D
TRY_MW-101S
TRY_MW-805
TRY_MW-804
TRY_MW-803
TRY_MW-101D
TRY_MW-A28
LOWER DRUM AREA
TRY_MW-601D
TRY_MW-601S
TRY_MW-602B
APPROXIMATE BOUNDARY OF FORMER DRUM DISPOSAL AREA, AND EXTENT OF DRUM DISPOSAL EXCAVATION
UPPER DRUM AREA
TRY_MW-204
TRY_MW-701
TRY_MW-202P
TRY_M-1
WETLAND AREA EAST OF ACCESS ROAD NOT DELINEATED
TRY_SW-1
ENTRANCE GATE
TRY_MW-508X
TROY
FITZWILLIAM
ROCKWOOD BROOK WEST BRANCH

WETLAND DELINEATION NOTES:

1. APPROXIMATE WETLAND BOUNDARIES WERE DELINEATED BY GZA GEOENVIRONMENTAL, INC. (GZA) DURING JUNE 2015 IN ACCORDANCE WITH THE 1987 U.S. ARMY CORPS OF ENGINEERS' (ACOE) "WETLANDS DELINEATION MANUAL," TECHNICAL REPORT Y-87-1 AND THE "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, NORTHCENTRAL AND NORTHEAST REGION," JANUARY 2012, IN CONJUNCTION WITH THE 2012 NATIONAL WETLAND PLANT LIST, FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7, AND FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 3RD EDITION.

2. APPROXIMATE WETLAND BOUNDARIES WERE MAPPED USING A HANDHELD GPS UNIT WITH THE GPS PROGRAM ICMTGISII, WITH AN APPROXIMATE HORIZONTAL ACCURACY OF THREE TO FIVE METERS.

LOCUS PLAN

SITE

GRAPHIC SCALE IN FEET

LEGEND:

- MW-701 — BEDROCK MONITORING WELL
- MW-601 — OVERBURDEN MONITORING WELL
- WES-01 — WETLAND SOIL SAMPLE LOCATION
- SW-1 — SURFACE WATER AND/OR SEDIMENT SAMPLE LOCATION
- SW-LEACH-A — LEACHATE SAMPLE LOCATION
- PERMANENTLY INSTALLED STAFF GAUGE
- STREAM FLOW DIRECTION
- TOPOGRAPHIC CONTOURS (4 FEET)
- APPROXIMATE LOCATION OF FORMER DRUM DISPOSAL AREA
- APPROXIMATE WETLAND BOUNDARY
- CULVERT
- ENTRANCE GATE
- GMZ/AUR
- GRAVEL ACCESS ROAD
- TOWN LINE
- APPROXIMATE EXTENT OF FORMER PONDING
- APPROXIMATE WETLAND AREA
- SURFACE WATER

NOTES:

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4. SURFACE WATER SAMPLING LOCATION SW-100 IS LOCATED ON ROCKWOOD BROOK TO THE NORTH OF THE NORTHERNMOST CORNER OF THE GMZ/AUR LINE. THE LOCATION OF SW-100 WAS DETERMINED IN THE FIELD AND RECORDED WITH A HANDHELD GPS UNIT IN THE SPRING OF 2016.

GRAPHIC SCALE IN FEET

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TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

LOCUS AND SITE EXPLORATION PLAN

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR: NHDES/EPA

PROJ MGR: TPJ	REVIEWED BY: CGL	CHECKED BY: SRL	FIGURE 1
DESIGNED BY: TPJ	DRAWN BY: KCM	SCALE: 1 in = 50 ft	
DATE: APR 2019	PROJECT NO. 04.0190325.28	REVISION NO.	

© 2019 GZA GeoEnvironmental, Inc. tgramm\jobs\04xx\0190325\06\04.0190325.06 NHDES 2015-2019 Contract\04.0190325.07 - Troy 2015-2017\Figures-CAD\GIS\mxd\Figure 1 - Site and Locus Plan_4/15/2019, 5:08:53 PM, aimee.mountain

ROCKWOOD BROOK

(1024.7)
TRY_MW-105D
TRY_MW-105S
(1028.6)

TRY_SW-LEACH-B

GMZ/AUR LINE

LOWER ACCESS ROAD

(1032.5)
TRY_M-7D
TRY_M-7
(1029.5)

TRY_SW-3 /
TRY_SED-3

(1031.6)
TRY_MW-702D
(1031.6)
TRY_MW-702SX

WESTERN WETLAND
BOUNDARY
NOT DELINEATED

(1028.3)
TRY_SW-4

TRY_WES-01

TRY_WES-02

(1029.7)
TRY_MW-104S
(1029.7)
TRY_MW-104D

TRY_MW-501D
(1034.8)
(1034.0)
TRY_MW-501X

TRY_WES-03

TRY_SW-LEACH-A

TRY_SW-LEACHATE

TRY_WES-04

TRY_MW-201SX
(1041.1)

(1038.0)
TRY_MW-C6S
TRY_MW-C6D
(1038.2)

ROCKWOOD BROOK WEST BRANCH

WESTERN WETLAND
BOUNDARY
NOT DELINEATED

GMZ/AUR LINE

ROCKWOOD BROOK EAST BRANCH

WESTERN WETLAND
BOUNDARY
NOT DELINEATED

UPPER ACCESS ROAD

SOLID WASTE
LANDFILL

GMZ/AUR LINE

(1047.0)
TRY_MW-301X

(1052.7)
TRY_MW-101S

(1049.8)
TRY_MW-101D

TRY_MW-A28
(1042.1)

LOWER DRUM
AREA

(1044.2)
TRY_MW-202P

TRY_M-1
(1054.8)

TRY_MW-601D
(1056.2)
TRY_MW-601S
(1057.1)

(1056.3)
TRY_MW-805

TRY_MW-801
(1057.8)

(1072.4)
TRY_MW-102

TRY_MW-802
(1066.8)

TRY_MW-205
(1059.2)

(1059.7)
TRY_MW-804

(1067.7)
TRY_MW-803

TRY_MW-602B
(1073.5)

UPPER DRUM
AREA

TRY_MW-204
(1063.1)

APPROXIMATE BOUNDARY
OF FORMER DRUM DISPOSAL
AREA, AND EXTENT OF DRUM
DISPOSAL EXCAVATION

TRY_MW-701
(1099.7)

GMZ/AUR LINE

TRY_MW-508X
(1076.1)

WETLAND AREA EAST
OF ACCESS ROAD
NOT DELINEATED

TRY_SW-1

ENTRANCE
GATE

GMZ/AUR LINE

TROY

FITZWILLIAM

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

WETLAND DELINEATION NOTES:

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4. GROUNDWATER ELEVATIONS WERE CALCULATED FROM THE DATA COLLECTED DURING THE OCTOBER 2018 GROUNDWATER LEVEL MEASUREMENT ROUND.

LEGEND:

- MW-701 — BEDROCK MONITORING WELL
- MW-601 — OVERBURDEN MONITORING WELL
- WES-01 — WETLAND SOIL SAMPLE LOCATION
- SW-1 — SURFACE WATER AND/OR SEDIMENT SAMPLE LOCATION
- SW-LEACH-A — LEACHATE SAMPLE LOCATION
- PERMANENTLY INSTALLED STAFF GAUGE
- STREAM FLOW DIRECTION
- (1061.6) — CALCULATED GROUNDWATER ELEVATION
- TOPOGRAPHIC CONTOURS (4 FEET)
- ESTIMATED OVERBURDEN GROUNDWATER ELEVATION CONTOURS
- ESTIMATED BULK GROUNDWATER FLOW DIRECTION
- APPROXIMATE LOCATION OF FORMER DRUM DISPOSAL AREA
- APPROXIMATE WETLAND BOUNDARY
- CULVERT
- ENTRANCE GATE
- GMZ/AUR
- GRAVEL ACCESS ROAD
- TOWN LINE
- APPROXIMATE EXTENT OF FORMER PONDING
- APPROXIMATE WETLAND AREA
- SURFACE WATER

N W E S

0 25 50 100 150
GRAPHIC SCALE IN FEET

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TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

OVERBURDEN GROUNDWATER ELEVATIONS
AND POTENTIOMETRIC SURFACES (2018)

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NHDES/EPA	
PROJ MGR: TPJ	REVIEWED BY: CGL	CHECKED BY: SRL	FIGURE 2
DESIGNED BY: TPJ	DRAWN BY: KCM	SCALE: 1 in = 50 ft	
DATE: APR 2019	PROJECT NO. 04.0190325.28	REVISION NO.	

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KEY CONTAMINANTS AND VALUE RANGES (µg/L)

cis-DCE	1,2,4-Trimethyl benzene	1,4-dioxane

cis-1,2-Dichloroethene (cis-DCE)	Non-Detect	> = 2.0 & < 70	> = 70 & < 140	> = 140
1,2,4-Trimethylbenzene	Non-Detect	> = 2.0 & < 330	> = 330 & < 660	> = 660
1,4-Dioxane	Non-Detect	> = 0.25 & < 0.32	> = 0.32 & < 3	> = 3

NOTES:

AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.3)

ROD ICL = Record of Decision, Interim Cleanup Levels

µg/L = micrograms per Liter

VOC = Volatile Organic Compound

na = no standard currently applies

The orange range designates exceedance of the AGQS and ROD ICL (where applicable)

The red range designates concentrations twice the value of the AGQS/ROD ICL or greater, with the exception of 1,4-dioxane for which the red range is set at the historical AGQS of 3 µg/L

Compound		AGQS	ROD ICL
VOC	*cis-DCE (µg/L)*	70	70
	1,2,4-Trimethylbenzene (µg/L)	330	330
	1,4-Dioxane (µg/L)	0.32	na

ROCKWOOD BROOK

TRY_MW-105D

TRY_MW-105S

TRY_SW-LEACH-B

GMZ/AUR LINE

LOWER ACCESS ROAD

TRY_M-7D

TRY_M-7

TRY_SW-3 / TRY_SED-3

TRY_MW-702D

TRY_MW-702SX

WESTERN WETLAND BOUNDARY NOT DELINEATED

TRY_SW-4

TRY_WES-01

TRY_WES-02

TRY_MW-501D

TRY_MW-501X

TRY_MW-104S

TRY_MW-104D

TRY_WES-03

TRY_SW-LEACH-A

TRY_SW-LEACHATE

TRY_WES-04

ROCKWOOD BROOK WEST BRANCH

SOLID WASTE LANDFILL

GMZ/AUR LINE

UPPER ACCESS ROAD

TRY_MW-301X

TRY_MW-201SX

TRY_MW-801

TRY_MW-102

TRY_MW-802

TRY_MW-205

TRY_MW-C6S

TRY_MW-C6D

TRY_MW-101S

TRY_MW-805

TRY_MW-804

TRY_MW-803

TRY_MW-101D

TRY_MW-A28

LOWER DRUM AREA

TRY_MW-601D

TRY_MW-601S

TRY_MW-602B

APPROXIMATE BOUNDARY OF FORMER DRUM DISPOSAL AREA, AND EXTENT OF DRUM DISPOSAL EXCAVATION

UPPER DRUM AREA

TRY_MW-204

TRY_MW-202P

TRY_MW-701

TRY_M-1

WESTERN WETLAND BOUNDARY NOT DELINEATED

GMZ/AUR LINE

ROCKWOOD BROOK EAST BRANCH

WETLAND AREA EAST OF ACCESS ROAD NOT DELINEATED

TRY_SW-1

ENTRANCE GATE

TRY_MW-508X

GMZ/AUR LINE

TROY

FITZWILLIAM

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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4. ANALYTICAL DATA DISPLAYED ON THIS FIGURE IS FROM THE FALL 2018 SAMPLING EVENT.

LEGEND:

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- APPROXIMATE LOCATION OF FORMER DRUM DISPOSAL AREA
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- CULVERT
- ENTRANCE GATE
- GMZ/AUR
- GRAVEL ACCESS ROAD
- TOWN LINE
- APPROXIMATE EXTENT OF FORMER PONDING
- APPROXIMATE WETLAND AREA
- SURFACE WATER

N W E S

0 25 50 100 150

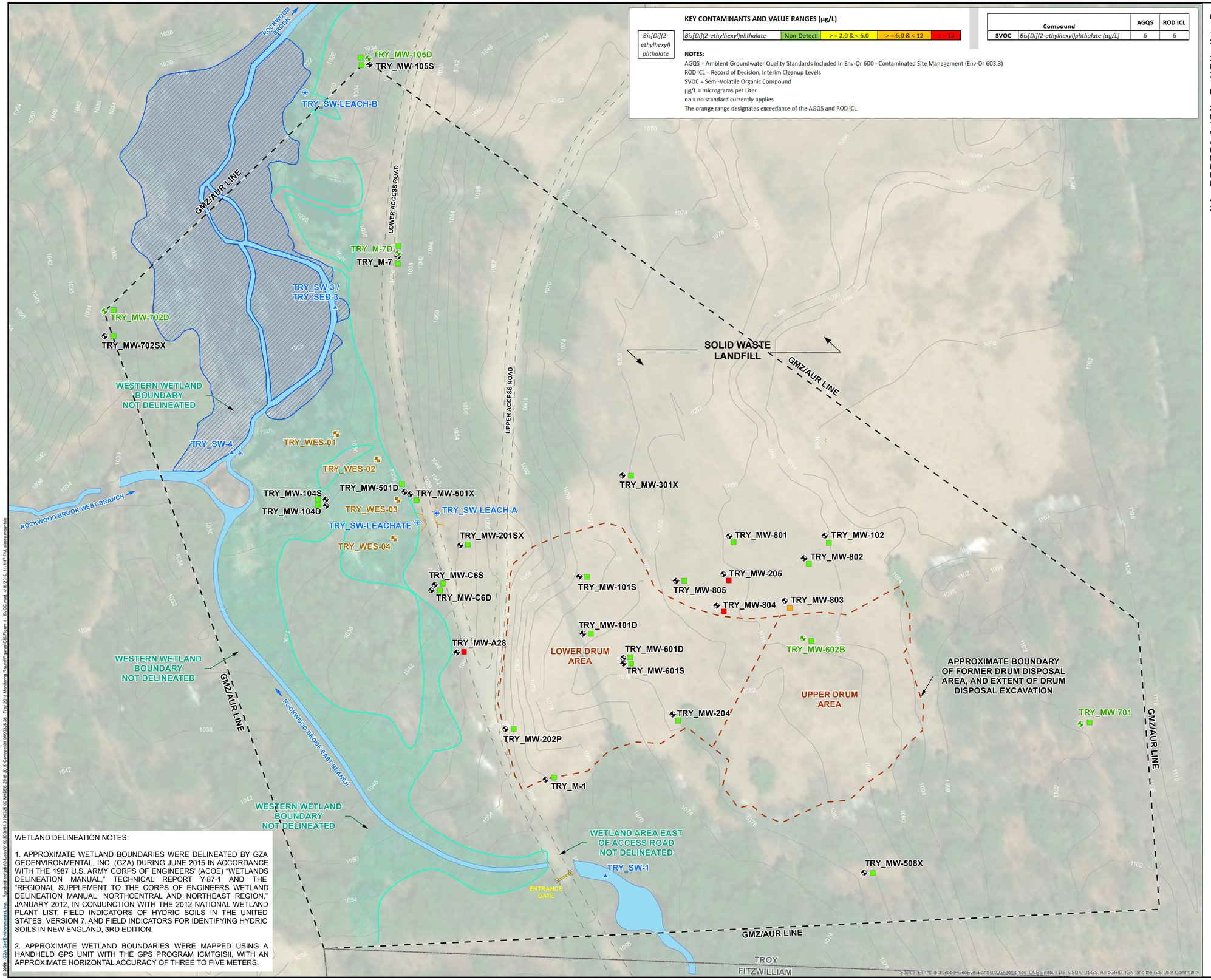
GRAPHIC SCALE IN FEET

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TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

GROUNDWATER VOC
KEY CONTAMINANT RESULT SUMMARY (2018)

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NHDES/EPA	
PROJ MGR: ATD	REVIEWED BY: CGL	CHECKED BY: SRL	FIGURE 3
DESIGNED BY: TPJ	DRAWN BY: ADM	SCALE: 1 in = 50 ft	
DATE: APR 2019	PROJECT NO. 04.0190325.28	REVISION NO.	



KEY CONTAMINANTS AND VALUE RANGES (µg/L)

Bis[Di](2-ethylhexyl) phthalate	*Bis[Di](2-ethylhexyl)phthalate*	Non-Detect	> = 2.0 & < 6.0	> = 6.0 & < 12	> = 12

NOTES:
AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.3)
ROD ICL = Record of Decision, Interim Cleanup Levels
SVOC = Semi-Volatile Organic Compound
µg/L = micrograms per Liter
na = no standard currently applies
The orange range designates exceedance of the AGQS and ROD ICL

Compound		AGQS	ROD ICL
SVOC	*Bis[Di](2-ethylhexyl)phthalate (µg/L)*	6	6

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- TOWN LINE
- APPROXIMATE EXTENT OF FORMER PONDING
- APPROXIMATE WETLAND AREA
- SURFACE WATER

N W E S

0 25 50 100 150
GRAPHIC SCALE IN FEET

© 2019 GZA GeoEnvironmental, Inc. \\gzaboston\projects\04.Jobs\01\0190325.00 NHDES 2015-2019 Contract\04.0190325.28 - Troy 2018 Monitoring Round\Figures\GIS\Figure 4 - SVOC.mxd, 4/16/2019, 1:11:47 PM, aimee.mountain

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA), THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR THE USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

GROUNDWATER SVOC
KEY CONTAMINANT RESULT SUMMARY (2018)

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NHDES/EPA	
PROJ MGR: TPJ	REVIEWED BY: CGL	CHECKED BY: SRL	FIGURE 4
DESIGNED BY: TPJ	DRAWN BY: ADM	SCALE: 1 in = 50 ft	
DATE: APR 2019	PROJECT NO. 04.0190325.28	REVISION NO.	

KEY CONTAMINANTS AND VALUE RANGES (mg/L)

Manganese	*Manganese*	Non-Detect	>= 0.01 & < 0.84	>= 0.84 & < 1.68	>= 1.68

NOTES:
AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.3)
ROD ICL = Record of Decision, Interim Cleanup Levels
mg/L = milligrams per Liter
na = no standard currently applies
The orange range designates exceedance of the AGQS

Compound		AGQS	ROD ICL
Metal	*Manganese (mg/L)*	0.84	na

NOTES:

1. BASE PLAN IS FROM NHDES GPS DATA POINTS TAKEN ON SEPTEMBER 29, 2011.

2. THE GROUNDWATER MANAGEMENT ZONE (GMZ)/ACTIVITY AND USE RESTRICTION (AUR) LINE IS FROM "GROUNDWATER MANAGEMENT ZONE & ACTIVITY AND USE RESTRICTION PLAN, TROY MILLS LANDFILL, TROY, NEW HAMPSHIRE", PREPARED BY TF MORAN, INC., DATED DECEMBER 18, 2006, REVISED JANUARY 17, 2007 AND MARCH 19, 2007.

3. A SURVEY OF THE SITE WELLS WAS CONDUCTED DURING FEBRUARY 2005 BY CONKLIN & SOROKA OF CHESHIRE, CONNECTICUT. THE BENCHMARK POINT USED FOR THIS SURVEY WAS MONITORING WELL TRY_M-3; ITS ELEVATION WAS ESTABLISHED AS 1037.65 (PVC) ACCORDING TO THE PLAN TITLED "TOPOGRAPHIC SURVEY DEPICTING MONITORING WELL LOCATIONS, LAND OF TROY MILLS LANDFILL." THE HORIZONTAL DATUM USED TO IDENTIFY SITE MONITORING WELLS IS NAD 83/96 PER NHDOT BASE STATION, FOLLOWING THE NEW HAMPSHIRE STATE PLANE PROJECTION, IN UNITS OF U.S. SURVEY FEET.

4. ANALYTICAL DATA DISPLAYED ON THIS FIGURE IS FROM THE FALL 2018 SAMPLING EVENT.

LEGEND:

- MW-701 — BEDROCK MONITORING WELL
- MW-601 — OVERBURDEN MONITORING WELL
- WES-01 — WETLAND SOIL SAMPLE LOCATION
- SW-1 — SURFACE WATER AND/OR SEDIMENT SAMPLE LOCATION
- SW-LEACH-A — LEACHATE SAMPLE LOCATION
- PERMANENTLY INSTALLED STAFF GAUGE
- STREAM FLOW DIRECTION
- TOPOGRAPHIC CONTOURS (4 FEET)
- APPROXIMATE LOCATION OF FORMER DRUM DISPOSAL AREA
- APPROXIMATE WETLAND BOUNDARY
- CULVERT
- ENTRANCE GATE
- GMZ/AUR
- GRAVEL ACCESS ROAD
- TOWN LINE
- APPROXIMATE EXTENT OF FORMER PONDING
- APPROXIMATE WETLAND AREA
- SURFACE WATER

N W E S

0 25 50 100 150
GRAPHIC SCALE IN FEET

WETLAND DELINEATION NOTES:

1. APPROXIMATE WETLAND BOUNDARIES WERE DELINEATED BY GZA GEOENVIRONMENTAL, INC. (GZA) DURING JUNE 2015 IN ACCORDANCE WITH THE 1987 U.S. ARMY CORPS OF ENGINEERS' (ACOE) "WETLANDS DELINEATION MANUAL," TECHNICAL REPORT Y-87-1 AND THE "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, NORTHCENTRAL AND NORTHEAST REGION," JANUARY 2012, IN CONJUNCTION WITH THE 2012 NATIONAL WETLAND PLANT LIST, FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7, AND FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 3RD EDITION.

2. APPROXIMATE WETLAND BOUNDARIES WERE MAPPED USING A HANDHELD GPS UNIT WITH THE GPS PROGRAM ICMTGISII, WITH AN APPROXIMATE HORIZONTAL ACCURACY OF THREE TO FIVE METERS.

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TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

GROUNDWATER MANGANESE
KEY CONTAMINANT RESULT SUMMARY (2018)

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NHDES/EPA	
PROJ MGR: TPJ	REVIEWED BY: CGL	CHECKED BY: SRL	FIGURE 5
DESIGNED BY: TPJ	DRAWN BY: ADM	SCALE: 1 in = 50 ft	
DATE: APR 2019	PROJECT NO. 04.0190325.28	REVISION NO.	

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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
\\gzaboston\projects\04.Jobs\01\0190325.00 NHDES 2015-2019 Contract\04.0190325.28 - Troy 2018 Monitoring Round\Figures\GIS\Figure 5 - Metals.mxd - 4/16/2019, 12:58:09 PM, aimee.mountain

KEY CONTAMINANTS AND VALUE RANGES (ng/L)

PFOA	PFOS	PFOA + PFOS

PFOA	Non-Detect	< 40	> = 40 & < 70	> = 70
PFOS	Non-Detect	< 40	> = 40 & < 70	> = 70
PFOA + PFOS	Non-Detect	< 40	> = 40 & < 70	> = 70

Compound	AGQS	ROD ICL	SL
PFOA (ng/L)	70	*na*	40
PFOS (ng/L)	70	*na*	40
PFOA + PFOS (ng/L)	70	*na*	*na*

NOTES:

AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.3)
ROD ICL = Record of Decision, Interim Cleanup Levels
ng/L = nanograms per liter
na = no standard currently applies
PFOA = Perfluorooctanoic Acid
PFOS = Perfluorooctanesulfonic Acid
SL = Screening level provided by EPA

NOTES:

1. BASE PLAN IS FROM NHDES GPS DATA POINTS TAKEN ON SEPTEMBER 29, 2011.

2. THE GROUNDWATER MANAGEMENT ZONE (GMZ)/ACTIVITY AND USE RESTRICTION (AUR) LINE IS FROM "GROUNDWATER MANAGEMENT ZONE & ACTIVITY AND USE RESTRICTION PLAN, TROY MILLS LANDFILL, TROY, NEW HAMPSHIRE", PREPARED BY TF MORAN, INC., DATED DECEMBER 18, 2006, REVISED JANUARY 17, 2007 AND MARCH 19, 2007.

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4. THE FOLLOWING LOCATIONS WERE SAMPLED FOR PFAS IN FALL 2018: M-7, MW-101S, MW-102, MW-105S, MW-205, MW-602B, MW-701, MW-804, MW-805, MW-A28, AND MW-C6S.

5. ANALYTICAL DATA DISPLAYED ON THIS FIGURE IS FROM THE FALL 2018 SAMPLING EVENT.

LEGEND:

- MW-701 — BEDROCK MONITORING WELL
- MW-601 — OVERBURDEN MONITORING WELL
- WES-01 — WETLAND SOIL SAMPLE LOCATION
- SW-1 — SURFACE WATER AND/OR SEDIMENT SAMPLE LOCATION
- SW-LEACH-A — LEACHATE SAMPLE LOCATION
- PERMANENTLY INSTALLED STAFF GAUGE
- STREAM FLOW DIRECTION
- TOPOGRAPHIC CONTOURS (4 FEET)
- APPROXIMATE LOCATION OF FORMER DRUM DISPOSAL AREA
- APPROXIMATE WETLAND BOUNDARY
- CULVERT
- ENTRANCE GATE
- GMZ/AUR
- GRAVEL ACCESS ROAD
- TOWN LINE
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- APPROXIMATE WETLAND AREA
- SURFACE WATER

N W E S

0 25 50 100 150
GRAPHIC SCALE IN FEET

WETLAND DELINEATION NOTES:

1. APPROXIMATE WETLAND BOUNDARIES WERE DELINEATED BY GZA GEOENVIRONMENTAL, INC. (GZA) DURING JUNE 2015 IN ACCORDANCE WITH THE 1987 U.S. ARMY CORPS OF ENGINEERS' (ACOE) "WETLANDS DELINEATION MANUAL," TECHNICAL REPORT Y-87-1 AND THE "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, NORTHCENTRAL AND NORTHEAST REGION," JANUARY 2012, IN CONJUNCTION WITH THE 2012 NATIONAL WETLAND PLANT LIST, FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7, AND FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 3RD EDITION.

2. APPROXIMATE WETLAND BOUNDARIES WERE MAPPED USING A HANDHELD GPS UNIT WITH THE GPS PROGRAM ICMTGISII, WITH AN APPROXIMATE HORIZONTAL ACCURACY OF THREE TO FIVE METERS.

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TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

GROUNDWATER PFAS
KEY CONTAMINANT RESULT SUMMARY (2018)

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NHDES/EPA	
PROJ MGR: TPJ	REVIEWED BY: CGL	CHECKED BY: SRL	FIGURE 6
DESIGNED BY: TPJ	DRAWN BY: ADM	SCALE: 1 in = 50 ft	
DATE: APR 2019	PROJECT NO. 04.0190325.28	REVISION NO.	

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\\gzaboston\projects\04.data\0190300s\04.0190325.00 NHDES 2015-2019 Contract\04.0190325.28 - Troy 2018 Monitoring Round\Figures\GIS\Figure 6 - PFAS.mxd 4/16/2019, 1:45:21 PM, amee.mountain
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

SEE INSET

KEY CONTAMINANTS AND VALUE RANGES

Bis[DI](2-ethylhexyl) phthalate	Manganese

Bis(2-ethylhexy)phthalate (µg/L)	Non-Detect	> = 5.0 & < 6.0	> = 6.0 & < 40	> = 40
Manganese (mg/L)	Non-Detect	> = 0.01 & < 0.84	> = 0.84 & < 1.68	> = 1.68

NOTES:
na = no standard currently applies
µg/L = micrograms per Liter
mg/L = milligrams per Liter
SVOC = Semi-Volatile Organic Compound
AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.3)
ROD ICL = Record of Decision, Interim Cleanup Levels
WQCTS = Water Quality Criteria for Toxic Substances (surface water standards)

Leachate Compound		AGQS	WQCTS	ROD ICL
SVOC	*Bis(2-ethylhexy)phthalate (µg/L)*	6	3	40
Metal	*Manganese (mg/L)*	0.84	*na*	*na*

Surface Water Compound		WQCTS
Metal	*Manganese (mg/L)*	*na*

NOTES:

1. BASE PLAN IS FROM NHDES GPS DATA POINTS TAKEN ON SEPTEMBER 29, 2011.

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4. THE FOLLOWING LOCATIONS WERE SAMPLED IN FALL 2018: SW-1, SW-3, SW-4, SW-100, SW-LEACHATE, AND SW-LEACH-B.

5. NO WETLAND SOIL SAMPLES WERE COLLECTED DURING 2018.

6. ANALYTICAL DATA DISPLAYED ON THIS FIGURE IS FROM THE FALL 2018 SAMPLING EVENT.

LEGEND:

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- MW-601 — OVERBURDEN MONITORING WELL
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- SURFACE WATER

WETLAND DELINEATION NOTES:

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TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

KEY CONTAMINANTS WITHIN
SURFACE WATER AND LEACHATE (2018)

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NHDES/EPA	
PROJ MGR: TPJ	REVIEWED BY: CGL	CHECKED BY: SRL	FIGURE 7
DESIGNED BY: TPJ	DRAWN BY: ADM	SCALE: 1 in = 50 ft	
DATE: APR 2019	PROJECT NO. 04.0190325.28	REVISION NO.	

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Appendix A – Limitations

USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).

3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.

4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

SUBSURFACE CONDITIONS

5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

6. Water level readings have been made, as described in this Report, in and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

COMPLIANCE WITH CODES AND REGULATIONS

7. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

SCREENING AND ANALYTICAL TESTING

8. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.

9. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.

10. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

INTERPRETATION OF DATA

11. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

ADDITIONAL INFORMATION

12. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

ADDITIONAL SERVICES

13. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

CONCEPTUAL SITE MODEL

14. Our opinions were developed, in part, based upon a comparison of site data to conditions anticipated within our Conceptual Site Model (CSM). The CSM is based on available information, and professional judgment. There are rarely sufficient data to develop a unique CSM. Therefore, observations over time, and/or space, may vary from those depicted in the CSM provided in this report. In addition, the CSM should be evaluated and refined (as appropriate) whenever significant new information and/or data is obtained.

Appendix B – Historical Figure and Groundwater Data

SEE INSET

INSET

LOCUS PLAN

TRY_MW-105D
TRY_MW-105S
TRY_SW-LEACH-B
TRY_SW-100
TRY_MW-106
TRY_MW-109
TRY_M-7D
TRY_M-7
TRY_SW-3 / TRY_SED-3
TRY_MW-702D
TRY_MW-702SX
TRY_M-6
TRY_M-3
TRY_SW-4
TRY_WES-01
TRY_WES-02
TRY_WES-03
TRY_WES-04
TRY_MW-104S
TRY_MW-104D
TRY_MW-501D
TRY_MW-501X
TRY_MW-502
TRY_SW-LEACH-A
TRY_SW-LEACHATE
TRY_MW-201SX
TRY_MW-201D,M,S
TRY_MW-201P
TRY_MW-C6S
TRY_MW-C6D
TRY_M-2
TRY_MW-A28
TRY_MW-101
TRY_MW-101S
TRY_MW-101D
TRY_MW-301X
TRY_MW-801
TRY_MW-102
TRY_MW-802
TRY_MW-205
TRY_MW-805
TRY_MW-804
TRY_MW-803
TRY_MW-602S
TRY_MW-602B
TRY_MW-601D
TRY_MW-601S
TRY_MW-202S
TRY_MW-202D
TRY_MW-202P
TRY_MW-204
TRY_M-1
TRY_P-1
TRY_MW-504
TRY_MW-505
TRY_MW-506
TRY_MW-507
TRY_MW-508X
TRY_MW-603
TRY_MW-701
TRY_SW-1

ROCKWOOD BROOK
ROCKWOOD BROOK WEST BRANCH
ROCKWOOD BROOK EAST BRANCH
LOWER ACCESS ROAD
UPPER ACCESS ROAD
GMZ/AUR LINE
SOLID WASTE LANDFILL
LOWER DRUM AREA
UPPER DRUM AREA
APPROXIMATE BOUNDARY OF FORMER DRUM DISPOSAL AREA, AND EXTENT OF DRUM DISPOSAL EXCAVATION
WESTERN WETLAND BOUNDARY NOT DELINEATED
WETLAND AREA EAST OF ACCESS ROAD NOT DELINEATED
ENTRANCE GATE
TROY
FITZWILLIAM

SITE
Sanipac
Rockwood
Cushing Pond
Rockwood

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0 1,000 2,000 4,000 6,000
GRAPHIC SCALE IN FEET

0 25 50 100 150
GRAPHIC SCALE IN FEET

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND:

- MW-701 — BEDROCK MONITORING WELL
- MW-601 — OVERBURDEN MONITORING WELL
- WES-01 — WETLAND SOIL SAMPLE LOCATION
- SW-1 — SURFACE WATER AND/OR SEDIMENT SAMPLE LOCATION
- SW-LEACH-A — LEACHATE SAMPLE LOCATION
- PERMANENTLY INSTALLED STAFF GAUGE
- MW-507 — DECOMMISSIONED WELL AS OF 2015
- STREAM FLOW DIRECTION
- CONTOURS
- APPROXIMATE LOCATION OF FORMER DRUM DISPOSAL AREA
- APPROXIMATE WETLAND BOUNDARY
- CULVERT
- ENTRANCE GATE
- GMZ/AUR
- GRAVEL ACCESS ROAD
- TOWN LINE
- APPROXIMATE EXTENT OF PONDING
- APPROXIMATE WETLAND AREA
- SURFACE WATER

NOTES:
1. BASE PLAN IS FROM NHDES GPS DATA POINTS TAKEN ON SEPTEMBER 29, 2011.

2. THE GROUNDWATER MANAGEMENT ZONE (GMZ)/ACTIVITY AND USE RESTRICTION (AUR) LINE IS FROM "GROUNDWATER MANAGEMENT ZONE & ACTIVITY AND USE RESTRICTION PLAN, TROY MILLS LANDFILL, TROY, NEW HAMPSHIRE", PREPARED BY TF MORAN, INC., DATED DECEMBER 18, 2006, REVISED JANUARY 17, 2007 AND MARCH 19, 2007.

3. A SURVEY OF THE SITE WELLS WAS CONDUCTED DURING FEBRUARY 2005 BY CONKLIN & SOROKA OF CHESHIRE, CONNECTICUT. THE BENCHMARK POINT USED FOR THIS SURVEY WAS MONITORING WELL TRY_M-3; ITS ELEVATION WAS ESTABLISHED AS 1037.65 (PVC) ACCORDING TO THE PLAN TITLED "TOPOGRAPHIC SURVEY DEPICTING MONITORING WELL LOCATIONS, LAND OF TROY MILLS LANDFILL." THE HORIZONTAL DATUM USED TO IDENTIFY SITE MONITORING WELLS IS NAD 83/96 PER NHDOT BASE STATION, FOLLOWING THE NEW HAMPSHIRE STATE PLANE PROJECTION, IN UNITS OF U.S. SURVEY FEET.

WETLAND DELINEATION NOTES:

1. APPROXIMATE WETLAND BOUNDARIES WERE DELINEATED BY GZA GEOENVIRONMENTAL, INC. (GZA) DURING JUNE 2015 IN ACCORDANCE WITH THE 1987 U.S. ARMY CORPS OF ENGINEERS' (ACOE) "WETLANDS DELINEATION MANUAL," TECHNICAL REPORT Y-87-1 AND THE "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, NORTHCENTRAL AND NORTHEAST REGION," JANUARY 2012, IN CONJUNCTION WITH THE 2012 NATIONAL WETLAND PLANT LIST, FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7, AND FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 3RD EDITION.

2. APPROXIMATE WETLAND BOUNDARIES WERE MAPPED USING A HANDHELD GPS UNIT WITH THE GPS PROGRAM ICMTGISII, WITH AN APPROXIMATE HORIZONTAL ACCURACY OF THREE TO FIVE METERS.

© 2017 GZA GeoEnvironmental, Inc. - jgraham:\\gza\GA\386\01\03005\04\0190325.50 NHDES 2015-2018 Contract\04.0190325.07 - Troy 2016-2017\Figures CAD\GIS\mxd\Appendix B Figure - Historical Site and Locus Plan_5\18\2017 - 12:54:09 PM - jamesmountain

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR THE USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

HISTORICAL SITE EXPLORATION PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NHDES/EPA	
PROJ MGR: ATD	REVIEWED BY: SRL	CHECKED BY: MAM	FIGURE B-1
DESIGNED BY: TPJ	DRAWN BY: ADM	SCALE: 1 in = 50 ft	
DATE: MAY 2017	PROJECT NO. 04.0190325.07	REVISION NO.	



NOTES:

1. BASE PLAN IS FROM FIGURE SATELLITE AND NHDES GPS DATA POINTS OBTAINED ON SEPTEMBER 29, 2011.
2. THE LOCATION OF THE SITE FEATURES WERE APPROXIMATELY DETERMINED BY LINE OF SIGHT FROM EXISTING TOPOGRAPHIC FEATURES. THESE DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
3. TRENCHES A, B, AND C WERE DECOMMISSIONED DURING DECEMBER 2013 IN ACCORDANCE WITH THE NOVEMBER 2013 NHDES- AND EPA- APPROVED REMEDIAL WORK PLAN.

LEGEND:

- LIMITS OF WORK
- APPROXIMATE LOCATION OF THE TEMPORARY DEWATERING IMPOUNDMENT
- TRENCHES REMOVED DURING DECEMBER 2013
- ADDITIONAL 16-FEET OF TRENCH REMOVED
- MW — GROUNDWATER MONITORING WELLS DECOMMISSIONED ON DECEMBER 10, 2013
- EXISTING CULVERT
- FORMER DRUM DISPOSAL AREA

NO.	ISSUE/DESCRIPTION	BY	DATE

TROY MILLS LANDFILL SUPERFUND SITE

TROY, NEW HAMPSHIRE

TRENCH DECOMMISSIONING PLAN

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
380 HARVEY ROAD
MANCHESTER, NEW HAMPSHIRE 03103
(603) 623-3600

PREPARED FOR:
NHDES/EPA

PROJ MGR: ATD	REVIEWED BY: JDR	CHECKED BY: JCM	FIGURE 2
DESIGNED BY: ATD	DRAWN BY: MR	SCALE:1" = 30'	
DATE: APRIL 2014	PROJECT NO.: 04.0029395.27	REVISION NO.:	SHEET NO.

©2011 - GZA GeoEnvironmental, Inc. - G:\Projects\04.0029395.00\04.0029395.27 Trench Decommissioning - Troy\Figures-CAD\Figures 2.dwg [Figure 2] April 23, 2014 - 1:35pm marvin.evans

SUMMARY OF HISTORICAL DETECTED COMPOUNDS IN DECOMMISSIONED WELLS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_M-2 Overburden (Decommissioned)												
			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)															
Tetrachloroethene	5	5	<2	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
Trichloroethene	5	5	<2	<1.0	*ns*	<2.0	**3.2**	<2.0	**2.2**	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
cis-1,2-Dichloroethene	70	70	**68**	**11**	*ns*	**11**	**23**	<2.0	**16**	**2.9**	**8.4**	<2.0	<2.0	*ns*	*DE*
Vinyl Chloride	2	2	<2	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
1,2,4-Trimethylbenzene	330	330	**217 E**	**48**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
1,3,5-Trimethylbenzene	330	330	**57**	**2.6**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
2-Butanone(MEK)	4,000	4,000	---	<1.0	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Benzene	5	5	**3.8**	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
Naphthalene	20	20	**30**	**8.7**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
n-Butylbenzene	260	260	---	**6.9**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
n-Propylbenzene	260	260	**27**	**9.6**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
p-Isopropyltoluene (4-cymene)	260	260	**11**	**2.4**	*ns*	<2.0	**2.8**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
Tetrahydrofuran(THF)	600	154	**16**	**2.8**	*ns*	<9	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Toluene	1,000	1,000	<2	**1.5**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
Additional VOCs (µg/L)															
1,1,1-Trichloroethane	200	na	<2	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
1,1-Dichloroethane	81	na	<2	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
1,1-Dichloroethene	7	na	<2	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
1,2,4-Trichlorobenzene	70	na	<2	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
1,2-Dichloroethane	5	na	<2	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
1,4-Dichlorobenzene	75	na	<2	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
2-Chlorotoluene	100	na	---	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
4-Methyl-2-pentanone (MIBK)	2,000	na	<10	<1.0	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Acetone	6,000	na	<10	<1.0	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Carbon Disulfide	70	na	*	*	*ns*	*	*	*	*	*	*	*	*	*ns*	*DE*
Ethylbenzene	700	na	<2	**13**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**2.5**	*ns*	*DE*
Isopropylbenzene (cumene)	800	na	**20**	**8.5**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**3.0**	*ns*	*DE*
Methylene Chloride (Dichloromethane)	5	na	<2	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
sec-Butylbenzene	260	na	**11.0**	**8.9**	*ns*	**2**	**7.0**	<2.0	**2.9**	**2.8**	**2.0**	**2.7**	**4.5**	*ns*	*DE*
t-Butanol (TBA)	40	na	<10	---	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
t-Butylbenzene	260	na	**3**	**2.8**	*ns*	<2.0	**2.1**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
Trichlorofluoromethane	2,000	na	---	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
m/p-Xylene	10, 000 [1]	na	**55**	**3.8**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
o-Xylene		na	<2	**2.0**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
Total VOCs (µg/L)	na	na	**519**	**133**	*ns*	**13**	**38**	ND	**21**	**6**	**10**	**3**	**10**	*ns*	*DE*
1,4-Dioxane (µg/L)															
1,4-Dioxane	3	3	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
SVOCs of Concern (µg/L)															
Benzo(a)pyrene	0.2	0.2	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Benzo(b)fluoranthene	0.1	0.1	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Bis[Di](2-ethylhexyl) phthalate	6	6	<10	<5	*ns*	**27**	<10	**21**	<5.0	<5.0	<5.0	<5.0	<5.0	*ns*	*DE*
Dibenzo(a,h)anthracene	0.1	0.1	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Naphthalene	20	20	**30**	**5**	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Pentachlorophenol	1	1	<25	<5	*ns*	<20	<20	<20	<20	<20	<20	<20	*ns* [2]	*ns*	*DE*
2-Methylnaphthalene	280	na	*	<5	*ns*	<10	<10	<10	<10	<10	<10	*	*	*ns*	*DE*
Additional SVOCs (µg/L)															
Benzyl butyl phthalate	na	na	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Di-n-butylphthalate	na	na	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Di-n-octylphalate	na	na	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Total SVOCs (µg/L)	na	na	**30**	**21**	*ns*	**27**	ND	**21**	ND	ND	ND	ND	ND	*ns*	*DE*
Metals of Concern (mg/L)															
Arsenic	0.01	0.01	*ns*	<0.200	*ns*	**0.0030**	**0.0029**	**0.0029**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Manganese	0.84	0.3	*ns*	**5.50**	*ns*	**4.270**	**3.430**	**2.77**	**4.05**	**2.73**	**3.05**	**1.94**	**2.31**	*ns*	*DE*
Additional Metals (mg/L)															
Barium	2	na	*ns*	<0.030	*ns*	**0.0132**	**0.0218**	**0.0128**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Cadmium	0.005	na	*ns*	<0.030	*ns*	<0.0020	<0.0020	<0.0020	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Chromium	0.1	na	*ns*	<0.030	*ns*	<0.0050	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Lead	0.015	na	*ns*	<0.100	*ns*	<0.0010	<0.0010	<0.0010	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Selenium	0.05	na	*ns*	<0.100	*ns*	<0.0050	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Iron	na	na	*ns*	**43.00**	*ns*	**30.70**	**21.70**	**30.80**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*

Monitoring Well ID Geological Unit of Well Screen Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-101 Predominantly Overburden (Decommissioned) Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14 [3]	Jun-15
VOCs of Concern (µg/L)															
Tetrachloroethene	5	5	<2	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*
Trichloroethene	5	5	<2	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*
cis-1,2-Dichloroethene	70	70	<2	**8.0**	*ns*	**4.3**	**8.1**	**2.5**	**2.8**	**4.0**	**2.7**	**2.7**	**2.5**	<2.0	*DE*
Vinyl Chloride	2	2	<2	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*
1,2,4-Trimethylbenzene	330	330	**44**	**80**	*ns*	**201**	**347**	**181**	**183**	**30**	**169**	**65**	**90**	**120**	*DE*
1,3,5-Trimethylbenzene	330	330	**13**	**25**	*ns*	**65**	**114**	**55**	**47**	**11**	**42**	**20**	**16**	**32**	*DE*
2-Butanone(MEK)	4,000	4,000	---	<1.0	*ns*	<20	<20	<10	<10	<10	<10	<10	<10	<10	*DE*
Benzene	5	5	<2	**2.2**	*ns*	<4.0	<4.0	<2.0	**2.2**	<2.0	**2.0**	<2.0	<2.0	<2.0	*DE*
Naphthalene	20	20	**4.5**	**5.5**	*ns*	**10**	**18**	**8.0**	**11**	**5.0**	**14 J***	**4**	**5.7**	**9.8**	*DE*
n-Butylbenzene	260	260	---	**3.1**	*ns*	<4.0	<4.0	**30**	**30**	**22**	**31**	**21**	<2.0	**20**	*DE*
n-Propylbenzene	260	260	**14**	**7.1**	*ns*	**28**	**51**	**51**	**58**	**39**	**49**	**32**	**39**	**33**	*DE*
p-Isopropyltoluene (4-cymene)	260	260	**6.6**	**2.9**	*ns*	**9.8**	**23**	**20**	**26**	**11**	**22**	**8.4**	**7.8**	**11**	*DE*
Tetrahydrofuran(THF)	600	154	**26**	**7.8**	*ns*	<20	<20	<10	<10	<10	<10	<10	<10	<10	*DE*
Toluene	1,000	1,000	**3**	**6.6**	*ns*	<4.0	<4.0	**4.9**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*
Additional VOCs (µg/L)															
1,1,1-Trichloroethane	200	na	**7.9**	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*
1,1-Dichloroethane	81	na	<2	**10**	*ns*	<4.0	**5.0**	**3.2**	**3.4**	<2.0	**3.0**	<2.0	<2.0	<2.0	*DE*
1,1-Dichloroethene	7	na	<2	<1.0	*ns*	**5.6**	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*
1,2,4-Trichlorobenzene	70	na	<2	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*
1,2-Dichloroethane	5	na	<2	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*
1,4-Dichlorobenzene	75	na	<2	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*
2-Chlorotoluene	100	na	---	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*
4-Methyl-2-pentanone (MIBK)	2,000	na	<10	<1.0	*ns*	<20	<20	<10	<10	<10	<10	<10	<10	<10	*DE*
Acetone	6,000	na	<10	<1.0	*ns*	<20	<20	<10	<10	<10	<10	<10	<10	<10	*DE*
Carbon Disulfide	70	na	*	*	*ns*	*	*	*	*	*	*	*	*	*	*DE*
Ethylbenzene	700	na	<2	**49**	*ns*	**110**	**141**	**97**	**108**	**65**	**92**	**59**	**69**	**60**	*DE*
Isopropylbenzene (cumene)	800	na	**12**	**9.2**	*ns*	**24**	**45**	**38**	**39**	**28**	**36**	**27**	**30**	**27**	*DE*
Methylene Chloride (Dichloromethane)	5	na	<2	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	**2.1**	<2.0	<2.0	<2.0	<2.0	*DE*
sec-Butylbenzene	260	na	**9.6**	**2.4**	*ns*	**8**	**20**	**27**	**27**	**23**	**28**	**23**	**23**	**22**	*DE*
t-Butanol (TBA)	40	na	<10	---	*ns*	<20	<20	<10	<10	<10	<10	<10	<10	<10	*DE*
t-Butylbenzene	260	na	**2.3**	<1.0	*ns*	<4.0	**4.3**	**4.9**	**5**	**4.1**	**5.4**	**4.3**	**4.5**	**4.6**	*DE*
Trichlorofluoromethane	2,000	na	---	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*
m/p-Xylene	10, 000 [1]	na	**11**	**50**	*ns*	**88**	**144**	**30**	**28**	**7.9**	**42**	**10**	**11**	**29**	*DE*
o-Xylene		na	<2	**49**	*ns*	**49**	**93**	**9.5**	**4.1**	<2.0	**28**	**6.2**	**5.1**	<2.0	*DE*
Total VOCs (µg/L)	na	na	**154**	**318**	*ns*	**602**	**1,013**	**562**	**575**	**252**	**566**	**283**	**304**	**368**	*DE*
1,4-Dioxane (µg/L)															
1,4-Dioxane	3	3	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	<0.20	*DE*
SVOCs of Concern (µg/L)															
Benzo(a)pyrene	0.2	0.2	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*
Benzo(b)fluoranthene	0.1	0.1	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*
Bis[Di](2-ethylhexyl) phthalate	6	6	<10	**6**	*ns*	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	*DE*
Dibenzo(a,h)anthracene	0.1	0.1	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*
Naphthalene	20	20	**4.5**	<5	*ns*	<10	**13**	<10	<10	<10	<10	<10	<10	<10	*DE*
Pentachlorophenol	1	1	<25	<5	*ns*	<25	<20	<20	<20	<20	<20	<20	*ns* [2]	<20	*DE*
2-Methylnaphthalene	280	na	*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	*	*	*DE*
Additional SVOCs (µg/L)															
Benzyl butyl phthalate	na	na	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*
Di-n-butylphthalate	na	na	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*
Di-n-octylphalate	na	na	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*
Total SVOCs (µg/L)	na	na	5	**6**	*ns*	ND	**13**	ND	ND	ND	ND	ND	ND	ND	*DE*
Metals of Concern (mg/L)															
Arsenic	0.01	0.01	*ns*	<0.200	*ns*	**0.0021**	**0.0031**	**0.0016**	*ns*	*ns*	*ns*	*ns*	*ns*	**0.0011**	*DE*
Manganese	0.84	0.3	*ns*	**2.10**	*ns*	**2.23**	**2.50**	**2.62**	**2.89**	**2.54**	**2.25**	**2.7**	**2.2**	**3.50**	*DE*
Additional Metals (mg/L)															
Barium	2	na	*ns*	<0.030	*ns*	0.0277	0.0266	0.0253	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Cadmium	0.005	na	*ns*	<0.030	*ns*	<0.0020	<0.0020	<0.0020	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Chromium	0.1	na	*ns*	<0.030	*ns*	0.0017	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Lead	0.015	na	*ns*	<0.100	*ns*	0.0001	<0.0010	<0.0010	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Selenium	0.05	na	*ns*	<0.100	*ns*	0.0018	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Iron	na	na	*ns*	**99**	*ns*	**114**	**121**	**124**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*

SUMMARY OF HISTORICAL DETECTED COMPOUNDS IN DECOMMISSIONED WELLS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-201M Overburden (Decommissioned)												TRY_MW-201P Overburden (Decommissioned)		
			Aug-04	Oct-05	Jun-06	Dec-06	May-07	May-07 DUP	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-11 [4]	Jun-13 [5]	Nov-14
VOCs of Concern (µg/L)																		
Tetrachloroethene	5	5	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
Trichloroethene	5	5	**7**	**7.9**	*ns*	**6.2**	<4.0	<4.0	<2.0	<2.0	<10	**3.8**	<10	<10	*DE*	<10	*ns*	*DE*
cis-1,2-Dichloroethene	70	70	**38**	<1.0	*ns*	**297**	**242**	**249**	**485**	**617**	**576**	**639**	**660**	**533**	*DE*	**608 J***	*ns*	*DE*
Vinyl Chloride	2	2	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
1,2,4-Trimethylbenzene	330	330	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
1,3,5-Trimethylbenzene	330	330	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
2-Butanone(MEK)	4,000	4,000	---	<1.0	*ns*	<10	<20	<20	<10	<10	<50	<10	<50	<50	*DE*	<50	*ns*	*DE*
Benzene	5	5	<2	**1.1**	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
Naphthalene	20	20	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	**4.4 J***	<10	<10	*DE*	<10	*ns*	*DE*
n-Butylbenzene	260	260	---	<1.0	*ns*	<2.0	<4.0	<4.0	**30**	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
n-Propylbenzene	260	260	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
p-Isopropyltoluene (4-cymene)	260	260	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
Tetrahydrofuran(THF)	600	154	<10	**1.9**	*ns*	<10	<20	<20	<10	<10	<50	<10	<50	<50	*DE*	<50	*ns*	*DE*
Toluene	1,000	1,000	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
Additional VOCs (µg/L)																		
1,1,1-Trichloroethane	200	na	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
1,1-Dichloroethane	81	na	**2.2**	**3.1**	*ns*	**5.9**	**4.5**	**4.7**	<2.0	<2.0	<10	**8.5**	<10	<10	*DE*	<10	*ns*	*DE*
1,1-Dichloroethene	7	na	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
1,2,4-Trichlorobenzene	70	na	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
1,2-Dichloroethane	5	na	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	**3.3**	<10	<10	*DE*	<10	*ns*	*DE*
1,4-Dichlorobenzene	75	na	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
2-Chlorotoluene	100	na	---	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
4-Methyl-2-pentanone (MIBK)	2,000	na	<10	<1.0	*ns*	<10	<20	<20	<10	<10	<50	<10	<50	<50	*DE*	<50	*ns*	*DE*
Acetone	6,000	na	<10	<1.0	*ns*	<10	<20	<20	<10	<10	<50	<10	<50	<50	*DE*	<50	*ns*	*DE*
Carbon Disulfide	70	na	*	*	*ns*	*	*	*	*	*	*	*	*	*	*DE*	*	*ns*	*DE*
Ethylbenzene	700	na	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
Isopropylbenzene (cumene)	800	na	**5.1**	**8.6**	*ns*	**3.6**	**4.5**	<4.0	<2.0	<2.0	<10	**3.5**	<10	<10	*DE*	<10	*ns*	*DE*
Methylene Chloride (Dichloromethane)	5	na	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
sec-Butylbenzene	260	na	**8.1**	**12**	*ns*	**7.2**	**7.2**	**5.9**	**27**	<2.0	<10	**9.0**	<10	<10	*DE*	**15 J***	*ns*	*DE*
t-Butanol (TBA)	40	na	<10	---	*ns*	<10	<20	<20	<10	<10	<50	<10	<50	<50	*DE*	<50	*ns*	*DE*
t-Butylbenzene	260	na	<2	**2.0**	*ns*	<2.0	<4.0	<4.0	**4.9**	<2.0	<10	**2.8**	<10	<10	*DE*	<10	*ns*	*DE*
Trichlorofluoromethane	2,000	na	---	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
m/p-Xylene	10, 000 [1]	na	<2	<2.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
o-Xylene		na	<2	<1.0	*ns*	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	*DE*	<10	*ns*	*DE*
Total VOCs (µg/L)	na	na	**60**	**37**	*ns*	**320**	**258**	**260**	**547**	**617**	**576**	**674**	**660**	**533**	*DE*	**623 J***	*ns*	*DE*
1,4-Dioxane (µg/L)																		
1,4-Dioxane	3	3	*ns*	*ns*	*ns*	**2.3**	*ns*	*ns*	**2.3**	*ns*	*ns*	**2.5**	*ns*	*ns*	*DE*	**0.58**	*ns*	*DE*
SVOCs of Concern (µg/L)																		
Benzo(a)pyrene	0.2	0.2	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*	<100	*ns*	*DE*
Benzo(b)fluoranthene	0.1	0.1	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*	<100	*ns*	*DE*
Bis[Di](2-ethylhexyl) phthalate	6	6	<10	<5	*ns*	<10	**464**	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	*DE*	**334 J***	*ns*	*DE*
Dibenzo(a,h)anthracene	0.1	0.1	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*	<100	*ns*	*DE*
Naphthalene	20	20	<2	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*	<100	*ns*	*DE*
Pentachlorophenol	1	1	<25	<5	*ns*	<20	<20	<20	<20	<20	<20	<20	<20	*ns* [2]	*DE*	<200	*ns*	*DE*
2-Methylnaphthalene	280	na	*	<5	*ns*	<10	<10	*	<10	<10	<10	<10	<10	*	*DE*	*	*ns*	*DE*
Additional SVOCs (µg/L)																		
Benzyl butyl phthalate	na	na	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*	<100	*ns*	*DE*
Di-n-butylphthalate	na	na	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*	<100	*ns*	*DE*
Di-n-octylphalate	na	na	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*	<100	*ns*	*DE*
Total SVOCs (µg/L)	na	na	ND	ND	*ns*	ND	**464**	ND	ND	ND	ND	ND	ND	ND	*DE*	**334**	*ns*	*DE*
Metals of Concern (mg/L)																		
Arsenic	0.01	0.01	*ns*	<0.200	*ns*	<0.0010	<0.0010	<0.0010	<0.0010	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	<0.0010	*ns*	*DE*
Manganese	0.84	0.3	*ns*	**0.350**	*ns*	**0.399**	**0.481**	**0.480**	**0.452**	**0.481**	**0.523**	**0.512**	**0.604**	**0.702**	*DE*	**2.47**	*ns*	*DE*
Additional Metals (mg/L)																		
Barium	2	na	*ns*	<0.030	*ns*	**0.0277**	**0.0431**	**0.0437**	**0.0314**	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	**0.0138**	*ns*	*DE*
Cadmium	0.005	na	*ns*	<0.030	*ns*	<0.0020	<0.0020	<0.0020	<0.0020	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	<0.0020	*ns*	*DE*
Chromium	0.1	na	*ns*	<0.030	*ns*	<0.0050	<0.0050	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	<0.0050	*ns*	*DE*
Lead	0.015	na	*ns*	<0.100	*ns*	<0.0010	<0.0010	<0.0010	<0.0010	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	<0.0010	*ns*	*DE*
Selenium	0.05	na	*ns*	<0.100	*ns*	<0.0050	<0.0050	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	<0.0050	*ns*	*DE*
Iron	na	na	*ns*	**7.20**	*ns*	**7.63**	**7.91**	**7.91**	**9.19**	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	**18.3**	*ns*	*DE*

SUMMARY OF HISTORICAL DETECTED COMPOUNDS IN DECOMMISSIONED WELLS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-202S Overburden (Decommissioned)													
			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Jun-09 DUP	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)																
Tetrachloroethene	5	5	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Trichloroethene	5	5	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
cis-1,2-Dichloroethene	70	70	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Vinyl Chloride	2	2	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
1,2,4-Trimethylbenzene	330	330	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
1,3,5-Trimethylbenzene	330	330	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
2-Butanone(MEK)	4,000	4,000	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Benzene	5	5	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Naphthalene	20	20	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
n-Butylbenzene	260	260	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
n-Propylbenzene	260	260	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
p-Isopropyltoluene (4-cymene)	260	260	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Tetrahydrofuran(THF)	600	154	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Toluene	1,000	1,000	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Additional VOCs (µg/L)																
1,1,1-Trichloroethane	200	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
1,1-Dichloroethane	81	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
1,1-Dichloroethene	7	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
1,2,4-Trichlorobenzene	70	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
1,2-Dichloroethane	5	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
1,4-Dichlorobenzene	75	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
2-Chlorotoluene	100	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
4-Methyl-2-pentanone (MIBK)	2,000	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Acetone	6,000	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Carbon Disulfide	70	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Ethylbenzene	700	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Isopropylbenzene (cumene)	800	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Methylene Chloride (Dichloromethane)	5	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
sec-Butylbenzene	260	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
t-Butanol (TBA)	40	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
t-Butylbenzene	260	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Trichlorofluoromethane	2,000	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
m/p-Xylene	10, 000 [1]	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
o-Xylene		na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Total VOCs (µg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	ND	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
1,4-Dioxane (µg/L)																
1,4-Dioxane	3	3	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	<2.0	*ns*	*ns*	*ns*	*ns*	*DE*
SVOCs of Concern (µg/L)																
Benzo(a)pyrene	0.2	0.2	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Benzo(b)fluoranthene	0.1	0.1	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Bis[Di](2-ethylhexyl) phthalate	6	6	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<5.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Dibenzo(a,h)anthracene	0.1	0.1	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Naphthalene	20	20	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Pentachlorophenol	1	1	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<20	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
2-Methylnaphthalene	280	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Additional SVOCs (µg/L)																
Benzyl butyl phthalate	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Di-n-butylphthalate	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Di-n-octylphalate	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Total SVOCs (µg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	ND	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Metals of Concern (mg/L)																
Arsenic	0.01	0.01	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<0.0010	<0.0010	*ns*	*ns*	*ns*	*ns*	*DE*
Manganese	0.84	0.3	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.128 J***	**0.091 J***	*ns*	*ns*	*ns*	*ns*	*DE*
Additional Metals (mg/L)																
Barium	2	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.3441**	**0.2792**	*ns*	*ns*	*ns*	*ns*	*DE*
Cadmium	0.005	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<0.0020	<0.0020	*ns*	*ns*	*ns*	*ns*	*DE*
Chromium	0.1	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*DE*
Lead	0.015	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.0018**	**0.0013**	*ns*	*ns*	*ns*	*ns*	*DE*
Selenium	0.05	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*DE*
Iron	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**7.66 J***	**5.25 J***	*ns*	*ns*	*ns*	*ns*	*DE*

SUMMARY OF HISTORICAL DETECTED COMPOUNDS IN DECOMMISSIONED WELLS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	NH AGQS	ROD ICL	TRY_MW-602S													
Geological Unit of Well Screen			Overburden (Decommissioned)													
Sampling Event Date			Aug-04	Oct-05	Jun-06	Dec-06	Dec-06 DUP	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)																
Tetrachloroethene	5	5	*ns*	<1.0	*ns*	<0.4	<0.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
Trichloroethene	5	5	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
cis-1,2-Dichloroethene	70	70	*ns*	<1.0	*ns*	<2.0	**2.1**	**3.6**	**11**	**9.0**	<2.0	**3.4**	<2.0	<2.0	*ns*	*DE*
Vinyl Chloride	2	2	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
1,2,4-Trimethylbenzene	330	330	*ns*	**71**	*ns*	**41**	**57**	**38**	<2.0	**626**	**81**	**297**	**4.5**	<2.0	*ns*	*DE*
1,3,5-Trimethylbenzene	330	330	*ns*	<1.0	*ns*	**38**	**49**	**16**	**112**	**243**	**15**	**87**	<2.0	<2.0	*ns*	*DE*
2-Butanone(MEK)	4,000	4,000	*ns*	<1.0	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Benzene	5	5	*ns*	<1.0	*ns*	<0.3	<0.3	<2.0	**2.5**	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
Naphthalene	20	20	*ns*	**9.2**	*ns*	<2.0	<2.0	**2.7**	<2.0	**52**	**5.2**	**25 J***	<2.0	<2.0	*ns*	*DE*
n-Butylbenzene	260	260	*ns*	**43**	*ns*	<2.0	**8.9**	**6.2**	<2.0	<2.0	**8.1**	<2.0	<2.0	<2.0	*ns*	*DE*
n-Propylbenzene	260	260	*ns*	**16**	*ns*	<2.0	<2.0	**4.2**	**20**	**86**	<2.0	**36**	<2.0	<2.0	*ns*	*DE*
p-Isopropyltoluene (4-cymene)	260	260	*ns*	**26**	*ns*	**7.8**	**8.6**	<2.0	<2.0	**32**	**2.4**	**14**	<2.0	<2.0	*ns*	*DE*
Tetrahydrofuran(THF)	600	154	*ns*	<1.0	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Toluene	1,000	1,000	*ns*	<1.0	*ns*	<2.0	**25**	**72**	**1,040**	**998**	**53**	**313**	<2.0	<2.0	*ns*	*DE*
Additional VOCs (µg/L)																
1,1,1-Trichloroethane	200	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	**4.7**	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
1,1-Dichloroethane	81	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
1,1-Dichloroethene	7	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
1,2,4-Trichlorobenzene	70	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	**358**	**2.1**	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
1,2-Dichloroethane	5	na	*ns*	<1.0	*ns*	<0.4	<0.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
1,4-Dichlorobenzene	75	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
2-Chlorotoluene	100	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
4-Methyl-2-pentanone (MIBK)	2,000	na	*ns*	<1.0	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Acetone	6,000	na	*ns*	**2.0**	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Carbon Disulfide	70	na	*ns*	*	*ns*	*	*	*	*	*	*	*	*	*	*ns*	*DE*
Ethylbenzene	700	na	*ns*	**32**	*ns*	**5.4**	**8.3**	**16**	**111**	**184**	**21**	**84**	**4.6**	<2.0	*ns*	*DE*
Isopropylbenzene (cumene)	800	na	*ns*	**13**	*ns*	<2.0	<2.0	**3.8**	<2.0	**58**	**6.3**	**27**	<2.0	<2.0	*ns*	*DE*
Methylene Chloride (Dichloromethane)	5	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
sec-Butylbenzene	260	na	*ns*	**17**	*ns*	**2.2**	**2.4**	**2.9**	<2.0	**28**	**4**	**19**	<2.0	<2.0	*ns*	*DE*
t-Butanol (TBA)	40	na	*ns*	---	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*	*DE*
t-Butylbenzene	260	na	*ns*	**2.8**	*ns*	<2.0	<2.0	<2.0	<2.0	**4.9**	<2.0	**3.4**	<2.0	<2.0	*ns*	*DE*
Trichlorofluoromethane	2,000	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	*DE*
m/p-Xylene	10, 000 [1]	na	*ns*	**88**	*ns*	**14**	**22**	**21**	**236**	**313**	**24**	**117**	<2.0	<2.0	*ns*	*DE*
o-Xylene		na	*ns*	**83**	*ns*	**11**	**16**	**27**	**202**	**209**	**22**	**80**	<2.0	<2.0	*ns*	*DE*
Total VOCs (µg/L)	na	na	*ns*	**403**	*ns*	**119**	**199**	**213**	**2,093**	**2,850**	**242**	**1,106**	**9**	ND	*ns*	*DE*
1,4-Dioxane (µg/L)																
1,4-Dioxane	3	3	*ns*	*ns*	*ns*	<2.0	<2.0	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
SVOCs of Concern (µg/L)																
Benzo(a)pyrene	0.2	0.2	*ns*	<5	*ns*	<10	<10	<50	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Benzo(b)fluoranthene	0.1	0.1	*ns*	<5	*ns*	<10	<10	<50	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Bis[Di](2-ethylhexyl) phthalate	6	6	*ns*	<5	*ns*	<10	<10	**403**	**34**	**38**	<5.0	<5.0	<5.0	<5.0	*ns*	*DE*
Dibenzo(a,h)anthracene	0.1	0.1	*ns*	<5	*ns*	<10	<10	<50	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Naphthalene	20	20	*ns*	<5	*ns*	<10	<10	<50	**11**	**35**	<10	**12**	<10	<10	*ns*	*DE*
Pentachlorophenol	1	1	*ns*	<5	*ns*	<20	<20	<100	<20	<20	<20	<20	<20	*ns* [2]	*ns*	*DE*
2-Methylnaphthalene	280	na	*ns*	<5	*ns*	<10	*	<50	<10	<10	<10	<10	*	*	*ns*	*DE*
Additional SVOCs (µg/L)																
Benzyl butyl phthalate	na	na	*ns*	<5	*ns*	<10	<10	<50	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Di-n-butylphthalate	na	na	*ns*	<5	*ns*	<10	<10	<50	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Di-n-octylphalate	na	na	*ns*	<5	*ns*	<10	<10	<50	<10	<10	<10	<10	<10	<10	*ns*	*DE*
Total SVOCs (µg/L)	na	na	*ns*	ND	*ns*	ND	ND	**403**	**45**	**73**	ND	**12**	ND	ND	*ns*	*DE*
Metals of Concern (mg/L)																
Arsenic	0.01	0.01	*ns*	<0.200	*ns*	**0.001**	**0.001**	<0.0010	0.0031	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Manganese	0.84	0.3	*ns*	**4.7**	*ns*	**3.93**	**4.05**	**2.910**	**9.42**	**10.3**	**2.18**	**7.79**	**0.337**	**0.076**	*ns*	*DE*
Additional Metals (mg/L)																
Barium	2	na	*ns*	**0.36**	*ns*	**0.0573**	**0.0565**	**0.0796**	**0.0272**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Cadmium	0.005	na	*ns*	<0.030	*ns*	<0.0020	<0.0020	<0.0020	<0.0020	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Chromium	0.1	na	*ns*	<0.030	*ns*	<0.0050	<0.0050	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Lead	0.015	na	*ns*	<0.100	*ns*	<0.0010	<0.0010	0.0014	<0.0010	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Selenium	0.05	na	*ns*	<0.100	*ns*	<0.0050	<0.0050	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Iron	na	na	*ns*	**34**	*ns*	**24.1**	**26.4**	**22.70**	**105**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*

TABLE KEY:

AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.3)
ROD ICL = Record of Decision, Interim Cleanup Levels
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
µg/L = micrograms per liter
mg/L = milligrams per liter
na = no standard applies.
ns = not sampled.
< = analyte not detected above the laboratory reporting limit
J = estimated concentration qualified by the laboratory (NHDPHS or EPA) or by the Environmental Data Services (third party data validation), see laboratory report for explanation
E = Estimated concentration qualified by the laboratory due to the result exceeding the upper calibration level for the parameter
J* = estimated concentration qualified by GZA due to observed field conditions
B = analyte detected in method blank, its presence in the sample may be suspect.
B* = analyte detected in the equipment blank for the sampling equipment used at these wells, its presence in the sample may be suspect
B** = analyte detected in the 2014 equipment blank for the sampling equipment used at these wells, its presence in the sample may be suspect.
Z = estimated concentration qualified by GZA, based on the RPD being outside the acceptance criteria
Q = the concentration has been qualified by the laboratory, see laboratory report for explanation
DE = well decommissioned
"---" = available historical data is unclear as to whether the parameter was not sampled, or sampled but not detected.
"*" = historical data for analyte will be identified and entered as part of the next monitoring round.

GENERAL NOTES:

1. Refer to historical reports for the analytical test methods and sampling equipment used during each sampling round.
2. **Bold** indicates that the concentration was detected above the laboratory reporting detection limit. Shading indicates that the concentration exceeds the AGQS and/or ROD ICL.

SPECIFIC NOTES:

1. The individual xylene isomers (m/p-xylene and o-xylene) do not have separate AGQS values; the AGQS for xylene (mixed isomers) is 10,000 µg/L.
2. Groundwater samples submitted to the laboratory for SVOC analyses were not analyzed for the acid fraction compounds during 2013 due to an error on the chain of custody in the SAP.
3. Well TRY_MW-101 was sampled during fall 2014 prior to being decommissioned.
4. VOC, SVOC, and 1,4-dioxane data collected on June 15, 2011 at well TRY_MW-201P should be considered estimated because LNAPL was observed coating the pump and tubing when removed from the well.
5. Well TRY_MW-201P had LNAPL observed during the June 2013 groundwater level round; therefore, it was not sampled during the monitoring round.

SUMMARY OF HISTORICAL DETECTED COMPOUNDS IN DECOMMISSIONED WELLS - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_M-2 Overburden (Decommissioned)												
			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory															
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	**400**	**610**	**420**	**870**	**39**	**1,200**	**550**	*ns*	*ns*	*DE*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	<0.025	**0.029**	< 0.025	0.014 J	<0.025	*ns*	*ns*	*DE*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	**0.016**	**0.052**	**0.030**	**0.056**	**0.060**	*ns*	*ns*	*DE*
Alkalinity (mg/L)	na	na	*ns*	**140**	*ns*	**77.7**	*ns*	**92.9**	**107**	**53.0**	**62.0**	**49.6**	*ns*	*ns*	*DE*
Chloride (mg/L)	na	na	*ns*	**10**	*ns*	**3.0**	**3.0**	**4.7**	<3.0	<3.0	<3.0	<3.0	*ns*	*ns*	*DE*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	<0.03	*ns*	<0.25	<0.05	<0.050	<0.050	*ns*	*ns*	<0.05	*ns*	*ns*	*DE*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	<0.5	<0.05	<0.050	<0.050	*ns*	*ns*	<0.05 J	*ns*	*ns*	*DE*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	<0.02	*ns*	<0.25	<0.05	<0.050	<0.050	*ns*	*ns*	<0.05 J	*ns*	*ns*	*DE*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	**7.8**	**10**	**15**	**9.2**	**7.0**	**9.1**	**8.2**	*ns*	*ns*	*DE*
Total Organic Carbon (mg/L)	na	na	*ns*	**6.8**	*ns*	**7.1**	**13**	**9.5**	**6.5**	**5.9**	**8.3**	**2.5**	*ns*	*ns*	*DE*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	**120**	*ns*	**100**	**130**	**300**	**120**	**77**	*ns*	*ns*	*DE*
Volatile Fatty Acids (mg/L)															
Acetic acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	**1.2 J**	*ns*	*ns*	*ns*	*DE*
Butyric acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	**0.5 J**	*ns*	*ns*	*ns*	*DE*
Lactic acid and HIBA	na	na	*ns*	<25	*ns*	<25	*ns*	<25.0	<25.0	*ns*	<25.0 UJ	*ns*	*ns*	*ns*	*DE*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Propionic acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	**1 J**	*ns*	*ns*	*ns*	*DE*
Pyruvic acid	na	na	*ns*	<10	*ns*	<10	*ns*	<10.0	<10.0	*ns*	**1.8 J**	*ns*	*ns*	*ns*	*DE*
MNA - Field Screening															
pH (SU)	na	na	*ns*	**6.38**	*ns*	**6.35**	**5.17**	**6.15**	**6.3**	**6.1**	**6.4**	**6.5**	**6.1**	*ns*	*DE*
ORP (mV)	na	na	*ns*	**293.3**	*ns*	**-50.8**	**12.2**	**-73.9**	**-31**	**9 J***	**-50**	**-30**	**-23**	*ns*	*DE*
Specific Conductance (µS/cm)	na	na	*ns*	**271**	*ns*	**210**	**240**	**246**	**242**	**175**	**199**	**150**	**220**	*ns*	*DE*
Dissolved Oxygen (mg/L)	na	na	*ns*	**0.2**	*ns*	**0.3**	**2.2**	**0.22**	**0.21**	**0.2**	**0.7**	<0.5	**0.7**	*ns*	*DE*
Turbidity (ntu)	na	na	*ns*	**1.4**	*ns*	**1.9**	**>1,100**	**2.5**	<1	**3**	<1	<5	<5	*ns*	*DE*
Temperature (°C)	na	na	*ns*	---	*ns*	---	---	**13**	**9**	**9**	**11**	**11**	**10**	*ns*	*DE*
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**1.46**	**2.6**	**1.60**	*ns*	*ns*	*ns*	*DE*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	0.0	**0.4**	*ns*	*ns*	*ns*	*DE*

SUMMARY OF HISTORICAL DETECTED COMPOUNDS IN DECOMMISSIONED WELLS - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID Geological Unit of Well Screen Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-101 Predominantly Overburden (Decommissioned) Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14 [1]	Jun-15
MNA - Laboratory															
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	**3,000**	**2,300**	**1,100**	**2,200**	**1,500**	**3,600**	**940**	*ns*	*ns*	*DE*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	<50	<20	**0.015**	**0.016**	**0.021 J**	**0.036**	**0.019 J**	*ns*	*ns*	*DE*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	<50	<20	**0.062**	**0.072**	**0.110**	**0.095**	**0.080**	*ns*	*ns*	*DE*
Alkalinity (mg/L)	na	na	*ns*	**270**	*ns*	**228**	*ns*	**233**	**298**	**196**	**232**	**196**	*ns*	*ns*	*DE*
Chloride (mg/L)	na	na	*ns*	**3.2**	*ns*	**19**	**16**	**16**	**9.5**	**5.4**	**4.5**	**3.5**	*ns*	*ns*	*DE*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	<0.3	*ns*	**0.06**	**0.07**	**0.067**	**0.077**	*ns*	*ns*	**0.068**	*ns*	*ns*	*DE*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	<1	<0.050	<0.050	*ns*	*ns*	*ns*	<0.050 J	*ns*	*ns*	*DE*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	**0.32**	*ns*	<0.5	<0.050	<0.050	*ns*	*ns*	*ns*	<0.050 J	*ns*	*ns*	*DE*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	**1.3**	**2.0**	**9.3**	**6.3**	**16**	**3.8**	**4.4**	*ns*	*ns*	*DE*
Total Organic Carbon (mg/L)	na	na	*ns*	**22**	*ns*	**44**	**38**	**29**	**54**	**31**	**43**	**21**	*ns*	*ns*	*DE*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	**340**	*ns*	**320**	**380**	**330**	**340**	**300**	*ns*	*ns*	*DE*
Volatile Fatty Acids (mg/L)															
Acetic acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*DE*
Butyric acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*DE*
Lactic acid and HIBA	na	na	*ns*	<25	*ns*	<25	*ns*	<25.0	<25.0	*ns*	<25.0 UJ	*ns*	*ns*	*ns*	*DE*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Propionic acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*DE*
Pyruvic acid	na	na	*ns*	<10	*ns*	<10	*ns*	<10.0	<10.0	*ns*	<10.0 UJ	*ns*	*ns*	*ns*	*DE*
MNA - Field Screening															
pH (SU)	na	na	*ns*	**6.48**	*ns*	**6.39**	**6.91**	**6.21**	**6.1**	**6.3**	**6.6**	**6.2**	**6.3**	**6.4**	*DE*
ORP (mV)	na	na	*ns*	**300**	*ns*	**-46**	**-106.2**	**-58.6**	**-56**	**-64**	**-76**	**2**	**-65**	**-34**	*DE*
Specific Conductance (µS/cm)	na	na	*ns*	**645**	*ns*	**509**	**720**	**720**	**780**	**675**	**671**	**597**	**456**	**574**	*DE*
Dissolved Oxygen (mg/L)	na	na	*ns*	**0.5**	*ns*	**3.2**	**0.2**	**0.47**	**0.6**	**0.9**	**1.4**	**2.4**	<0.5	**0.6**	*DE*
Turbidity (ntu)	na	na	*ns*	**16.6**	*ns*	**5.9**	**51.9**	**6.18**	<1	**5**	**1**	<5	<5	<5	*DE*
Temperature (°C)	na	na	*ns*	---	*ns*	---	---	**13**	**6**	**12**	**11**	**12**	**12**	**10**	*DE*
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**1.01**	**2.74**	**1.68**	*ns*	*ns*	*ns*	*DE*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.1**	**0.4 J***	*ns*	*ns*	*ns*	*DE*

SUMMARY OF HISTORICAL DETECTED COMPOUNDS IN DECOMMISSIONED WELLS - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-201M Overburden (Decommissioned)													TRY_MW-201P Overburden (Decommissioned)		
			Aug-04	Oct-05	Jun-06	Dec-06	May-07	May-07 DUP	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-11	Jun-13 [2]	Nov-14
MNA - Laboratory																		
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	**160**	**160**	**140**	**310**	**550**	**510**	**610**	**850**	*ns*	*DE*	**2,200**	*ns*	*DE*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	<10	**0.019**	**0.029**	**0.025 J**	**0.026**	**0.025 J**	*ns*	*DE*	**0.043**	*ns*	*DE*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	<10	**0.094**	**0.130**	**0.140**	**0.170**	**0.160**	*ns*	*DE*	**0.160**	*ns*	*DE*
Alkalinity (mg/L)	na	na	*ns*	**130**	*ns*	**136**	*ns*	*ns*	**140**	**143**	**156**	**160**	**177**	*ns*	*DE*	**116**	*ns*	*DE*
Chloride (mg/L)	na	na	*ns*	**0.83**	*ns*	<3.0	**3**	**3**	<3.0	<3.0	<3.0	<3.0	**3.5**	*ns*	*DE*	**3.4**	*ns*	*DE*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	<0.03	*ns*	<0.50	<0.050	<0.050	<0.050	<0.050	*ns*	*ns*	<0.05	*ns*	*DE*	<0.050	*ns*	*DE*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	<0.10	<0.050	<0.050	<0.050	<0.050	*ns*	*ns*	<0.05	*ns*	*DE*	<0.050 J	*ns*	*DE*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	<0.050	*ns*	<0.50	<0.050	<0.050	<0.050	<0.050	*ns*	*ns*	<0.05	*ns*	*DE*	<0.050 J	*ns*	*DE*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	**7.0**	**7.0**	**8.0**	**6.4**	**7.2**	**6.7**	**6.2**	**6.3**	*ns*	*DE*	**5.9**	*ns*	*DE*
Total Organic Carbon (mg/L)	na	na	*ns*	**0.9**	*ns*	**5.0**	**6.8**	**6.2**	**3.7**	**5.5**	**4.6**	**8.8**	**1.4**	*ns*	*DE*	**3.9**	*ns*	*DE*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	**35**	*ns*	*ns*	**31**	**43**	**46**	**57**	**53**	*ns*	*DE*	**110**	*ns*	*DE*
Volatile Fatty Acids (mg/L)																		
Acetic acid	na	na	*ns*	*ns*	*ns*	<1	*ns*	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*
Butyric acid	na	na	*ns*	<1	*ns*	<1	*ns*	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*
Lactic acid and HIBA	na	na	*ns*	<25	*ns*	<25	*ns*	*ns*	<25.0	<25.0	*ns*	**2.5 J**	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*
Propionic acid	na	na	*ns*	<1	*ns*	<1	*ns*	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*
Pyruvic acid	na	na	*ns*	<10	*ns*	<10	*ns*	*ns*	<10.0	<10.0	*ns*	<10.0 UJ	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*
MNA - Field Screening																		
pH (SU)	na	na	*ns*	**6.93**	*ns*	**6.98**	**6.82**	*ns*	**6.69**	**6.9**	**6.9**	**7.0**	**6.8**	**6.7**	*DE*	**6.2**	*ns*	*DE*
ORP (mV)	na	na	*ns*	**107.1**	*ns*	**-110.9**	**-96**	*ns*	**-92.4**	**-106**	**-89**	**-81**	**-86**	**-89**	*DE*	**2**	*ns*	*DE*
Specific Conductance (µS/cm)	na	na	*ns*	**502**	*ns*	**204**	**198**	*ns*	**291**	**316**	**333**	**349**	**361**	**435**	*DE*	**269**	*ns*	*DE*
Dissolved Oxygen (mg/L)	na	na	*ns*	**0.2**	*ns*	**0.3**	**3.5**	*ns*	**0.43**	**0.3**	**0.8**	**0.3**	<0.5	**0.6**	*DE*	**1.5**	*ns*	*DE*
Turbidity (ntu)	na	na	*ns*	**0.2**	*ns*	**0.9**	**>1100**	*ns*	**6.47**	**19**	**6**	**2**	**6**	<5	*DE*	**<5**	*ns*	*DE*
Temperature (°C)	na	na	*ns*	---	*ns*	---	---	*ns*	**14**	**9**	**11**	**10**	**10**	**11**	*DE*	**11**	*ns*	*DE*
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**3.42**	**1.10**	**0.44**	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.2**	**2.3 J***	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-202S Overburden (Decommissioned)													
			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Jun-09 DUP	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory																
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**2.2**	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.130**	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.076**	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Alkalinity (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**129**	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Chloride (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<3.0	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**14**	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Total Organic Carbon (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**3.0**	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**49**	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Volatile Fatty Acids (mg/L)																
Acetic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Butyric acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Lactic acid and HIBA	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Propionic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Pyruvic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
MNA - Field Screening																
pH (SU)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
ORP (mV)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Specific Conductance (µS/cm)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Dissolved Oxygen (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Turbidity (ntu)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Temperature (°C)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.05**	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.8**	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*

SUMMARY OF HISTORICAL DETECTED COMPOUNDS IN DECOMMISSIONED WELLS - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-601S Overburden (Decommissioned)													
			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Jun-09 DUP	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory																
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	**800**	**380**	**1,200**	**1,400**	**1,700**	*ns*	**1,700**	**1,200**	*ns*	*ns*	*DE*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	**0.070**	**0.065**	**0.054**	*ns*	**0.045**	**0.009 J**	*ns*	*ns*	*DE*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	**0.074**	**0.069**	**0.042**	*ns*	**0.046**	**0.021 J**	*ns*	*ns*	*DE*
Alkalinity (mg/L)	na	na	*ns*	*ns*	*ns*	**52.6**	*ns*	**105**	**78.0**	**75.4**	*ns*	**59.2**	**77.1**	*ns*	*ns*	*DE*
Chloride (mg/L)	na	na	*ns*	**1.1**	*ns*	**34**	**23**	**8.8**	**5.2**	<3.0	*ns*	<3.0	<3.0	*ns*	*ns*	*DE*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	<0.03	*ns*	<0.050	<0.05	<0.050	<0.050	*ns*	*ns*	*ns*	<0.050	*ns*	*ns*	*DE*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	**3.7**	**6.2**	<0.050	**0.36**	*ns*	*ns*	*ns*	<0.050	*ns*	*ns*	*DE*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	<0.02	*ns*	**3.7**	**6.2**	<0.050	**0.35**	*ns*	*ns*	*ns*	<0.050	*ns*	*ns*	*DE*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	**5**	**8**	**29**	**64**	**71**	*ns*	**75**	**43**	*ns*	*ns*	*DE*
Total Organic Carbon (mg/L)	na	na	*ns*	**3.2**	*ns*	**10**	**16**	**11**	**19**	**12**	*ns*	<0.50	**4**	*ns*	*ns*	*DE*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	**320**	*ns*	**300**	**320**	**250**	*ns*	**260**	**230**	*ns*	*ns*	*DE*
Volatile Fatty Acids (mg/L)																
Acetic acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*DE*
Butyric acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*DE*
Lactic acid and HIBA	na	na	*ns*	<25	*ns*	<25	*ns*	<25.0	<25.0	*ns*	*ns*	<25.0 UJ	*ns*	*ns*	*ns*	*DE*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Propionic acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	*ns*	**0.6 J**	*ns*	*ns*	*ns*	*DE*
Pyruvic acid	na	na	*ns*	<10	*ns*	<10	*ns*	<10.0	<10.0	*ns*	*ns*	<10.0 UJ	*ns*	*ns*	*ns*	*DE*
MNA - Field Screening																
pH (SU)	na	na	*ns*	**5.61**	*ns*	**5.5**	**5.4**	**5.60**	*ns*	**5.8**	*ns*	**6.0**	**5.6**	**5.6**	**5.5**	*DE*
ORP (mV)	na	na	*ns*	**336**	*ns*	**208.8**	**228**	**321.6**	*ns*	**203**	*ns*	**108**	**203**	**208**	**116**	*DE*
Specific Conductance (µS/cm)	na	na	*ns*	**224**	*ns*	**190**	**259**	**255**	*ns*	**283**	*ns*	**279**	**224**	**199**	**163**	*DE*
Dissolved Oxygen (mg/L)	na	na	*ns*	**0.2**	*ns*	**0.5**	**5.2**	**2.72**	*ns*	**0.9**	*ns*	**0.3**	<0.5	<0.5	<0.5	*DE*
Turbidity (ntu)	na	na	*ns*	**0.2**	*ns*	**0.3**	**271.0**	**16.9**	*ns*	**1**	*ns*	<1	<5	<5	<5	*DE*
Temperature (°C)	na	na	*ns*	---	*ns*	---	---	**14**	*ns*	**10**	*ns*	**10**	**12**	**10**	**10**	*DE*
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.12**	**0.11**	*ns*	**0.07**	*ns*	*ns*	*ns*	*DE*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.3**	**0.4**	**0.1 J***	*ns*	*ns*	*ns*	*DE*

TABLE KEY:

AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.3)
ROD ICL = Record of Decision, Interim Cleanup Levels
MNA = Monitored Natural Attenuation
na = no standard applies.
ns = not sampled.
ns/ir = insufficient recharge well, field parameters were not collected
< = analyte not detected above the laboratory or field reporting limit
ORP = Oxidation Reduction Potential
µg/L = micrograms per Liter
mg/L = milligrams per Liter
SU = Standard Units
mV = milliVolts
µS/cm = micro Siemens per centimeter
ntu = Nephelometric Turbidity Units
^{o}C = degrees Celsius
J = estimated concentration qualified by the laboratory (NHDPHS, EPA, or Microseeps) or by the Environmental Data Services (third party data validation), see laboratory report for explanation
J* = estimated field measurement qualified by GZA due to end of day calibration check issues or failure of parameter to stabilize, or estimated concentration qualified by GZA due to observed field conditions
UJ = the compound was analyzed for, but not detected, the associated numerical value is the estimated sample quantitation limit. UJ is used for data qualified by Environmental Data Services.
DE = well decommissioned

GENERAL NOTES:

1. Refer to historical reports for the sampling equipment used during each sampling round.
2. **Bold** indicates that the concentration was detected above the laboratory reporting detection limit. Shading indicates that the concentration exceeds the AGQS.
3. The low-flow field screening parameter readings reported represent the last round of readings prior to sample collection.

SPECIFIC NOTES:

1. Well TRY_MW-101 was sampled during fall 2014 prior to being decommissioned.
2. Well TRY_MW-201P had LNAPL observed during the June 2013 groundwater level round; therefore, it was not sampled during the monitoring round.

Appendix C – Techlaw's Sediment Toxicity Report

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DCN 03069-4-06-01-RA-0010

May 18, 2017

Office of Environmental Measurement and Evaluation
US EPA - Region I
11 Technology Drive
North Chelmsford, Massachusetts 01863

To: Mr. Bart Hoskins, EPA TOCOR

TDF No. 1258A
Task Order No. 06
Task No. 01

Subject: Review and interpretation of the sediment toxicity testing results and the sediment analytical chemistry data obtained for the Troy Mills Landfill Superfund site, Troy, NH.

Dear Mr. Hoskins,

The Environmental Protection Agency (EPA) requested that the Environmental Services Assistance Team (ESAT) evaluate two complementary datasets obtained from the Troy Mills Landfill Superfund Site located in Troy, NH, as follows:

- The toxicity data from the amphipod *Hyalella azteca* and the chironomid fly *Chironomus dilutus* exposed for 10 days to seven sediment samples collected in October 2016 from local groundwater seeps by Rockwood Brook (three samples), the forested wetland (two samples), and local reference locations (two samples).

- The analytical chemistry data for the sediment samples collected from the site both in August and October of 2016 to evaluate the nature and extent of contamination by metals and Bis(2-ethylhexyl)phthalate (BEHP).

The purpose of this task is to provide recommendations for monitoring future releases of BEHP and/or metals based on interpreting the available sediment toxicity data and analytical chemistry data.

The Technical Direction Form (TDF) requested the following elements in the deliverable:

- An evaluation of the likelihood of population-level effects to the Benthic Macroinvertebrate (BMI) community in Rockwood Brook and the forested wetland.
- A summary and interpretation of the sediment analytical chemistry data for the samples collected in August and October 2016.
- Recommendations on a future monitoring program of sediment chemical analyses to determine if current risks are stable or increasing.

The major findings of the review are as follows:

1. Sediment toxicity testing results

The sediment toxicity tests identified effects on survival and biomass in both test species only in sediment sample SW-Leach A-01. This sample was collected from an orange-colored seep which supplies most of the surface water flowing through the forested wetland. Significant effects

were not observed in either test species exposed to the remaining four site sediment samples. Based on this first line of evidence, it was concluded that the conditions in Rockwood Brook sediments are unlikely to result in population-level effects to the local BMI community from exposure to seepage, whereas the sediment sample collected from where orange-colored seep water originates at location SW-Leach A-01 caused measurable effects.

2. Sediment analytical chemistry data results

The sediment analytical chemistry data did not identify any particular analyte to explain the toxicity measured in sediment sample SW-Leach A-01. This toxicity, while real, appears to result from unknown causes. It is plausible, but unproven, that the toxic response may be associated with specific physical-chemical conditions (e.g., iron floc) prevailing at the seep itself.

The lack of an obvious chemical signature in the four remaining site sediment samples collected from the forested wetland area and Rockwood Brook, and the two reference samples, corroborated the toxicity test results. Based on this second line of evidence, it was concluded that the conditions in the sediment samples collected from the three Rockwood Brook seeps and seep FW-01 in the forested wetland are unlikely to result in population-level effects to the local BMI community.

3. Recommended monitoring program of sediment chemical analyses

The TDF requested that ESAT develop a monitoring program based only on periodic sediment chemical analyses. Only sediment sample SW-Leach A-01 was toxic. The location from where this sample was collected is the main “source” for the orange-colored water that flows through the forested wetland. That location makes it a logical choice for future monitoring. Yet, the chemical analysis did not identify any analytes that may be responsible for the observed toxic responses.

The lack of an obvious cause for the toxicity in SW-Leach A-01 represents a dilemma for proposing a defensible sediment monitoring program. ESAT discussed this issue with the task order contracting officer representative to try to develop a workable solution. After reviewing all the data, it was concluded that the sediment toxicity at this location was real but could not be linked to any of the measured analytes. In addition, future sampling at location SW-Leach A-01 would not resolve the current disconnect between chemistry and toxicity. As such, it was determined that a sediment chemistry monitoring program could not be developed given the existing conditions at sample location SW-Leach A-01.

The task was authorized on April 17, 2017 under TDF No. 1258. EPA modified the TDF on April 26, 2017 (TDF No. 1258A) requesting to include a map of the August and October 2016 sampling locations and to attach a copy of the Troy Mills sediment toxicity test report as an appendix.

Do not hesitate to contact me at (617)918-8669 or (207)883-4780 with questions or comments.

Sincerely,

Stanislas Pauwels

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TechLaw, Inc./R1 ESAT

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Review and interpretation of the sediment toxicity testing results
and the sediment analytical chemistry data
for the Troy Mills Landfill Superfund Site, Troy, NH.

TDF No. 1258A
Task Order No. 06
Task No. 01

Submitted to:

The Task Order Contracting Officer Representative
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May 18, 2017

EPA Contract EP-W-13-021

1.0 GENERAL INTRODUCTION

1.1 Task Description

The Environmental Protection Agency (EPA) requested that the Environmental Services Assistance Team (ESAT) evaluate two complementary datasets obtained from the Troy Mills Landfill Superfund Site located in Troy, NH (the site), as follows:

- The toxic response data by juveniles of the amphipod *Hyalella azteca* and the chironomid fly *Chironomus dilutus* exposed for 10 days to seven sediment samples collected from seeps at Rockwood Brook, the forested wetland, and other locations at the site in October 2016.

- The analytical chemistry data for the sediment samples collected from the site in August and October of 2016 to evaluate the nature and extent of contamination by metals and Bis(2-ethylhexyl)phthalate (BEHP).

The purpose of the task is to prepare recommendations to monitor future releases of metals and BEHP at one or more of the seeps by interpreting the August and October 2016 sediment toxicity data and analytical chemistry.

The Technical Direction Form (TDF) requested the following elements in the deliverable:

- An evaluation of the likelihood of adverse population-level effects to the Benthic Macroinvertebrate (BMI) community in Rockwood Brook and the forested wetland based on the October 2016 toxicity test results.

- A summary and interpretation of the analytical chemistry data for the sediment samples collected at the site in August and October 2016.

- Recommendations for a monitoring program based on sediment chemical analyses to determine if current risks are stable or increasing.

EPA modified the TDF on April 26, 2017 (TDF No. 1258A). The Agency moved the completion date from April 27, 2017 to May 18, 2017. It requested that the final deliverable include (a) a map showing the August 2016 and October 2016 sediment sampling locations, and (b) a copy of the sediment toxicity test report and the chemical analyses data as appendices to the technical memorandum. For completeness and future reference, ESAT also included a table to this deliverable with the available Global Positioning System (GPS) coordinates for the August and October 2016 sediment sampling locations.

1.2 Site History

The Site is located in Troy, NH. Troy Mills Inc. (TMI) manufactured acrylic fabric at this facility and generated hazardous wastes which were stored in over 7,000 55-gallon drums. TMI disposed of these drums in a nearby solid-waste landfill starting in 1967. These drums contained plasticizers, including BEHP, and mineral spirits that included benzene, di-bromo-3-chloropropane, dichloroethene, methyl ethyl ketone, methylene chloride, naphthalene, toluene, and other petroleum-based solvents. Additional drummed waste consisted of pigments, surplus mixes, and tank residuals of vinyl resins, paint resins and top-coating products. TMI ceased its disposal operations in December 2001.

The Site underwent a remedial investigation/feasibility study. This effort resulted in several removal and cleanup actions by EPA and the New Hampshire Department of Environmental Services. Interceptor trenches were installed in September-October 2001 to capture a Light Non-Aqueous Phase Liquid (LNAPL) plume. All the drums were excavated from the landfill and removed for proper off-site

disposal. The former landfill area was covered with a permeable soil cap. Multiple wells were installed around the former landfill to help monitor for groundwater quality.

Orange staining and orange flock are visible at several locations downgradient from the landfill cap. An ecological survey conducted in 2004 observed intense orange staining at the leachate culvert with the bright-orange leachate flowing downgradient through the forested wetland. The coloring is believed to originate from precipitation of metals at several groundwater seeps further upgradient or may be transported from the LNAPL collection area (i.e., the interceptor trenches).

The aquatic habitats of concern at the Site consist of Rockwood Brook and the Rockwood Brook Wetland Study Area. The brook flows south to north and continues to Sand Dam Pond, which is a recreational area located about one mile north of the Site. The brook was surveyed in 2004 and found to be quick-flowing and sandy with an occasional occurrence of silt or cobbles. It is between 1.0 to 2.5 feet deep and consists of about 25% pools and 75% riffles. No aquatic vegetation was observed in the stream, likely due to the high flow rate. Backwater areas creating pooled habitats were also observed.

The wetland area covers about 1.5 acres, and is located between the former drum disposal area and Rockwood Brook. The soils in the marsh next to Rockwood Brook are saturated with water and support common wetland vegetation, such as alder, wool grass, and ferns. White pines and eastern hemlock (amongst others) grow in the upland forested wetland further upgradient. The marsh next to Rockwood Brook was flooded in the past due to beaver activity. The 2016 site visits showed that the beaver dam in that area had been breached, allowing the ponded area behind it to drain and leave behind the current marshy habitat.

This technical memorandum is organized as follows: Section 2 reviews and interprets the sediment toxicity test data for the October 2016 samples, Section 3.0 reviews and interprets the analytical chemistry data for the August and October 2016 sediment samples, Section 4.0 discusses a monitoring program, Section 5.0 provides a summary and conclusions, and Section 6.0 lists the references.

1.3 List of acronyms

BEHP	bis(2-ethylhexyl)phthalate
BMI	benthic macroinvertebrate
EPA	Environmental Protection Agency
EqP	equilibrium partitioning
ESAT	environmental services assistance team
FW	forested wetland
GPS	global positioning system
HQ	hazard quotient
MDL	method detection limit
LNAPL	light non-aqueous phase liquid
mg/kg	milligram per kilogram
NERL	New England Regional Laboratory
ORNL	Oak Ridge National Laboratory
RB	Rockwood Brook
RSV	refinement screening value
TDF	technical direction form
TMI	Troy Mills Incorporated
TOC	total organic carbon
µg/L	microgram per liter

2.0 POTENTIAL EFFECTS OF THE SEDIMENT CONTAMINANTS ON THE BENTHIC INVERTEBRATE COMMUNITY

2.1 Introduction

EPA visited the site on August 17, 2016 to collect sediment samples from targeted seeps next to Rockwood Brook, in the forested wetland, and from several potential reference locations. The purpose of that preliminary effort was to obtain sediment samples with a wide range of contaminant levels for chemical analyses at the New England Regional Laboratory (NERL) in North Chelmsford, MA. EPA used the results of those analyses to identify specific locations at the site that might provide a range of sediment contaminant levels to help generate a rough dose-response toxicity curve. Based on an evaluation of those initial analytical data, the Agency returned to the site on October 28, 2016 to collect a new batch of sediment samples from five site locations and two reference locations for toxicity testing and chemical analyses.

2.2 Review of the sediment toxicity test results

Appendix 1 provides a copy of the sediment toxicity report. **Figures 1 and 2** at the end of this technical memorandum show the August and October 2016 sediment sampling locations, respectively, whereas **Attachments 1.1 and 1.2** provide the GPS coordinates for both sampling efforts. Table 1 in **Appendix 1** describes each location sampled for sediment in October 2016.

The October 2016 effort targeted sediments from (a) two reference locations, one in the forested wetland (i.e., FW-ref) and one in Rockwood Brook (i.e., RB-ref), and (b) five seeps (i.e., SW-Leach A-01, SW-Leach A-02, FW-01, RB-02, RB-03). SW-Leach A-01 represents the source of orange-stained seep water which flows downgradient through the forested wetland. The four remaining seeps were located right next to Rockwood Brook (RB-02, RB-03, and SW-Leach A-02) or in the forested wetland itself (FW-01). The Rockwood Brook seep locations can be expected to become part of the stream during high-flow events. Location FW-01 in the forested wetland could become part of the stream system again if beavers were to rebuild the old dam further downgradient in the future.

All seven sediment samples collected in October 2016 were returned to the NERL for chemical analyses and testing. The sediment toxicity tests used juveniles of two commonly-used benthic invertebrate test species, namely the amphipod *H. azteca* and the midge fly *C. dilutus*. The organisms were exposed separately to the seven sediment samples for 10 days under controlled laboratory conditions. The toxicity endpoints of interest were survival (both species), dry-weight biomass (*H. azteca*), and ash-free biomass (*C. dilutus*).

The statistical analysis of the *H. azteca* and *C. dilutus* survival and biomass data from the five site sediment samples compared to their respective reference samples showed a significant effect on both endpoints only in the organisms exposed to sediment sample SW-Leach A-01. No significant effect on survival or biomass was noted for organisms of either species in the remaining four site samples when compared to their reference samples.

The results of the *C. dilutus* test should be interpreted with some caution due to the unexpected presence of predatory species in several of the test vessels. An empty caddisfly casing, and no surviving test organisms, was found in replicate 2 of reference sample RB-ref. A live damselfly larva was also found in replicate 5 of sample RB-ref; only 30% of the test organisms survived. In addition, a live caddisfly larva was found in replicate 1 and a live damselfly larva was found in replicate 2 of sample SW-Leach A-02. No test organisms survived in those two replicates (see Tables 2 and 4 in **Appendix 1** for details).

The available toxicity data show that the conditions in sediment sample SW-Leach A-01 resulted in a significant response to both test species when compared to that observed in its reference sample,

whereas the conditions in the remaining four site sediment samples did not elicit a significant response to survival or biomass in either species.

Note that the toxicity testing results could not be used to generate the requested dose-response curve because none of the five site samples resulted in 100% mortality, which is a prerequisite for deriving such a curve.

Based on the toxicity test results, it is concluded that the current conditions in Rockwood Brook are unlikely to result in population-level effects to the local BMI community from exposure to seepage containing metals or BEHP. Exposure to sediment collected at seep SW-Leach A-01 located at the head of the forested wetland is expected to have population-level effects on the BMI community that may be present in this wetland.

3.0 SUMMARY OF THE 2016 SEDIMENT ANALYTICAL DATA

3.1 Introduction

The two sets of sediment samples collected by EPA from the site in August and October of 2016 were analyzed for heavy metals and BEHP. Mercury was analyzed in the August, but not in the October, samples. The Agency determined, after reviewing the August 2016 analytical data, that mercury was not a concern at this site and therefore would not be analyzed in the subsequent set of sediment samples.

Appendix 2 and **Appendix 3** to this technical memorandum provide the raw analytical data for the August and October 2016 sediment sampling events, respectively. This information was augmented by calculating Hazard Quotients (HQs) for each analyte to help place the chemical concentrations into a broader ecotoxicological context. This approach converted the raw analytical data into HQs by dividing the measured concentrations, or one half the detection limit if an analyte was not present above its Method Detection Limit (MDL), by the Refinement Screening Values (RSVs) presented in Table 2a of EPA (2015).

RSVs are considered low-effect sediment benchmarks used in Step 3.a of a baseline ecological risk assessment. Hence, they are less conservative than the no-effect screening benchmarks typically used in screening-level ecological risk assessments. This approach is appropriate given the state of the Troy Mills site, i.e., post-remediation and under long-term observation. EPA (2015) did not include RSVs for cobalt, vanadium, and BEHP. The benchmark for cobalt used in the current assessment is the "ecological screening value" (i.e., a no-effect screening level) presented in EPA (2015), whereas the benchmark for vanadium is a no-effect screening value developed by Thompson *et al*. (2005). The benchmark for BEHP is discussed in the next subsection.

An HQ below 1.0 shows that the exposure concentration falls below the benchmark and that ecological risk is unlikely. An HQ above 1.0 shows that the exposure concentration exceeds the benchmark and that a potential for ecological risk may be present. The more an HQ exceeds 1, the higher a potential for risk is assumed to the present. Note, however, that the increase in risk should not be assumed to be linear.

All the HQs for each sediment sample were summed to generate a combined number called "total risk" to help with the data interpretation and risk discussion below. Summing the sample-specific HQs in no way implies that risk is expected to be additive across the various analytes. Instead, this mathematical approach is used only as a simple and convenient tool to represent each sediment location at the site by a single standardized summed value. This number can then be directly compared against the "total risk" calculated for all the other sampling locations instead of having to evaluate the analytical data by looking at individual chemical concentrations or HQs.

3.2 Ecotoxicity of BEHP

EPA identified BEHP as a potential site-related contaminant. However, the data interpretation under the current TDF identified a major source of uncertainty with the two sediment benchmarks published for this analyte: EPA Region 4 recommends a screening benchmark of 0.182 mg/kg (and a refinement benchmark of 2.65 mg/kg), whereas the Oak Ridge National Laboratory (ORNL) recommends a screening benchmark of 890 mg/kg. Both benchmarks come from reputable sources but differ by over four orders of magnitude. Using the lower benchmark of 0.182 mg/kg would identify the potential for toxicity from BEHP in several of the sediment samples collected from the site, particularly in sample SW-Leach A-01 ([BEHP] = 56 mg/kg, resulting in an HQ of 308), whereas using the higher benchmark of 890 mg/kg would show that none of the measured concentrations of BEHP in sediment are of concern, including in sample SW-Leach A-01.

Sources for the BEHP sediment ESVs

The EPA Region 4 BEHP sediment no-effect benchmark of 0.182 mg/kg was derived based on the "narcotic mode of action" (EPA, 2015) but does not appear to account for the Total Organic Carbon (TOC) content of the sediment. The available information in EPA (2015) is also unclear exactly how this value was derived.

The BEHP sediment benchmark of 890 mg/kg published by ORNL (Jones *et al*., 1997) was developed using the Equilibrium Partitioning (EqP) approach for non-ionic organic compounds developed by EPA (EPA, 1993). Calculating a sediment benchmark using the EqP approach requires the following three input variables: a chronic surface water criterion (µg/L), a sediment-water partitioning coefficient (K_d; L/kg), and a measured or assumed sediment TOC. The ORNL sediment benchmark of 890 mg/kg for BEHP is normalized to a sediment TOC of 1%. This benchmark would increase by a factor of 5 if the sediment TOC equaled 5% instead of the standard 1%. Conversely, this benchmark would decrease by a factor of 2 if the sediment TOC equaled 0.5% instead of the standard 1%. As an aside, the TOC levels were not measured in any of the August or October 2016 sediment samples collected at the Try Mill site.

ESAT reviewed the supporting evidence for the two BEHP sediment benchmarks. After consultation with the Agency, it was decided that ESAT would perform a focused literature search on the toxicity of BEHP in sediment to provide more supporting information to help select the correct benchmark for use in the analytical data evaluation.

Selection of the BEHP sediment benchmark for use in the evaluation

The result of the literature search identified many published papers on the toxicity of BEHP to aquatic organisms (*i.e.*, invertebrates, fish, amphibians) exposed to this compound in surface water. With a few exceptions, the general consensus was that BEHP is not toxic to aquatic organisms up to its natural maximum water solubility of 3 µg/L (e.g., Rhodes *et al*., 1995; Staples *et al*., 1997; Call *et al.*, 2001a).

ESAT only found two published papers that discussed the toxicity of BEHP to BMI in sediment. Both papers showed that BEHP is not toxic to BMIs even at high concentrations:

- Brown *et al.* (1996) exposed larvae of the midge *Chironomus riparius* for 28 days to natural river sediment spiked with 100, 1000, and 10000 mg/kg BEHP. The authors did not observe a significant reduction in the % emergence in any of the three exposure concentrations at the end of the exposure period.

- Call *et al*. (2001b) evaluated the effects of seven phthalate plasticizers (including BEHP) to the freshwater amphipod *Hyalella azteca* and the midge *C. tentans* exposed to spiked sediment samples (TOC = 4.8%) for 10 days. BEHP was tested at a single sediment concentration of

between 2,100 and 3,200 mg/kg dry weight. The authors reported no effect on survival or growth in either species. They remarked that these results were consistent with predictions derived from water-only tests and the EqP theory.

Finally, Naito *et al.* (2006) used the EqP approach to derive a no-effect sediment benchmark for BEHP equal to 615 mg/kg (based on 5% TOC) using the EqP approach and conservatively assuming a surface water toxicity threshold at the maximum water solubility of 3 µg/L.

Based on this body of evidence, ESAT concluded that the EPA R4 sediment benchmark of 0.182 mg/kg for BEHP was unrealistically low and instead selected the ORNL value of 890 mg/kg for use in the evaluation presented in the next subsection.

3.3 Evaluation of the sediment analytical chemistry data

As explained in Section 2.1 above, the sediment concentration data were used to calculate HQs to support an ecotoxicological evaluation. **Appendices 2 and 3** provide the raw analytical data, the HQs and the "total risk" for each location at the site sampled in August and October of 2016, respectively. **Attachment 2** summarizes the HQs and "total risks" across the sampling locations and dates. This information can be interpreted as follows:

- The "total risk" for the two sediment reference samples collected in August and October 2016 ranged between 3.3 and 5.0.
- Except for FW-01 in August 2016 and SW-Leach A-01 on both sampling dates, the "total risk" for all the other sediment samples generally fell within the range observed in the two reference samples.
- The "total risk" was similar in the sediment samples collected in August and October 2016, except for samples FW-01 and SW-Leach A-01 in which "total risk" roughly decreased by half between those two dates. The decrease in risk appears to be mainly associated with drops in the concentrations of barium, iron, manganese, silver and/or vanadium. Note, however, that silver was not detected in SW-Leach A-01 in either the August or October 2016 sediment sample; instead the HQs for this metal were derived using one-half the MDL and are therefore uncertain.
- Except for a handful of analytes in sample SW-Leach A-01 collected in August 2016, the vast majority of the HQs fall below 1.0, with none exceeding 2.0. This general pattern suggests a low likelihood of sediment toxicity from the measured analytes in all the sediment samples collected from the site in October 2016.

As summarized in Section 2.2 above, sample SW-Leach A-01 was the only one of the five site sediment samples collected in October 2016 which showed significant toxicity to both benthic test species. The information summarized in **Attachment 2** does not identify any obvious analyte that may have caused this toxicity. The exceedances above 1.0 of the individual HQs in this sample are small, with none surpassing 1.8. ESAT's past experience with previous sediment toxicity tests at other sites does not suggest that these few minor exceedances would, by themselves, be responsible for the toxic response measured in this sample. The exact reason for the toxicity in sediment sample SW-Leach A-01 is unknown and cannot be resolved based on the available analytical chemistry data. It appears plausible, but unproven, that the observed toxic effects may be associated with specific physical-chemical conditions prevailing at the seep itself (e.g., severe iron floc).

4.0 RECOMMENDATION FOR A MONITORING PROGRAM

The TDF requested that ESAT recommend a simplified monitoring program based only on periodic sediment chemical analyses. The information discussed in Section 2.0 and 3.0 above, and summarized in **Attachment 2**, established that only sediment sample SW-Leach A-01 collected in October 2016 was toxic

to the two benthic invertebrate species used in the test. The location from where this sample was collected (by the culvert under the road) serves as the most important source for the water that then flows through the forested wetland. That location would be the logical choice for future monitoring. Yet, the chemical analysis of this sample for metals and BEHP did not identify any analytes that might plausibly be responsible for the observed effects.

The lack of an obvious cause behind the toxicity in SW-Leach A-01 represents a serious dilemma with proposing a defensible future sediment monitoring program. After all, such a program requires a clear analytical trigger point that would be used to decide on the need for further action (e.g., additional sampling; renewed toxicity testing; remedial action implementation). The fact that the sediment sample collected at SW-Leach A-01 in October 2016 caused an obvious toxic response that could not be linked to one or more Superfund-regulated analytes greatly limits the scope of any future monitoring program at this site.

ESAT discussed this issue at length with the Task Order Contracting Officer Representative (TOCOR) in an attempt to develop a workable solution. The conclusions of that discussion were as follows: (a) the forested wetland consists of several shallow pools that provide small patches of marginal aquatic habitat within an existing stand of pines, (b) the water and the substrate in these pools are colored bright orange as a result of iron precipitation, (c) discharge from the seep at sampling location SW-Leach A-01 and additional smaller seeps in the forested wetland do not appear to reach the emergent marshy area located further downgradient next to Rockwood Brook, and (d) none of the analytes measured in the October 2016 SW-Leach A-01 sediment sample can explain the observed toxicity to the benthic invertebrate species.

The sediment toxicity observed at this location, while real, cannot be readily linked to the measured analytes. In addition, future sampling at location SW-Leach A-01 appears unlikely to resolve the current disconnect between chemistry and toxicity. It also appears that the toxicity may be linked to seep-related physical-chemical conditions instead of specific analytes regulated under Superfund. As such, it was determined that a defensible sediment analytical chemistry monitoring program could not be developed given the existing conditions at sample location SW-Leach A-01.

5.0 SUMMARY AND CONCLUSION

EPA tasked ESAT with evaluating two complementary datasets obtained from the Troy Mills Landfill Superfund Site, as follows: (a) the toxicity data of seven sediment samples collected in October 2016 from seeps by Rockwood Brook and the forested wetland to evaluate the potential effects of exposure to metals and BEHP on *H. azteca* and *C. dilutus*, and (b) the analytical chemistry data for the sediment samples collected in August and October of 2016 from the site. The TDF requested that ESAT interpret these two independent lines of evidence and recommend a monitoring program of sediment chemical analyses to determine if current risks may be stable or increasing in the future.

- **Sediment toxicity testing results**

  The sediment toxicity tests identified a significant effect on survival and biomass in both benthic invertebrate species exposed to sample SW-Leach A-01 collected in October 2016. This sample was collected from a seep not directly associated with either the forested wetland area or Rockwood Brook, and also does not represent viable BMI habitat. Significant effects were not observed in either test species exposed to the remaining four site sediment samples. Based on this first line of evidence, it was concluded that the current conditions in Rockwood Brook are unlikely to result in population-level effects to the local BMI community from exposure to seepage from the site. However, conditions in the forested wetland, as represented by sample SW-Leach A-01, might impact the local BMI population in that habitat.

- **Sediment analytical chemistry data results**

  The sediment analytical chemistry data did not identify any particular analyte that could plausibly explain the severe level of toxicity measured by the two test species exposed to sediment sample SW-Leach A-01 collected in October 2016. The observed toxicity, while real, appears to result from unknown causes. It seems plausible, but unproven, that the toxic response may be associated with specific physical-chemical conditions prevailing at the seep itself (e.g., iron floc).

  The lack of an obvious chemical signature in the four remaining site sediment samples collected from the forested wetland area and Rockwood Brook, and the two reference samples, corroborated the toxicity test results. Based on this second line of evidence, it was concluded that the existing levels of metals and BEHP in sediment collected at seeps associated with Rockwood Brook and the forested wetland are unlikely to result in population-level effects to the local BMI community from exposure to seepage from the site.

- **Recommended monitoring program of sediment chemical analyses**

  The TDF requested that ESAT develop a monitoring program based on periodic sediment chemical analyses. Only sediment sample SW-Leach A-01 was toxic. The location from where this sample was collected is the main source for the orange-colored water that flows through the forested wetland. That location makes it a logical choice for future monitoring. Yet, the chemical analysis did not identify any specific analytes responsible for the observed toxicity.

  The lack of an obvious cause for the toxicity in SW-Leach A-01 represents a dilemma for proposing a defensible sediment monitoring program. ESAT discussed this issue with TOCOR to try to develop a workable solution. After reviewing all the data, it was concluded that the sediment toxicity at this location was real but could not be linked to any of the measured analytes in the sediment sample. In addition, future sampling at location SW-Leach A-01 would not help resolve the current disconnect between chemistry and toxicity. As such, it was determined that a sediment chemistry monitoring program could not be developed given the existing conditions at sample location SW-Leach A-01.

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FIGURES

Figure 1: August 17, 2016 sediment sampling locations, Troy Mills Landfill Superfund Site, Troy Mills, NH

Sample	Coordinates
FW Ref	42° 48.145'N, 72° 11.307'W
RB Ref	42° 48.218'N, 72° 11.292'W
RB 01	42° 48.201'N, 72° 11.276'W
RB 02	42° 48.215'N, 72° 11.272'W
RB 03	42° 48.258'N, 72° 11.284'W
RB 04	42° 48.264'N, 72° 11.277'W
RB 05	42° 48.269'N, 72° 11.270'W
FW 01	42° 48.169'N, 72° 11.284'W
SW Leach A-01	42° 48.170'N, 72° 11.246'W
SW Leach B-01	42° 48.250'N, 72° 11.279'W

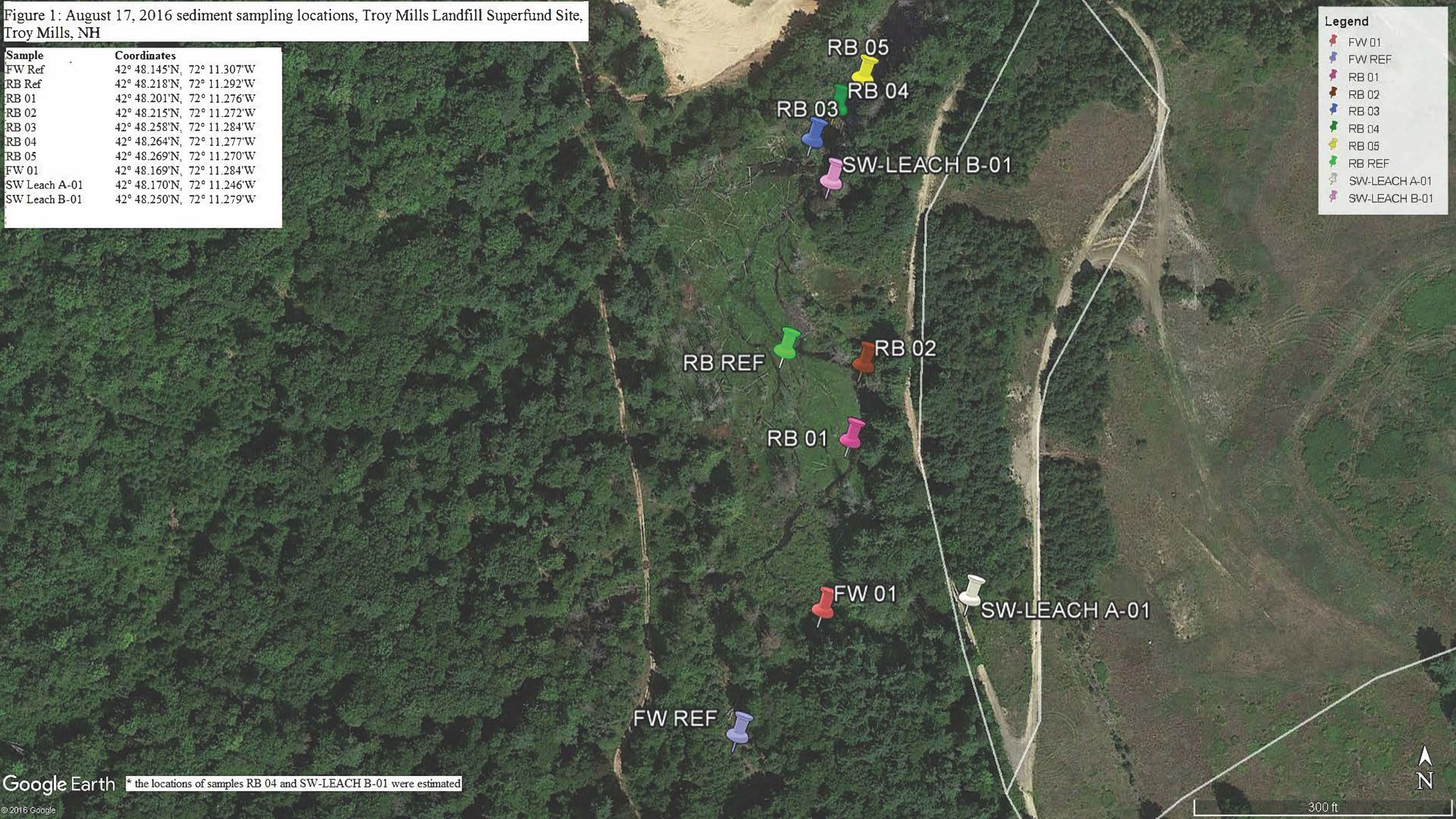
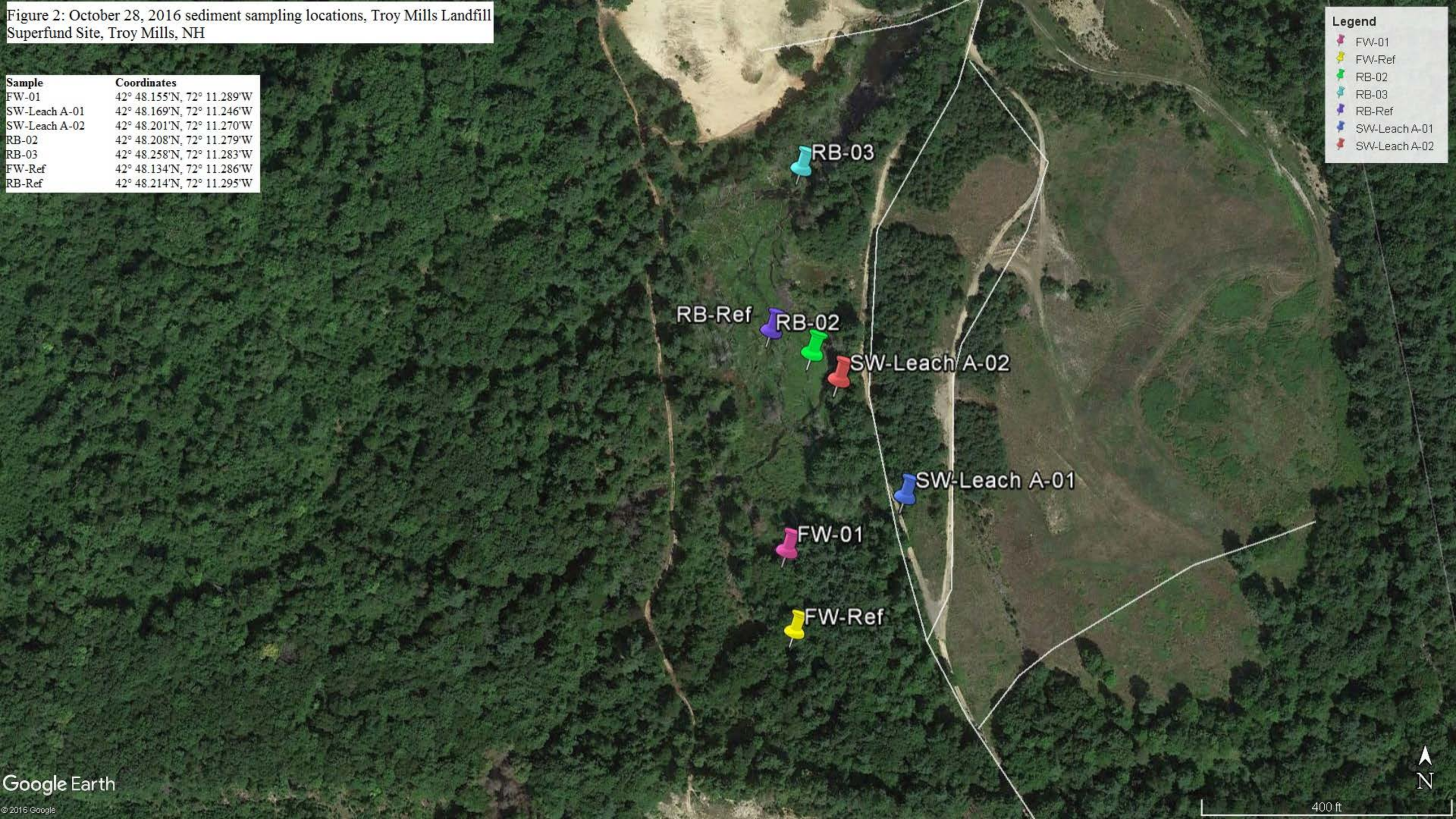


Figure 2: October 28, 2016 sediment sampling locations, Troy Mills Landfill Superfund Site, Troy Mills, NH

Sample	Coordinates
FW-01	42° 48.155'N, 72° 11.289'W
SW-Leach A-01	42° 48.169'N, 72° 11.246'W
SW-Leach A-02	42° 48.201'N, 72° 11.270'W
RB-02	42° 48.208'N, 72° 11.279'W
RB-03	42° 48.258'N, 72° 11.283'W
FW-Ref	42° 48.134'N, 72° 11.286'W
RB-Ref	42° 48.214'N, 72° 11.295'W



ATTACHMENTS

Attachment 1.1: GPS coordinates for the August 17, 2016 sediment sampling effort, Troy Mills Landfill Superfund Site, Troy Mills, NH		
Sample location	**GPS Coordinates**	
FW-Ref	42°48.145'N	72°11.307'W
RB-Ref	42°48.218'N	72°11.292'W
RB-01	42°48.201'N	72°11.276'W
RB-02	42°48.215'N	72°11.272'W
RB-03	42°48.258'N	72°11.284'W
RB-04	42°48.264'N	72°11.277'W
RB-05	42°48.269'N	72°11.270'W
FW-01	42°48.169'N	72°11.284'W
SW-Leach A-01	42°48.170'N	72°11.246'W
SW-Leach B-01	42°48.250'N	72°11.279'W

Attachment 1.2: GPS coordinates for the October 28, 2016 sediment sampling effort, Troy Mills Landfill Superfund Site, Troy Mills, NH		
Sample location	**GPS Coordinates**	
FW-01	42°48.155'N	72°11.289'W
SW-Leach A-01	42°48.169'N	72°11.246'W
SW-Leach A-02	42°48.201'N	72°11.270'W
RB-02	42°48.208'N	72°11.279'W
RB-03	42°48.258'N	72°11.283'W
FW-Ref	42°48.134'N	72°11.286'W
RB-Ref	42°48.217'N	72°11.295'W

Attachment 2: Summary of the hazard quotients and "total risks" in the sediment samples collected from 11 locations at the Troy Mill Landfill Superfund site in August and October 2016																						
	FW-ref		RB-ref		FW-01		RB-01		RB-02		RB-03		RB-04		RB-05		SW-Leach A-01		SW-Leach A-02		SW-Leach B-01	
Analyte	Aug 2016	Oct 2016	Aug 2016	Oct 2016	Aug 2016	Oct 2016	Aug 2016	Oct 2016	Aug 2016	Oct 2016	Aug 2016	Oct 2016	Aug 2016	Oct 2016	Aug 2016	Oct 2016	Aug 2016	Oct 2016	Aug 2016	Oct 2016	Aug 2016	Oct 2016
Aluminum	0.2	0.1	0.2	0.2	0.3	0.2	0.2	--	0.2	0.2	0.2	0.3	0.2	--	0.1	--	0.1	0.2	--	0.2	0.2	--
Antimony	0.0	0.1	0.1	0.1	0.1	0.1	0.1	--	0.0	0.1	0.1	0.1	0.1	--	0.0	--	0.6	0.4	--	0.1	0.0	--
Arsenic	0.2	0.1	0.1	0.1	0.3	0.1	0.0	--	0.1	0.1	0.1	0.1	0.1	--	0.0	--	0.9	0.2	--	0.1	0.1	--
Barium	**1.1**	0.8	**1.3**	**1.1**	**2.0**	**1.2**	**1.0**	--	0.9	0.98	**1.3**	**1.4**	0.8	--	0.5	--	**3.7**	**1.8**	--	**1.2**	0.8	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	0.1	0.1	0.1	0.1	0.2	0.1	0.1	--	0.1	0.1	0.1	0.1	0.1	--	0.1	--	**1.4**	0.5	--	0.1	0.1	--
Chromium	0.1	0.1	0.1	0.1	0.2	0.1	0.1	--	0.1	0.1	0.1	0.2	0.1	--	0.1	--	0.1	0.2	--	0.1	0.1	--
Cobalt	0.1	0.1	0.1	0.1	0.4	0.2	0.1	--	0.1	0.1	0.2	0.3	0.3	--	0.1	--	0.3	0.1	--	**1.1**	0.1	--
Copper	0.1	0.1	0.1	0.1	0.2	0.1	0.1	--	0.1	0.1	0.1	0.1	0.1	--	0.0	--	0.1	0.2	--	0.1	0.1	--
Iron	0.3	0.2	0.4	0.4	**1.4**	0.5	0.3	--	0.2	0.2	0.4	0.4	0.4	--	0.2	--	**9.5**	**1.8**	--	0.7	0.5	--
Lead	0.4	0.1	0.2	0.1	0.3	0.2	0.1	--	0.1	0.1	0.2	0.2	0.1	--	0.1	--	0.1	0.0	--	0.1	0.1	--
Manganese	0.2	0.2	0.2	0.3	**1.6**	0.5	0.3	--	0.1	0.1	0.5	0.5	0.4	--	0.2	--	**1.1**	0.8	--	**1.1**	0.4	--
Mercury	0.2	--	0.1	--	0.3	--	0.1	--	0.1	--	0.1	--	0.0	--	0.0	--	0.1	--	--	--	0.1	--
Nickel	0.2	0.1	0.2	0.2	0.4	0.2	0.2	--	0.2	0.2	0.2	0.3	0.2	--	0.1	--	0.3	0.3	--	0.2	0.1	--
Selenium	0.1	0.1	0.1	0.1	0.2	0.1	0.1	--	0.1	0.1	0.1	0.1	0.1	--	0.1	--	**1.4**	0.5	--	0.1	0.1	--
Silver	0.3	0.3	0.3	0.3	0.5	0.3	0.3	--	0.2	0.3	0.3	0.3	0.3	--	0.2	--	**3.2**	**1.2**	--	0.2	0.3	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	**1.2**	0.5	**1.2**	0.9	**1.5**	0.96	0.8	--	0.8	0.8	**1.0**	**1.1**	0.9	--	0.4	--	**3.1**	**1.4**	--	0.9	0.8	--
Zinc	0.2	0.1	0.1	0.1	0.3	0.2	0.1	--	0.2	0.8	0.2	0.2	0.1	--	0.1	--	0.1	0.2	--	0.1	0.1	--
BEHP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.0	0.0	0.0	0.0	0.0	--	0.0	--	0.0	0.1	--	0.0	0.0	--
"total risk"	**5.0**	**3.3**	**4.9**	**4.3**	**10.1**	**5.2**	**4.1**	--	**3.5**	**4.5**	**5.3**	**5.7**	**4.3**	--	**2.3**	--	**26.0**	**10.0**	--	**6.4**	**4.0**	--
Toxicity?	--	no	--	no	--	no	--	--	--	no	--	no	--	--	--	--	--	**yes**	--	no	--	--

APPENDICES

APPENDIX 1

TOXICITY TEST REPORT FOR SEDIMENT SAMPLES COLLECTED ON October 2016 FROM THE TROY MILLS LANDFILL SUPERFUND SITE, TROY MILLS, NH

Results for 10-Day Sediment Toxicity Tests Using *H. azteca* and *C. dilutus*
Troy Mills Landfill Superfund Site
Troy, NH

Submitted to the:

Task Order Contracting Officer Representative
Office of Environmental Measurement and Evaluation
USEPA - New England Regional Laboratory
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Submitted by:

ESAT - Region I
EP-W-13-021

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TDF No. 1144
Task Order No. 06
Task No. 04

March 3, 2017

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1.0 INTRODUCTION

This report describes the toxicity testing results of 7 sediment samples that were collected from two general areas (Rockwood Brook and Rockwood Brook Wetland Study Area, WSA) and two specific surface water seeps (SW-Leach A-01 and SW-Leach A-02) at the Troy Mills Landfill Superfund Site (the Site) in Troy, NH. Two reference sediment samples were also collected, one associated with each general sampling area, the Forested Wetland and Rockwood Brook.

Troy Mills, Inc. (TMI) manufactured acrylic fabric at its facility. TMI disposed of around 7,670 drums in the 2-acre landfill dating back to 1967. TMI ceased disposal operations in December 2001. The site is bordered to the north by an inactive but regulated 8-acre solid-waste landfill. The solid-waste landfill is not part of the Superfund site. The ecological habitats of concern at the site are Rockwood Brook and the Rockwood Brook WSA. The latter is located to the northwest of the TMI between the former drum disposal area and Rockwood Brook. The soils in the WSA are water-saturated and support wetland plants. Beavers constructed a dam across from the access road to a gravel pit downstream from the Site which resulted in a beaver pond located directly downstream from the confluence of the West Branch and East Branch of Rockwood Brook. The United States Environmental Protection Agency (EPA) noted during an August 17, 2016 site visit that this beaver dam had been breached, draining the beaver pond and revealing groundwater seeps in the wetland area. Two channels currently run through this area; the first one occurs along the eastern edge of the former beaver pond closer to the site, whereas the second one occurs in the middle of the former beaver pond and is farther from the site. Orange staining and orange floc are visible at the leachate culvert, the point of discharge from the Troy Mills landfill, and into the wetland area. Iron floc was also noted during the site visit by EPA on August 17, 2016.

The 7 sediment samples from the Site and reference locations were collected on October 28, 2016. The Environmental Services Assistance Team (ESAT) assisted with the sampling conducted by the EPA New England Regional Laboratory (NERL) out of North Chelmsford, MA. All sediment samples were delivered to the NERL and were kept at 4°C until test initiation. An aliquot sample was collected and submitted to the NERL Chemistry section for analysis of metals and BNAs.

1.2 Technical Direction Forms

The EPA issued Technical Direction Form (TDF) No. 1144 on October 18, 2016. The TDF requested that ESAT perform a two-species bulk sediment toxicity test on 7 samples collected from the Troy Mills Landfill Superfund Site. The TDF instructed that split samples would be collected and submitted to the NERL Chemistry section for analysis of metals and BNAs.

2.0 STUDY OBJECTIVES

As requested under the TDF, ESAT helped EPA collect 7 sediment samples on October 28th, 2016 and transported them to the NERL for toxicity testing and chemical analyses. The samples were collected according to the Standard Operating Procedure (SOP) for sediment collection (EPA 2016). ESAT used samples collected for biological toxicity testing in a 10-day aquatic toxicity test using juveniles of the benthic freshwater amphipod, *Hyalella azteca*, and larvae of the midge fly, *Chironomus dilutus*.

The objective was to determine if responses by the test organisms exposed to Site sediment samples collected from Rockwood Brook and the WSA differed significantly from the responses measured in the two reference sediment samples. The WSA and Rockwood Brook were evaluated to determine the current extent of contaminated sediment and whether some areas may need to be re-assessed for ecological risk to benthic invertebrates. A laboratory control sample was included in the toxicity test to verify that the organisms were heathy and that the test passed Test Acceptability Criteria (TAC) specified by (EPA 2002).

The toxicity endpoints measured at the end of the 10-day exposure period consisted of survival and biomass for *H. azteca* and survival and ash-free biomass for *C. dilutus*. Survival was determined by counting the number of live organisms in each replicate at the end of the test. Biomass was obtained by weighing the surviving organisms in each replicate and dividing that weight by the number of organisms introduced at the start of the test (i.e., 10). The *H.*

azteca biomass was based on the dry weight of the surviving organisms, whereas the *C. dilutus* biomass was based on the ash-free dry weight of the surviving organisms.

3.0 MATERIALS & METHODS

3.1 Sediment Sample Collection Locations

Table 1 lists sediment sample location information, collection dates, and sample IDs for all collected samples.

Rockwood Brook

Rockwood Brook is located to the northwest of TMI. The "lower access road" runs along the western side of the landfill and divides the landfill area from the wetland. Three main channels of Rockwood Brook, all flowing south to north, were sampled for sediment. The most southern branch, called the "Rockwood Eastern Branch", flows parallel to the access road and through the forested wetland. It eventually joins the main branch of the Rockwood Brook to the north and enters the southern point of the former beaver pond which is not forested. The brook then branches into two separate channels, one to the west and one to the east. The east channel of the brook flows along the eastern boarder of wetland closer to the site and is directly fed by the staining seeps from TMI flowing under the access road. The west channel flows parallel down the center of the former beaver pond and does not come into contact with any seeps and shows no visual signs of contamination from TMI.

WSA

The Rockwood Brook WSA is located to the south of the former beaver pond. It is a forested wetland area where the eastern branch of Rockwood Brook flows through before connecting with the main branch and splitting into the east and west channels in the former beaver pond.

Appendix A provides the chain-of-custody records for all the sediment samples. **Appendix E** provides the site sample locations map

3.2 Toxicity Testing Methods

Two Parallel 10-day sediment toxicity tests were run using juveniles of the freshwater amphipod, *H. azteca*, and larvae of the midge-fly, *C. dilutus*.

The tests started on November 8, 2016 and ended on November 18, 2016. They followed the procedures presented in (EPA 2014). The test chambers consisted of 300-ml glass beakers with Nitex-covered notched openings and cheesecloth attached to the outside to allow for a flow-through system. Eight replicates per species were used for each sediment sample. Artificial sediment, consisting of a prescribed mixture of fine sand, medium sand, ASP 400 (kaolin), calcium carbonate, alpha cellulose and humic acid was used for the laboratory control (EPA 2014). Each test chamber received about 100 ml of lab control or site sediment and was placed into the Sediment Toxicity Testing System (STTS) at the NERL one day before the test organisms were added. Following the introduction of sediments, one renewal cycle was run in the STTS to fill the test vessels with overlying water, which consisted of 90 mg $CaCO_3$/L Hardness Process Water (HPW). The vessels were left to sit overnight undisturbed. The overlying water was tested for conductivity, pH and Dissolved Oxygen (DO) before the test organisms were introduced. The hardness and alkalinity of each new batch of water used during the test was checked to verify that the concentrations of these two parameters fell within an acceptable range (i.e., hardness around 90 mg/L and alkalinity between 60 and 70 mg/L).

Ten second-to-third instar larval stage *C. dilutus* (age 11-12 days) were randomly introduced to each test chamber for the midge test. Ten juvenile *H. azteca* that had been sieved through a #60 sieve three days prior to the test were introduced into each test chamber for the amphipod test. Healthy and active organisms were chosen and carefully transferred, keeping each one completely submerged in water from the holding tray to the test chamber. The test chamber temperatures were kept at 23± 1°C with a 16:8-hour light/dark cycle using cool-white fluorescent lights for the duration of the toxicity tests. Water renewals initially occurred once daily using the automatic renewal system associated with the STTS. The renewal cycle for the test banks containing the *C. dilutus* was adjusted to twelve hour intervals during the test when measured DO levels fell below 4.0 mg/L.

Each *H. azteca* replicate was fed 1.0 ml of a Yeast-Alfalfa-Fish flake chow mixture (YAF) daily after the

morning renewals. Each *C. dilutus* replicate was fed 1.5 ml of 4 g/L Tet-Shake daily after the morning renewals. Water flow, renewal time, light intensity, and the minimum and maximum temperatures were recorded daily in the STTS monitoring log. The C. *dilutus* beakers were fed only 0.75 mL Tet-shake on days 3 and 6 and 1.0 mL on days 4 and 5 of testing due to low DO values in sample SW-Leach A-02 (3.97 mg/L).

Temperature, pH, DO, conductivity, hardness, alkalinity, and ammonia were measured in a composite sample of overlying water from the eight replicates for each sample location at the start of the test (day 0) and recorded in the Biology Chemistry log book. Temperature, pH, DO, and conductivity were measured each subsequent morning throughout the exposure period in composite samples of overlying water obtained from each sample station and each test species. Temperature, pH, DO, and conductivity were also measured in composite samples of overlying water for each sample station and test species at the end of the 10-day exposure period. **Appendix B** and **Appendix C** present the water chemistry data for the *H. azteca* and *C.dilutus* tests, respectively. These data are further discussed in **Section 4.1**.

The renewal cycle was ended on day 10 of the tests. The surviving test organisms were retrieved from each beaker, rinsed with deionized water to remove any debris and placed on small pre-weighed, pre-labeled aluminum pans. The surviving number of organisms from each replicate was obtained from each pan and recorded on bench sheets. The organisms in the pans were dried overnight at 100^{o}C and then weighed to obtain dry weights. The *C. dilutus* were then ashed for an additional 2 hours at 550^{o} C in a muffle furnace in order to obtain an Ash-Free Dry Weight (AFDW) for each replicate. The combined dry weights of the organisms in each replicate were recorded in the Biology Laboratory Organism Weight Logbook. **Appendix D** provides all the laboratory bench sheets.

3.3 Statistical Analysis Methods

Statistical analyses of the survival and biomass data for both test species were conducted using CETIS ® (Comprehensive Environmental Toxicity Information System) v. 1.8.7.16 according to the EPA decision tree in (EPA 2000). The survival and biomass data from each species were analyzed separately.

Appendix D provides the CETIS ® statistical print-outs. Biomass for *C. dilutus* was calculated by dividing AFDW by the number of introduced organisms per replicate at the end of the test and reported as the average sample Ash-Free Dry Biomass (AFDB). Biomass for *H. azteca* was calculated by dividing the dry weights by the number of introduced organisms per replicate at the end of the test. Final dry weights were divided by the number of introduced organisms and reported as the average sample dry biomass.

4.0 RESULTS

4.1 Sediment Toxicity Test Overlying Water Chemistry

H. azteca

The conditions in the test vessels met the performance criteria for daily overlying water chemistry requirements (EPA 2000), as indicated in **Appendix B**. The overlying water temperatures, as measured during the daily chemistry checks, deviated no greater than ±1ºC from 23ºC, ranging between 22.01°C and 23.54°C during the 10-day test period.

Conditions of the STTS banks were maintained according to SOP (EPA 2014). Instances occurred when the STTS bank temperatures deviated out of the 23ºC±1ºC range. On days 1 and 2, the *H. azteca* banks read just below 22.0°C for the minimum temperatures, adjustments were applied and the banks stayed within range for the remainder of the test. The maximum bank temperatures remained within range throughout the test. The range of temperatures recorded were 21.6 ºC to 23.4 ºC. The specific temperatures are available in the STTS Monitoring Logbook.

Day 0 (initial water chemistry) NH_3 concentrations in all *H. azteca* samples were non-detect (ND) at <1.0mg NH_3/L. The NH_3 concentrations on Day 10 (final water chemistry) in all of the exposure chambers were also ND. Ammonia criteria calculations were not performed because all levels were ND.

C.dilutus

The conditions in the test vessels met the performance criteria for daily overlying water chemistry requirements (EPA 2000), as indicated in **Appendix B**. The overlying water temperatures, as measured during the daily chemistry checks, deviated no greater than ±1ºC from 23ºC, ranging between 22.03°C and 23.42°C during the 10-day test period.

Conditions of the STTS banks were maintained according to SOP (EPA 2014). Instances occurred when the STTS bank temperatures deviated out of the 23ºC±1ºC range. The *C. dilutus* banks read just below 22.0°C for the minimum temperatures on all test days besides on day 9, the minimum had risen to 22.2 ºC. The maximum bank temperatures remained within range throughout the test. The range of temperatures recorded were 21.5 ºC to 23.1 ºC. The specific temperatures are available in the STTS Monitoring Logbook.

Day 0 (initial water chemistry) NH_3 concentrations in all *C. dilutus* exposure chambers were ND at <1.0mg NH_3/L. The NH_3 concentrations on Day 10 (final water chemistry) in all of the exposure chambers were also ND. Ammonia criteria calculations were not performed because all levels were ND.

4.2 *H. azteca* Survival & Biomass

The two endpoints for the *H. azteca* test consisted of survival and average dry biomass after 10 days of exposure. The minimum TAC for survival in the laboratory control organisms equals 80% (EPA 2000). The test met this TAC with a control survival of 97.5%.

CETIS first ran separate Analysis of Variance (ANOVA) tests to evaluate the distribution and variance of the two survival datasets, i.e. HA FW-Ref, H SW-Leach A-01 and HA FW-01, plus HA RB-Ref, HA RB-02, HA RB-03, and H SW-Leach A-02. It then further explored the outcome by using the Dunnett Multiple Comparison Test (for HA FW-Ref vs. HA FW-01 and H SW-Leach A-01) and the Steel Many-One Rank Sum Test (for HA RB-Ref vs. the three remaining site samples) to identify any site samples showing significant survival effects.

Table 2 presents the survival data, whereas **Figure 1** summarizes the outcome of the statistical analyses. The lowest average survival in SW- Leach A-01 (71.253%) was significantly lower compared to its reference FW-Ref (92.5%). The average survival in the four remaining site samples did not differ significantly from that observed in their respective reference samples.

CETIS first ran separate Analysis of Variance (ANOVA) tests to evaluate the distribution and variance of the two biomass datasets, i.e. HA FW-Ref, H SW-Leach A-01 and HA FW-01, plus HA RB-Ref, HA RB-02, HA RB-03, and H SW-Leach A-02. It then further explored the outcome by using the Dunnett Multiple Comparison Test to identify any site samples showing significant survival effects.

Table 3 presents the biomass data, whereas **Figure 2** summarizes the outcome of the statistical analyses. Average biomass in the organisms exposed to SW- Leach A-01 was significantly lower compared to that measured in its reference FW-Ref. The average biomass in the four remaining site samples did not differ significantly from that observed in their respective reference samples.

4.3 *C. dilutus* Survival & Biomass

The endpoints for the *C. dilutus* test consisted of survival and AFDB after 10 days of exposure. (EPA 2000) specifies that the minimum TAC for survival in the laboratory control organisms equals 70%. The test met this TAC with a control survival of 97.14%.

CETIS first ran separate ANOVAs to evaluate the distribution and variance of the two survival datasets, i.e. Cdi FW-Ref, C SW-Leach A-01 and Cdi FW-01, plus Cdi RB-Ref, Cdi RB-02, Cdi RB-03, and C SW-Leach A-02. It then further explored the outcome by using the Dunnett Multiple Comparison Test (for Cdi FW-Ref vs. Cdi FW-01 and C SW-Leach A-01) and the Wilcoxon/Bonferroni Adj Test (for Cdi RB-Ref vs. the three remaining site samples) to identify any site samples showing significant survival effects.

Table 4 presents the survival data, whereas **Figure 3** summarizes the outcome of the statistical tests. The lowest average survival in SW- Leach A-01 (22.5%) was significantly lower compared to its reference FW-Ref (90.0%). The average survival in the organisms exposed to the four remaining site samples did not differ significantly from that observed in their respective reference samples. As explained in Section 5 (Discussion), however, part of the reason for the lack of significant effect may be due to the low survival (52.86%) caused by predation measured in reference sample Cdi RB-Ref.

The minimum TAC for growth in *C. dilutus* is 0.48mg of the mean AFDW per surviving organism to occur in the control organisms at the end of the 10-day exposure period (EPA 2000). The test met this TAC.

CETIS first ran separate ANOVAs to evaluate the distribution and variance of the two biomass datasets, i.e. Cdi FW-Ref, C SW-Leach A-01 and Cdi FW-01, plus Cdi RB-Ref, Cdi RB-02, Cdi RB-03, and C SW-Leach A-02. It then further explored the outcome by using the Bonferroni Adjusted *t*-Test to identify any site samples showing significant biomass effects.

Table 5 provides the average AFDB data, whereas **Figure 4** summarizes the outcome of the statistical tests. AFDB in the organisms exposed to SW- Leach A-01 was significantly lower compared to that measured in the site reference FW-Ref. The average AFDB in the organisms exposed to the remaining four site samples did not differ significantly from that observed in their respective reference samples. As explained in Section 5 (Discussion), however, part of the reason for the lack of significant effect may be due to low survival from predation observed in reference sample Cdi RB-Ref and several other samples.

5.0 DISCUSSION

5.1 *H. azteca* Survival and Biomass

The average survival in the two reference locations equaled 92.5% (HA FW-Ref) and 96.25% (HA RB-Ref). Only one of the five site samples, HA SW-Leach A-01 had a significantly lower average survival compared to its reference sample (HA FW-Ref).

The average dry biomass in the two reference locations equaled 0.098 mg (HA FW-Ref) and 0.094 mg (HA RB-Ref). CETIS used the Dunnett Multiple Comparison Test (for HA FW-Ref vs. HA FW-01 and H SW-Leach A-01) and the Steel Many-One Rank Sum Test (for HA RB-Ref vs. the three remaining site samples) to identify any site samples showing significant effects. Organisms exposed to SW- Leach A-01 showed a significant difference in growth when compared to FW-Ref. No other significant difference was observed in the average dry biomass of the four remaining site samples compared to their associated reference samples. The lowest and highest average dry biomass in the five site samples occurred in H SW-Leach A-01 (0.057mg) and HA RB-03 (0.108mg), respectively.

5.2 *C. dilutus* Survival and Biomass

The average survival in the two reference locations equaled 90% (Cdi FW-Ref) and 52.86% (Cdi RB-Ref). The lowest percent survival was observed in Cdi SW-Leach A-01 (22.5%) while the highest percent survival occurred in Cdi FW-Ref (90%). Only one of the five site samples, Cdi SW-Leach A-01 had a significantly lower average survival compared to its reference sample (HA FW-Ref).

The average AFDW in the two reference locations equaled 1.222 mg (Cdi FW-Ref) and 0.760 mg (Cdi RB-Ref). CETIS used the Bonferroni Adjusted *t*-Test to identify any site samples showing significant biomass effects.

Only one of the five site samples, Cdi SW-Leach A-01 had a significantly lower AFDB compared to its reference sample (HA FW-Ref).

The reference locations had an average biomass of 1.222 mg (FW-Ref) and 0.760 mg (RB-Ref). Sample SW-Leach A-01 had the overall lowest biomass (0.257 mg) and FW-Ref had the highest biomass (1.222 mg).

In sample SW-Leach A-02, a caddis fly was found in replicate 1 and an odonate larvae was found in replicate 2. RB-Ref replicate 2 contained an empty caddis fly casing and had no surviving organisms at test completion. In RB-Ref replicate 6, a large odonate larvae was found and only 3 of the test organisms survived. The low survival in these

sample replicates could be contributed to the presence of a potential predator species but cannot be known for sure, and for this reason the results of the *C. dilutus* test should be used with caution. Initially, RB-Ref replicate 6 was used in the statistical analysis but was later removed to see if a decreased amount of predation in the reference sample could affect the statistical outcome. The results of the statistics showed no difference. The data point was left out of the statistical analysis in the final report.

Several replicates (Cdi Control Rep 4, Cdi RB-03 rep 4, C SW-Leach A-01 rep 1 and C SW-Leach A-01 rep 5) were removed from the *C. dilutus* biomass statistical analysis (Appendix D) due to pan disturbances in the final ash free weight weighing process. Since the final AFDB for these pans could not be accurately determined, they were removed from the statistical analysis. The issues occurred after survival counts had been determined, so the survival statistics are unaffected.

6.0 REFERENCES

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EPA. 2000. Methods for Measuring the Toxicity and Bioaccumulation of Sediment-associated Contaminants with Freshwater Invertebrates, Second Edition, EPA/600/R-99/064, March, 2000.

EPA. 2013. EIASOP-INGMETALSPREP8. Standard Operating Procedure: Sample Preparation Methods for Metals Analysis, Revision 8; 8/07/2013.

EPA. 2014. ECASOP. Standard Operating Procedure for Static Bulk Sediment Toxicity Testing. Revision 6; 3/18/14.

EPA. 2015. ECASOP CETIS6. Standard Operating Procedure Toxicity Testing Method Using CETIS Version 1.8.7.16. Revision 6; 11/13/2015.

EPA. 2016. EIASOP-SOILSAMPLING4. Standard Operating Procedure for Soil, Sediment, and Solid Waste Sampling; Revision 4; 2/01/2016.

TABLES

Table 1: Sediment toxicity tests sample locations	
Sample ID (Collection Date)	**Location information**
WSA	
FW-Ref (10/28/2016)	*Reference for Forested Wetland*- A distinct seep of groundwater located upgradient from the source of contamination and upstream of potential seeps in the forested wetland.
FW-01 (10/28/2016)	A seep located in the forested wetland upgradient of SW-Leach-A01 and downgradient of monitoring well MW-A28. This seep is located at the edge of a more open sedge area and a braided stream with pools. This area is visibly stained with floc from the seeps. The sediment sample was collected at the first sign of heavy floc.
SW-Leach A-01 (10/28/2016)	Historical sampling location next to the road. Leach-A01 is a long-recognized seep which has generated a preferential flow pathway for groundwater discharge due to the culvert under the upper access road. This seep is large. Orange precipitation from this seep meanders through a few pooled areas, and eventually shows up at the border of the forested wetland and the emergent wetland. The sediment sample was collected at a point very near the initial discharge.
Rockwood Brook	
RB-Ref (10/28/2016)	*Reference for Rock Brook*- Located in the middle of the wetland in a distinct channel away from the seeps. This is the western channel that runs through the former beaver pond farther from the site. The channel has no visible staining or flock from groundwater discharges.
RB-02 (10/28/2016)	A seep located upstream to the breached beaver dam and near historical location Sed-03/SW-3. It is also located downstream of SW-Leach-A02
RB-03 (10/28/2016)	A seep with floc located upstream of the breached beaver dam and downstream of Leach-B01, where SW/SE33 enters Rockwood Brook.
SW-Leach A-02 (10/28/2016)	Located along the eastern channel of Rockwood Brook that runs close to the site, where a second seep appears to flow into what used to be the beaver pond. The sediment sample was collected at the edge of the wetland at the lower end of the seep, where a clear line of the end of the flock was noted.

Table 2. Summary of *H. azteca* survival

Replicate	HA Lab Control	HA FW-Ref	HA RB-Ref	HA FW-01	HA RB-02	HA RB-03	H SW-Leach A-01	H SW-Leach A-02
1	100.0	80.0	90.0	100.0	100.0	80.0	80.0	100.0
2	100.0	80.0	100.0	100.0	100.0	100.0	60.0	90.0
3	90.0	90.0	100.0	100.0	80.0	100.0	60.0	100.0
4	100.0	100.0	100.0	90.0	90.0	100.0	100.0	100.0
5	100.0	100.0	80.0	80.0	40.0	100.0	100.0	100.0
6	100.0	100.0	100.0	80.0	90.0	100.0	60.0	90.0
7	100.0	90.0	100.0	100.0	100.0	100.0	50.0	90.0
8	90.0	100.0	100.0	100.0	100.0	90.0	60.0	90.0
Average Survival (%)	**97.50**	**92.50**	**96.25**	**93.75**	**87.50**	**96.25**	**71.25**	**95.00**
Standard Deviation (%)	**4.6**	**8.9**	**7.4**	**9.2**	**20.5**	**7.4**	**19.6**	**5.3**

Table 3. Summary of *H. Azteca* dry biomass

Replicate	HA Lab Control	HA FW-Ref	HA RB-Ref	HA FW-01	HA RB-02	HA RB-03	H SW-Leach A-01	H SW-Leach A-02
1	0.068	0.085	0.076	0.109	0.113	0.079	0.079	0.09901
2	0.068	0.073	0.108	0.089	0.113	0.117	0.037	0.088
3	0.067	0.12	0.099	0.099	0.072	0.103	0.06	0.09301
4	0.067	0.117	0.11	0.083	0.09701	0.127	0.069	0.081
5	0.082	0.095	0.062	0.076	0.046	0.112	0.067	0.083
6	0.090	0.11	0.121	0.11	0.118	0.095	0.05	0.113
7	0.085	0.08	0.089	0.124	0.097	0.102	0.049	0.073
8	0.09199	0.103	0.08401	0.104	0.122	0.135	0.049	0.086
Average Dry Biomass (mg)	**0.07737**	**0.09788**	**0.09363**	**0.09925**	**0.09725**	**0.10875**	**0.05750**	**0.08950**
Standard Deviation (mg)	**0.01098**	**0.01749**	**0.01956**	**0.01584**	**0.02620**	**0.01794**	**0.01369**	**0.01228**

Table 4. Summary of *C. dilutus* Survival

Replicate	Cdi Lab Control	Cdi FW-Ref	Cdi RB-Ref	Cdi FW-01	Cdi RB-02	Cdi RB-03	C SW-Leach A-01	C SW-Leach A-02
1	100.0	90.0	100.0	90.0	90.0	70.0	0.0	0.0
2	100.0	80.0	0.0	90.0	10.0	50.0	30.0	0.0
3	100.0	80.0	60.0	100.0	80.0	90.0	70.0	90.0
4	90.0	90.0	100.0	100.0	80.0	20.0	20.0	90.0
5	100.0	100.0	30.0	80.0	90.0	50.0	20.0	90.0
6	80.0	100.0	-	100.0	90.0	70.0	10.0	90.0
7	100.0	90.0	80.0	70.0	80.0	50.0	10.0	50.0
8	100.0	90.0	0.0	10.0	50.0	90.0	20.0	90.0
Average Survival (%)	**96.25**	**90.00**	**52.86**	**80.00**	**71.25**	**61.25**	**22.50**	**62.50**
Standard Deviation (%)	**7.4**	**7.6**	**41.1**	**30.2**	**28.0**	**23.6**	**21.2**	**41.0**

(-) indicates no data, data point was left out of statistical analysis

Table 5. Summary of *C. dilutus* AFDB

Replicate	Cdi Lab Control	Cdi FW-Ref	Cdi RB-Ref	Cdi FW-01	Cdi RB-02	Cdi RB-03	C SW-Leach A-01	C SW-Leach A-02
1	1.240	1.264	1.331	1.223	0.860	0.788	0.000	0.000
2	1.163	1.197	0.000	1.287	0.131	0.644	0.578	0.000
3	1.301	1.330	0.782	1.379	0.722	0.928	0.787	1.039
4	-	1.279	1.229	1.316	0.691	-	-	1.089
5	1.257	1.281	0.613	1.161	0.917	0.455	-	1.050
6	1.222	1.349	-	1.231	0.748	0.665	0.078	0.670
7	1.313	1.206	1.366	1.060	0.921	0.644	0.038	0.464
8	1.228	0.872	0.000	0.097	0.347	1.039	0.061	0.711
Average Ash-free Dry Biomass (mg)	**1.246**	**1.222**	**0.760**	**1.094**	**0.667**	**0.738**	**0.257**	**0.628**
Standard Deviation (mg)	**0.1**	**0.2**	**0.6**	**0.4**	**0.3**	**0.2**	**0.3**	**0.4**

(-) indicates no data, data point was left out of statistical analysis

FIGURES

Figure 1. Outcome of the statistical analyses of the *H. azteca* survival data

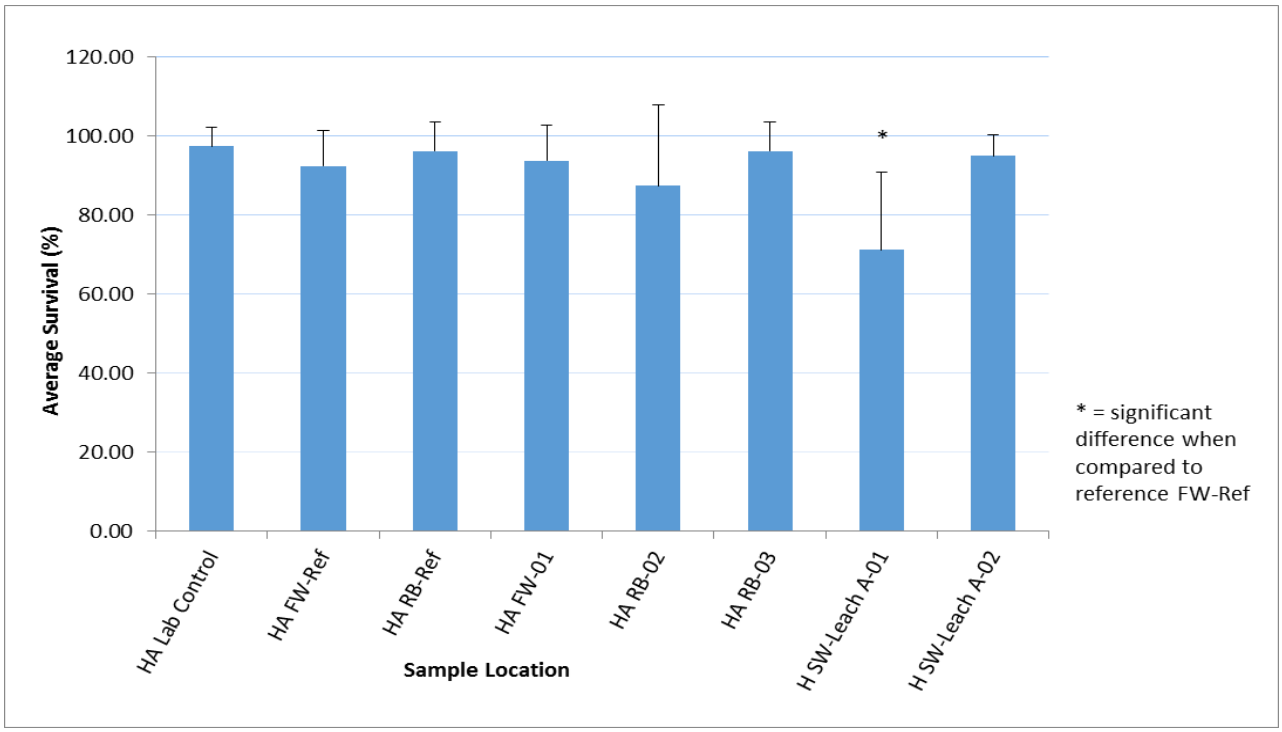


Figure 2. Outcome of the statistical analyses of the *H. azteca* average dry biomass data

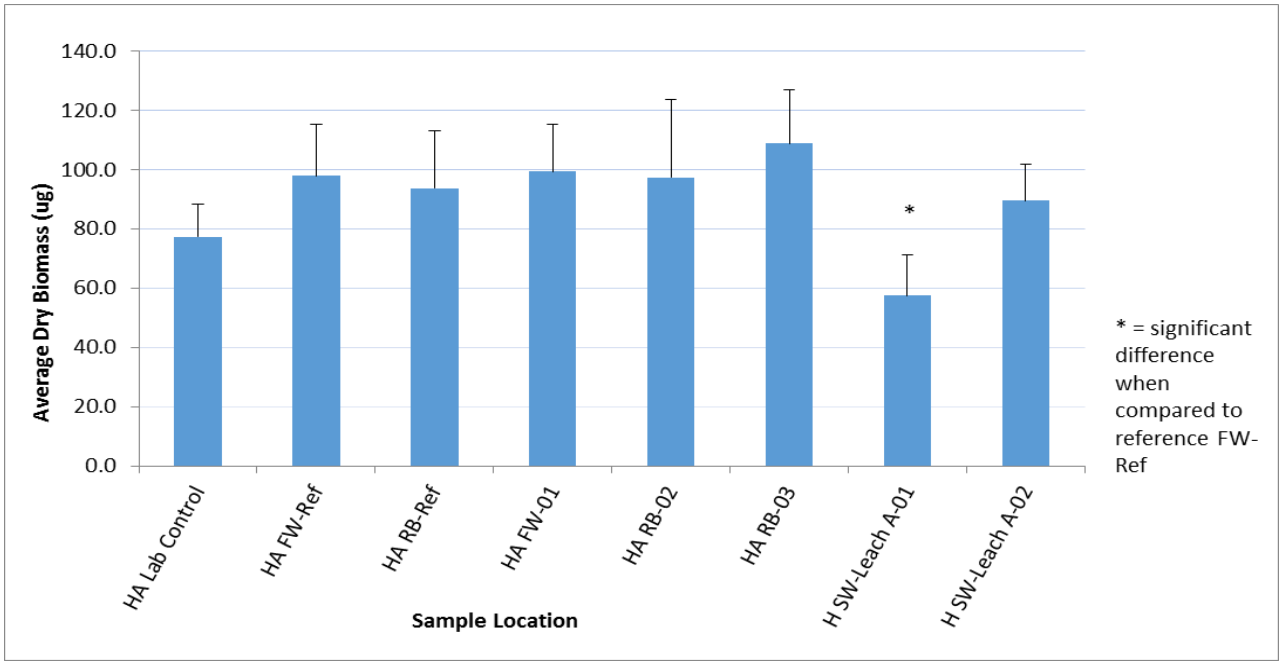


Figure 3. Outcome of the statistical analyses of the *C. dilutus* survival data

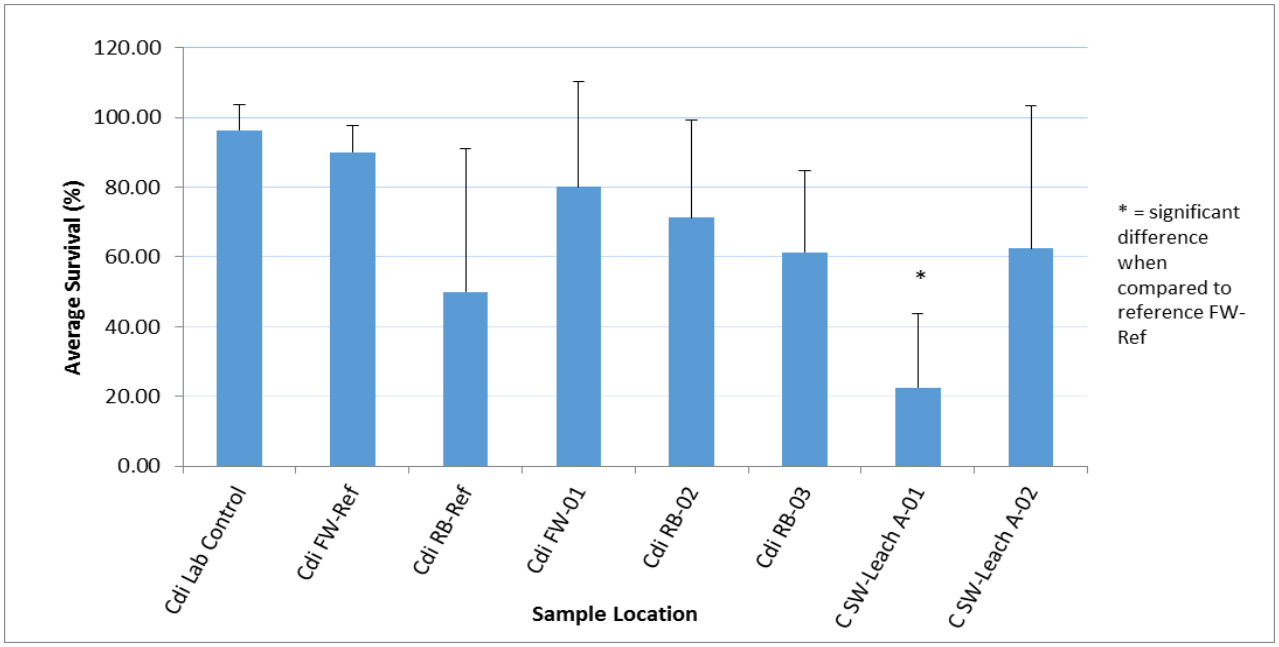
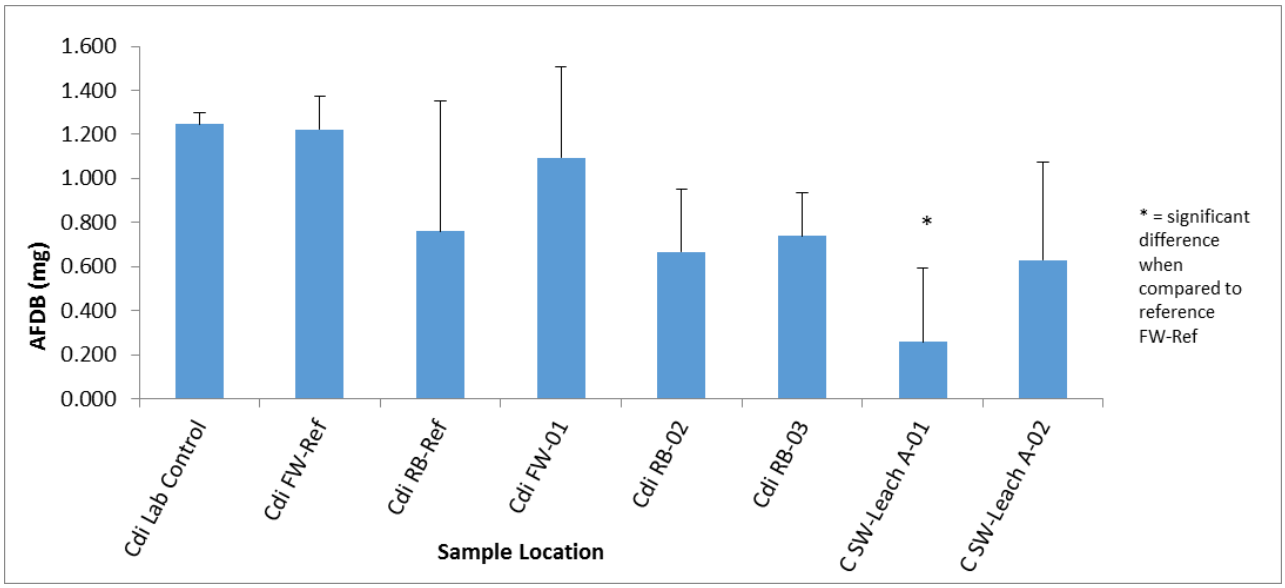


Figure 4. Outcome of the statistical analyses of the *C. dilutus* average AFDB



APPENDIX A

Chain-of-Custody Records

ENVIRONMENTAL PROTECTION AGENCY

REGION 1

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
16100036	Troy Mills

SAMPLERS: (Signature)

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Tox Test	$BNALS	#METMS_PE	$BNAW			REMARKS
SW-Leach A-01	10/28/16	1215		X	SED-16-SW-Leach A-01	3	✓	✓	✓				
RB-03	10/28/16	1300		X	SED-16-RB03	5	✓	✓	✓				2 duplicate containers
RB-REF	10/28/16	1430		X	SED-16-RB-REF	3	✓	✓	✓				
SW-Leach A-02	10/28/16	1400		X	SED-16-SW-Leach A-02	3	✓	✓	✓				
FW-01	10/28/16	1100		X	SED-16-FW-01	3	✓	✓	✓				
FW-REF	10/28/16	1030		X	SED-16-FW-REF	3	✓	✓	✓				
RB-02	10/28/16	1325		X	SED-16-RB-02	3	✓	✓	✓				
RIN-16-BNA	10/28/16	1425		X	RIN-16-BNA	2				✓			containers labeled 1of2 and 2of2
RIN-16-METALS	10/28/16	1425		X	RIN-16-METALS	1			✓				
BTL-16-BNA	10/28/16	1755		X	BTL-16-BNA	1				✓			

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	10/31/16 8:00				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		GSAT	10/31/16 08:00	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

Appendix B

Summary of Overlying Water Toxicity Test Chemistry (H. azteca)

Troy Mills -- Troy, NH
Sediment Toxicity Test Chemistry
H. azteca

H. azteca Sediment Toxicity 10-Day Exposure Test: Troy Mills Inc.

***H. azteca* 10-day Exposure Test Initial Chemistry–Day 0 (11/8/16)**							
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**	**Hardness (mg/L $CaCO_3$)**	**Alkalinity (mg/L $CaCO_3$)**	**Total Ammonia (mg/L NH_3)**
Ha Control	442	8.14	7.46	22.91	104	76	ND
Ha FW-Ref	335	7.35	6.46	22.98	76	48.5	ND
Ha RB-Ref	342	7.13	6.27	22.68	72	45	ND
Ha FW-01	353	7.25	6.59	22.72	80	49	ND
Ha RB-02	373	7.35	6.89	22.66	84	53	ND
Ha RB-03	345	7.22	6.83	22.73	72	43.5	ND
Ha SW-Leach A-01	388	7.25	6.24	22.66	96	64	ND
Ha SW-Leach A-02	405	7.18	6.26	22.69	100	74	ND

* ND = Not Detected (<1.0 mg/L)

***H. azteca* 10-Day Exposure Test Waste Chemistry-Day 1 (11/9/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Ha Control	377	7.95	6.51	22.75
Ha FW-Ref	335	7.40	6.38	22.78
Ha RB-Ref	332	7.12	5.51	22.54
Ha FW-01	370	7.22	6.30	22.27
Ha RB-02	350	7.28	6.26	22.30
Ha RB-03	307	7.19	5.43	22.29
Ha SW-Leach A-01	335	7.18	5.64	22.35
Ha SW-Leach A-02	408	7.18	5.26	22.59
***H. azteca* 10-Day Exposure Test Waste Chemistry-Day 2 (11/10/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Ha Control	376	7.90	7.09	22.01
Ha FW-Ref	328	7.33	6.07	22.04
Ha RB-Ref	332	7.23	5.81	22.31
Ha FW-01	365	7.29	6.77	22.03
Ha RB-02	328	7.30	6.36	22.10
Ha RB-03	297	7.23	5.66	22.47
Ha SW-Leach A-01	332	7.27	5.83	22.25
Ha SW-Leach A-02	397	7.21	4.68	22.12
***H. azteca* 10-Day Exposure Test Waste Chemistry-Day 3 (11/11/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Ha Control	403	7.78	5.97	22.87
Ha FW-Ref	340	7.35	5.46	22.76
Ha RB-Ref	341	7.19	5.31	22.64
Ha FW-01	390	7.34	5.79	22.92
Ha RB-02	349	7.30	5.68	22.77
Ha RB-03	316	7.29	5.80	22.82
Ha SW-Leach A-01	339	7.29	5.42	22.77
Ha SW-Leach A-02	416	7.31	5.29	22.84

Prepared by: CO 2/3/17
Reviewed By: ZZ 2/3/17

Troy Mills -- Troy, NH
Sediment Toxicity Test Chemistry
H. azteca

***H. azteca* 10-Day Exposure Test Waste Chemistry-Day 4 (11/12/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Ha Control	394	7.73	6.03	22.43
Ha FW-Ref	342	7.37	5.89	22.39
Ha RB-Ref	346	7.26	5.65	22.66
Ha FW-01	393	7.34	5.68	22.42
Ha RB-02	355	7.38	6.22	22.61
Ha RB-03	320	7.31	5.92	22.47
Ha SW-Leach A-01	339	7.37	6.33	22.61
Ha SW-Leach A-02	417	7.28	5.31	22.78
***H. azteca* 10-Day Exposure Test Waste Chemistry-Day 5 (11/13/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Ha Control	441	7.73	5.54	22.05
Ha FW-Ref	388	7.50	5.66	22.41
Ha RB-Ref	369	7.27	5.25	22.50
Ha FW-01	386	7.42	5.72	22.66
Ha RB-02	385	7.45	5.83	22.12
Ha RB-03	373	7.34	5.60	22.17
Ha SW-Leach A-01	390	7.40	5.45	22.44
Ha SW-Leach A-02	404	7.27	4.49	22.29
***H. azteca* 10-Day Exposure Test Waste Chemistry-Day 6 (11/14/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Ha Control	441	7.71	5.25	22.19
Ha FW-Ref	395	7.43	5.67	22.23
Ha RB-Ref	385	7.32	5.39	22.30
Ha FW-01	390	7.44	5.65	22.81
Ha RB-02	391	7.47	5.93	22.35
Ha RB-03	383	7.34	5.37	22.39
Ha SW-Leach A-01	398	7.44	5.66	22.48
Ha SW-Leach A-02	411	7.29	4.58	22.53
***H. azteca* 10-Day Exposure Test Waste Chemistry-Day 7 (11/15/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Ha Control	426	7.64	5.21	22.10
Ha FW-Ref	384	7.38	5.58	22.08
Ha RB-Ref	374	7.33	5.86	22.36
Ha FW-01	385	7.39	5.32	22.53
Ha RB-02	384	7.41	5.80	22.03
Ha RB-03	374	7.32	5.48	22.14
Ha SW-Leach A-01	386	7.39	5.71	22.15
Ha SW-Leach A-02	395	7.21	4.26	22.26

Prepared by: CO 2/3/17
Reviewed By: ZZ 2/3/17

Troy Mills -- Troy, NH
Sediment Toxicity Test Chemistry
H. azteca

***H. azteca* 10-Day Exposure Test Waste Chemistry-Day 8 (11/16/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Ha Control	422	7.64	5.16	22.75
Ha FW-Ref	384	7.45	5.47	22.91
Ha RB-Ref	374	7.33	5.50	23.09
Ha FW-01	382	7.42	5.70	23.31
Ha RB-02	380	7.41	5.77	22.98
Ha RB-03	375	7.39	5.70	23.23
Ha SW-Leach A-01	387	7.44	4.98	23.48
Ha SW-Leach A-02	395	7.26	4.58	23.54
***H. azteca* 10-Day Exposure Test Waste Chemistry-Day 9 (11/17/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Ha Control	421	7.62	5.56	22.79
Ha FW-Ref	384	7.43	5.77	22.78
Ha RB-Ref	375	7.36	5.87	22.87
Ha FW-01	383	7.48	6.08	22.66
Ha RB-02	381	7.44	6.17	22.77
Ha RB-03	378	7.37	5.91	23.20
Ha SW-Leach A-01	387	7.41	5.78	22.83
Ha SW-Leach A-02	393	7.21	4.40	22.87

***H. azteca* 10-Day Exposure Test Waste Chemistry-Day 10 (11/18/16)**					
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**	**Total Ammonia (ppm NH_3)**
Ha Control	418	7.58	5.90	22.68	ND
Ha FW-Ref	387	7.38	6.10	22.70	ND
Ha RB-Ref	378	7.27	5.63	22.80	ND
Ha FW-01	387	7.40	6.11	22.84	ND
Ha RB-02	381	7.36	6.05	22.61	ND
Ha RB-03	378	7.31	5.84	22.71	ND
Ha SW-Leach A-01	387	7.41	6.14	22.85	ND
Ha SW-Leach A-02	393	7.18	4.29	22.94	ND

* ND = Not Detected (<1.0 mg/L)

Prepared by: CO 2/3/17
Reviewed By: ZZ 2/3/17

APPENDIX C

Summary of Overlying Water Toxicity Test Chemistry (C. dilutus)

Troy Mills -- Troy, NH
Sediment Toxicity Test Chemistry
C. dilutus

C dilutus Sediment Toxicity 10-Day Exposure Test: Troy Mills Inc.

***C. dilutus* 10-day Exposure Test Initial Chemistry–Day 0 (11/8/16)**							
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**	**Hardness (mg/L $CaCO_3$)**	**Alkalinity (mg/L $CaCO_3$)**	**Total Ammonia (mg/L NH_3)**
Cdi Control	444	8.14	7.81	22.58	104	76	ND
Cdi FW-Ref	351	7.35	6.76	22.61	76	48.5	ND
Cdi RB-Ref	345	7.19	6.79	22.73	72	45	ND
Cdi FW-01	355	7.29	6.90	22.53	80	49	ND
Cdi RB-02	377	7.36	7.21	22.59	84	53	ND
Cdi RB-03	345	7.26	6.95	22.65	72	43.5	ND
Cdi SW-Leach A-01	386	7.28	6.36	22.69	96	64	ND
Cdi SW-Leach A-02	405	7.22	6.37	22.65	100	74	ND

* ND = Not Detected (<1.0 mg/L)

***C. dilutus* 10-Day Exposure Test Waste Chemistry-Day 1 (11/9/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Cdi Control	454	7.65	5.90	22.30
Cdi FW-Ref	385	7.18	5.16	22.49
Cdi RB-Ref	379	7.06	4.79	22.10
Cdi FW-01	382	7.13	4.66	22.29
Cdi RB-02	401	7.22	5.63	22.31
Cdi RB-03	374	7.11	4.88	22.20
Cdi SW-Leach A-01	408	7.16	4.05	22.28
Cdi SW-Leach A-02	422	7.12	3.97	22.45
***C. dilutus* 10-Day Exposure Test Waste Chemistry-Day 2 (11/10/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Cdi Control	460	7.95	6.25	22.38
Cdi FW-Ref	382	7.20	5.13	22.68
Cdi RB-Ref	372	7.05	4.74	22.15
Cdi FW-01	376	7.13	5.09	22.08
Cdi RB-02	394	7.29	5.78	22.35
Cdi RB-03	374	7.22	5.60	22.21
Cdi SW-Leach A-01	412	7.28	5.63	22.23
Cdi SW-Leach A-02	413	7.15	4.29	22.12
***C. dilutus* 10-Day Exposure Test Waste Chemistry-Day 3 (11/11/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Cdi Control	479	7.77	5.92	22.77
Cdi FW-Ref	399	7.21	4.95	22.71
Cdi RB-Ref	385	7.09	4.77	22.82
Cdi FW-01	394	7.13	4.39	22.65
Cdi RB-02	408	7.27	5.50	22.80
Cdi RB-03	393	7.20	5.01	22.83
Cdi SW-Leach A-01	427	7.32	5.46	22.87
Cdi SW-Leach A-02	433	7.16	4.15	22.95

Prepared by: CO 1/31/17
Reviewed By: ZZ 2/3/17

Troy Mills -- Troy, NH
Sediment Toxicity Test Chemistry
C. dilutus

***C. dilutus* 10-Day Exposure Test Waste Chemistry-Day 4 (11/12/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Cdi Control	490	7.75	5.86	22.86
Cdi FW-Ref	409	7.26	5.17	22.80
Cdi RB-Ref	392	7.13	5.16	22.88
Cdi FW-01	402	7.21	4.98	22.72
Cdi RB-02	414	7.37	6.12	22.92
Cdi RB-03	397	7.26	5.57	22.69
Cdi SW-Leach A-01	430	7.43	6.09	22.90
Cdi SW-Leach A-02	433	7.26	4.87	22.97
***C. dilutus* 10-Day Exposure Test Waste Chemistry-Day 5 (11/13/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Cdi Control	419	7.67	5.15	22.75
Cdi FW-Ref	387	7.31	4.52	22.76
Cdi RB-Ref	377	7.19	4.81	22.15
Cdi FW-01	385	7.24	4.10	22.16
Cdi RB-02	389	7.43	5.25	22.16
Cdi RB-03	385	7.29	5.13	22.69
Cdi SW-Leach A-01	399	7.46	4.76	22.55
Cdi SW-Leach A-02	401	7.22	4.40	22.18
***C. dilutus* 10-Day Exposure Test Waste Chemistry-Day 6 (11/14/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Cdi Control	406	7.65	5.67	22.77
Cdi FW-Ref	380	7.28	5.21	22.63
Cdi RB-Ref	373	7.18	4.90	22.03
Cdi FW-01	378	7.32	4.96	22.27
Cdi RB-02	385	7.51	6.12	22.14
Cdi RB-03	376	7.41	5.86	22.29
Cdi SW-Leach A-01	389	7.53	6.08	22.53
Cdi SW-Leach A-02	392	7.29	4.61	22.71
***C. dilutus* 10-Day Exposure Test Waste Chemistry-Day 7 (11/15/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Cdi Control	410	7.50	5.26	22.37
Cdi FW-Ref	379	7.19	4.55	22.19
Cdi RB-Ref	374	7.11	4.31	22.38
Cdi FW-01	380	7.20	4.51	22.49
Cdi RB-02	383	7.36	5.55	22.10
Cdi RB-03	380	7.28	4.93	22.05
Cdi SW-Leach A-01	392	7.47	5.81	22.09
Cdi SW-Leach A-02	394	7.20	4.38	22.30

Prepared by: CO 1/31/17
Reviewed By: ZZ 2/3/17

Troy Mills -- Troy, NH
Sediment Toxicity Test Chemistry
C. dilutus

***C. dilutus* 10-Day Exposure Test Waste Chemistry-Day 8 (11/16/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Cdi Control	406	7.51	5.08	23.38
Cdi FW-Ref	381	7.22	4.30	23.21
Cdi RB-Ref	374	7.19	4.66	23.25
Cdi FW-01	379	7.27	6.36	23.28
Cdi RB-02	383	7.33	5.19	23.14
Cdi RB-03	377	7.28	4.84	23.23
Cdi SW-Leach A-01	389	7.47	5.61	23.31
Cdi SW-Leach A-02	391	7.23	5.45	23.42
***C. dilutus* 10-Day Exposure Test Waste Chemistry-Day 9 (11/17/16)**				
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**
Cdi Control	409	7.52	5.09	22.96
Cdi FW-Ref	384	7.23	4.25	22.89
Cdi RB-Ref	377	7.22	4.69	22.78
Cdi FW-01	381	7.28	4.61	22.66
Cdi RB-02	384	7.34	5.17	22.75
Cdi RB-03	380	7.26	4.63	22.64
Cdi SW-Leach A-01	390	7.49	6.12	22.74
Cdi SW-Leach A-02	393	7.20	3.80	22.94

***C. dilutus* 10-Day Exposure Test Waste Chemistry-Day 10 (11/18/16)**					
Sample ID	**Conductivity (µmhos/cm)**	**pH**	**DO (mg/L)**	**Temperature (˚C)**	**Total Ammonia (ppm NH_3)**
Cdi Control	410	7.47	5.44	22.96	ND
Cdi FW-Ref	390	7.21	4.48	22.88	ND
Cdi RB-Ref	377	7.18	4.76	22.82	ND
Cdi FW-01	382	7.23	5.07	22.95	ND
Cdi RB-02	385	7.29	5.49	22.71	ND
Cdi RB-03	384	7.23	4.96	22.79	ND
Cdi SW-Leach A-01	393	7.47	6.54	22.84	ND
Cdi SW-Leach A-02	390	7.17	4.29	22.96	ND

* ND = Not Detected (<1.0 mg/L)

Prepared by: CO 1/31/17
Reviewed By: ZZ 2/3/17

APPENDIX D

Bench Sheets and Statistical Test Print-outs

BULK 10-DAY SEDIMENT TOXICITY TEST					STTS 2014
PN# 16100036 For Site: Troy Mills					
Start Date: 11/8/2016 End Date: 11/18/2016					
Species: H. azteca					
Sample ID	Rep	Pos	# Survival	Initials	Notes/Observations
HA Lab Control	1	63	10	MF	
HA Lab Control	2	54	10	MF	
HA Lab Control	3	7	9	CO	
HA Lab Control	4	30	10	MF	
HA Lab Control	5	38	10	MF	
HA Lab Control	6	13	10	MF	
HA Lab Control	7	52	10	BH	
HA Lab Control	8	49	9	MF	
HA FW-Ref	1	35	8	CO	
HA FW-Ref	2	44	8	CO	
HA FW-Ref	3	57	9	BH	
HA FW-Ref	4	27	10	MF	
HA FW-Ref	5	2	10	CO	
HA FW-Ref	6	5	10	MF	
HA FW-Ref	7	45	9	BH	
HA FW-Ref	8	46	10	BH	
HA RB-Ref	1	47	9	CO	
HA RB-Ref	2	40	10	BH	
HA RB-Ref	3	62	10	BH	
HA RB-Ref	4	24	10	MF	
HA RB-Ref	5	17	8	BH	
HA RB-Ref	6	21	10	MF	
HA RB-Ref	7	36	10	MF	
HA RB-Ref	8	9	10	BH	
HA FW-01	1	12	10	BH	
HA FW-01	2	18	10	CO	
HA FW-01	3	31	10	CO	
HA FW-01	4	56	9	CO	
HA FW-01	5	11	8	MF	
HA FW-01	6	22	8	CO	
HA FW-01	7	20	10	BH	
HA FW-01	8	4	10	CO	

BULK 10-DAY SEDIMENT TOXICITY TEST STTS 2014

PN# 16100036 For Site: Troy Mills

Start Date: 11/8/2016 End Date: 11/18/2016

Species: H. azteca

Sample ID	Rep	Pos	# Survival	Initials	Notes/Observations
HA RB-02	1	3	10	CO	
HA RB-02	2	28	10	CO	
HA RB-02	3	53	8	CO	
HA RB-02	4	58	9	BH	
HA RB-02	5	42	4	MF	
HA RB-02	6	29	9	BH	
HA RB-02	7	51	10	CO	
HA RB-02	8	32	10	MF	
HA RB-03	1	60	8	[illegible]	
HA RB-03	2	55	10	MR	
HA RB-03	3	37	10	BH	
HA RB-03	4	59	10	MR	
HA RB-03	5	41	10	MF	
HA RB-03	6	19	10	CO	
HA RB-03	7	23	10	BH	
HA RB-03	8	33	9	MF	
H SW-Leach A-01	1	16	8	MF	
H SW-Leach A-01	2	50	6	[illegible]	
H SW-Leach A-01	3	34	6	BH	
H SW-Leach A-01	4	61	10	MF	
H SW-Leach A-01	5	64	10	MF	
H SW-Leach A-01	6	39	6	CO	
H SW-Leach A-01	7	8	5	BH	
H SW-Leach A-01	8	48	6	BH	
H SW-Leach A-02	1	6	10	CO	
H SW-Leach A-02	2	26	9	MF	
H SW-Leach A-02	3	1	10	MF	
H SW-Leach A-02	4	25	10	BH	
H SW-Leach A-02	5	14	10	BH	
H SW-Leach A-02	6	15	9	MF	
H SW-Leach A-02	7	10	9	BH	
H SW-Leach A-02	8	43	9	CO	

BULK 10-DAY SEDIMENT TOXICITY TEST STTS 2014

PN# 16100036 For Site: Troy Mills

Start Date: 11/8/2016 End Date: 11/18/2016

Species: C. dilutus

Sample ID	Rep	Pos	# Survival	Initials	Notes/Observations
Cdi Lab Control	1	15	10	[illegible]	
Cdi Lab Control	2	38	10	ZZ	
Cdi Lab Control	3	14	10	MR	
Cdi Lab Control	4	33	9	MR	
Cdi Lab Control	5	55	10	ZZ	
Cdi Lab Control	6	10	8	MR	
Cdi Lab Control	7	19	10	MR	
Cdi Lab Control	8	43	10	MR	
Cdi FW-Ref	1	34	9	[illegible]	
Cdi FW-Ref	2	53	8	ZZ	
Cdi FW-Ref	3	2	8	ZZ	2 sets of 2 worms were stuck together
Cdi FW-Ref	4	62	9	MR	
Cdi FW-Ref	5	49	10	[illegible]	
Cdi FW-Ref	6	7	10	MR	
Cdi FW-Ref	7	63	9	[illegible]	
Cdi FW-Ref	8	60	9	ZZ	
Cdi RB-Ref	1	20	10	MR	
Cdi RB-Ref	2	5	0	MF	1 Empty Caddis Fly casing
Cdi RB-Ref	3	45	6	ZZ	
Cdi RB-Ref	4	16	10	MR	
Cdi RB-Ref	5	47	3	MR	
Cdi RB-Ref	6	35	3	MR	large insect larvae found
Cdi RB-Ref	7	22	8	MR	
Cdi RB-Ref	8	23	0	ZZ/MF	1 Dead C. dilutus floating
Cdi FW-01	1	17	9	[illegible]	
Cdi FW-01	2	18	9	MR	
Cdi FW-01	3	31	10	ZZ	
Cdi FW-01	4	32	10	[illegible]	
Cdi FW-01	5	11	8	[illegible]	
Cdi FW-01	6	12	10	MR	
Cdi FW-01	7	50	7	[illegible]	
Cdi FW-01	8	30	02	[illegible]	

Cdi FW-Ref Rep 8 #60 and Cdi Leach A-01 Rep 2 #39 had large discrepancies between survival # on bench sheet and pan count after weighing. #60 had 4 too few dilutus and #39 had 4 too many. Possible explanation: the dilutus somehow moved (pan bumped, cart jostle during transport, desiccator bumped etc.) from #60 pan to #39 pan. Pan #60 was above pan #39 in the desiccator, and the size of the extra dilutus in #39 (much larger than the other 3 in the pan).

BULK 10-DAY SEDIMENT TOXICITY TEST **STTS 2014**

PN# 16100036 For Site: Troy Mills

Start Date: 11/8/2016 End Date: 11/18/2016

Species: C. dilutus

Sample ID	Rep	Pos	# Survival	Initials	Notes/Observations
Cdi RB-02	1	64	9	MF	
Cdi RB-02	2	9	1	ZZ	confirmed 1 dead organism
Cdi RB-02	3	58	8	[illegible]	
Cdi RB-02	4	4	8	[illegible]	
Cdi RB-02	5	44	9	[illegible]	
Cdi RB-02	6	3	9	[illegible]	
Cdi RB-02	7	27	8	CO	
Cdi RB-02	8	48	5	[illegible]	
Cdi RB-03	1	21	7	[illegible]	
Cdi RB-03	2	56	5	[illegible]	
Cdi RB-03	3	26	9	[illegible]	
Cdi RB-03	4	37	8	[illegible]	
Cdi RB-03	5	28	5	[illegible]	
Cdi RB-03	6	13	7	[illegible]	
Cdi RB-03	7	6	5	[illegible]	
Cdi RB-03	8	36	9	[illegible]	
C SW-Leach A-01	1	1	0	MF	
C SW-Leach A-01	2	39	3	ZZ	
C SW-Leach A-01	3	29	7	MR	
C SW-Leach A-01	4	51	2	MR	
C SW-Leach A-01	5	8	2	[illegible]	
C SW-Leach A-01	6	46	1	MR	
C SW-Leach A-01	7	57	1	[illegible]	
C SW-Leach A-01	8	40	2	MF	
C SW-Leach A-02	1	25	0	MR	1 dea Caddis Fly found
C SW-Leach A-02	2	61	0	MR	1 ordinate larvae found
C SW-Leach A-02	3	59	9	[illegible]	
C SW-Leach A-02	4	24	9	ZZ	1 dilutus pupa
C SW-Leach A-02	5	41	9	[illegible]	Three worms
C SW-Leach A-02	6	54	9	[illegible]	
C SW-Leach A-02	7	52	5	[illegible]	
C SW-Leach A-02	8	42	9	[illegible]	

CETIS Test Data Worksheet

Hyalella 10-d Survival and Growth Sediment Test — U.S. EPA Region I Lab

Start Date:	08 Nov-16	**Species:**	Hyalella azteca	**Sample Code:**	HA Lab Control
End Date:		**Protocol:**	EPA/600/R-99/064 (2000)	**Sample Source:**	In house
Sample Date:	28 Oct-16	**Material:**	Lab Control	**Sample Station:**	HA Control

Batch Notes: 2016 Troy Mills Sed Tox Test - H. azteca

Sample Code	Rep	Pos	# Exposed	# Survived	Total Weight-mg	Tare Weight-mg	Pan Count	Mean Length-mm	Notes
HA Lab Control	1	63	10	10	1017.77	1017.09	10		
HA Lab Control	2	54	10	10	1003.62	1002.94	10		
HA Lab Control	3	7	10	9	1013.37	1012.7	9		
HA Lab Control	4	30	10	10	1017.36	1016.69	10		
HA Lab Control	5	38	10	10	1021.75	1020.93	10		
HA Lab Control	6	13	10	10	1001.22	1000.32	10		
HA Lab Control	7	52	10	10	1038.53	1037.68	9		
HA Lab Control	8	49	10	9	1048.96	1048.04	9		
HA FW-Ref	1	35	10	8	994.75	993.9	8		
HA FW-Ref	2	44	10	8	1053.07	1052.34	8		
HA FW-Ref	3	57	10	9	1061.34	1060.14	8		
HA FW-Ref	4	27	10	10	1010.03	1008.86	10		
HA FW-Ref	5	2	10	10	1024.25	1023.3	10		
HA FW-Ref	6	5	10	10	1021.63	1020.53	10		
HA FW-Ref	7	45	10	9	1027.24	1026.44	9		
HA FW-Ref	8	46	10	10	1027.02	1025.99	10		
HA RB-Ref	1	47	10	9	977.26	976.5	9		
HA RB-Ref	2	40	10	10	1031.07	1029.99	10		
HA RB-Ref	3	62	10	10	1026.19	1025.2	10		
HA RB-Ref	4	24	10	10	1023.14	1022.04	10		
HA RB-Ref	5	17	10	8	1029.76	1029.14	8		
HA RB-Ref	6	21	10	10	1009.26	1008.05	10		
HA RB-Ref	7	36	10	10	1021.66	1020.77	10		
HA RB-Ref	8	9	10	10	1050.18	1049.34	10		
HA FW-01	1	12	10	10	1014.71	1013.62	10		
HA FW-01	2	18	10	10	1020.39	1019.5	10		
HA FW-01	3	31	10	10	983.44	982.45	10		
HA FW-01	4	56	10	9	999.19	998.36	9		
HA FW-01	5	11	10	8	1020.21	1019.45	8		
HA FW-01	6	22	10	8	991.08	989.98	8		
HA FW-01	7	20	10	10	969.89	968.65	10		
HA FW-01	8	4	10	10	969.72	968.68	10		

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CETIS Test Data Worksheet

Report Date: 10 Jan-17 14:34 (p 2 of 2)
Test Code: 6-0637-9979/1116HATROYCSED

Sample Code	Rep	Pos	# Exposed	# Survived	Total Weight-mg	Tare Weight-mg	Pan Count	Mean Length-mm	Notes
HA RB-02	1	3	10	10	1014.89	1013.76	10		
HA RB-02	2	28	10	10	994.71	993.58	10		
HA RB-02	3	53	10	8	988.07	987.35	8		
HA RB-02	4	58	10	9	1064.42	1063.45	9		
HA RB-02	5	42	10	4	1018.7	1018.24	4		
HA RB-02	6	29	10	9	1030.21	1029.03	9		
HA RB-02	7	51	10	10	1010.82	1009.85	10		
HA RB-02	8	32	10	10	1023.34	1022.12	10		
HA RB-03	1	60	10	8	1015.56	1014.77	8		
HA RB-03	2	55	10	10	1008.26	1007.09	10		
HA RB-03	3	37	10	10	986.17	985.14	10		
HA RB-03	4	59	10	10	992.24	990.97	10		
HA RB-03	5	41	10	10	989.55	988.43	10		
HA RB-03	6	19	10	10	1015.36	1014.41	10		
HA RB-03	7	23	10	10	1045.52	1044.5	10		
HA RB-03	8	33	10	9	1015.62	1014.27	9		
H SW-Leach A-01	1	16	10	8	1017.41	1016.62	8		
H SW-Leach A-01	2	50	10	6	1036.87	1036.5	6		
H SW-Leach A-01	3	34	10	6	1015.59	1014.99	6		
H SW-Leach A-01	4	61	10	10	1015.25	1014.56	10		
H SW-Leach A-01	5	64	10	10	1021.86	1021.19	10		
H SW-Leach A-01	6	39	10	6	1014.11	1013.61	6		
H SW-Leach A-01	7	8	10	5	1005.13	1004.64	5		
H SW-Leach A-01	8	48	10	6	1022.63	1022.14	6		
H SW-Leach A-02	1	6	10	10	1027.81	1026.82	10		
H SW-Leach A-02	2	26	10	9	981.52	980.64	9		
H SW-Leach A-02	3	1	10	10	989.28	988.35	10		
H SW-Leach A-02	4	25	10	10	990.73	989.92	10		
H SW-Leach A-02	5	14	10	10	983.99	983.16	10		
H SW-Leach A-02	6	15	10	9	961.61	960.48	9		
H SW-Leach A-02	7	10	10	9	1011.68	1010.95	9		
H SW-Leach A-02	8	43	10	9	1048.44	1047.58	9		

CETIS Analytical Report

U.S. EPA Region I Lab

Hyalella 10-d Survival and Growth Sediment Test

Analysis ID:	04-0717-1785	Endpoint:	Survival Rate	CETIS Version:	CETISv1.8.7
Analyzed:	09 Mar-17 15:14	Analysis:	Parametric-Control vs Treatments	Official Results:	Yes
Batch ID:	17-6236-5666	Test Type:	Survival-Growth	Analyst:	
Start Date:	08 Nov-16	Protocol:	EPA/600/R-99/064 (2000)	Diluent:	Not Applicable
Ending Date:		Species:	Hyalella azteca	Brine:	
Duration:	NA	Source:	In-House Culture	Age:	

Batch Note: 2016 Troy Mills Sed Tox Test - H. azteca

Sample Code	Sample Notes
HA FW-Ref	2016 Troy Mills Sed Tox Test - H. azteca
HA FW-01	2016 Troy Mills Sed Tox Test - H. azteca
H SW-Leach A-01	2016 Troy Mills Sed Tox Test - H. azteca

Sample Code	Sample ID	Sample Date	Receive Date	Sample Age	Client Name	Project
HA FW-Ref	05-6737-7348	28 Oct-16		11d 0h	EPA Region I	Troy Mills
HA FW-01	08-6061-8510	28 Oct-16		11d 0h		
H SW-Leach A-01	00-2057-0158	28 Oct-16		11d 0h		

Sample Code	Material Type	Sample Source	Station Location	Latitude	Longitude
HA FW-Ref	Site Sediment	Troy Mills Landfill	HA FW-Ref		
HA FW-01	Site Sediment	Troy Mills Landfill	HA FW-01		
H SW-Leach A-01	Site Sediment	Troy Mills Landfill	HA SW-Leach A-01		

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Angular (Corrected)	NA	C > T	NA	NA	13.3%	

Dunnett Multiple Comparison Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
HA FW-Ref		HA FW-01	-0.2219	2.022	0.186	14	0.7489	CDF	Non-Significant Effect
		H SW-Leach A-01	2.859	2.022	0.186	14	0.0088	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3980753	0.1990376	2	5.905	0.0092	Significant Effect
Error	0.7078395	0.03370664	21			
Total	1.105915		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	3.376	9.21	0.1849	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8935	0.884	0.0157	Normal Distribution

Survival Rate Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
HA FW-Ref	8	0.925	0.8509	0.9991	0.95	0.8	1	0.03134	9.58%	0.0%
HA FW-01	8	0.9375	0.8609	1	1	0.8	1	0.03239	9.77%	-1.35%
H SW-Leach A-01	8	0.7125	0.5487	0.8763	0.6	0.5	1	0.06928	27.5%	22.97%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
HA FW-Ref	8	1.295	1.181	1.409	1.331	1.107	1.412	0.0481	10.51%	0.0%
HA FW-01	8	1.315	1.198	1.433	1.412	1.107	1.412	0.04961	10.67%	-1.57%
H SW-Leach A-01	8	1.033	0.8229	1.242	0.8861	0.7854	1.412	0.08869	24.29%	20.27%

Analyst: ZZ QA: CO

Hyalella 10-d Survival and Growth Sediment Test

U.S. EPA Region I Lab

Analysis ID: 04-0717-1785 Endpoint: Survival Rate CETIS Version: CETISv1.8.7
Analyzed: 09 Mar-17 15:14 Analysis: Parametric-Control vs Treatments Official Results: Yes

Survival Rate Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
HA FW-Ref	0.8	0.8	0.9	1	1	1	0.9	1
HA FW-01	1	1	1	0.9	0.8	0.8	1	1
H SW-Leach A-01	0.8	0.6	0.6	1	1	0.6	0.5	0.6

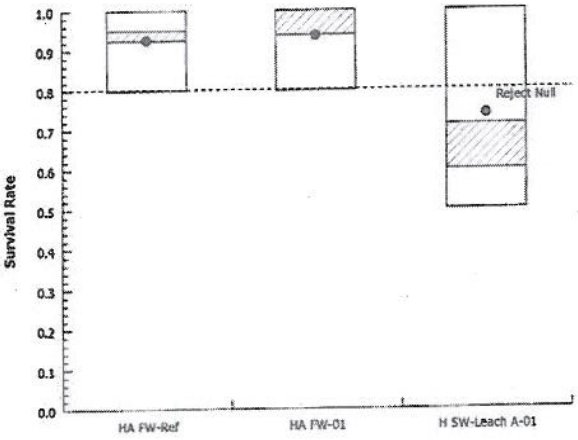
Angular (Corrected) Transformed Detail

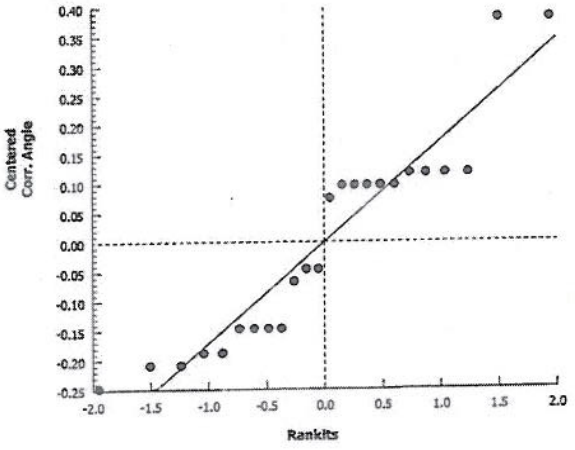
Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
HA FW-Ref	1.107	1.107	1.249	1.412	1.412	1.412	1.249	1.412
HA FW-01	1.412	1.412	1.412	1.249	1.107	1.107	1.412	1.412
H SW-Leach A-01	1.107	0.8861	0.8861	1.412	1.412	0.8861	0.7854	0.8861

Survival Rate Binomials

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
HA FW-Ref	8/10	8/10	9/10	10/10	10/10	10/10	9/10	10/10
HA FW-01	10/10	10/10	10/10	9/10	8/10	8/10	10/10	10/10
H SW-Leach A-01	8/10	6/10	6/10	10/10	10/10	6/10	5/10	6/10

Graphics





CETIS Analytical Report

U.S. EPA Region I Lab

Hyalella 10-d Survival and Growth Sediment Test

Analysis ID:	14-1359-5150	Endpoint:	Survival Rate	CETIS Version:	CETISv1.8.7
Analyzed:	09 Mar-17 15:14	Analysis:	Nonparametric-Control vs Treatments	Official Results:	Yes
Batch ID:	17-6236-5666	Test Type:	Survival-Growth	Analyst:	
Start Date:	08 Nov-16	Protocol:	EPA/600/R-99/064 (2000)	Diluent:	Not Applicable
Ending Date:		Species:	Hyalella azteca	Brine:	
Duration:	NA	Source:	In-House Culture	Age:	

Batch Note: 2016 Troy Mills Sed Tox Test - H. azteca

Sample Code	Sample Notes
HA RB-Ref	2016 Troy Mills Sed Tox Test - H. azteca
HA RB-02	2016 Troy Mills Sed Tox Test - H. azteca
HA RB-03	2016 Troy Mills Sed Tox Test - H. azteca
H SW-Leach A-02	2016 Troy Mills Sed Tox Test - H. azteca

Sample Code	Sample ID	Sample Date	Receive Date	Sample Age	Client Name	Project
HA RB-Ref	14-8487-5507	28 Oct-16		11d 0h	EPA Region I	Troy Mills
HA RB-02	08-9266-2963	28 Oct-16		11d 0h		
HA RB-03	08-4604-6141	28 Oct-16		11d 0h		
H SW-Leach A-02	16-6814-8225	28 Oct-16		11d 0h		

Sample Code	Material Type	Sample Source	Station Location	Latitude	Longitude
HA RB-Ref	Site Sediment	Troy Mills Landfill	HA RB-Ref		
HA RB-02	Site Sediment	Troy Mills Landfill	HA RB-02		
HA RB-03	Site Sediment	Troy Mills Landfill	HA RB-03		
H SW-Leach A-02	Site Sediment	Troy Mills Landfill	HA SW-Leach A-02		

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Angular (Corrected)	NA	C > T	NA	NA	10.8%	

Steel Many-One Rank Sum Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
HA RB-Ref		HA RB-02	59.5	48	3	14	0.3667	Asymp	Non-Significant Effect
		HA RB-03	68	48	3	14	0.7500	Asymp	Non-Significant Effect
		H SW-Leach A-02	62	48	2	14	0.4826	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.06723899	0.02241299	3	0.9204	0.4438	Non-Significant Effect
Error	0.681875	0.02435268	28			
Total	0.749114		31			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	9.501	11.34	0.0233	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7956	0.9081	<0.0001	Non-normal Distribution

Survival Rate Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
HA RB-Ref	8	0.9625	0.9003	1	1	0.8	1	0.02631	7.73%	0.0%
HA RB-02	8	0.875	0.7034	1	0.95	0.4	1	0.07258	23.46%	9.09%
HA RB-03	8	0.9625	0.9003	1	1	0.8	1	0.02631	7.73%	0.0%
H SW-Leach A-02	8	0.95	0.9053	0.9947	0.95	0.9	1	0.0189	5.63%	1.3%

Analyst: ZC QA: CO

Hyalella 10-d Survival and Growth Sediment Test

U.S. EPA Region I Lab

Analysis ID: 14-1359-5150 Endpoint: Survival Rate CETIS Version: CETISv1.8.7
Analyzed: 09 Mar-17 15:14 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
HA RB-Ref	8	1.354	1.258	1.449	1.412	1.107	1.412	0.04056	8.48%	0.0%
HA RB-02	8	1.242	1.032	1.453	1.331	0.6847	1.412	0.08909	20.28%	8.22%
HA RB-03	8	1.354	1.258	1.449	1.412	1.107	1.412	0.04056	8.48%	0.0%
H SW-Leach A-02	8	1.331	1.258	1.403	1.331	1.249	1.412	0.0308	6.55%	1.7%

Survival Rate Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
HA RB-Ref	0.9	1	1	1	0.8	1	1	1
HA RB-02	1	1	0.8	0.9	0.4	0.9	1	1
HA RB-03	0.8	1	1	1	1	1	1	0.9
H SW-Leach A-02	1	0.9	1	1	1	0.9	0.9	0.9

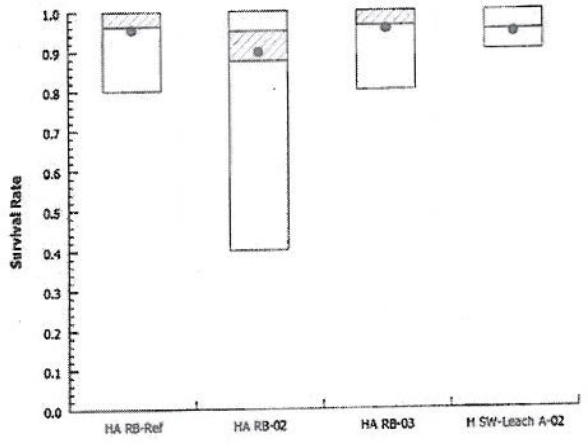
Angular (Corrected) Transformed Detail

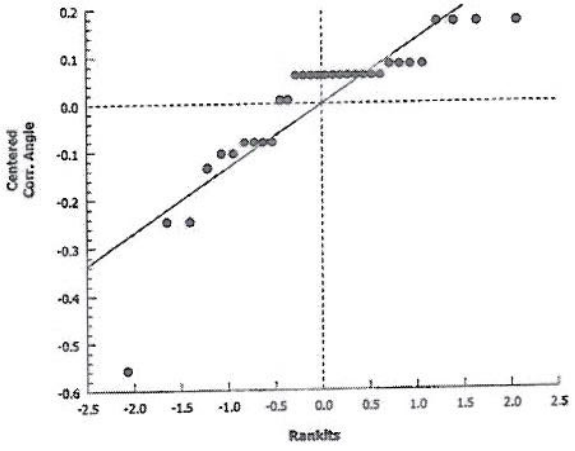
Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
HA RB-Ref	1.249	1.412	1.412	1.412	1.107	1.412	1.412	1.412
HA RB-02	1.412	1.412	1.107	1.249	0.6847	1.249	1.412	1.412
HA RB-03	1.107	1.412	1.412	1.412	1.412	1.412	1.412	1.249
H SW-Leach A-02	1.412	1.249	1.412	1.412	1.412	1.249	1.249	1.249

Survival Rate Binomials

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
HA RB-Ref	9/10	10/10	10/10	10/10	8/10	10/10	10/10	10/10
HA RB-02	10/10	10/10	8/10	9/10	4/10	9/10	10/10	10/10
HA RB-03	8/10	10/10	10/10	10/10	10/10	10/10	10/10	9/10
H SW-Leach A-02	10/10	9/10	10/10	10/10	10/10	9/10	9/10	9/10

Graphics





Analyst: ZZ QA: CB

CETIS Analytical Report

U.S. EPA Region I Lab

Hyalella 10-d Survival and Growth Sediment Test

Analysis ID:	19-9350-9499	Endpoint:	Mean Dry Biomass-mg	CETIS Version:	CETISv1.8.7
Analyzed:	09 Mar-17 15:14	Analysis:	Parametric-Control vs Treatments	Official Results:	Yes
Batch ID:	17-6236-5666	Test Type:	Survival-Growth	Analyst:	
Start Date:	08 Nov-16	Protocol:	EPA/600/R-99/064 (2000)	Diluent:	Not Applicable
Ending Date:		Species:	Hyalella azteca	Brine:	
Duration:	NA	Source:	In-House Culture	Age:	

Batch Note: 2016 Troy Mills Sed Tox Test - H. azteca

Sample Code	Sample Notes
HA FW-Ref	2016 Troy Mills Sed Tox Test - H. azteca
HA FW-01	2016 Troy Mills Sed Tox Test - H. azteca
H SW-Leach A-01	2016 Troy Mills Sed Tox Test - H. azteca

Sample Code	Sample ID	Sample Date	Receive Date	Sample Age	Client Name	Project
HA FW-Ref	05-6737-7348	28 Oct-16		11d 0h	EPA Region I	Troy Mills
HA FW-01	08-6061-8510	28 Oct-16		11d 0h		
H SW-Leach A-01	00-2057-0158	28 Oct-16		11d 0h		

Sample Code	Material Type	Sample Source	Station Location	Latitude	Longitude
HA FW-Ref	Site Sediment	Troy Mills Landfill	HA FW-Ref		
HA FW-01	Site Sediment	Troy Mills Landfill	HA FW-01		
H SW-Leach A-01	Site Sediment	Troy Mills Landfill	HA SW-Leach A-01		

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Untransformed	NA	C > T	NA	NA	16.3%	

Dunnett Multiple Comparison Test

Sample Code	vs Sample Code	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
HA FW-Ref	HA FW-01	-0.1747	2.022	0.016	14	0.7324	CDF	Non-Significant Effect
	H SW-Leach A-01	5.128	2.022	0.016	14	<0.0001	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.009000611	0.004500305	2	18.15	<0.0001	Significant Effect
Error	0.005208158	0.0002480075	21			
Total	0.01420877		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	0.3913	9.21	0.8223	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9576	0.884	0.3927	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
HA FW-Ref	8	0.09788	0.08325	0.1125	0.099	0.073	0.12	0.006183	17.87%	0.0%
HA FW-01	8	0.09925	0.08601	0.1125	0.1015	0.076	0.124	0.005599	15.96%	-1.41%
H SW-Leach A-01	8	0.0575	0.04605	0.06894	0.055	0.037	0.079	0.00484	23.81%	41.25%

Mean Dry Biomass-mg Detail

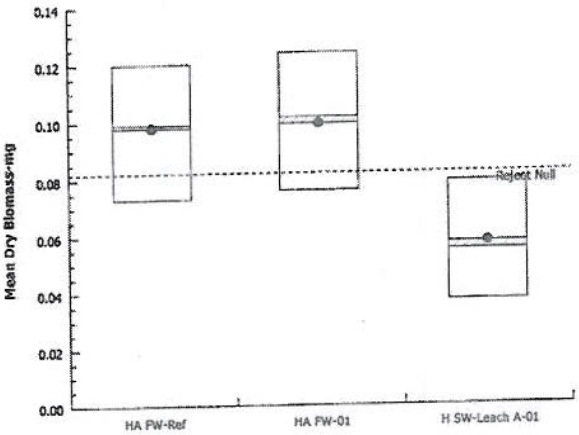
Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
HA FW-Ref	0.085	0.073	0.12	0.117	0.095	0.11	0.08	0.103
HA FW-01	0.109	0.089	0.099	0.083	0.076	0.11	0.124	0.104
H SW-Leach A-01	0.079	0.037	0.06	0.069	0.067	0.05	0.049	0.049

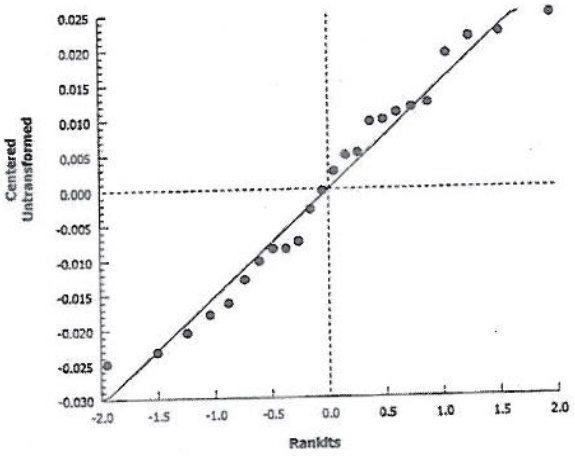
Analyst: ZZ QA: (0

Hyalella 10-d Survival and Growth Sediment Test

Analysis ID: 19-9350-9499 Endpoint: Mean Dry Biomass-mg CETIS Version: CETISv1.8.7
Analyzed: 09 Mar-17 15:14 Analysis: Parametric-Control vs Treatments Official Results: Yes

Graphics





Analyst: ZZ QA: CO

CETIS Analytical Report

U.S. EPA Region I Lab

Hyalella 10-d Survival and Growth Sediment Test

Analysis ID:	20-3426-5568	Endpoint:	Mean Dry Biomass-mg	CETIS Version:	CETISv1.8.7
Analyzed:	09 Mar-17 15:14	Analysis:	Parametric-Control vs Treatments	Official Results:	Yes
Batch ID:	17-6236-5666	Test Type:	Survival-Growth	Analyst:	
Start Date:	08 Nov-16	Protocol:	EPA/600/R-99/064 (2000)	Diluent:	Not Applicable
Ending Date:		Species:	Hyalella azteca	Brine:	
Duration:	NA	Source:	In-House Culture	Age:	

Batch Note: 2016 Troy Mills Sed Tox Test - H. azteca

Sample Code	Sample Notes
HA RB-Ref	2016 Troy Mills Sed Tox Test - H. azteca
HA RB-02	2016 Troy Mills Sed Tox Test - H. azteca
HA RB-03	2016 Troy Mills Sed Tox Test - H. azteca
H SW-Leach A-02	2016 Troy Mills Sed Tox Test - H. azteca

Sample Code	Sample ID	Sample Date	Receive Date	Sample Age	Client Name	Project
HA RB-Ref	14-8487-5507	28 Oct-16		11d 0h	EPA Region I	Troy Mills
HA RB-02	08-9266-2963	28 Oct-16		11d 0h		
HA RB-03	08-4604-6141	28 Oct-16		11d 0h		
H SW-Leach A-02	16-6814-8225	28 Oct-16		11d 0h		

Sample Code	Material Type	Sample Source	Station Location	Latitude	Longitude
HA RB-Ref	Site Sediment	Troy Mills Landfill	HA RB-Ref		
HA RB-02	Site Sediment	Troy Mills Landfill	HA RB-02		
HA RB-03	Site Sediment	Troy Mills Landfill	HA RB-03		
H SW-Leach A-02	Site Sediment	Troy Mills Landfill	HA SW-Leach A-02		

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Untransformed	NA	C > T	NA	NA	22.6%	

Dunnett Multiple Comparison Test

Sample Code	vs Sample Code	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
HA RB-Ref	HA RB-02	-0.3694	2.154	0.021	14	0.8629	CDF	Non-Significant Effect
	HA RB-03	-1.541	2.154	0.021	14	0.9912	CDF	Non-Significant Effect
	H SW-Leach A-02	0.4201	2.154	0.021	14	0.5788	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0016432	0.0005477334	3	1.421	0.2574	Non-Significant Effect
Error	0.01079071	0.0003853825	28			
Total	0.01243391		31			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	3.621	11.34	0.3055	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9589	0.9081	0.2554	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
HA RB-Ref	8	0.09363	0.07727	0.11	0.094	0.062	0.121	0.006915	20.89%	0.0%
HA RB-02	8	0.09725	0.07535	0.1192	0.105	0.046	0.122	0.009261	26.93%	-3.87%
HA RB-03	8	0.1087	0.09375	0.1237	0.1075	0.079	0.135	0.006344	16.5%	-16.15%
H SW-Leach A-02	8	0.0895	0.07923	0.09977	0.087	0.073	0.113	0.004343	13.73%	4.4%

U.S. EPA Region I Lab

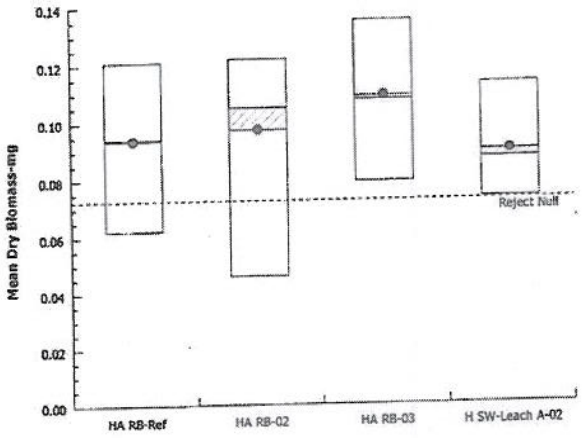
Hyalella 10-d Survival and Growth Sediment Test

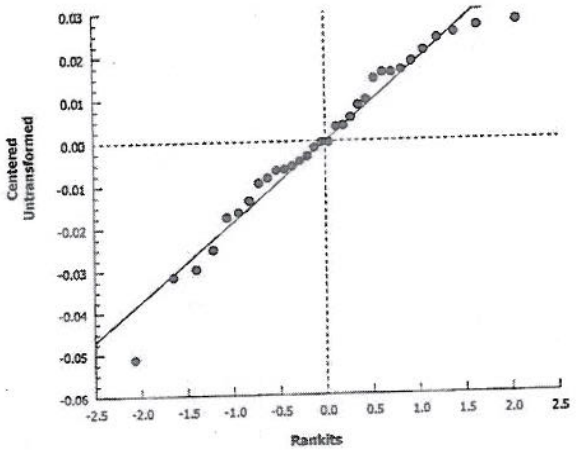
Analysis ID: 20-3426-5568 Endpoint: Mean Dry Biomass-mg CETIS Version: CETISv1.8.7
Analyzed: 09 Mar-17 15:14 Analysis: Parametric-Control vs Treatments Official Results: Yes

Mean Dry Biomass-mg Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
HA RB-Ref	0.076	0.108	0.099	0.11	0.062	0.121	0.089	0.08401
HA RB-02	0.113	0.113	0.072	0.09701	0.046	0.118	0.097	0.122
HA RB-03	0.079	0.117	0.103	0.127	0.112	0.095	0.102	0.135
H SW-Leach A-02	0.09901	0.088	0.09301	0.081	0.083	0.113	0.073	0.086

Graphics





Analyst: ZZ QA: CO

CETIS Test Data Worksheet

U.S. EPA Region I Lab

Chironomus 10-d Survival and Growth Sediment Test

Start Date: 08 Nov-16
End Date:
Sample Date: 28 Oct-16
Species: Chironomus dilutus (Midge)
Protocol: EPA/600/R-99/064 (2000)
Material: Lab Control
Sample Code: Cdi Lab Control
Sample Source: In house
Sample Station: Cdi Control

Batch Notes: 2016 Troy Mills Sed Tox Test - C. dilutus

Sample Code	Rep	Pos	# Exposed	# Survived	Total Weight-mg	Ashed Weight-mg	Pan Count	Mean Length-mm	Notes
Cdi Lab Control	1	14	10	10	1050.75	1038.35	9		
Cdi Lab Control	2	58	10	10	1032.71	1021.08	10		
Cdi Lab Control	3	40	10	10	1023.15	1010.14	10		
Cdi Lab Control	4	23	10	9	1026.06		9		
Cdi Lab Control	5	18	10	10	1008.58	996.01	10		
Cdi Lab Control	6	28	10	8	1067.53	1055.31	8		
Cdi Lab Control	7	32	10	10	1054.93	1041.8	10		
Cdi Lab Control	8	19	10	10	1045.46	1033.18	10		
Cdi FW-Ref	1	25	10	9	1050.25	1037.61	9		
Cdi FW-Ref	2	11	10	8	1034.05	1022.08	8		
Cdi FW-Ref	3	34	10	8	968.6	955.3	8		
Cdi FW-Ref	4	39	10	9	1009.82	997.03	9		
Cdi FW-Ref	5	2	10	10	1051.52	1038.71	9		
Cdi FW-Ref	6	38	10	10	1023.13	1009.64	10		
Cdi FW-Ref	7	36	10	9	1025.96	1013.9	9		
Cdi FW-Ref	8	56	10	9	1012.87	1004.15	5		
Cdi RB-Ref	1	41	10	10	1039.83	1026.52	10		
Cdi RB-Ref	2	21	10	0	0	0	0		
Cdi RB-Ref	3	61	10	6	1019.86	1012.04	6		
Cdi RB-Ref	4	8	10	10	1049.19	1036.9	10		
Cdi RB-Ref	5	50	10	3	1009	1002.87	3		
Cdi RB-Ref	6	52	10						
Cdi RB-Ref	7	51	10	8	1010.82	997.16	8		
Cdi RB-Ref	8	9	10	0	0	0	0		
Cdi FW-01	1	49	10	9	1017.69	1005.46	9		
Cdi FW-01	2	64	10	9	1035.62	1022.75	9		
Cdi FW-01	3	10	10	10	1020.98	1007.19	10		
Cdi FW-01	4	45	10	10	1013.02	999.86	10		
Cdi FW-01	5	26	10	8	1042.66	1031.05	8		
Cdi FW-01	6	12	10	10	991.08	978.77	10		
Cdi FW-01	7	20	10	7	1029.9	1019.3	7		
Cdi FW-01	8	1	10	1	1013.16	1012.19	1		

Project# 16100036 41 of 55

CETIS Test Data Worksheet

Sample Code	Rep	Pos	# Exposed	# Survived	Total Weight-mg	Ashed Weight-mg	Pan Count	Mean Length-mm	Notes
Cdi RB-02	1	37	10	9	1035.4	1026.8	9		
Cdi RB-02	2	22	10	1	1032.26	1030.95	1		
Cdi RB-02	3	3	10	8	1009.31	1002.09	8		
Cdi RB-02	4	63	10	8	1026.16	1019.25	8		
Cdi RB-02	5	24	10	9	1014.66	1005.49	9		
Cdi RB-02	6	55	10	9	1010.18	1002.7	9		
Cdi RB-02	7	16	10	8	1027.82	1018.61	8		
Cdi RB-02	8	60	10	5	1015.48	1012.01	5		
Cdi RB-03	1	5	10	7	1016.32	1008.44	7		
Cdi RB-03	2	54	10	5	1055.26	1048.82	5		
Cdi RB-03	3	33	10	9	1022.2	1012.92	9		
Cdi RB-03	4	17	10	2	1002.17		2		
Cdi RB-03	5	57	10	5	984.85	980.3	5		
Cdi RB-03	6	53	10	7	1017.88	1011.23	7		
Cdi RB-03	7	62	10	5	1024.5	1018.06	5		
Cdi RB-03	8	46	10	9	1007.05	996.66	9		
C SW-Leach A-01	1	13	10	0	0	0	0		
C SW-Leach A-01	2	29	10	3	1039	1033.22	7		
C SW-Leach A-01	3	30	10	7	1047.86	1039.99	7		
C SW-Leach A-01	4	27	10	2	1026.85		2		
C SW-Leach A-01	5	42	10	2	1017.59		2		
C SW-Leach A-01	6	4	10	1	970.44	969.66	1		
C SW-Leach A-01	7	44	10	1	950.46	950.08	1		
C SW-Leach A-01	8	48	10	2	1038.32	1037.71	2		
C SW-Leach A-02	1	59	10	0	0	0	0		
C SW-Leach A-02	2	47	10	0	0	0	0		
C SW-Leach A-02	3	15	10	9	1019.49	1009.1	9		
C SW-Leach A-02	4	35	10	9	1034.25	1023.36	9		
C SW-Leach A-02	5	43	10	9	1035.42	1024.92	9		
C SW-Leach A-02	6	7	10	9	1045.71	1039.01	8		
C SW-Leach A-02	7	31	10	5	1026.4	1021.76	5		
C SW-Leach A-02	8	6	10	9	989.12	982.01	9		

CETIS Analytical Report

Chironomus 10-d Survival and Growth Sediment Test — U.S. EPA Region I Lab

Analysis ID:	06-7885-1711	Endpoint:	Mean AF Biomass-mg	CETIS Version:	CETISv1.8.7
Analyzed:	09 Mar-17 15:03	Analysis:	Parametric-Multiple Comparison	Official Results:	Yes
Batch ID:	19-0937-4625	Test Type:	Survival-AF Growth	Analyst:	
Start Date:	08 Nov-16	Protocol:	EPA/600/R-99/064 (2000)	Diluent:	Not Applicable
Ending Date:		Species:	Chironomus dilutus (Midge)	Brine:	
Duration:	NA	Source:	In-House Culture	Age:	

Batch Note: 2016 Troy Mills Sed Tox Test - C. dilutus

Sample Code	Sample Notes
Cdi FW-Ref	2016 Troy Mills Sed Tox Test - C. dilutus
Cdi FW-01	2016 Troy Mills Sed Tox Test - C. dilutus
C SW-Leach A-01	2016 Troy Mills Sed Tox Test - C. dilutus

Sample Code	Sample ID	Sample Date	Receive Date	Sample Age	Client Name	Project
Cdi FW-Ref	05-5825-6602	28 Oct-16		11d 0h	EPA Region I	Troy Mills
Cdi FW-01	03-1201-4475	28 Oct-16		11d 0h		
C SW-Leach A-01	18-2151-0801	28 Oct-16		11d 0h		

Sample Code	Material Type	Sample Source	Station Location	Latitude	Longitude
Cdi FW-Ref	Site Sediment	Troy Mills Landfill	Cdi FW-Ref		
Cdi FW-01	Site Sediment	Troy Mills Landfill	Cdi FW-01		
C SW-Leach A-01	Site Sediment	Troy Mills Landfill	Cdi SW-Leach A-01		

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Untransformed	NA	C > T	NA	NA	29.5%	

Bonferroni Adj t Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Cdi FW-Ref		Cdi FW-01	0.803	2.093	0.334	14	0.4319	CDF	Non-Significant Effect
		C SW-Leach A-01	5.607	2.093	0.360	12	<0.0001	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.609898	1.804949	2	17.76	<0.0001	Significant Effect
Error	1.930905	0.1016266	19			
Total	5.540802		21			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	5.803	9.21	0.0549	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8771	0.8757	0.0107	Normal Distribution

Mean AF Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
Cdi FW-Ref	8	1.222	1.096	1.349	1.271	0.872	1.349	0.0534	12.36%	0.0%
Cdi FW-01	8	1.094	0.7477	1.441	1.227	0.097	1.379	0.1466	37.88%	10.47%
C SW-Leach A-01	6	0.257	-0.09683	0.6108	0.0695	0	0.787	0.1376	131.2%	78.97%

Mean AF Biomass-mg Detail

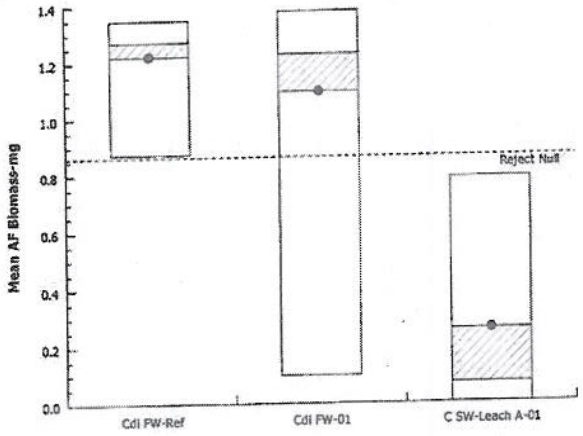
Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
Cdi FW-Ref	1.264	1.197	1.33	1.279	1.281	1.349	1.206	0.872
Cdi FW-01	1.223	1.287	1.379	1.316	1.161	1.231	1.06	0.097
C SW-Leach A-01	0	0.578	0.787	0.078	0.038	0.061		

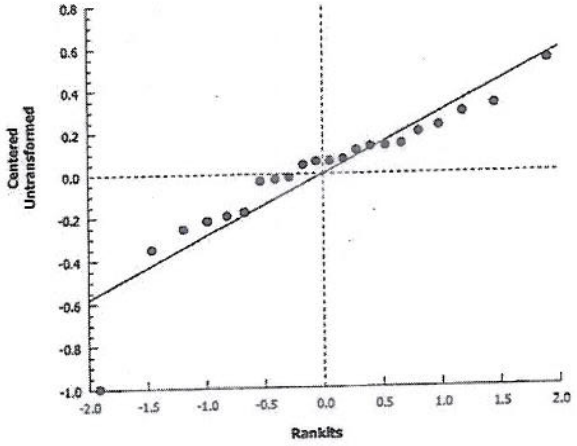
Analyst: ZZ QA: CO

Chironomus 10-d Survival and Growth Sediment Test
U.S. EPA Region I Lab

Analysis ID: 06-7885-1711 Endpoint: Mean AF Biomass-mg CETIS Version: CETISv1.8.7
Analyzed: 09 Mar-17 15:03 Analysis: Parametric-Multiple Comparison Official Results: Yes

Graphics





Analyst: ZZ QA: CO

CETIS Analytical Report

U.S. EPA Region I Lab

Chironomus 10-d Survival and Growth Sediment Test

Analysis ID:	14-6225-4818	Endpoint:	Mean AF Biomass-mg	CETIS Version:	CETISv1.8.7
Analyzed:	09 Mar-17 15:09	Analysis:	Parametric-Multiple Comparison	Official Results:	Yes
Batch ID:	19-0937-4625	Test Type:	Survival-AF Growth	Analyst:	
Start Date:	08 Nov-16	Protocol:	EPA/600/R-99/064 (2000)	Diluent:	Not Applicable
Ending Date:		Species:	Chironomus dilutus (Midge)	Brine:	
Duration:	NA	Source:	In-House Culture	Age:	

Batch Note: 2016 Troy Mills Sed Tox Test - C. dilutus

Sample Code	Sample Notes
Cdi RB-Ref	2016 Troy Mills Sed Tox Test - C. dilutus
Cdi RB-02	2016 Troy Mills Sed Tox Test - C. dilutus
Cdi RB-03	2016 Troy Mills Sed Tox Test - C. dilutus
C SW-Leach A-02	2016 Troy Mills Sed Tox Test - C. dilutus

Sample Code	Sample ID	Sample Date	Receive Date	Sample Age	Client Name	Project
Cdi RB-Ref	18-1639-4271	28 Oct-16		11d 0h	EPA Region I	Troy Mills
Cdi RB-02	10-1616-5779	28 Oct-16		11d 0h		
Cdi RB-03	10-8352-1382	28 Oct-16		11d 0h		
C SW-Leach A-02	00-0498-9718	28 Oct-16		11d 0h		

Sample Code	Material Type	Sample Source	Station Location	Latitude	Longitude
Cdi RB-Ref	Site Sediment	Troy Mills Landfill	Cdi RB-Ref		
Cdi RB-02	Site Sediment	Troy Mills Landfill	Cdi RB-02		
Cdi RB-03	Site Sediment	Troy Mills Landfill	Cdi RB-03		
C SW-Leach A-02	Site Sediment	Troy Mills Landfill	Cdi SW-Leach A-02		

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Untransformed	NA	C > T	NA	NA	62.0%	

Bonferroni Adj t Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Cdi RB-Ref		Cdi RB-02	0.4435	2.247	0.471	13	0.9917	CDF	Non-Significant Effect
		Cdi RB-03	0.1042	2.247	0.487	12	1.0000	CDF	Non-Significant Effect
		C SW-Leach A-02	0.6306	2.247	0.471	13	0.8007	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0846529	0.02821763	3	0.1718	0.9145	Non-Significant Effect
Error	4.270769	0.1642604	26			
Total	4.355422		29			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	7.372	11.34	0.0609	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9488	0.9031	0.1572	Normal Distribution

Mean AF Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
Cdi RB-Ref	7	0.7601	0.2142	1.306	0.782	0	1.366	0.2231	77.65%	0.0%
Cdi RB-02	8	0.6671	0.4298	0.9045	0.735	0.131	0.921	0.1004	42.55%	12.24%
Cdi RB-03	7	0.7376	0.5556	0.9195	0.665	0.455	1.039	0.07437	26.68%	2.97%
C SW-Leach A-02	8	0.6279	0.2562	0.9996	0.6905	0	1.089	0.1572	70.81%	17.4%

Analyst: ZZ QA: CO

Chironomus 10-d Survival and Growth Sediment Test

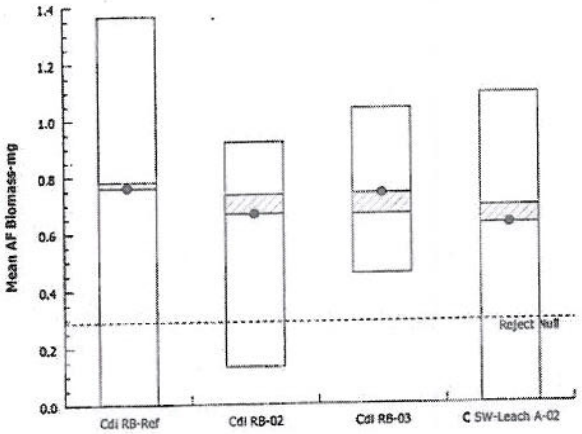
U.S. EPA Region I Lab

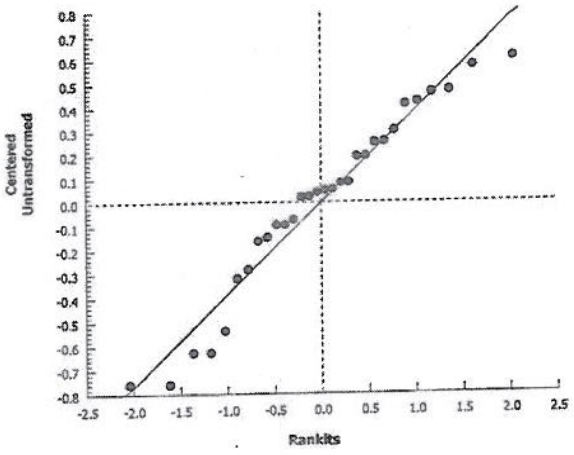
Analysis ID: 14-6225-4818 Endpoint: Mean AF Biomass-mg CETIS Version: CETISv1.8.7
Analyzed: 09 Mar-17 15:09 Analysis: Parametric-Multiple Comparison Official Results: Yes

Mean AF Biomass-mg Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
Cdi RB-Ref	1.331	0	0.782	1.229	0.613	1.366	0	
Cdi RB-02	0.86	0.131	0.722	0.691	0.917	0.748	0.921	0.347
Cdi RB-03	0.788	0.644	0.928	0.455	0.665	0.644	1.039	
C SW-Leach A-02	0	0	1.039	1.089	1.05	0.67	0.464	0.711

Graphics





Analyst: ZZ QA: CO

CETIS Analytical Report

U.S. EPA Region I Lab

Chironomus 10-d Survival and Growth Sediment Test

Analysis ID:	04-4733-5554	Endpoint:	Survival Rate	CETIS Version:	CETISv1.8.7
Analyzed:	09 Mar-17 15:03	Analysis:	Parametric-Control vs Treatments	Official Results:	Yes
Batch ID:	19-0937-4625	Test Type:	Survival-AF Growth	Analyst:	
Start Date:	08 Nov-16	Protocol:	EPA/600/R-99/064 (2000)	Diluent:	Not Applicable
Ending Date:		Species:	Chironomus dilutus (Midge)	Brine:	
Duration:	NA	Source:	In-House Culture	Age:	

Batch Note: 2016 Troy Mills Sed Tox Test - C. dilutus

Sample Code	Sample Notes
Cdi FW-Ref	2016 Troy Mills Sed Tox Test - C. dilutus
Cdi FW-01	2016 Troy Mills Sed Tox Test - C. dilutus
C SW-Leach A-01	2016 Troy Mills Sed Tox Test - C. dilutus

Sample Code	Sample ID	Sample Date	Receive Date	Sample Age	Client Name	Project
Cdi FW-Ref	05-5825-6602	28 Oct-16		11d 0h	EPA Region I	Troy Mills
Cdi FW-01	03-1201-4475	28 Oct-16		11d 0h		
C SW-Leach A-01	18-2151-0801	28 Oct-16		11d 0h		

Sample Code	Material Type	Sample Source	Station Location	Latitude	Longitude
Cdi FW-Ref	Site Sediment	Troy Mills Landfill	Cdi FW-Ref		
Cdi FW-01	Site Sediment	Troy Mills Landfill	Cdi FW-01		
C SW-Leach A-01	Site Sediment	Troy Mills Landfill	Cdi SW-Leach A-01		

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Angular (Corrected)	NA	C > T	NA	NA	22.5%	

Dunnett Multiple Comparison Test

Sample Code	vs Sample Code	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Cdi FW-Ref	Cdi FW-01	0.8358	2.022	0.266	14	0.3206	CDF	Non-Significant Effect
	C SW-Leach A-01	5.953	2.022	0.266	14	<0.0001	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.881167	1.440584	2	20.78	<0.0001	Significant Effect
Error	1.456104	0.06933827	21			
Total	4.337271		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	7.406	9.21	0.0247	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.885	0.884	0.0105	Normal Distribution

Survival Rate Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
Cdi FW-Ref	8	0.9	0.8368	0.9632	0.9	0.8	1	0.02673	8.4%	0.0%
Cdi FW-01	8	0.8	0.5472	1	0.9	0.1	1	0.1069	37.8%	11.11%
C SW-Leach A-01	8	0.225	0.04765	0.4023	0.2	0	0.7	0.075	94.28%	75.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
Cdi FW-Ref	8	1.254	1.158	1.351	1.249	1.107	1.412	0.04079	9.2%	0.0%
Cdi FW-01	8	1.144	0.8382	1.45	1.249	0.3218	1.412	0.1294	32.0%	8.77%
C SW-Leach A-01	8	0.4705	0.2646	0.6764	0.4636	0.1588	0.9912	0.08707	52.34%	62.49%

Analyst: ZZ QA: CO

Chironomus 10-d Survival and Growth Sediment Test
U.S. EPA Region I Lab

Analysis ID: 04-4733-5554 Endpoint: Survival Rate CETIS Version: CETISv1.8.7
Analyzed: 09 Mar-17 15:03 Analysis: Parametric-Control vs Treatments Official Results: Yes

Survival Rate Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
Cdi FW-Ref	0.9	0.8	0.8	0.9	1	1	0.9	0.9
Cdi FW-01	0.9	0.9	1	1	0.8	1	0.7	0.1
C SW-Leach A-01	0	0.3	0.7	0.2	0.2	0.1	0.1	0.2

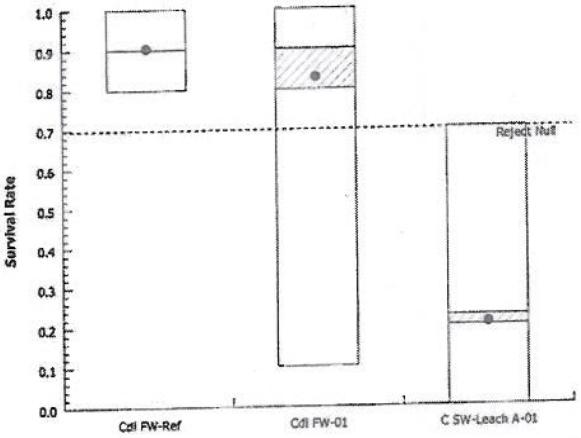
Angular (Corrected) Transformed Detail

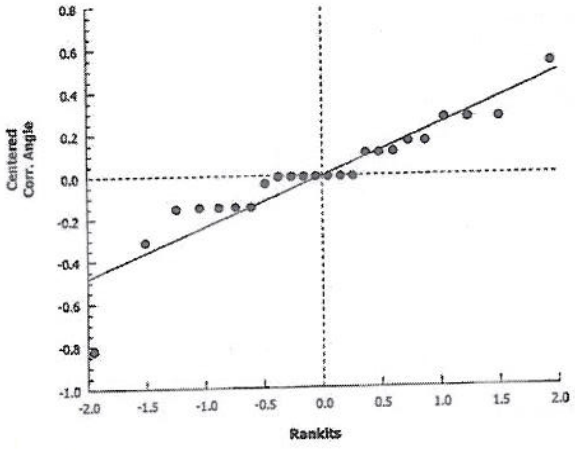
Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
Cdi FW-Ref	1.249	1.107	1.107	1.249	1.412	1.412	1.249	1.249
Cdi FW-01	1.249	1.249	1.412	1.412	1.107	1.412	0.9912	0.3218
C SW-Leach A-01	0.1588	0.5796	0.9912	0.4636	0.4636	0.3218	0.3218	0.4636

Survival Rate Binomials

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
Cdi FW-Ref	9/10	8/10	8/10	9/10	10/10	10/10	9/10	9/10
Cdi FW-01	9/10	9/10	10/10	10/10	8/10	10/10	7/10	1/10
C SW-Leach A-01	0/10	3/10	7/10	2/10	2/10	1/10	1/10	2/10

Graphics





CETIS Analytical Report

U.S. EPA Region I Lab

Chironomus 10-d Survival and Growth Sediment Test

Analysis ID:	13-6323-6653	**Endpoint:**	Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	09 Mar-17 15:09	**Analysis:**	Nonparametric-Multiple Comparison	**Official Results:**	Yes
Batch ID:	19-0937-4625	**Test Type:**	Survival-AF Growth	**Analyst:**	
Start Date:	08 Nov-16	**Protocol:**	EPA/600/R-99/064 (2000)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Chironomus dilutus (Midge)	**Brine:**	
Duration:	NA	**Source:**	In-House Culture	**Age:**	

Batch Note: 2016 Troy Mills Sed Tox Test - C. dilutus

Sample Code	Sample Notes
Cdi RB-Ref	2016 Troy Mills Sed Tox Test - C. dilutus
Cdi RB-02	2016 Troy Mills Sed Tox Test - C. dilutus
Cdi RB-03	2016 Troy Mills Sed Tox Test - C. dilutus
C SW-Leach A-02	2016 Troy Mills Sed Tox Test - C. dilutus

Sample Code	Sample ID	Sample Date	Receive Date	Sample Age	Client Name	Project
Cdi RB-Ref	18-1639-4271	28 Oct-16		11d 0h	EPA Region I	Troy Mills
Cdi RB-02	10-1616-5779	28 Oct-16		11d 0h		
Cdi RB-03	10-8352-1382	28 Oct-16		11d 0h		
C SW-Leach A-02	00-0498-9718	28 Oct-16		11d 0h		

Sample Code	Material Type	Sample Source	Station Location	Latitude	Longitude
Cdi RB-Ref	Site Sediment	Troy Mills Landfill	Cdi RB-Ref		
Cdi RB-02	Site Sediment	Troy Mills Landfill	Cdi RB-02		
Cdi RB-03	Site Sediment	Troy Mills Landfill	Cdi RB-03		
C SW-Leach A-02	Site Sediment	Troy Mills Landfill	Cdi SW-Leach A-02		

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Angular (Corrected)	NA	C > T	NA	NA	79.6%	

Wilcoxon/Bonferroni Adj Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Cdi RB-Ref		Cdi RB-02	69.5	NA	1	13	1.0000	Exact	Non-Significant Effect
		Cdi RB-03	65	NA	0	13	1.0000	Exact	Non-Significant Effect
		C SW-Leach A-02	66	NA	1	13	1.0000	Exact	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1588315	0.05294383	3	0.3074	0.8198	Non-Significant Effect
Error	4.64982	0.1722155	27			
Total	4.808651		30			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	4.107	11.34	0.2502	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9029	0.9056	0.0085	Non-normal Distribution

Survival Rate Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
Cdi RB-Ref	7	0.5286	0.1265	0.9307	0.6	0	1	0.1643	82.26%	0.0%
Cdi RB-02	8	0.7125	0.4784	0.9466	0.8	0.1	0.9	0.09899	39.3%	-34.8%
Cdi RB-03	8	0.6125	0.4155	0.8095	0.6	0.2	0.9	0.08332	38.48%	-15.88%
C SW-Leach A-02	8	0.625	0.2825	0.9675	0.9	0	0.9	0.1449	65.55%	-18.24%

Analyst: ZZ QA: CO

Chironomus 10-d Survival and Growth Sediment Test

U.S. EPA Region I Lab

Analysis ID: 13-6323-6653 Endpoint: Survival Rate CETIS Version: CETISv1.8.7
Analyzed: 09 Mar-17 15:09 Analysis: Nonparametric-Multiple Comparison Official Results: Yes

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
Cdi RB-Ref	7	0.8164	0.3212	1.312	0.8861	0.1588	1.412	0.2024	65.58%	0.0%
Cdi RB-02	8	1.022	0.7533	1.291	1.107	0.3218	1.249	0.1136	31.44%	-25.19%
Cdi RB-03	8	0.9125	0.6916	1.133	0.8883	0.4636	1.249	0.09343	28.96%	-11.78%
C SW-Leach A-02	8	0.9185	0.5043	1.333	1.249	0.1588	1.249	0.1752	53.94%	-12.52%

Survival Rate Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
Cdi RB-Ref	1	0	0.6	1	0.3	0.8	0	
Cdi RB-02	0.9	0.1	0.8	0.8	0.9	0.9	0.8	0.5
Cdi RB-03	0.7	0.5	0.9	0.2	0.5	0.7	0.5	0.9
C SW-Leach A-02	0	0	0.9	0.9	0.9	0.9	0.5	0.9

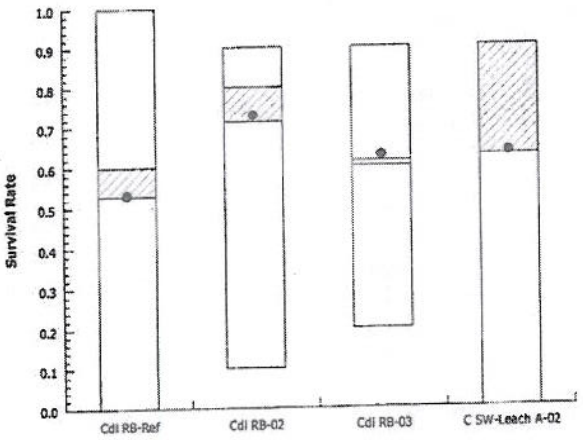
Angular (Corrected) Transformed Detail

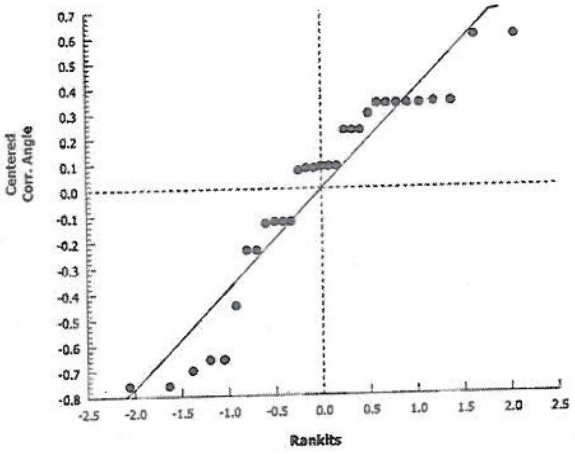
Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
Cdi RB-Ref	1.412	0.1588	0.8861	1.412	0.5796	1.107	0.1588	
Cdi RB-02	1.249	0.3218	1.107	1.107	1.249	1.249	1.107	0.7854
Cdi RB-03	0.9912	0.7854	1.249	0.4636	0.7854	0.9912	0.7854	1.249
C SW-Leach A-02	0.1588	0.1588	1.249	1.249	1.249	1.249	0.7854	1.249

Survival Rate Binomials

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
Cdi RB-Ref	10/10	0/10	6/10	10/10	3/10	8/10	0/10	
Cdi RB-02	9/10	1/10	8/10	8/10	9/10	9/10	8/10	5/10
Cdi RB-03	7/10	5/10	9/10	2/10	5/10	7/10	5/10	9/10
C SW-Leach A-02	0/10	0/10	9/10	9/10	9/10	9/10	5/10	9/10

Graphics



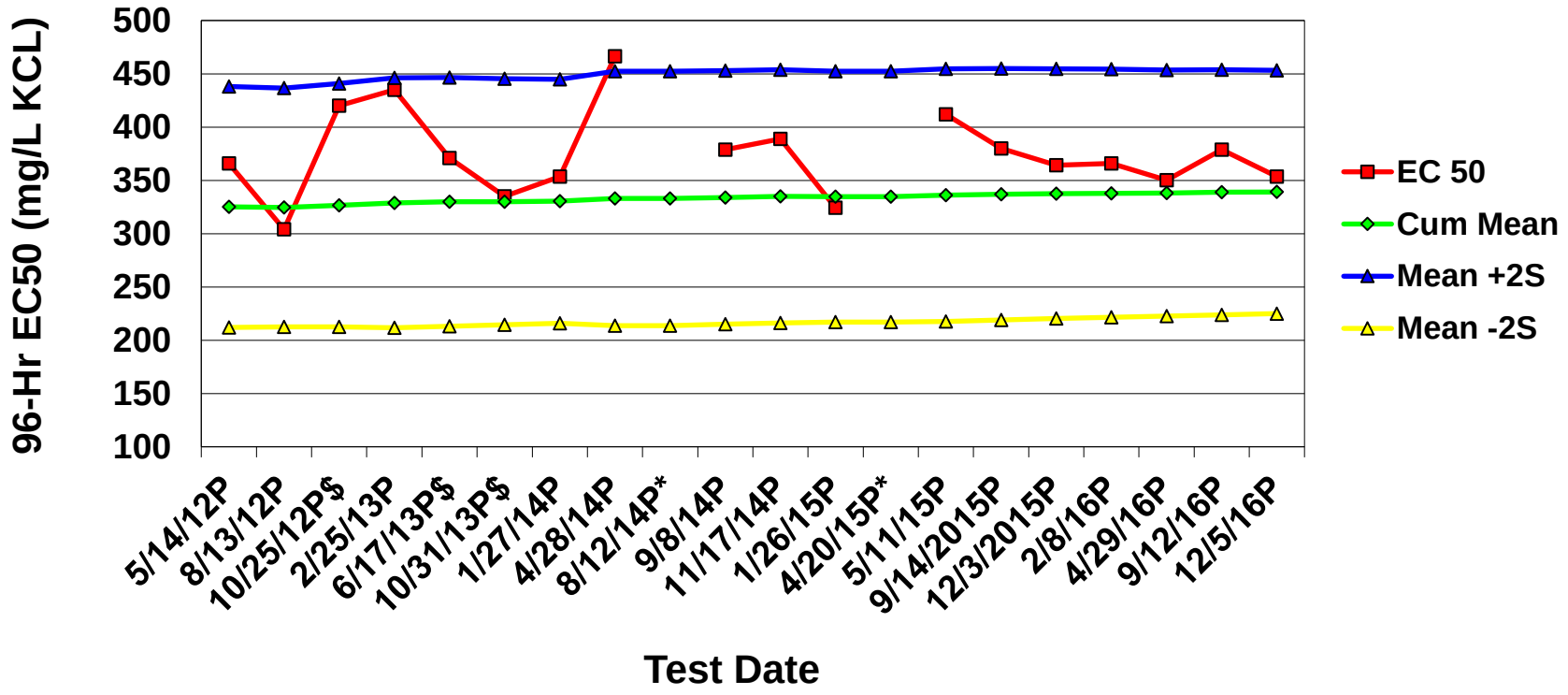


Analyst: ZZ QA: CO

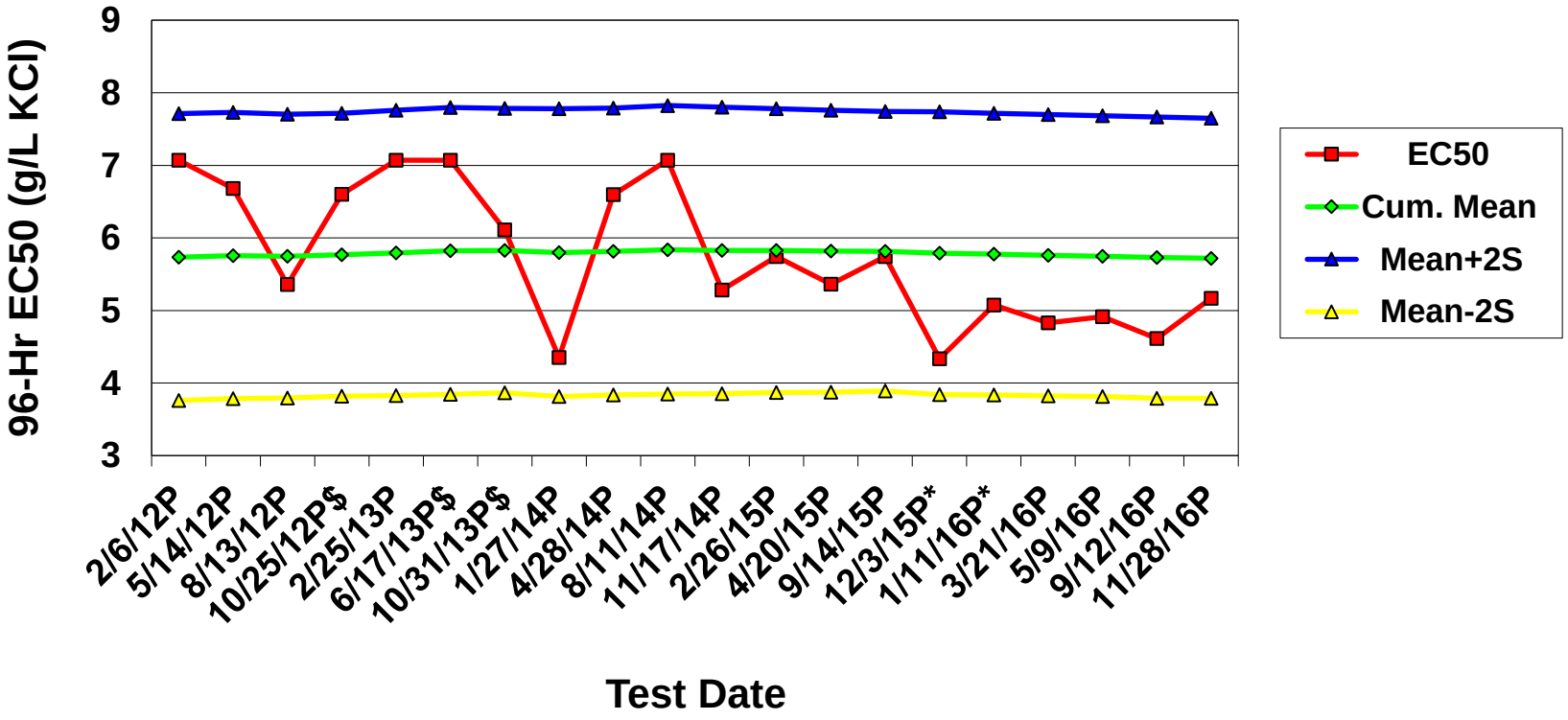
APPENDIX E

Control Charts

H. azteca 96-Hour EC50 Ref. Tox. Control Chart

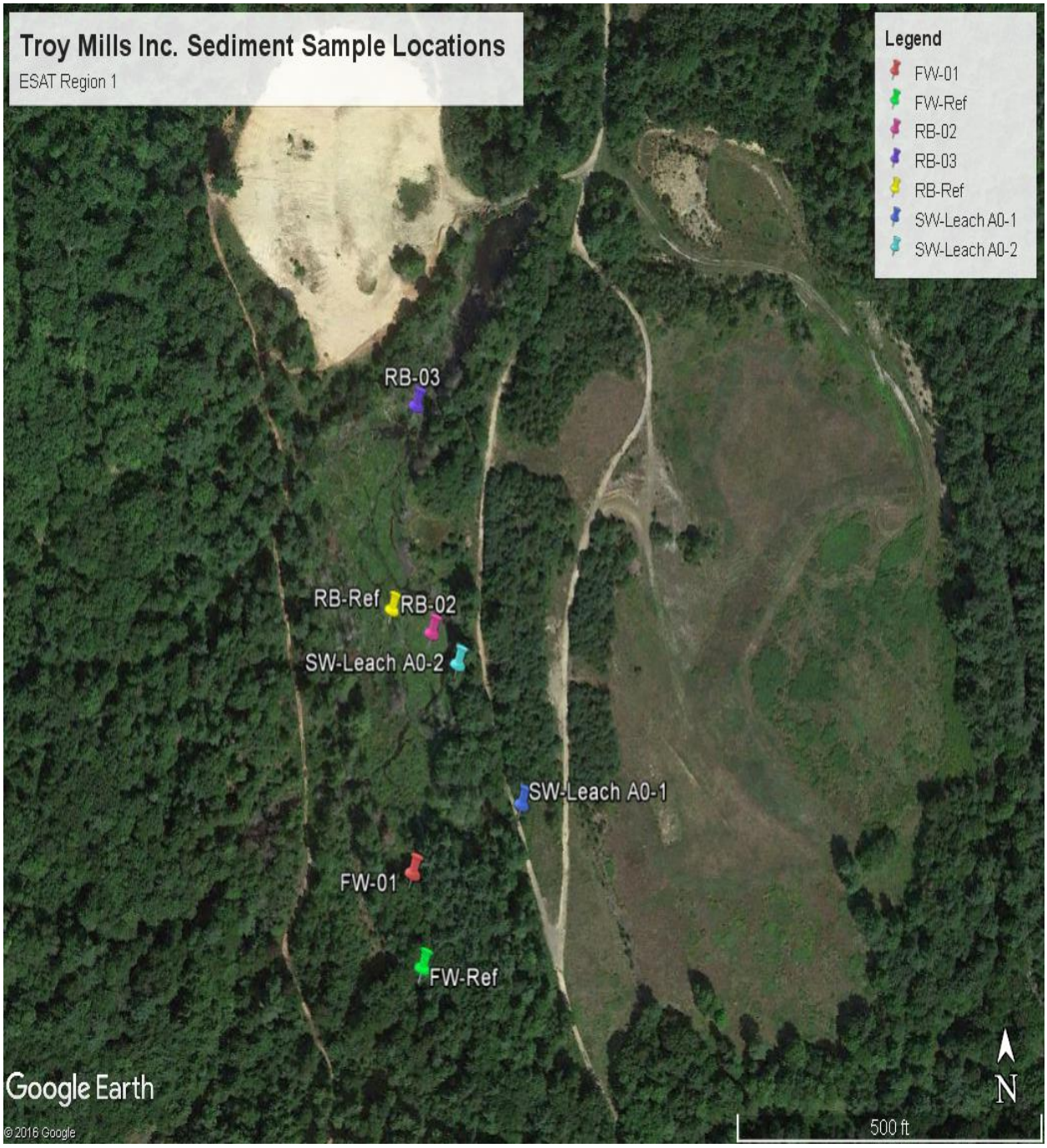


C. dilutus 96-Hour EC50 Ref. Tox. Control Chart



APPENDIX F

Sampling Map


Troy Mills Inc. Sediment Sample Locations
ESAT Region 1
Legend
FW-01
FW-Ref
RB-02
RB-03
RB-Ref
SW-Leach A0-1
SW-Leach A0-2
RB-03
RB-Ref
RB-02
SW-Leach A0-2
SW-Leach A0-1
FW-01
FW-Ref
Google Earth
© 2016 Google
N
500 ft

APPENDIX 2

ANALYTICAL CHEMISTRY DATA, HAZARD QUOTIENTS, AND "TOTAL RISKS"
FOR THE SEDIMENT SAMPLES COLLECTED IN AUGUST 2016
FROM THE TROY MILL LANDFILL SUPERFUND SITE, TROY MILLS, NH

Appendix 2: August 2016 sediment analytical data for the Troy Mills Landfill Superfund site								
Sample ID	**Analyte**	**Units**	**Result**	**MDL**		**Exposure**	**RSV**	**HQ**
FW-ref	Aluminum	mg/Kg	11000	13		11000	58000	0.2
FW-ref	Antimony	mg/Kg	ND	2.4	U	1.2	25.0	0.0
FW-ref	Arsenic	mg/Kg	5.0	2.4		5.0	33	0.2
FW-ref	Barium	mg/Kg	65	2.4		65	60	**1.1**
FW-ref	Beryllium	mg/Kg	0.98	0.95		0.98	NA	--
FW-ref	Cadmium	mg/Kg	ND	1.2	U	0.6	5.0	0.1
FW-ref	Chromium	mg/Kg	12	2.4		12	111	0.1
FW-ref	Cobalt	mg/Kg	7.4	2.4		7.4	50	0.1
FW-ref	Copper	mg/Kg	18	2.4		18	149	0.1
FW-ref	Iron	mg/Kg	11000	4.8		11000	40000	0.3
FW-ref	Lead	mg/Kg	45	2.4		45	128	0.4
FW-ref	Manganese	mg/Kg	270	2.4	J	270	1100	0.2
FW-ref	Mercury	mg/Kg	0.22	0.066		0.22	1.1	0.2
FW-ref	Nickel	mg/Kg	10	2.4		10	48.4	0.2
FW-ref	Selenium	mg/Kg	ND	4.8	U	2.4	20	0.1
FW-ref	Silver	mg/Kg	ND	1.2	U	0.6	2.2	0.3
FW-ref	Thallium	mg/Kg	ND	4.8	U	2.4	NA	--
FW-ref	Vanadium	mg/Kg	32	2.4		32	27.3	**1.2**
FW-ref	Zinc	mg/Kg	72	2.4		72	459	0.2
FW-ref	BEHP	mg/Kg	ND	0.353	U	0.177	890	0.0
							"total risk"	**5.0**
FW-01	Aluminum	mg/Kg	16000	24		16000	58000	0.3
FW-01	Antimony	mg/Kg	ND	4.3	U	2.15	25.0	0.1
FW-01	Arsenic	mg/Kg	11	4.3		11	33	0.3
FW-01	Barium	mg/Kg	120	4.3		120	60	**2.0**
FW-01	Beryllium	mg/Kg	ND	1.7	U	0.85	NA	--
FW-01	Cadmium	mg/Kg	ND	2.2	U	1.1	5.0	0.2
FW-01	Chromium	mg/Kg	17	4.3		17	111	0.2
FW-01	Cobalt	mg/Kg	19	4.3		19	50	0.4
FW-01	Copper	mg/Kg	23	4.3		23	149	0.2
FW-01	Iron	mg/Kg	55000	8.7		55000	40000	**1.4**
FW-01	Lead	mg/Kg	42	4.3		42	128	0.3
FW-01	Manganese	mg/Kg	1800	4.3		1800	1100	**1.6**
FW-01	Mercury	mg/Kg	0.3	0.12		0.3	1.1	0.3
FW-01	Nickel	mg/Kg	21	4.3		21	48.4	0.4
FW-01	Selenium	mg/Kg	ND	8.7	U	4.35	20	0.2
FW-01	Silver	mg/Kg	ND	2.2	U	1.1	2.2	0.5
FW-01	Thallium	mg/Kg	ND	8.7	U	4.35	NA	--
FW-01	Vanadium	mg/Kg	40	4.3		40	27.3	**1.5**
FW-01	Zinc	mg/Kg	120	4.3		120	459	0.26
FW-01	BEHP	mg/Kg	ND	0.49	U	0.245	890	0.0
							"total risk"	**10.1**

BEHP = bis(2-ethylhexyl)phthalate; FW = forested wetland; HQ = hazard quotient; MDL = method detection limit; ND = not detected; RB = Rockwood Brook; RSV = refinement screening value

Appendix 2 (cont'd): August 2016 sediment analytical data for the Troy Mills Landfill Superfund site								
Sample ID	**Analyte**	**Units**	**Result**	**MDL**		**Exposure**	**RSV**	**HQ**
SW-Leach A-01	Aluminum	mg/Kg	5500	160		5500	58000	0.1
SW-Leach A-01	Antimony	mg/Kg	ND	29	U	14.5	25.0	0.6
SW-Leach A-01	Arsenic	mg/Kg	31	29		31	33	0.9
SW-Leach A-01	Barium	mg/Kg	220	29		220	60	**3.7**
SW-Leach A-01	Beryllium	mg/Kg	ND	11	U	5.5	NA	--
SW-Leach A-01	Cadmium	mg/Kg	ND	14	U	7.0	5.0	**1.4**
SW-Leach A-01	Chromium	mg/Kg	ND	29	U	14.5	111	0.1
SW-Leach A-01	Cobalt	mg/Kg	ND	29	U	14.5	50	0.3
SW-Leach A-01	Copper	mg/Kg	ND	29	U	14.5	149	0.1
SW-Leach A-01	Iron	mg/Kg	380000	57		380000	40000	**9.5**
SW-Leach A-01	Lead	mg/Kg	ND	29	U	14.5	128	0.1
SW-Leach A-01	Manganese	mg/Kg	1200	29		1200	1100	**1.1**
SW-Leach A-01	Mercury	mg/Kg	ND	0.11	U	0.055	1.1	0.1
SW-Leach A-01	Nickel	mg/Kg	ND	29	U	14.5	48.4	0.3
SW-Leach A-01	Selenium	mg/Kg	ND	57	U	28.5	20	**1.4**
SW-Leach A-01	Silver	mg/Kg	ND	14	U	7.0	2.2	**3.2**
SW-Leach A-01	Thallium	mg/Kg	ND	57	U	28.5	NA	--
SW-Leach A-01	Vanadium	mg/Kg	85	29		85	27.3	**3.1**
SW-Leach A-01	Zinc	mg/Kg	33	29		33	459	0.1
SW-Leach A-01	BEHP	mg/Kg	2.3	0.508		2.3	890	0.0
							"total risk"	**26.0**
SW-Leach B-01	Aluminum	mg/Kg	12000	13		12000	58000	0.2
SW-Leach B-01	Antimony	mg/Kg	ND	2.3	U	1.15	25.0	0.0
SW-Leach B-01	Arsenic	mg/Kg	3.0	2.3		3.0	33	0.1
SW-Leach B-01	Barium	mg/Kg	46	2.3		46	60	0.8
SW-Leach B-01	Beryllium	mg/Kg	ND	0.93	U	0.47	NA	--
SW-Leach B-01	Cadmium	mg/Kg	ND	1.2	U	0.6	5.0	0.1
SW-Leach B-01	Chromium	mg/Kg	10	2.3		10	111	0.1
SW-Leach B-01	Cobalt	mg/Kg	6.3	2.3		6.3	50	0.1
SW-Leach B-01	Copper	mg/Kg	10	2.3		10	149	0.1
SW-Leach B-01	Iron	mg/Kg	19000	4.6		19000	40000	0.5
SW-Leach B-01	Lead	mg/Kg	14	2.3		14	128	0.1
SW-Leach B-01	Manganese	mg/Kg	420	2.3		420	1100	0.4
SW-Leach B-01	Mercury	mg/Kg	0.082	0.044		0.082	1.1	0.1
SW-Leach B-01	Nickel	mg/Kg	6.7	2.3		6.7	48.4	0.1
SW-Leach B-01	Selenium	mg/Kg	ND	4.6	U	2.3	20	0.1
SW-Leach B-01	Silver	mg/Kg	ND	1.2	U	0.6	2.2	0.3
SW-Leach B-01	Thallium	mg/Kg	ND	4.6	U	2.3	NA	--
SW-Leach B-01	Vanadium	mg/Kg	23	2.3		23	27.3	0.8
SW-Leach B-01	Zinc	mg/Kg	51	2.3		51	459	0.1
SW-Leach B-01	BEHP	mg/Kg	ND	0.182	U	0.091	890	0.0
							"total risk"	**4.0**

BEHP = bis(2-ethylhexyl)phthalate; FW = forested wetland; HQ = hazard quotient; MDL = method detection limit; ND = not detected; RB = Rockwood Brook; RSV = refinement screening value

Appendix 2 (cont'd): August 2016 sediment analytical data for the Troy Mills Landfill Superfund site								
Sample ID	**Analyte**	**Units**	**Result**	**MDL**		**Exposure**	**RSV**	**HQ**
RB-ref	Aluminum	mg/Kg	13000	14		13000	58000	0.2
RB-ref	Antimony	mg/Kg	ND	2.5	U	1.25	25.0	0.1
RB-ref	Arsenic	mg/Kg	3.3	2.5		3.3	33	0.1
RB-ref	Barium	mg/Kg	75	2.5		75	60	**1.3**
RB-ref	Beryllium	mg/Kg	ND	1.0	U	0.5	NA	--
RB-ref	Cadmium	mg/Kg	ND	1.2	U	0.6	5.0	0.1
RB-ref	Chromium	mg/Kg	15	2.5		15	111	0.1
RB-ref	Cobalt	mg/Kg	7.3	2.5		7.3	50	0.1
RB-ref	Copper	mg/Kg	16	2.5		16	149	0.1
RB-ref	Iron	mg/Kg	16000	5.0		16000	40000	0.4
RB-ref	Lead	mg/Kg	20	2.5		20	128	0.2
RB-ref	Manganese	mg/Kg	210	2.5		210	1100	0.2
RB-ref	Mercury	mg/Kg	0.087	0.053		0.087	1.1	0.1
RB-ref	Nickel	mg/Kg	12	2.5		12	48.4	0.2
RB-ref	Selenium	mg/Kg	ND	5.0	U	2.5	20	0.1
RB-ref	Silver	mg/Kg	ND	1.2	U	0.6	2.2	0.3
RB-ref	Thallium	mg/Kg	ND	5.0	U	2.5	NA	--
RB-ref	Vanadium	mg/Kg	32	2.5		32	27.3	**1.2**
RB-ref	Zinc	mg/Kg	51	2.5		51	459	0.1
RB-ref	BEHP	mg/Kg	ND	0.258	U	0.129	890	0.0
							"total risk"	**4.9**
RB-01	Aluminum	mg/Kg	9600	15		9600	58000	0.2
RB-01	Antimony	mg/Kg	ND	2.7	U	1.35	25.0	0.1
RB-01	Arsenic	mg/Kg	ND	2.7	U	1.35	33	0.0
RB-01	Barium	mg/Kg	60	2.7		60	60	**1.0**
RB-01	Beryllium	mg/Kg	ND	1.1	U	0.55	NA	--
RB-01	Cadmium	mg/Kg	ND	1.4	U	0.7	5.0	0.1
RB-01	Chromium	mg/Kg	12	2.7		12	111	0.1
RB-01	Cobalt	mg/Kg	7.2	2.7		7.2	50	0.1
RB-01	Copper	mg/Kg	12	2.7		12	149	0.1
RB-01	Iron	mg/Kg	11000	5.4		11000	40000	0.3
RB-01	Lead	mg/Kg	17	2.7		17	128	0.1
RB-01	Manganese	mg/Kg	330	2.7		330	1100	0.3
RB-01	Mercury	mg/Kg	0.085	0.052		0.085	1.1	0.1
RB-01	Nickel	mg/Kg	8.6	2.7		8.6	48.4	0.2
RB-01	Selenium	mg/Kg	ND	5.4	U	2.7	20	0.1
RB-01	Silver	mg/Kg	ND	1.4	U	0.7	2.2	0.3
RB-01	Thallium	mg/Kg	ND	5.4	U	2.7	NA	--
RB-01	Vanadium	mg/Kg	23	2.7		23	27.3	0.8
RB-01	Zinc	mg/Kg	44	2.7		44	459	0.1
RB-01	BEHP	mg/Kg	ND	0.242	U	0.121	890	0.0
							"total risk"	**4.1**

BEHP = bis(2-ethylhexyl)phthalate; FW = forested wetland; HQ = hazard quotient; MDL = method detection limit; ND = not detected; RB = Rockwood Brook; RSV = refinement screening value

Appendix 2 (cont'd): August 2016 sediment analytical data for the Troy Mills Landfill Superfund site								
Sample ID	**Analyte**	**Units**	**Result**	**MDL**		**Exposure**	**RSV**	**HQ**
RB-02	Aluminum	mg/Kg	9000	11		9000	58000	0.2
RB-02	Antimony	mg/Kg	ND	2.0	U	1.0	25.0	0.0
RB-02	Arsenic	mg/Kg	2.2	2.0		2.2	33	0.1
RB-02	Barium	mg/Kg	56	2.0		56	60	0.9
RB-02	Beryllium	mg/Kg	ND	0.8	U	0.4	NA	--
RB-02	Cadmium	mg/Kg	ND	1.0	U	0.5	5.0	0.1
RB-02	Chromium	mg/Kg	12	2.0		12	111	0.1
RB-02	Cobalt	mg/Kg	6.7	2.0		6.7	50	0.1
RB-02	Copper	mg/Kg	11	2.0		11	149	0.1
RB-02	Iron	mg/Kg	8700	4.0		8700	40000	0.2
RB-02	Lead	mg/Kg	14	2.0		14	128	0.1
RB-02	Manganese	mg/Kg	120	2.0		120	1100	0.1
RB-02	Mercury	mg/Kg	0.073	0.049		0.073	1.1	0.1
RB-02	Nickel	mg/Kg	7.9	2.0		7.9	48.4	0.2
RB-02	Selenium	mg/Kg	ND	4.0	U	2.0	20	0.1
RB-02	Silver	mg/Kg	ND	1.0	U	0.5	2.2	0.2
RB-02	Thallium	mg/Kg	ND	4.0	U	2.0	NA	--
RB-02	Vanadium	mg/Kg	21	2.0		21	27.3	0.8
RB-02	Zinc	mg/Kg	80	2.0		80	459	0.2
RB-02	BEHP	mg/Kg	0.31	0.181		0.31	890	0.0
							"total risk"	**3.5**
RB-03	Aluminum	mg/Kg	13000	14		13000	58000	0.2
RB-03	Antimony	mg/Kg	ND	2.6	U	1.3	25.0	0.1
RB-03	Arsenic	mg/Kg	3.6	2.6		3.6	33	0.1
RB-03	Barium	mg/Kg	77	2.6		77	60	**1.3**
RB-03	Beryllium	mg/Kg	ND	1.0	U	0.5	NA	--
RB-03	Cadmium	mg/Kg	ND	1.3	U	0.65	5.0	0.1
RB-03	Chromium	mg/Kg	14	2.6		14	111	0.1
RB-03	Cobalt	mg/Kg	12	2.6		12	50	0.2
RB-03	Copper	mg/Kg	16	2.6		16	149	0.1
RB-03	Iron	mg/Kg	15000	5.1		15000	40000	0.4
RB-03	Lead	mg/Kg	22	2.6		22	128	0.2
RB-03	Manganese	mg/Kg	500	2.6		500	1100	0.5
RB-03	Mercury	mg/Kg	0.13	0.077		0.13	1.1	0.1
RB-03	Nickel	mg/Kg	12	2.6		12	48.4	0.2
RB-03	Selenium	mg/Kg	ND	5.1	U	2.55	20	0.1
RB-03	Silver	mg/Kg	ND	1.3	U	0.65	2.2	0.3
RB-03	Thallium	mg/Kg	ND	5.1	U	2.55	NA	--
RB-03	Vanadium	mg/Kg	28	2.6		28	27.3	**1.0**
RB-03	Zinc	mg/Kg	84	2.6		84	459	0.2
RB-03	BEHP	mg/Kg	0.24	0.252	L	0.24	890	0.0
							"total risk"	**5.3**

BEHP = bis(2-ethylhexyl)phthalate; FW = forested wetland; HQ = hazard quotient; MDL = method detection limit; ND = not detected; RB = Rockwood Brook; RSV = refinement screening value

Appendix 2 (cont'd): August 2016 sediment analytical data for the Troy Mills Landfill Superfund site								
Sample ID	**Analyte**	**Units**	**Result**	**MDL**		**Exposure**	**RSV**	**HQ**
RB-04	Aluminum	mg/Kg	11000	14		11000	58000	0.2
RB-04	Antimony	mg/Kg	ND	2.6	U	1.3	25.0	0.1
RB-04	Arsenic	mg/Kg	3.0	2.6		3.0	33	0.1
RB-04	Barium	mg/Kg	50	2.6		50	60	0.8
RB-04	Beryllium	mg/Kg	ND	1.0	U	0.5	NA	--
RB-04	Cadmium	mg/Kg	ND	1.3	U	0.65	5.0	0.1
RB-04	Chromium	mg/Kg	11	2.6		11	111	0.1
RB-04	Cobalt	mg/Kg	13	2.6		13	50	0.3
RB-04	Copper	mg/Kg	11	2.6		11	149	0.1
RB-04	Iron	mg/Kg	14000	5.1		14000	40000	0.4
RB-04	Lead	mg/Kg	16	2.6		16	128	0.1
RB-04	Manganese	mg/Kg	480	2.6		480	1100	0.4
RB-04	Mercury	mg/Kg	0.052	0.041		0.052	1.1	0.0
RB-04	Nickel	mg/Kg	9.2	2.6		9.2	48.4	0.2
RB-04	Selenium	mg/Kg	ND	5.1	U	2.55	20	0.1
RB-04	Silver	mg/Kg	ND	1.3	U	0.65	2.2	0.3
RB-04	Thallium	mg/Kg	ND	5.1	U	2.55	NA	--
RB-04	Vanadium	mg/Kg	24	2.6		24	27.3	0.9
RB-04	Zinc	mg/Kg	65	2.6		65	459	0.1
RB-04	BEHP	mg/Kg	ND	0.201	U	0.1	890	0.0
							"total risk"	**4.3**
RB-05	Aluminum	mg/Kg	5300	11		5300	58000	0.1
RB-05	Antimony	mg/Kg	ND	2.1	U	1.05	25.0	0.0
RB-05	Arsenic	mg/Kg	ND	2.1	U	1.05	33	0.0
RB-05	Barium	mg/Kg	28	2.1		28	60	0.5
RB-05	Beryllium	mg/Kg	ND	0.83	U	0.415	NA	--
RB-05	Cadmium	mg/Kg	ND	1.0	U	0.5	5.0	0.1
RB-05	Chromium	mg/Kg	7.2	2.1		7.2	111	0.1
RB-05	Cobalt	mg/Kg	4.4	2.1		4.4	50	0.1
RB-05	Copper	mg/Kg	5.6	2.1		5.6	149	0.0
RB-05	Iron	mg/Kg	6500	4.2		6500	40000	0.2
RB-05	Lead	mg/Kg	7.4	2.1		7.4	128	0.1
RB-05	Manganese	mg/Kg	210	2.1		210	1100	0.2
RB-05	Mercury	mg/Kg	0.039	0.038		0.039	1.1	0.0
RB-05	Nickel	mg/Kg	5.1	2.1		5.1	48.4	0.1
RB-05	Selenium	mg/Kg	ND	4.2	U	2.1	20	0.1
RB-05	Silver	mg/Kg	ND	1.0	U	0.5	2.2	0.2
RB-05	Thallium	mg/Kg	ND	4.2	U	2.1	NA	--
RB-05	Vanadium	mg/Kg	12	2.1		12	27.3	0.4
RB-05	Zinc	mg/Kg	28	2.1		28	459	0.1
RB-05	BEHP	mg/Kg	ND	0.142	U	0.071	890	0.0
							"total risk"	**2.3**

BEHP = bis(2-ethylhexyl)phthalate; FW = forested wetland; HQ = hazard quotient; MDL = method detection limit; ND = not detected; RB = Rockwood Brook; RSV = refinement screening value

APPENDIX 3

ANALYTICAL CHEMISTRY DATA, HAZARD QUOTIENTS, AND "TOTAL RISKS"
FOR THE SEDIMENT SAMPLES COLLECTED IN OCTOBER 2016
FROM THE TROY MILL LANDFILL SUPERFUND SITE, TROY MILLS, NH

Appendix 3: October 2016 sediment analytical data from the Troy Mills Landfill Superfund site								
Sample location	**Analytes**	**Units**	**Results**	**MDL**	**Exposure**		**RSV**	**HQ**
FW-ref	Aluminum	mg/Kg	6100	15	6100		58000	0.1
FW-ref	Antimony	mg/Kg	ND	5.3	2.65	U	25.0	0.1
FW-ref	Arsenic	mg/Kg	3.0	2.6	3.0		33	0.1
FW-ref	Barium	mg/Kg	50	2.6	50		60	0.8
FW-ref	Beryllium	mg/Kg	ND	1.1	0.55	U	NA	--
FW-ref	Cadmium	mg/Kg	ND	1.3	0.65	U	5.0	0.1
FW-ref	Chromium	mg/Kg	7.3	2.6	7.3		111	0.1
FW-ref	Cobalt	mg/Kg	6.6	2.6	6.6		50	0.1
FW-ref	Copper	mg/Kg	8.7	2.6	8.7		149	0.1
FW-ref	Iron	mg/Kg	9100	5.3	9100		40000	0.2
FW-ref	Lead	mg/Kg	16	2.6	16		128	0.1
FW-ref	Manganese	mg/Kg	270	2.6	270		1100	0.2
FW-ref	Mercury[a]	mg/Kg	--	--	--		1.1	--
FW-ref	Nickel	mg/Kg	6.8	2.6	6.8		48.4	0.1
FW-ref	Selenium	mg/Kg	ND	5.3	2.65	U	20	0.1
FW-ref	Silver	mg/Kg	ND	1.3	0.65	U	2.2	0.3
FW-ref	Thallium	mg/Kg	ND	5.3	2.65	U	NA	--
FW-ref	Vanadium	mg/Kg	14	2.6	14		27.3	0.5
FW-ref	Zinc	mg/Kg	54	2.6	54		459	0.1
FW-ref	BEHP	mg/Kg	0.402	0.206	0.402		890	0.0
							"total risk"	**3.3**
RB-ref	Aluminum	mg/Kg	11000	14	11000		58000	0.2
RB-ref	Antimony	mg/Kg	ND	5.0	2.5	U	25.0	0.1
RB-ref	Arsenic	mg/Kg	3.6	2.5	3.6		33	0.1
RB-ref	Barium	mg/Kg	66	2.5	66		60	**1.1**
RB-ref	Beryllium	mg/Kg	ND	1.0	0.5	U	NA	--
RB-ref	Cadmium	mg/Kg	ND	1.2	0.6	U	5.0	0.1
RB-ref	Chromium	mg/Kg	13	2.5	13		111	0.1
RB-ref	Cobalt	mg/Kg	7.0	2.5	7.0		50	0.1
RB-ref	Copper	mg/Kg	11	2.5	11		149	0.1
RB-ref	Iron	mg/Kg	14000	5.0	14000		40000	0.4
RB-ref	Lead	mg/Kg	16	2.5	16		128	0.1
RB-ref	Manganese	mg/Kg	300	2.5	300		1100	0.3
RB-ref	Mercury[a]	mg/Kg	--	--	--		1.1	--
RB-ref	Nickel	mg/Kg	10	2.5	10		48.4	0.2
RB-ref	Selenium	mg/Kg	ND	5.0	2.5	U	20	0.1
RB-ref	Silver	mg/Kg	ND	1.2	0.6	U	2.2	0.3
RB-ref	Thallium	mg/Kg	ND	5.0	2.5	U	NA	--
RB-ref	Vanadium	mg/Kg	24	2.5	24		27.3	0.9
RB-ref	Zinc	mg/Kg	45	2.5	45		459	0.1
RB-ref	BEHP	mg/Kg	ND	0.275	0.138	U	890	0.0
							"total risk"	**4.3**

[a] mercury was not analyzed in the sediment samples collected in October 2016

BEHP = bis(2-ethylhexyl)phthalate; FW = forested wetland; HQ = hazard quotient; MDL = method detection limit; ND = not detected; RB = Rockwood Brook; RSV = refinement screening value

Appendix 3 (cont'd): October 2016 sediment analytical data from the Troy Mills Landfill Superfund site								
Sample location	**Analytes**	**Units**	**Results**	**MDL**	**Exposure**		**RSV**	**HQ**
FW-01	Aluminum	mg/Kg	11000	16	11000		58000	0.2
FW-01	Antimony	mg/Kg	ND	5.7	2.85	U	25.0	0.1
FW-01	Arsenic	mg/Kg	4.8	2.9	4.8		33	0.1
FW-01	Barium	mg/Kg	74	2.9	74		60	**1.2**
FW-01	Beryllium	mg/Kg	ND	1.1	0.55	U	NA	--
FW-01	Cadmium	mg/Kg	ND	1.4	0.7	U	5.0	0.1
FW-01	Chromium	mg/Kg	13	2.9	13		111	0.1
FW-01	Cobalt	mg/Kg	9.5	2.9	9.5		50	0.2
FW-01	Copper	mg/Kg	14	2.9	14		149	0.1
FW-01	Iron	mg/Kg	19000	5.7	19000		40000	0.5
FW-01	Lead	mg/Kg	28	2.9	28		128	0.2
FW-01	Manganese	mg/Kg	530	2.9	530		1100	0.5
FW-01	Mercury[a]	mg/Kg	--	--	--		1.1	--
FW-01	Nickel	mg/Kg	12	2.9	12		48.4	0.2
FW-01	Selenium	mg/Kg	ND	5.7	2.85	U	20	0.1
FW-01	Silver	mg/Kg	ND	1.4	0.7	U	2.2	0.3
FW-01	Thallium	mg/Kg	ND	5.7	2.85	U	NA	--
FW-01	Vanadium	mg/Kg	26	2.9	26		27.3	1.0
FW-01	Zinc	mg/Kg	73	2.9	73		459	0.2
FW-01	BHEP	mg/Kg	ND	0.278	0.139	U	890	0.0
							"total risk"	**5.2**
RB-02	Aluminum	mg/Kg	9600	12	9600		58000	0.2
RB-02	Antimony	mg/Kg	ND	4.2	2.1	U	25.0	0.1
RB-02	Arsenic	mg/Kg	3.0	2.1	3.0		33	0.1
RB-02	Barium	mg/Kg	59	2.1	59		60	1.0
RB-02	Beryllium	mg/Kg	ND	0.85	0.425	U	NA	--
RB-02	Cadmium	mg/Kg	ND	1.1	0.55	U	5.0	0.1
RB-02	Chromium	mg/Kg	13	2.1	13		111	0.1
RB-02	Cobalt	mg/Kg	6.5	2.1	6.5		50	0.1
RB-02	Copper	mg/Kg	12	2.1	12		149	0.1
RB-02	Iron	mg/Kg	9500	4.2	9500		40000	0.2
RB-02	Lead	mg/Kg	14	2.1	14		128	0.1
RB-02	Manganese	mg/Kg	94	2.1	94		1100	0.1
RB-02	Mercury[a]	mg/Kg	--	--	--		1.1	--
RB-02	Nickel	mg/Kg	11	2.1	11		48.4	0.2
RB-02	Selenium	mg/Kg	ND	4.2	2.1	U	20	0.1
RB-02	Silver	mg/Kg	ND	1.1	0.55	U	2.2	0.3
RB-02	Thallium	mg/Kg	ND	4.2	2.1	U	NA	--
RB-02	Vanadium	mg/Kg	23	2.1	23		27.3	0.8
RB-02	Zinc	mg/Kg	390	2.1	390		459	0.8
RB-02	BEHP	mg/Kg	1.47	0.0025	1.47		890	0.0
							"total risk"	**4.5**

[a] mercury was not analyzed in the sediment samples collected in October 2016

BEHP = bis(2-ethylhexyl)phthalate; FW = forested wetland; HQ = hazard quotient; MDL = method detection limit; ND = not detected; RB = Rockwood Brook; RSV = refinement screening value

Appendix 3 (cont'd): October 2016 sediment analytical data from the Troy Mills Landfill Superfund site								
Sample location	**Analytes**	**Units**	**Results**	**MDL**	**Exposure**		**RSV**	**HQ**
RB-03	Aluminum	mg/Kg	15000	16	15000		58000	0.3
RB-03	Antimony	mg/Kg	ND	5.7	2.85		25.0	0.1
RB-03	Arsenic	mg/Kg	4.3	2.9	4.3		33	0.1
RB-03	Barium	mg/Kg	81	2.9	81		60	**1.4**
RB-03	Beryllium	mg/Kg	ND	1.1	0.55		NA	--
RB-03	Cadmium	mg/Kg	ND	1.4	0.7		5.0	0.1
RB-03	Chromium	mg/Kg	17	2.9	17		111	0.2
RB-03	Cobalt	mg/Kg	13	2.9	13		50	0.3
RB-03	Copper	mg/Kg	18	2.9	18		149	0.1
RB-03	Iron	mg/Kg	15000	5.7	15000		40000	0.4
RB-03	Lead	mg/Kg	25	2.9	25		128	0.2
RB-03	Manganese	mg/Kg	580	2.9	580		1100	0.5
RB-03	Mercury[a]	mg/Kg	--	--	--		1.1	--
RB-03	Nickel	mg/Kg	14	2.9	14		48.4	0.3
RB-03	Selenium	mg/Kg	ND	5.7	2.85		20	0.1
RB-03	Silver	mg/Kg	ND	1.4	0.7		2.2	0.3
RB-03	Thallium	mg/Kg	ND	5.7	2.85		NA	--
RB-03	Vanadium	mg/Kg	31	2.9	31		27.3	**1.1**
RB-03	Zinc	mg/Kg	110	2.9	110		459	0.2
RB-03	BEHP	mg/Kg	ND	0.272	0.136		890	0.0
							"total risk"	**5.7**
SW-Leach A-01	Aluminum	mg/Kg	12000	58	12000		58000	0.2
SW-Leach A-01	Antimony	mg/Kg	ND	21	10.5	U	25.0	0.4
SW-Leach A-01	Arsenic	mg/Kg	ND	11	5.5	U	33	0.2
SW-Leach A-01	Barium	mg/Kg	110	11	110		60	**1.8**
SW-Leach A-01	Beryllium	mg/Kg	ND	4.2	2.1	U	NA	--
SW-Leach A-01	Cadmium	mg/Kg	ND	5.3	2.65	U	5.0	0.5
SW-Leach A-01	Chromium	mg/Kg	19	11	19		111	0.2
SW-Leach A-01	Cobalt	mg/Kg	ND	11	5.5	U	50	0.1
SW-Leach A-01	Copper	mg/Kg	26	11	26		149	0.2
SW-Leach A-01	Iron	mg/Kg	72000	21	72000		40000	**1.8**
SW-Leach A-01	Lead	mg/Kg	ND	11	5.5	U	128	0.0
SW-Leach A-01	Manganese	mg/Kg	930	11	930		1100	0.8
SW-Leach A-01	Mercury[a]	mg/Kg	--	--	--		1.1	--
SW-Leach A-01	Nickel	mg/Kg	16	11	16		48.4	0.3
SW-Leach A-01	Selenium	mg/Kg	ND	21	10.5	U	20	0.5
SW-Leach A-01	Silver	mg/Kg	ND	5.3	2.65	U	2.2	**1.2**
SW-Leach A-01	Thallium	mg/Kg	ND	21	10.5	U	NA	--
SW-Leach A-01	Vanadium	mg/Kg	39	11	39		27.3	**1.4**
SW-Leach A-01	Zinc	mg/Kg	70	11	70		459	0.2
SW-Leach A-01	BEHP	mg/Kg	59	1.66	59		890	0.1
							"total risk"	**10.0**

[a] mercury was not analyzed in the sediment samples collected in October 2016

BEHP = bis(2-ethylhexyl)phthalate; FW = forested wetland; HQ = hazard quotient; MDL = method detection limit; ND = not detected; RB = Rockwood Brook; RSV = refinement screening value

Appendix 3 (cont'd): October 2016 sediment analytical data from the Troy Mills Landfill Superfund site								
Sample location	**Analytes**	**Units**	**Results**	**MDL**	**Exposure**		**RSV**	**HQ**
SW-Leach A-02	Aluminum	mg/Kg	12000	11	12000		58000	0.2
SW-Leach A-02	Antimony	mg/Kg	ND	4.0	2.0	U	25.0	0.1
SW-Leach A-02	Arsenic	mg/Kg	4.4	2.0	4.4		33	0.1
SW-Leach A-02	Barium	mg/Kg	70	2.0	70		60	**1.2**
SW-Leach A-02	Beryllium	mg/Kg	ND	0.8	0.4	U	NA	--
SW-Leach A-02	Cadmium	mg/Kg	ND	1.0	0.5	U	5.0	0.1
SW-Leach A-02	Chromium	mg/Kg	13	2.0	13		111	0.1
SW-Leach A-02	Cobalt	mg/Kg	53	2.0	53		50	**1.1**
SW-Leach A-02	Copper	mg/Kg	15	2.0	15		149	0.1
SW-Leach A-02	Iron	mg/Kg	26000	4.0	26000		40000	0.7
SW-Leach A-02	Lead	mg/Kg	18	2.0	18		128	0.1
SW-Leach A-02	Manganese	mg/Kg	1200	2.0	1200		1100	**1.1**
SW-Leach A-02	Mercury[a]	mg/Kg	--	--	--		1.1	--
SW-Leach A-02	Nickel	mg/Kg	12	2.0	12		48.4	0.2
SW-Leach A-02	Selenium	mg/Kg	ND	4.0	2.0	U	20	0.1
SW-Leach A-02	Silver	mg/Kg	ND	1.0	0.5	U	2.2	0.2
SW-Leach A-02	Thallium	mg/Kg	ND	4.0	2.0	U	NA	--
SW-Leach A-02	Vanadium	mg/Kg	25	2.0	25		27.3	0.9
SW-Leach A-02	Zinc	mg/Kg	51	2.0	51		459	0.1
SW-Leach A-02	BEHP	mg/Kg	1.1	0.205	1.1		890	0.0
							"total risk"	**6.4**

[a] mercury was not analyzed in the sediment samples collected in October 2016

BEHP = bis(2-ethylhexyl)phthalate; FW = forested wetland; HQ = hazard quotient; MDL = method detection limit; ND = not detected; RB = Rockwood Brook; RSV = refinement screening value

Appendix D – Conceptual Site Model

The Conceptual Site Model (CSM) has been prepared to provide a summary of Site geology, hydrogeology, known sources of contamination, contaminant migration pathways, and potential receptors. The content of this CSM has been prepared relying on the historical investigation, remedial action, and monitoring reports prepared over the years by GZA and various other consultants. The specific statements made in some cases are directly from historical documents and in some cases are refined opinions based upon the recent work of GZA. Refer to **Section 2.0** in the main report for the Site description and background information relative to the Site history and remedial activities.

GEOLOGY

The Site is situated on the eastern side of the stream valley encompassing Rockwood Brook. Both the ground surface and the bedrock surface slope downward toward the west and Rockwood Brook.

OVERBURDEN STRATIGRAPHY

According to the 2005 Remedial Investigation[1] (RI) the Troy Mills Landfill Superfund Site (Site) is underlain by fill material and three stratigraphic units: sand, ablation till, and lodgment till. The Site has as much as 30 feet of landfill refuse and cover soils. In areas to the west of the access road that were not used for waste disposal, the upper soils consist of a layer, typically less than 6 feet in thickness, of light brown, fine to medium sand, with little to trace amounts of silt and gravel, reportedly from a glaciofluvial deposit that was largely mined and removed from the Site prior to landfilling.

The underlying ablation till consists of dense to very dense gray and brown sand, gravel, and silt with few to some cobbles and boulders. Based on historical investigations, this unit is generally thickest beneath the southwestern part of the former drum disposal area, where it is approximately 40 feet thick and thins toward Rockwood Brook to less than 10 feet thick. It is very thin to absent near the eastern edge of the drum disposal area.

The lodgment till at the Site is a very dense, gray, well graded sandy silt to silty sand with gravel and occasional cobbles and boulders. Based on historical investigations, it is thickest (i.e., greater than 35 feet thick) near Rockwood Brook and thins toward the east, along the eastern edge of the drum disposal area, where bedrock is shallow.

BEDROCK GEOLOGY

According to the Bedrock Geologic Map of New Hampshire,[2] bedrock underlying the Site and Site vicinity generally consists of the Upper part of the Rangeley Formation, which is described in New Hampshire as consisting of rusty-weathering, pelitic schist, metasandstone, and local coarse-grained metasandstone lentils. According to the 2005 RI, bedrock beneath the Site consists of Littleton Formation biotite schist. The schist is described as typically dark gray, hard, and folded with high angle foliation and fractures.

Previous reports by others and hydrostratigraphic modeling for the Site indicate that the bedrock surface slopes downwards from the east to west across the Site, towards Rockwood Brook. Several outcrops are visible near the eastern edge of the Site.

[1] "Final Remedial Investigation, Troy Mills Landfill Superfund Site, Troy, New Hampshire," Metcalf & Eddy, September 2005.

[2] "Bedrock Geologic Map of New Hampshire," Lyons, J.B., Bothner, W.A., Moench, R.H., and Thompson, J.B. 1997.

SUMMARY OF HYDROGEOLOGY

SURFACE WATER HYDROLOGY

The Site is located within the Rockwood Brook drainage basin, a subbasin of the Ashuelot River basin. A wetland and Rockwood Brook border a portion of the western side of the Site. Rockwood Brook flows south to north and continues downstream to Sand Dam Pond, a recreational area located approximately 1 mile north of the Site.

OVERBURDEN GROUNDWATER FLOW

The 2005 RI reports two groundwater flow systems are present at the Site, including overburden and bedrock systems. The overburden groundwater flow system is inclusive of the sand and till units, with depth to groundwater generally ranging from about 5 to 35 feet below ground surface. Groundwater flow in the overburden is to the west or northwest, toward Rockwood Brook (**Figure 2**).

According the United States Geological Survey (USGS) report entitled *Geohydrology and Water Quality of Stratified-Drift Aquifers in the Lower Connecticut River Basin, Southwestern New Hampshire*,[3] the wetland on the Site is located within a stratified-drift aquifer within or beneath glacial lake-bottom deposits with a transmissivity of less than 100 square feet per day. The 2005 RI indicates the hydraulic conductivity ranges from 0.004 feet to 2 feet per day in the till and is approximately 0.4 feet per day in the stratified sand layer. Reportedly, the effective porosity is approximately 0.3 and the groundwater flow velocity is approximately 55 to 95 feet per year.

FRACTURED BEDROCK GROUNDWATER FLOW

Historical water level measurements from bedrock wells along a northwest transect across the Site (TRY_MW-701, TRY_MW-602B, TRY_MW-108 (decommissioned), TRY_M-7D, and TRY_MW-702D) suggest that bulk groundwater flow direction in bedrock is toward the west/northwest consistent with that observed in overburden groundwater.

Groundwater flow within the fractured bedrock occurs along fractures that are likely not fully orthogonal to the estimated hydraulic head contours. Consequently, the direction of groundwater flow may vary locally from the bulk direction flow inferred from the estimated hydraulic head contours.

Packer tests performed during the 2005 RI indicated the hydraulic conductivity values ranged from 0.002 to 0.13 feet per day within bedrock.

VERTICAL COMPONENT OF GROUNDWATER FLOW

Historical water level measurements collected from the well couplets located on the Site generally indicate the presence of downward vertical components of the hydraulic head gradient with the exception of wells near the edge of the wetland surrounding Rockwood Brook. Wells near the wetland indicate an upward vertical gradient consistent with discharge of groundwater to the wetland area and Rockwood Brook.

[3] "Geohydrology and Water Quality of Stratified-Drift Aquifers in the Lower Connecticut River Basin, Southwestern New Hampshire," USGS, 1994.

POTENTIAL SOURCES AND SPATIAL EXTENT OF SITE CONTAMINATION

COCS

The 2005 Record of Decision[4] (ROD)-specified contaminants of concern (COCs) include: DEHP in leachate; manganese in wetland soil; and various volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and metals in the groundwater as summarized in the following table.

Contaminants of Concern	CAS No.	ROD ICLs (µg/L)	NH AGQS (µg/L)
Groundwater			
1,4 Dioxane	123-91-1	3	0.32
Benzene	71-43-2	5	5
Tetrachloroethene (PCE)	127-18-4	5	5
Trichloroethene (TCE)	79-01-6	5	5
Vinyl Chloride	75-01-4	2	2
Benzo(a)pyrene	50-32-8	0.2	0.2
benzo(b)fluoranthene	205-99-2	0.1 *	0.1
bis(2-Ethylhexyl)phthalate (Di[2-Ethylhexy])phthalate) (DEHP)	117-81-7	6	6
Dibenzo(a,h)anthracene	53-70-3	0.1 *	0.1
Pentachlorophenol	87-86-5	1	1
1,2,4-Trimethylbenzene	95-63-6	330 *	330
1,3,5-Trimethylbenzene	108-67-8	330 *	330
2-Butanone (Methyl Ethyl Ketone) (MEK)	78-93-3	4,000 *	4,000
P-Isopropyltoluene (4- Isopropyltoluene)	99-87-6	260 *	260
cis-1,2 Dichloroethene	156-59-2	70	70
n-Butylbenzene	104-51-8	260 *	260
n-Propylbenzene	103-65-1	260 *	260
Tetrahydrofuran (THF)	109-99-9	154	600
Toluene	108-88-3	1,000	1,000
Naphthalene	91-20-3	20	100
Arsenic	7440-38-2	10	10
Boron	7440-42-8	620	620
Manganese	7439-96-5	300	840
Leachate			
bis(2-Ethylhexyl)phthalate (Di [2-Ethylhexy])phthalate) (DEHP)	117-81-7	40	6

Notes:

ROD ICLs = Interim Cleanup Levels found in the ROD
AGQS = New Hampshire Ambient Groundwater Quality Standards
µg/L = micrograms per liter
* ROD Explanation of Significant Differences (ESD) March 2014 increased the ICLs to match the AGQS.
The AGQS for Tetrahydrofuran changed from 154 µg/L to 600 µg/L in June 2015; the AGQS for naphthalene and 1,4-dioxane changed from 20 µg/L to 100 µg/L and from 3 µg/L to 0.32 µg/L, respectively, in September 2018.

[4] "Record of Decision, Troy Mills Landfill Superfund Site, Troy, New Hampshire," Metcalf & Eddy and AECOM, September 2005.

The ROD did not identify COCs for surface water and sediment in Rockwood Brook.

Other Site Contaminants

Per- and polyfluoroalkyl substances (PFAS) are emerging contaminants. Data collected during the recent 2018 sampling round indicate the presence of PFAS compounds as a newly identified Site contaminant.

POTENTIAL SOURCES OF CONTAMINATION

Contamination at the Site is attributed to the historical disposal of drummed wastes generated from vinyl casting, vinyl laminating, and foam rubber processes. The solids and liquids reportedly contained plasticizers, vinyl resins, pigments, top coating products, and industrial organic and commercial solvents. Burial of the drummed waste ceased in 1978, but the landfill continued to operate under a State solid waste permit until December 2001.

The 2-acre former drum disposal area is identified as the primary source area; however, the head of the current plume appears to emanate from just north of the former drum disposal area between wells MW-802 and MW-205/MW-803. An unexcavated drum was observed in the triangular area between wells MW-205, MW-803, and MW-804 during the 2017 supplemental source area investigation.

The solid waste landfill may provide an additional source of contamination for certain COCs and contaminants of interest.

DISTRIBUTION OF COCS IN SOIL

During the RI, 22 soil samples were collected from 11 borings (SB-02 to SB-12) around the perimeter of the former drum disposal area. One location, SB-02, had detections of DEHP that exceeded the New Hampshire S-3 soil standard included in the Risk Characterization Management Policy (RCMP). VOCs and other SVOCs were also detected in various soil samples, but did not exceed the S-3 soil standard or the soil to groundwater leaching criteria.

According to the RI, some of the soils removed during the excavation of the former drum disposal area were backfilled into the excavation. The backfilled soils were later sampled for characterization and two additional excavations were performed to remove soils with detected concentrations exceeding S-3 and leaching criteria. Follow-up sampling resulted in "*no criteria exceedances*" for the soil in the excavation.

During the 2017 supplemental source investigation, a soil sample was collected from apparently impacted soil in TRY_TP-3 located between monitoring wells TRY_MW-205, TRY_MW-803, and TRY_MW-804. VOCs detected in the soil sample did not exceed regulatory standards. The detected concentration of DEHP exceeded the New Hampshire Soil Remediation Standards (SRS)[5] of 72 milligrams per kilogram (mg/kg); however, the concentrations were below the RCMP S-3 value of 2,300 mg/kg used during EPA's removal action (i.e., drum removal and soil excavation remediation program). There is currently no leaching-based soil value for DEHP included in the RCMP due to the presumed negligible contaminant migration potential for the contaminant. The S-3 value for DEHP of 2,300 mg/kg is a direct contact risk-based value that is designed to be protective of human exposure based on limited accessibility, frequency, and intensity of Site usage as the soils at the Site are below an engineered cap and access is limited.

[5] SRS are included in the New Hampshire Code of Administrative Rules Env-Or 600 Contaminated Site Management.

DISTRIBUTION OF COCS IN GROUNDWATER

VOCs and SVOCs

The VOC and SVOC contaminant plume originates just north of the former drum disposal area and trends to the west and northwest, along the direction of groundwater flow. The primary SVOC detected in Site groundwater is DEHP. VOCs in the plume generally consist of petroleum-related compounds. A deeper plume of chlorinated VOCs (cVOCs) has been observed in some of the deep overburden monitoring wells along a similar axis to the upper plume; however, detected concentrations of cVOCs have generally decreased to below regulatory standards.

1,4-Dioxane has been detected in various wells across the Site and appears to have sources in both the VOC/SVOC source area and in the solid waste landfill.

Metals

Concentrations of manganese exceeding regulatory standards have been detected in monitoring wells throughout the Site and appear to be associated with reducing groundwater geochemical conditions promoted by the solid waste landfill and degradation of VOCs.

Other metals of concern have not generally been detected at concentrations exceeding regulatory standards.

PFAS

Based on current, limited data, the PFAS compound perfluorooctanoic acid (PFOA) appears to be relatively common across the Site at concentrations exceeding AGQS.

DISTRIBUTION OF CONTAMINANTS IN LEACHATE

In general, total detected VOC concentrations in the only consistently sampled leachate location (TRY_SW-LEACHATE) have displayed a decreasing trend since 2006 and have primarily consisted of petroleum-related VOCs. DEHP has been sporadically detected at concentrations exceeding the ROD ICL of 6 µg/L at TRY_SW-LEACHATE. The variability of the concentrations of DEHP detected within leachate samples is likely related to the strong tendency of DEHP to adsorb to suspended particulates and matrix particles

DISTRIBUTION OF CONTAMINANTS IN WETLAND SOIL

During the RI, five soil samples were collected from the Rockwood Brook Wetland Study Area and three from an area interpreted as background. None of the detections reported for the background samples exceeded the SRS or the NHDES background concentrations available for some of the metals.

Of the 10 VOCs, nine SVOCs, and 24 metals detected at least once in the soil samples collected from the Wetland Study Area only DEHP and beryllium were detected at concentrations above the SRS. Manganese concentrations reported for all five of the Wetland Study area wetland soil samples were elevated above concentrations detected within the background samples.

For the four wetland soil sampling locations included in the monitoring program since 2006, concentrations of DEHP and manganese exceeding the SRS have been detected fairly consistently at each sampling location.

DISTRIBUTION OF CONTAMINANTS IN SURFACE WATER

Historically, VOCs, SVOCs, and arsenic have not been detected above the laboratory reporting limits at the four surface water sampling locations (TRY_SW-1, TRY_SW-3, TRY_SW-4, and TRY_SW-100) currently included in the monitoring program. Relatively low concentrations of manganese have been detected in samples collected from the surface water; however, currently there is no surface water quality standard established for manganese.

DISTRIBUTION OF CONTAMINANTS IN SEDIMENT

During the RI, five sediment samples were collected from Rockwood Brook in an area hydraulically downgradient from the former drum disposal area, and three reference sediment samples were collected from upstream locations on the west branch of Rockwood Brook. One VOC (acetone), four SVOCs (dibenzofuran, di-n-butylphthalate, fluoranthene, and pyrene), and several metals were detected in the sediment collected from at least one reference sample locations.

Five VOCs (acetone, 1,1-dichloroethane, 2-butanone, 4-isopropyltoluene, and styrene) and nine SVOCs, primarily phthalates, were detected in the samples collected from the downgradient sediment locations. The same metals detected in the reference samples were also detected in the downgradient samples, although a comparison of average concentrations indicated that the downgradient concentrations were slightly higher than reference concentrations.

Concentrations of VOCs and SVOCs have not been detected above laboratory reporting limits within sediment samples collected from TRY_SED-3 since sample collection began in 2006. Sediment sample results are compared to Consensus-based Threshold Effect Concentration (TEC) included in the National Oceanic and Atmospheric Administration (NOAA) Screening Quick Reference Table for Inorganics in Sediment (SQuIRT).[6] Since 2006, none of the metals analyzed for have exceeded the NOAA SQuIRT TEC screen values available, with the exception of mercury during October 2009.

CONTAMINANT FATE AND TRANSPORT

VOCS

The presence, distribution, and persistence of contaminants in the environment are largely dependent upon the chemical-physical properties of the individual compounds. The VOCs detected can be transported and transformed through a variety of transport and biotic/abiotic transformation mechanisms. The transport and transformation mechanisms that dominate vary spatially and temporally and depend on the form of the contamination (i.e., residual light non-aqueous phase liquid, dissolved-phase, and vapor-phase) and the individual contaminant.

- Where residual VOCs exist in the soil within the vadose zone, dissolution, and transport as a solute in infiltrating and percolating precipitation, as well as vapor-phase transport by molecular diffusion, are major mechanisms for residual contaminant removal. These two mechanisms tend to remove VOCs from unsaturated soils. The effectiveness of removal decreases with depth and as the water table is approached;

[6] Buchman, M.F., 2008. NOAA Screening Quick Reference Tables, NOAA OR&R Report 08-1, Seattle, WA, Office of Response and Restoration Division, National Oceanic and Atmospheric Administration.

- Within the saturated zone, the major mechanism for contaminant transport is dissolution into groundwater and transport by advection and hydrodynamic dispersion. The majority of VOCs present at the Site are mobile or highly mobile in the subsurface. Consistent with this model, VOC plumes generally extend downgradient from known source areas; and

- Within the saturated zone, the major mechanism for natural contaminant degradation is biodegradation. Historical data indicates that the cVOC plume has biodegraded over time.

1,4-Dioxane

Important properties of 1,4-dioxane include:

- Miscibility in water;

- Limited tendency to become sorbed to soil particles (low octanol-water coefficient of -0.27 log K_{ow}); and

- Low volatility making it difficult to volatilize (low Henry's Law Constant of 4.80×10^{-6} atmosphere-cubic meters per mole).

1,4-dioxane has a low K_{oc} (soil adsorption coefficient for soil organic matter) and a high solubility and is therefore not highly sorbed to soils. Because of these characteristics, 1,4-dioxane is predominantly found in groundwater.[7] These properties result in 1,4-dioxane being advectively transported in groundwater rapidly compared to most contaminants and making it difficult to remove from groundwater.

Due to the properties of 1,4-dioxane, 1,4-dioxane is anticipated to be transported within groundwater by advection with hydrodynamic dispersion eventually attenuating the concentration to below reporting limits. No significant sorption or transformation are anticipated.

SVOCS

SVOCs are relatively immobile and persistent in the environment and transport is generally governed by adsorption to soil and sediment, especially in high organic materials. The primary SVOC at the Site is DEHP.

DEHP

DEHP has a low aqueous solubility as determined by experimental and theoretical methods. It has a density slightly lower than water, which can result in surface films forming at the water table. Because of this characteristic, sampling equipment passing through a DEHP surface film could contaminate groundwater samples (i.e., analytical results for a groundwater sample may inaccurately reflect high-biased aqueous DEHP results). In an attempt to limit the influence of this potential bias, DEHP-contaminated wells at the Site have been outfitted with dedicated, permanently installed equipment.

In soil, DEHP adsorbs strongly to soil organic matter and is considered to be recalcitrant to biodegradation. In general, contaminated soils in upland portions of the Site do not represent an exposure hazard, as they either presumably reside at depth or are addressed through institutional controls that are maintained through periodic

[7] Mohr, Thomas K.G., 2016. *Environmental Investigation and Remediation: 1,4-dioxane and Other Solvent Stabilizers*, CRC Press.

inspections. In downgradient areas (i.e., local wetlands), DEHP-contaminated sediment that is not subject to the protections described above has been detected during historical monitoring.

When released to water, DEHP preferentially sorbs to soils and suspended particulates due to its hydrophobicity. This characteristic would generally be beneficial in limiting plume extent; however, based on groundwater monitoring data collected at the Site to date, aqueous DEHP exceedances of the AGQS appear to be widespread. This observation may suggest potential bias in these data (e.g., due to film penetration during sampling, as noted above). Alternatively, this may also suggest Site-specific conditions are limiting with respect to sorption capacity (e.g., generally low organic carbon content).

Dissolved DEHP will biodegrade under aerobic conditions, but not in anoxic environments or degrade abiotically. As previously noted, zones of Site groundwater identified as being zones of significant DEHP contamination (i.e., based on reviews of data collected to date) are generally observed as being consistently anoxic to anaerobic. Though it may not be the only viable natural mechanism for removal or destruction of aqueous DEHP mass, these conditions do suggest that the biological degradation rate is likely to be very low and would therefore be unreliable to leverage where significant aqueous mass does exist in Site groundwater.

PFAS

PFAS compounds were detected at the Site in 2018. PFAS are known to be stable, persistent, and bioacummulative in the environment. Additional investigations would be needed to ascertain the extent and concentrations of these compounds at the Site.

METALS

In soil, metals and metalloids introduced by anthropogenic activities are generally found in one of five conditions:[8]

- Dissolved in soil pore water;
- Occupying exchange sites on inorganic soil constituents;
- Specifically adsorbed on inorganic soil constituents;
- Associated with insoluble soil organic matter; and
- Precipitated as pure or mixed solids.

Manganese is the primary metal of concern detected at the Site. The mobility of manganese is anticipated to increase during the period of natural attenuation of VOCs due to the reducing conditions promoted in groundwater by biodegradation of VOCs. Typically, the mobility of manganese would be anticipated to reduce to background levels following degradation of the Site VOC plumes; however, the landfills also tend to promote reducing conditions in underlying and downgradient groundwater.

[8] EPA, "Ground Water Issue, Behavior of Metals in Soils," dated October 1992.

RECEPTORS TO SITE CONTAMINATION

GROUNDWATER RECEPTORS

According to the New Hampshire Department of Environmental Services (NHDES) online database viewer, OneStop Data Mapper, the closest registered public supply well to the Site is located at the Meadowood Assembly Hall on Bowkerville Road, approximately 1 mile to the east of the Site. There are several private water supply wells in the vicinity of the Site, the closest of which are approximately more than a half mile to the east and southeast of the Site on South Street in Troy and Rantilla Lane in Fitzwilliam.

NHDES collected six samples from vicinity residential wells in 2003 and 2004 to be analyzed for metals and organic compounds. With the exception of lead at one location, suspected to be associated with internal plumbing, there were reportedly no violations of water quality standards at the time. These wells are not anticipated to be located in a downgradient position relative to the Site.

SURFACE WATER RECEPTORS

Rockwood Brook and the associated wetland area are discharge points for groundwater and leachate from the drum disposal area; however, based on historical surface water sampling and current Site concentrations, detectable concentrations of Site contaminants within surface water bodies from potential Site-related discharges are not anticipated.

POTENTIAL VAPOR ENCROACHMENT

Currently, there are no structures within 100 horizontal or vertical feet of concentrations exceeding the NHDES GW-2 groundwater screening levels.[9]

[9] "*Groundwater to Indoor Air Screening Levels, GW-2*" included in NHDES' Vapor Intrusion Guidance Document, dated July 2006, revised February 2013.

Appendix E – Field Notes from Log Books

PFAS Pilot Study Field Notes

(69)

8/21/19 Troy Landfill Superfund Site
Troy MT
Onsite 0945 - 1515
Weather Partly Sunny, 70's
Purpose: Collect a sample from
bladder pump for PFAS
analysis. (TRY-MW-501D)
Personnel: Matt Bergen (MB)
Al Jacobsen (AJ)
Visitors: Michael Summerlin (MS)

0945 MB & AJ onsite.

1000 MS on site. MB held brief
health and safety meeting.
° MS suggested doing a
full decon (Alconox/water,
distilled water rinse and PFAS

(70)

8/21/19 Troy Landfill Superfund
Water water rinse. MB
Spoke w/ Tonya Jurgham
(TJ) and she agreed!

° Performed a full decon
on PVC Pipe.

° Note No trip blank was included
w/ bottles. Will use FIELD
BLANK water for Trip BLANK
and full FIELD BLANK bottle
w/ water from Mckim (AK
TJ and MS agreed on this.

1130 Collected FIELD BLANK sample.
MB collected the sample.

1110 - Collected rinsate sample from PVC - EQUIP BLANK-PVC.

- Placed poly down to keep pump and tubing on after pulling out of TROY-MW-501D.
- Pulled pump out of well and gave outside a ~~quick~~ full decon.
- Tubing length = 26.9 ft. + 2 ft. = 29 ft.

tubing ID = 0.17 in

Tubing + Bladder Volume = 29 ft x 4.5 mL/ft + 100 mL = 230.5 mL

3 tubing volumes = 230.5 mL x 3 = 691.5 mL

MS thought 691.5 mL was too little to purge and suggested doing more. TJ agreed.

- Placed Pump in PVC and filled w/ PFAS free water. Purged 6.5 L w/ a 4 ~~cycles~~ cycles/min setting. ~ 13 mins.
- Emptied remaining water

(73) 8/27/18 Troy Landfill Superfund Site

from PUC and drained pump.

- Placed pump back in PUC and filled w/ water. Purged a minimum of 6 gal to get any residual water,

1220 Sampled TRY-MW-501D.

- Cleaned up and placed pump back in well.

- Replaced ~~Removed~~ lock on Northern gate. Need to get a new No trespassing sign for

8/27/18 Troy Landfill Superfund Site (74)

the northern gate.

1315 MB, AJ, + MS locked up at [illegible] site

MB spoke w/ Albert Pelletier (413)-537-8282 He is looking to have the sand pit restored and is looking for advice.

MJB

Comprehensive Water Level Round and Multi-media Sampling Field Notes

(3)

10/24/18 Troy Mills Landfill Superfund Site
Troy, MT

Onsite: 0925 - 1630 hrs

Weather: 40's Scattered Rain showers

Personnel: Matt Bogen (MB) Note taker
Megan Murphy (MM), Evan Dykstra (ED)

Purpose: GW Elevation round and set up for GW Sampling.

Equipment: Solinst WL meters

0925 - MB, MM, and ED onsite, Hold initial health and safety meeting. Start to set up Base camp.

1040 - MB, ED start GW elevation round MM stays to set up base camp. Once MM is finished w/ base camp set up, she will start collecting Hexane odeon WL locations

1030 Michael Summerlin (OES) on site for site visit -> off site @ 1100

1100 - MB receives call from Person

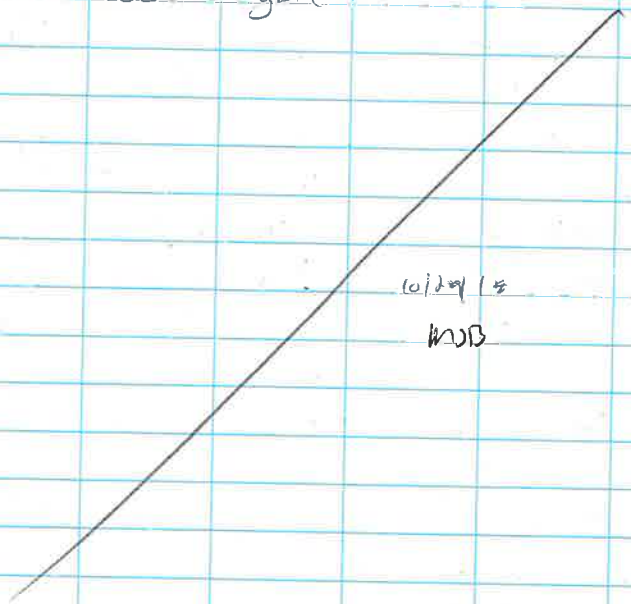
(4)

10/29/18 Troy Mills Landfill Superfund Site

delivering gators Michael & Summerlin dropped off MB to pick up gators

1530 - Completed GW elevation finish setting up base camp

1630 GZA left site and locked gate



(5)

10/30/14 Troy Mills Landfill Superfund Site EPA ID: NHD 980 505 238

Troy, NH

Onsite 0715 - 1725 hrs

Weather Overcast 40-50s

Purpose: GW Sampling

Personnel Matt Bergen (MB) Note taker
Megan Murphy (MM), Erik Dykmen (EED)
Tonya Jagelson (TJ)

Equipment: SmartRol 25467
Hach 2100Q 0303 } Unit #1
Flow MP-10 -5115
Solinst 300' WL

0715 MB, MM, EED onsite for the day
MM + EED Perform calibration checks
MB set up cooler and equipment
for the day.

0800 TJ onsite

0815 MM, EED, + TJ help MB carry equipment
to the TRY_MW-702 Location.

0930 Start setting up on TRY_MW-702D

(6)

10/30/14 Troy Mills Landfill Superfund Site EPA ID: NHD 980 505 238

Initial DTW 4.86'

- Install Sample Rig # ~~37761~~ 37603
- Start pumping @ 1050 hrs
Adjusted flow @ 1103 hr
from 50/10 to 52/6 (FW/discharge)
to bring flow from 72 → 85 mL/min
bc water level kept dropping. Initial
flow rate was similar to 2016
flow rate.
- No other issues were noted
Collected sample @ 1145 hr
for: VOCs, 1,4 Dioxane, SVOCs,
Total As + Mn
- Pulled Sample Rig

1145 Set up on TRY_MW-702S
Initial WL - 6.35 ft
Sample Rig # = 37761
Install Sample Rig.
- Initial DTW is below top of
screen, 6.35ft + 5.4ft, respectively.
Per TJ, perform modified sample
and collect grab sample.

10/3/18 Troy Mills Landfill Superfund Site. EPA ID# IAD 980 505 126

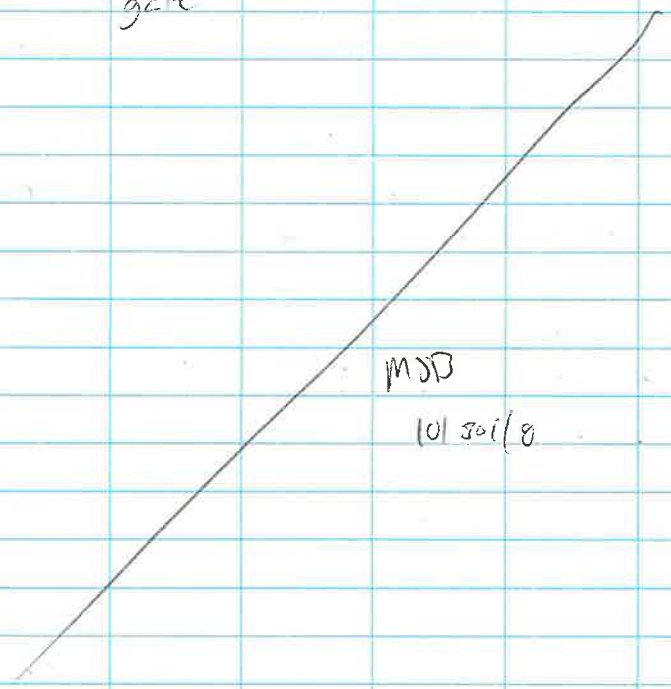
TRY MW-703 SK continued...
- Collected First turbidity reading. It was 227 NTU. Turbidity when sampling is usually in single digits. Called Tonya TJ to see if she still wanted to do grab samples. Since the turbidity was so high TJ would like to run a normal sample as usual, No grab.
-> Increase flow rate to 90 mL/min similar to previous rounds.
- No other adjustments were made.
Collected sample @ 1430 hrs for VOCs, 1,4 Dioxane, SVOCs and total Mn and As.
- Pulled sample pics
- MM assisted MB in carrying Equipment back to Cedar.

1545 - MB and MM returned to base camp. TJ and Rob are already there. MM Performs cal checks. MB & TJ clean sampler and fill out COC. EV Decons Both Sample Pumps. MB

10/3/18 Troy Mills Landfill Superfund Site. EPA ID# IAD 980 505 126

recommends both samples pass once they are dry.
- Finish cleaning up site
- TJ takes Non PFAS samples back to office to be picked up by the lab.

1725 - 627 off site and locked gate



10/31/18 Troy Mills Landfill Superfund Site 04.0190335DE

Troy, NH

Onsite 0730 - 1705

Weather Overcast 30-40s

Purpose: GW Sampling

Personnel: Matt Beggan (MB) note taker

Megan Murphy (MM) Erik Dykness (ED)

Equipment Unit #1 (See 10/30/18)

Solinst WL 300'

Geopump 0405

MP10 5115

0730 MB, MM, ED onsite.
Set up for the days

0830 MB showed MM how to access location TRY_MW-7D.

0845 - Start setting up on TRY_MW-7D
- Peristaltic Pump
- Confirmed that ED had properly set up on this location.
- 0945hrs Start Pumping on TRY_MW-7D

1014 Received confirmation from Bonnie Justham

10/31/18 Troy Mills Landfill Superfund Site 04.0190335DE

that Michael Summerlin agreed w/ the modified samples for locations where WL is below top of screen.

TRY_MW-7D - 2hr cut off. WL did not stabilize. This is the second yr in a row, recommend making labeling as insufficient recharge going forward. No other issues to note. 1145 hrs collect sample for VOCs, 1,4 Dioxane, SVOCs and total Mn + As. See flow sheets for details

1245 Set up on TRY_MW-7
Initial Depth to water = 7.87 ft which is below the top of screen (7.9 ft). Collect modified samples

*When adjusting flow, took

10/31/18 Troy Mills landfill Superfund Site 0404902308

a number of attempts to get a steady flow rate.
Purged ~ 450 mL before sampling.
needed to purge 394 mL.
- Sample PFAS @ 1325 hrs.
- FIELD BLANK - BEIGEN (PFAS) @ 1335 hrs
- Collect remaining samples @ 1346 hrs for Chas, PM Director, SWC + TDEC MGN, + AJT (Pump removed running the whole time

* WL would recover ~ 1.5 ft- back into the sample tubing while filling sample bottles.

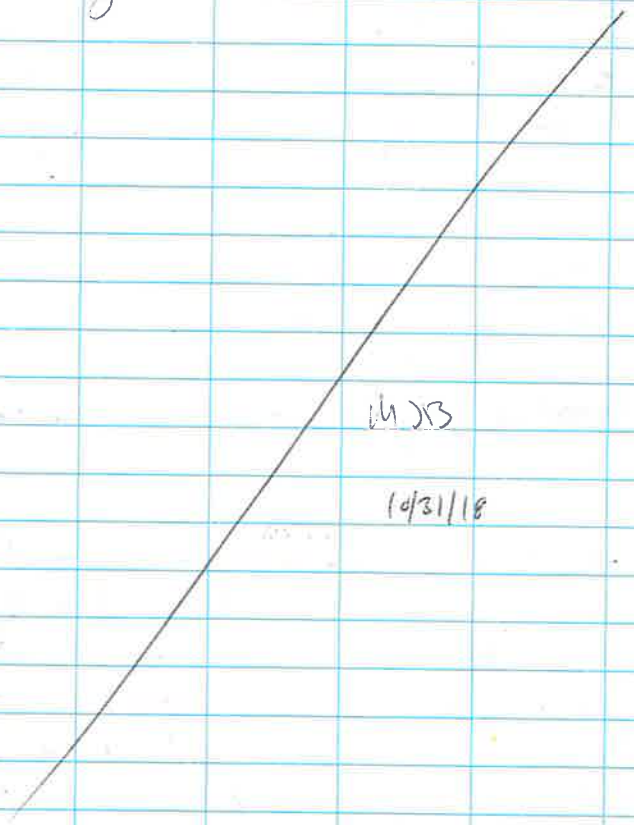
- Checked cable holding pump appears intact.

1500 - Returned to base camp to start processing samples. MM already @ base camp starting Cal check, EB still collecting sample
MB decon'd sample, decon'd w/ PFAS free water ~~tbd~~ set up

10/31/18 Troy Mills Landfill Superfund Site 10/31/18

for a sample Pre well.
Finish cleaning up base camp

1705 GZA all S.S and tubing gone



MJB
10/31/18

to 11/11/18 Troy Mills Superfund Site 04.01907726

Troy Mill

On site 0705 - 1730

Weather 50% Chance of rain

Purpose Ground Water Sampling

Personnel Matt Bergen (Note taker) (MB)
Megan Murphy (MM)
Erik Dykness (ED)

Equipment UNIT #1
300' water level
MP-10 - 5115

0705 MB, MM, ED on site and get ready for the day.

0810 MB set up on TRT-MW-5010
Initial DTW = 55.21'
Start Pump @ 0817hrs
@ 9920hrs flow rate @ 48 ml/min
w/ Refill/Discharge at 5%/6 - increased to 53/7 to prevent flow from going below 50 ml/min. Flow continued to be variable and below 50 ml/min increased to 51/9,

11/11/18 Troy Mills Landfill Superfund Site 04.01907726

Obtained a flow of 66 ml/min @ 9560 hrs flow exceeded 60 ml/min, decrease flow rate to 53/7. From this point on flow ranged from 56-70 ml/min w/ No adjustment. PSI = 15

- Well stabelized at this mark, It possible to obtain a steady 50 ml/min flow, stabelization may be able to be achieved earlier. A similar issue was recorded during the 2016 sampling round w/ variable flow, possible pump issue.
- DO stabelized at a higher concentration than during the 2016 sampling round.
- Collect sample @ 1055 for VOCs, 1,4 Dioxane, SVOC, + Total Mn + As.
- Checked steel cable, appears to

1/4-18 Tow Mills Landfill Superfund Site 04.01490335.00

be intact.
See low flow sheets for details

1150 Set up on TRY_MW_SOIX
Initial Depth to Water = 6.01 ft.
DTW after pump insertion 5.70 ft.

1210 Sample ESD Pump # 34003

Initial DTW is below the top of screen which is 4ft. So Grab sample is to be performed, in addition, well has been considered insufficient recharge in the past.

Collect sample @ 1225 hr for VOCs, 1,4 Dioxane, SVOC, & Total Mng As
No other issues to note.
See flow log for details.

1345 MB back to base camp

04.01490335.00

1/4/18 Tow Mills Landfill Superfund Site

to decon Sample pro.
Allowed sample Pro to air dry first before reassembling

1415 MM returned to base camp.
MB & MM made decision how to start on Third location and started Cal check and sample processing.

During cal check MM ORP was out of range on unit #1. ORP data needs to be qualified for TRY_MW-SOIX and TRY_MW-SOID.

Once ESD returned to base camp he decanned Sample Pro that was USED for TRY_MW-10SD. Pump was allowed to air dry before being reassembled by MB.

11/1/16 Troy Mills Landfill Superfund Site 04.01.90335.08

- Cleaned up site and moved vehicles around. Packed 5 coolers in Fed transit to return office for Pick-up on Friday.
Sent Coc's to Troy Jorthern for review. She had a few comments, Made corrections to Coc's.

1730 GZA off site and locked gate MB brought samples back to office.

11/1/16
MDP

11/2/16 Troy Mill's Landfill Superfund Site 04.01.90335.08
Troy NY.

Onsite: 0730 - 1730
Weather: Cloudy 40s chance of rain
Purpose: GW sampling
Personnel: Matt Begon (Note taker) (MB)
Erik Dykeman (ED)
Equipment: Unit #1
MP-10 5115
300' Water level
QED Sample Rec 37761

MB + ED onsite for the day
MB set up equipment and base comp with ED performed Cal checks. ED had to open new ORP solution and Recalibrate UNIT#1 for ORP because it was not checking out.

0915 Start set up on TRY_MW-30Lx.
Initial DTW = 39.85 ft

* Helped ED install sample Pin

(19) 04.0140.323.02

11/5/18 Troy Mills Landfill Superfund Site

@ TRY_MW-202

- Installed (MB)
  QED Sample Pro # 37761
  @ TRY_MW-202
  DTW after Pump install = 32.87 ft.
  Start Pump @ 1019 hrs
  Well stabilized w/ no issues
  Final Pressure: 30 PSI
  Final Rate/Flow: 48 sec
  Final Fill rate: 10 sec
  Sample time 1105
  Analysis: ~~SVOCs~~, 1,4 Dioxane, SVOCs, Total Mn + As

- Pulled Sample Pro

1205 Head back to Base camp to decon Sample pro, Perform PFAS decon. ~~finish~~ finish and reassemble @ 1245

04.0140.323.02 (20)

11/5/18 Troy Mills Landfill Superfund Site

1250 Set up on TRY_MW-102
Install DTW, (Bottom pump) 21.69 ft
Install QED Sample Pro #37761.
DTW = 21.58 ft
Initial DTW is below the top of screen (21.2 ft) Perform Grab sample
Start pump @ 1317 hrs
Note that water is turbid, and has started off turbid in the port.
Call Tanya Jacobsen to confirm grab sample. Tanya Indicated that since the turbidity starts high and stabalizes lower, then we should run a non-grab sample.
Initial turbidity 7100 NTU,
stabalized ~ 96 NTU.
No other observations while stabalizing.
1455 hrs collect sample for PFAS, VOCs, 1,4 Dioxane, SVOCs, and Total Mn, + As.

11/5/18 Troy Mills Landfill Superfund Site 04.0192.335.28

Please see low flow sheet for details.

- Pulled QED Sample Pro Pump for TRY_mw-102
  Final pressure - 30 PSI
  Refill : 54 seconds
  Fill 6 seconds
- While collecting readings ED came over and MB assisted him on starting the COCs, Once TRY_mw-102 was stable, ED took sonde back to base camp to do Calibration check.

1600 MB Returned to Base camp. Helped ED look for goggles to wear while performing Hexane Decon. MJB Could not locate, will buy some tonight and Decon will from TRY-MW-#38 tomorrow.

11/5/18 Troy Mills Landfill Superfund Site 04.0192.335.28

- MB continued to check samples and fill out COCs.
- ~~ED Emptied~~ MJB Cal for MB and ED Packed up site,

1730 MB & ED left and locked site

11/5/18

MJB

(23)

11/6/18 Troy Mills Landfill Superfund Site 04.0190335.260
Troy NH

onsite 0700 - 1715
Weather Cloudy 50's chance of rain.
Purpose: GW sampling
Personnel: Matt Bergen (CMB) (Note taker)
Erik Dykness (EED)
Equipment: UNIT #1
Solinst WL
MP-10 5115

0700± MB and ED onsite for the day
Set up decon station.
MB performed Hexane decon on TRY-MW-208 while ED observed.
MB + ED Packed equipment for the day.

0830 MB Goes to set up on TRY-MW-205 and notes that there is NO equipment in the well. Left a voice message w/ Terry Justham notifying her.
MB moved onto

04.0190335.260 (24)

11/6/18 Troy Mills Landfill Superfund Site

TRY-MW-205
Initial DTW = 23.51'
Initial DTW is below the Top of Screen (22.3 ft), So Perform Modified sample.
Sample was collected successfully Nothing to Note.
Final Pressure: 20 PSI
Refill rate: 54 seconds
Fill rate 6 seconds
Sample time 0930 hr for: VOCs, 1,4 Dioxane, SVOCs, + Total Mng+As
Turn Pump off & leave in Sc. Flow sheet for more details

1000 Called Terry Justham to discuss TRY-MW-205, and other site related planning.

1035 Called Sanbelt to see when they will be here to pick up MSD Ranger. They said they will be here

(25)

11/6/18 Troy Mills Landfill Superfund Site 04.0196.225.26

to pick up the ~~gator~~ MJS Ranger, Sean

1030 -Continued Picking up TRY. MW-803 area.

1045 Moved Equipment and team over to TRY. MW-804.

1100 Dropped WL off at Base Camp. Went over to ED and took everything out of the Ranger and put it in truck. MJS Went to go ask Land owner if we could leave Ranger down at end of driveway until Sunbelt picked up. No one was home. Came back to site and received call from Sunbelt saying they would be here in ~ 30 mins. I said I would leave Ranger by Access Road w/ key hidden, they were ok w/ that. Got down to access road

(26)

04.0196.225.26 Troy Mills Landfill Superfund Site 11/6/18

and some one was parked there. Did not feel comfortable leaving Ranger when someone was watching me. Waited for Sunbelt to pick up ~~gator~~ MJS Ranger

1130 Sunbelt MJS ~~met~~ Picked up Ranger. ED just finished sampling TRY. MW-1000 and came and picked MJS up.

1215 Started decon on WL from TRY. MW-803. Told ED not to decon his WL and to use clean WL. will decon WL later.

1255 Return To TRY_MW-804. Samples were kept in truck while not at well.
Initial DTW: 27.65 ft.
Initial DTW below top of screen (26.0 ft) Collect Modified samples

1/6/18 Troy Mills Landfill Superfund Site 04.0190325.26

TRY_MW-804 continued.....
- Sample collected successfully.
* A sheen was observed on sample water.
* Note that the initial DTW was entered incorrectly into the Tablet. Sample collected @ 1330 for PFAS, VOCs, 1,4-Dioxane, SVOCs, + Total Mn + As. A Duplicate sample was collected for, PFAS, VOCs, SVOCs, + Total Mn + As.
Final Pressure: 30 PSI
Final Refill: 55 seconds
Final Bladder Fill: 5 seconds.
Please see flow sheets for more details.

1500 Start to bring samples back to base camp. ED finished up at TRY_MW-201SX and helped MB move remaining equipment.

1530 MB starts decon on WL from TRY_MW-101D + TRY_MW-201SX

1/6/18 Troy Mills Landfill Superfund Site 04.0190325.26

While ED performs cal check.
- TRY_MW-804 WL will be decon'd tomorrow.
- During calibration check ORP was out of range for unit #1. TRY_MW-803 and TRY_MW-804 will have to be qualified.

- Once WL decon was complete MB started sample check and COC completion.

- ED + MB finish cleaning up site

1715 MB + ED left site.

1/6/18

11/7/16 Troy Mills Landfill Superfund Site 04.0190385.28

Onsite 0700 - 1645

Weather: Sunny 40s-50

Purpose: GW Sample, SW sample, Site Cleanup.

Personnel: Matt Bergen (MB) Note taker
Erik Dykness (ED)
Tonya Jartham (TJ)

Equipment - SmartTail
Arch Diver
MB did not perform any sampling } Unit # 3

0700 MB and ED onsite for the day
Pulled tents out to day

0730 Refang TRY-MW-601, Did not need to replace wire, it just came un-looped

0745 Refang TRY-MW-701, wire was broken, Replaced wire

0815 Returned to Base camp, Packed up equipment and set up coolers for the day.

11/7/16 Troy Mills Landfill Superfund Site 04.0190385.28

0845 Set up on TRY-MW-205
ED Took initial WL = 28.81 FL

0900 TJ onsite.
Installed pump back into TRY-MW-205
A Black diver was around the screen to prevent contamination from getting on the screen. Pump installed @ 0945

0950 Returned to Base camp to perform Decon WL from TRY-MW-804.

1100 Set up @ TRY-SW-LENCH-15. W/ TJ
TJ Took photos of, Upstream, Sample location, Down stream.
Area is lush and vegitation covered/ no obvious flow, Water clear no obvious flock, approx 4" in depth.
Collect sample @ 1105 hrs

(34)

11/7/18 Troy Mills Landfill Superfund Site 04.0194.0335.0202

1130 Set up @ TRY_SW-LEACHATE
-~~Left~~ Leaf and flock littered bottom. Obvious flow. ~6" Deep.
TJ Took Pictures of sample area and 2 down stream photos.
Collect Sample @ 1125
Collect DUPLICATE Sample

1145 Return to base camp.
Start Packing up
ED Finish @ TRY_MW-204
Perform Decon on TRY_MW-205 WE.
Consolidate Herbicide and Isopropanol waste.

1245 START Replacing 2 No trespassing signs. Placed one at Post at North Entrance from rail trail, and one on Northern gate. MB took pictures of both locations.

1345 Returned to base Camp to start

(35)

11/7/18 Troy Mills Landfill Superfund Site 04.0194.0335.0202

filling out COCs

1430 Collect EQUIP BLANK from WE from TRY_MW-204

* Note TRY_SW-LEACH-A location was dry, No sample was collected.

* Note added New lock to TRY_MW-204.

ED Performed Cal check on Smart Sol.

- TJ. MB checked coolers and COCs.
- Packed up truck.

1600 TJ and ED brought Decon water down to the road ~~base~~ to be picked up by Strategic for disposal.

(33)

11/7/18	Troy Mills Landfill Superfund Site	04.0190325.06
1630	TS + ED Returned to base camp.	
1645	GZA Finished w/ sampling round, all tasks complete, Left and locked site. Sampling round complete	

11/7/18
MJB

(65)

10/24/18 Troy Mills Landfill Superfund site 190325

Troy, NH

0925 Arrived onsite
(EBD) (MSB) (MEM)
Erik Brandt M. Bergen M. Murphy

1000 EBD + MSB started full WL round and well inspections

1030 M. Summerlin from DES onsite for field work briefing and site inspection

1100 Sun belt dropped of side x side
M. Summerlin offsite

1530 completed WL round and inspection of all wells and SW

EBD

(66)

10/24/18 Troy Mills Landfill Superfund site 190325

weather: raining, 40s
purpose: WL round, prepare for sample round, set up base camp.

WL decon'd before each well w/ soapy water (liquinox) and distilled water.
Wells w/ DEHP were decon'd according to SOP w/ Hexane, and 2-Isopropanol decon.

1630 finished setting up base camp and prep for following day.

- GZA offsite

EBD 10/24/18

(70)

10/30/18 — Troy Mills — Landfill Superfund Site — 190325

Troy, NH

weather: partly Sunny 20s - 40s

purpose: ground water Sampling

personell: E. Dykstra (EBD), M. Barge (MTB), M. Murphy (MEM), T. Justham (TPS)

onsite 0715 - 1725

0715 onsite, EBD, MTB, MEM prepped for sampling

0750 Cal checks on Smartroll units completed by EBD + MEM

0800 TPS onsite

0910 left base camp to help MTB set up on well

TPS to sit w/ EBD to go over use of designated bladder pump

Kit #3 Smartroll:

QED MP10: CPM1

Hach 2100Q: 10080C0047245

200' WL:

(71)

10/30/18 — Troy Mills — Landfill Superfund Site — 190325

0945 Set up on TRY_MW-104S Designated bladder pump

Using Kit #3

Hach 2100Q 10080C0047245

QED MP10: CPM1

QED T1250

Static WL: 3.36'

Total tubing length: 48' + 1.5' = 49.5'

Tubing ID: 0.17"

PVR: (48'+1.5')·4.5 mL/ft = 223 mL

Max drawdown: 0.02'

MP10: CPM1, 53/7, 25 psi 200-1000

pump start time:

parameters stable: yes

Total purge before sample: 5L

2 hr limit: no

satisfied: no

sample collected: 1240 - 1315 hrs

Final WL: 5.04'

Final pressure: 25 PSI 53/7

(72)

10/30/18 Troy Mills Landfill Superfund Site 190325

1320 Set up on TRY_MW-104S

Static WL: 3.36'
Total tubing length: 15.5' + 3' = 18.5 ft
Tubing ID: 0.17"
PUR: (15.5'-3') × 4.3 mL/ft + 100mL = 183 mL
Max drawdown: 0.02'
MP10: 15 psi, 40/20

pump start time: 1335 hr
parameters stable: Yes
Total purge before sample: 4.5L
Sample collected: 1435 hr - 1455 hr
Final WL: 3.38'
MP10: 15 psi 40/20
Total purge: 5L

1415 SW-4 WL 2.18' at time of MW-104 complet by T. Justham

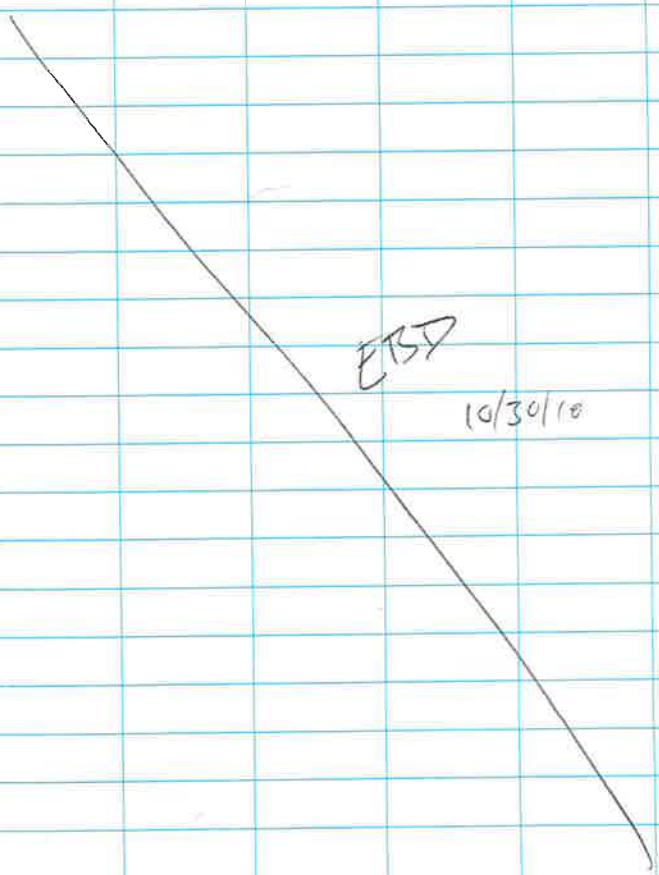
TRY_MW-104S had slight air leaking back down tubing between pushes.

(73)

10/30/18 Troy Mills Landfill Superfund Site 190325

1515 Returned to base camp to start end of day cal checks and prepare samples.

1725 All personnel offsite



(74)

landfill superfund site

10/31/18 Troy Mills 190325

Troy, NH

weather: partly Sunny 30s - 50s

purpose: ground water sampling

onsite: (ETSD) (MJB,) (MEM)
(S. Dutremble) (M. Bergen) (M. Murphy)

0730 ETSD, MJB, MEM onsite

0800 prepped bottles and equipment for the day

ETSD

(75)

landfill superfund site

10/31/18 Troy Mills 190325

0845 set up on TRY_MW-06D

Designated bladder pump

Using Kit #3 (see 10/30/18)

GED MP10

QED T1250

Static WL: 6.35'

Total tubing length: 33'+2' = 35'

Tubing ID: 0.17"

PVR: (33'+2') 4.5 mL/ft = 156 mL

MP10: 19 psi 51/9, cpm

pump start time: 0930 hr

parameters stable: yes

Total purge before sample: 3L

2 hr limit: no

modified: no

Sample collected: 1030 - 1100 hr

Total purged: 3.5 L

Final WL: 7.31'

MP10 20 psi 52/8

10/31/18 Troy Mills Landfill Superfund Site 190325

1115 Moved to location TRY_MW-CGS which was a peristaltic well, but M. Styer was still using peri pump.

1200 Set up on ~~TRY_MW-1~~ EDD
TRY_M-1
Designated bladder pump.
Using Kit #3 (see 10/24/18)
Hach 2100 Q
QED MP10
QED T1300

Static WL: 7.10'
Total tubing length: 55' + 1.5' = 56.5'
Tubing ID: 0.25"
PVR: (55' + 1.5') 9.7 mL/ft = 300 mL = 850 mL
MP10: 30 psi, 50/10

Pump start time: 1225 hr
parameters stable: yes
PVR met: yes 850 < 4L
total purge before sample: 4L

10/31/18 Troy Mills Landfill Superfund Site 190325

2 hr limit: no
modified: no
Sample collected: 1320 - 1335 hr
total purged: 5 L
Final WL: 7.34'
MP10: 30 psi 52/8

1420 Set up on TRY_MW-CGS
Peristaltic pump, geopump, Kit 3
Static WL: 5.88'
total tubing length: 10.2' + 5' = 15.2'
PVR: (10.2' + 5') x 9.7 mL/ft = 150 mL
Pump start: 1455 hr
parameters stable: no
total purge prior to sample: 350 mL
2 hr limit: no
modified: yes, WL below top of screen, grab
sample collected: 1500 - 1610 hr
total purged: 500 mL
Final WL: 5.99'
Sample, DUP, and PFAS / PFAS DUP
1615 Returned to base camp
1705 all people offsite

Landfill Superfund Site

11/1/18 Troy Mills 190325

Troy, NY

weather: Raining, 40s

purpose: Ground water Sampling

onsite: E. Ogorek (ETSD), M. Berger (MTB), M. Murray (MEM)

0720 ETSD, MTB, MEM onsite

0730 prepped bottles and equipment for the day

ETSD

Landfill Superfund Site

11/1/18 Troy Mills 190325

0800 Set up on TRY_MW-601D
Designated bladder pump
Using Kit #3 (see 10/30/18)
QED MP10
QED T1250

Static WL: 21.54'
total tubing length: 57.1' + 2' = 59.1'
Tubing ID: 0.17"
PVR: (57.1 + 2) x 4.5 ml/ft + 100 ml = 366 mL
MP10: 32 psi 53/7

Pump start time: 0845 hr
parameters stable: no
total purge before sample: 6L
2 hr limit: yes
modified: yes, insufficient recharge

Sample collected: 1100 - 1130 hr
Total purge: 6.25 L
Final WL: 24.49'
MP10: 35 psi, 53/7

11/1/18 — Trey Mills — Landfill Superfund Site — 180325

1135 Set up on TRY_MW-6015
Designated bladder pump
Kit #3 (See 10/30/18)
QED T1250
QED MP10

Static WL: 20.38
total tubing length: 27.8 + 2.5 = 30.3
tubing ID: 0.17
PVR: (27.8 + 2.5) × 4.5 + 100 = 240 mL
MP10: 25 psi 50/10

pump start time: ~~1200~~ 1155 - EBD
parameters stable: no
total purge before sample: 400 mL
2 hr limit: no
modified: yes, grab sample, WL below top of screen
Sample collected: 1200 - 1240
Total purge: 500 mL
Final WL: 21.57
MP10: 25 psi 57/3

11/1/18 — Trey Mills — Landfill Superfund Site — 180325

After sampling GOI couplet wells were inspected.
TRY_MW-6017 does not have wire holding up the pump.

1310 Set up on TRY_MW-204
designated bladder pump
Kit #3 (See 10/30/18)
QED T1250
QED MP10

Static WL: 18.72'
total tubing length: 31.3' + 2' = 33.3'
tubing ID: 0.17"
PVR: (31.3' + 2') 4.5 mL/ft + 100 mL = 250 mL
MP10: 20 psi 45/15

pump start: 1350 hr

EBD

11/1/18 Trey Mills Landfill surface water S.P. 190325

parameters stable: yes
total purged before sample: 2.5 L
2 hr. limit: no
modified: no
sample collected: 1430 - 1455 hr
Total purge: 3L
Final wl: 18.92'
MP 10: 20 psi ~~4/2/13~~ EDD 4/7/13

1515 Returned to box camp for end of day cal check and sample organization

1700 Loaded transit Sor' M5B to Leica back to office after leaving site

1730 All staff off site

EOD

EOD 11/1/18

11/2/18 — Troy Mills Landfill Superfund Site — 190325

TRY_NW17

weather: Overcast, thunder storms, 50s
purpose: Ground water sampling
onsite: (EBD) E. Dykness, (MEM) M. Murphy, (TPS) T. Sayre + Henry

0715 EBD & MEM onsite
prepped bottles and gear for the day

0900 Helped MEM set up and install Sample pro

0915 Set up on TRY_MW-805
Kit #3 (see 10/30/18)
QED MP10, QED Sample Pro
Static WL: 28.86'
total tubing length: 37.4' + 3' = 40.7'
tubing ID: 0.17"
PVR: (37.4' + 3') × 4.5 mL/ft + 100 mL = 280 mL
MP10: 25 psi 40/ze

pump start: 0950 hr
parameters stable: yes
total purged prior to sample: 5 L
PVR met: yes

11/2/18 — Troy Mills Landfill Superfund Site — 190325

Sampled: 1045-1115 hr
Final WL: 28.94
total purge: 6.5 L
MP10: 25 psi 40/ze

1130 Helped MEM move locations

1145 Returned to base camp to decon sample pro and prepare for equip blank on Sample pro.
Sample pro disassembled, cleaned and re assembled w/ new kit

1300 Thunder and lightning occurred and delayed equip blank from Sample Pro from TRY_MW-805

1500 Equip blank collected for PFAS, VOCs, 1,4-D, Metals w/ TPS

Material for equipment blank decond and put away

1730 GZA offsite

11/5/18 Troy Mills Landfill Superfund Site 190325

Troy, NH

weather: 30s - 40s, overcast, potential rain
purpose: ground water sampling
onsite: EDynamics (ETSD) + MassDEP (MSB)

0730 ECA onsite

ETSD started cal checks and MSB started preparing bottles and equipment for the day.

During cal check Unit #1 ORP did not fall w/i the range a new solution was made. Unit #1 was still not w/i range.
Unit #1 re calibrated and checked w/i range for ORP

Unit #1 + Unit #3 passed morning cal check.

11/5/18 Troy Mills Landfill Superfund Site 190325

0915 Set up on TRY_MW-202P
QED Sample Pro 34023
QED MP10
Unit #3 (see 10/30 log)
WL prior to pump: 8.23
total tubing length: 52.5' + 2'
tubing ID: 0.17"
PVR: (52.5' + 2') 4.5 mL/ft + 100 mL = 350 mL
MP10: 35 psi 4/5/15

pump start: 1030
parameters stable: no
WL 8.36' prior to sample
total purged before sample: 4000 mL
2 hr limit: no, grab
satisfied: yes, WL below top of screen
sample collected: 1010-1045 hr
total purge: 6000 mL
Final WL: 8.49'
MP10: 35 psi 5/10

ETD

(88)

11/5/18 Troy Mills Landfill Superfund Site 140325

1120 Set up on TRY-MW-A28
Kit #3, peri pump
Designated tubing in well
Static WL: 7.55'
total tubing length: 11.1' + 5' = 16.1'
tubing ID: 0.17"
PVR: (11.1' - 15') x 4.5 mL/ft = 75 mL
#14: yes

pump start: 1210 hr
parameters stable: no
total purge prior to sample: 250 mL
PVR met: yes
2 hr: no
mod: yes, WL w/i .5' of screen
Sample: 1215 - 1320 hr
final WL: 8.14'
total purged: 500 mL

1400 Returned to base camp to start
Hexane decon of WL.
Goggles could not be located

(89)

11/5/18 Troy Mills Landfill Superfund Site 140325

1500 Assited MJS in completing
COCs and break down of
his well once samples
were collected.
1530 Returned to base camp w/
both Smart Soil units
to start end of day cals
Both units checked out
OK.
1600 MJB returned to becoming
and started checking bottles
and finalizing COCs

1730 EBD + MJB offsite

EBD 11/5/18

(90)

11/6/18 — Troy Mills Landfill Superfund site — 190325

Troy, MT

Weather: cloudy, rain 40s-50s

purpose: ground water sampling

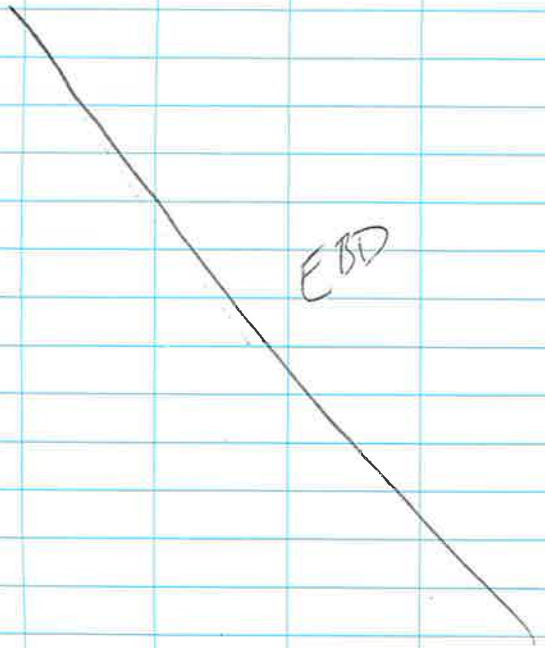
onsite: E. Dykness M. Bergen (EBD), (MJB)

0700 EBD + MJB onsite

MJB set up decon and deconned

WL from previous day.

Equipment and bottles were prepped for the day



11/6/18 — Troy Mills Landfill Superfund site — 190325 — (91)

TRY-

0830 Set up on MW-101D

QED T1250 Designated

QED MP10

Kit #3 (see 10/30/18)

WL: 16.80'

total tubing length: 62.1' + 2' = 64.1'

tubing ID: 0.17"

PVR: (62.1' + 2) x 4.5 mL/ft + 100 mL = 390 mL

MP10: 30 psi 40/20

pump start: 0915 hr

1110 pump air tank charged

pump stopped for <1 min.

1st tank pressure 900 - 300 psi

2nd tank pressure 2000 - 1800 psi

parameters stable: no, wL, ORP

total purged prior to sample: 7.5L

2 hr limit: yes

modified: yes, 2hr limit

sample collected: 1125 - 1155 hr

Landfill Superfund Site

1	11/6/18	Troy Mills	190325
u		total purge: 8 L	
p		Final WL: 20.73'	
a		MP10: 30 psi 50/10	
c		At 2 hr. mark tablet was rotated to view parameters when it was rotated back to input / live reading screen the tablet / program froze and shut down. Smart Troll was disconnected and reconnected auto matically. When the program was restarted the low flow sheet was still running, however ORP fell out of stabilization This could have been due to the tablet or water quality.	
1200		Picked MSTB up after side x side pick up at begining of driveway	

Landfill Superfund Site

11/6/18		Troy Mills	190325
		Returned to base comp wl WL to be Hexane deemed MSTB already decoming WL he took dirty WL and was going to decon it. Clean 20ci WL was taken in place	
1300		Set up on TRY_MW-201SX QED T1250 designated QED MP10 RAT #3 (see 10/30/18	
		WL: 5.16'	
		total tubing length: 12.2' + 2.5' = 14.7'	
		tubing ID: 0.17"	
		PUR: (12.2' + 2.5') x 4.5 $\frac{mL}{ft}$ + 100 mL = 170 mL	
		MP10: 7 psi 52/8	
		pump start: 1330 hr	
		pressure turned up because of no flow	

11/6/18 Trey Mills Landfill Superfund Site 180325

parameters stable: yes
total purged prior to sample: 2L
2 hr limit: no
modified: no
Sample: 1415 - 1440 hr
Final WL: 5.19'
Total purge: 2.25 L
MP10: 13 psi 52/8

1500 Helped MJB pack up equipment from well and load into the truck to bring back to base camp.

1530 Started end of day cal checks on smart roll units # 3
Unit #1 was out of range for ORP (low).
Tonya was called to see if it was worth re calibrating it or the last day. She confirmed it did not need to be done.
Wells qualified:
TRY_MW-803
TRY_MW-804

11/6/18 Trey Mills 180325

UNIT #3 passed all checks.

1630 Assited MJB in packing samples in coolers to be sent to the lab

1715 GZA ~~staff~~ offsite

EOD
11/6/18

11/7/18 — Troy Mills — Lot# 11 Superfund Site — 180325

Troy, NA

onsite: E.Dykeman (ESD), MSB (MJB), T.Sullivan (TBS)

purpose: Ground water, surface water, leachate Sampling

weather: Sunny 40s - 50s

0700 ESD & MJB onsite

0710 prepped materials to re hang wells onsite w/o wire

0730 Re hung and tightened cable at TRY_MW-601D
when the pump was pulled out the cable was located and put back on well cap

0800 Re hung cable at TRY_MW-701 and secured to well cap

0815 Returned to base camp to set up decon area and ~~packed~~ packed truck w/ equipment for TRY_MW-205
MJB prepped SW, leachate, QC bottles.

11/7/18 — Troy Mills — Lot# 11 Superfund Site — 180325

0830 ESD & MSB set up equipment at TRY_MW-205
waiting for QED T1250 from office w/ TBS
stated packing up equipment in box truck

0915 TBS onsite w/ equipment from shop.
QED T1250 was installed in the well ~~of~~ ice over screen to prevent DEHP on surface to interfere w/ samples.

TRY_MW-205
QED T1250, QED MP10, Kit #3 (see lot#36/16)
Initial WL w/o pump 28.81'
total tubing: 37.6' + 2.5' = 40.1'
tubing ID: 0.17"
PUR: (37.6'+2.5') x 4.5 mL/ft + 100 mL = 280 mL
MP10: 25 psi 53/7
WL after pump install and settle 28.77'

11/7/18 Landfill superfund site

Troy Mills 190325

pump was given time to de-ice

pump start: 1030 hr

parameters stable: no

total purged prior to sample: 400 mL

PVR met: yes

2 hr: no

mod: yes, WL was w/i .5' of the top of screen

Sample: 1050 - 1130 hr

Final WL: 29.36'

total purged: 750 mL

MP10: 25 psi 55/5

1200 Returned to base camp to drop off WL for Lexan decon w/ MSB

Bottles and equipment prepped for SW samples TPS & ERD to collect samples

1240 TRY_SW-100 Sample collected and data recorded

11/7/18 Landfill superfund site

Troy Mills 190325

1315 TRY_SW-3 Sample collected and data recorded

1345 TRY_SW-4 Sample collected and data recorded

1405 TRY_SW-1 Sample collected and data recorded

All surface waters sampled for SVOCs, VOCs, Metals

DUP collected at TRY_SW-3

1415 Returned to basecamp to complete end of day cal check on Smart Troll UNIT #3.

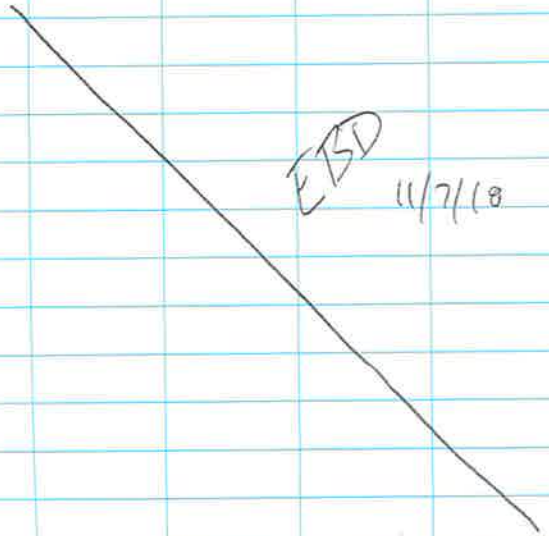
All parameters check with in range

Base camp broken down and packed to prepare for mobilizing off site

11/7/18 Trey Mills Landfill Surface Site 180325

1600 TPT + EBD left gated area to meet Strategic at end of driveway / access road Strategic took possession of Hexane / Isopropanol waste in 5-gallon bucket

1645 EBD, TPT, MTB offsite with all equipment and vehicles, completed field activities.



Troy Mills Landfill Superfund 10-29-18
Troy / Fitzwilliams, NH
04.0190325.28

TIME ONSITE: 0925 - 1630
WEATHER: Partially cloudy, 40s, Rain
PERSONNEL: MEM (note taker), MJB, EBD (Megan Murphy, Matt Bergen, Erik Dyrness)
ADD. PERSONNEL: Michael Summerlin (MS) from NHDES (1030 - 1100)
TASK: Establish base camp, complete GW level measurements, organize equipment and coolers, prep. decon area
INSTRUMENTS: ~~None~~ Water level #48101

0925 - GZA arrived on-site. MEM, MJB, and EBD unloaded vehicles into box truck (base camp)

1000 - MJB & EBD began GW level measurements MEM began organizing base camp and setting up decon. station.

1030 - M. Summerlin arrived on-site for briefing, a copy of the SAP, and site perimeter inspection. Discussed with MEM that →

two private property signs were missing by back (north) gated entrance and should be replaced. Also discussed leaving ruts located in the road towards the north of the site alone to develop into deeper/wider ruts to prevent unwanted 4-wheeling.

1100 - Sunbelt dropped off gator at the site. M. Summerlin off-site.

1130 - MEM began surveying GW levels and decon (hexane / 2-propanol) monitoring wells impacted w/ DEHP.

1530 - MEM, MJB, and EBD completed GW level measurements.

1630 - Finished finalizing base camp and initial prep for tomorrow. GZA off-site.

10-29-18
MEM

TROY MILLS LANDFILL SUPERFUND 10-30-18
Troy / Fitzwilliam, NH
04.0190325.28

TIME ONSITE: 0715 - 1725
WEATHER: Partially cloudy, 30s
PERSONNEL: MEM (Megan Murphy)
ADD PERSONNEL: MJB (Matt Bergin), EBD (Erik Dymess), Tanya Justham (TPJ)
TASK: Low flow groundwater sampling of onsite monitoring wells
EQUIPMENT: UNIT #2 SETUP refers to the following:
Water level: 48101
MP-10 Controll box: 4411
SmarTroll: 24480
Hach 21000: 0373336

0715 - GZA on-site. Begin prep for low-flow sampling.

0750 - Cal. checks by MEM and EBD. All units passed!

0800 - TPJ on-site.

0915 - Left base camp to assist MJB in →

Cont... TROY MILLS LANDFILL SUPERFUND 10-30-18
04.0190325.28

Setting up at wells.

1000 - Set up at TRY_MW-602B
Decon w/ PFAS-free DI water
• SEE LOW FLOW SHEETS FOR SAMPLING DETAILS •
-adjusted pressure various times to maintain 22 psi

1140 - Collected PFAS field blank
1145 - Collected samples for PFAS, VOCs, 1,4-dioxane, SVOCs, and metals
1225 - Pump off

1240 - Set up at TRY_MW-101S
-Decon w/ PFAS-free DI H_2O
-modified sampling required
• SEE LOW FLOW SHEETS FOR SAMPLING DETAILS •
-adjusted pressure to maintain 16 psi

1330 - Sampled for PFAS, VOCs, 1,4-Dioxane, →

Cont... TROY MILLS LANDFILL SUPERFUND 10-30-18
04.0190325.28

SVOCs, and metals

1420 - Pump off

1450 - Assisted MJB in breaking down

1545 - Returned to base camp

1600 - Performed cal. checks on all SmarTroll units.
ALL units passed!
↳ Assisted with break down and prep.

1725 - GZA off-site.

10-30-18
MEM

TROY MILLS LANDFILL SUPERFUND 10-31-18
Troy / Fitzwilliam, NH
04.0190325.28

TIME ONSITE: 0730 - 1705
WEATHER: Partially cloudy, 20s-40s
PERSONNEL: MEM (Megan Murphy)
ADD. PERSONNEL: MJB, EBD (Matt Bergen, Erik Dymus)
TASK: Low flow GW sampling of onsite wells
EQUIP.: UNIT #2; Sample Pro #34023 (See 10-30-18)

0730 - GZA on-site. Begin prep. for sampling.
★ FREEZING CONDITIONS ★ Trip Blank bottles were kept in coolers and labeled later in day due to freezing temperatures.

0900 - Set up at TRY_MW-701
-Decon w/ PFAS-free DI h2O
-Air line on bladder pump filled in with dirt/nest materials - cleared out before connecting
-metal wire holding pump in place is broken - pump only connected via air and water lines

→

cont... TROY MILLS LANDFILL SUPERFUND 10-31-18
04.0190325.28

1000 - MP-10 # 4411, would not discharge air (indicated pressure within control box but)
↳ replaced with # 2501
• SEE LOW FLOW SHEETS FOR SAMPLING DETAILS •
- water retreated approx. 8" back into tubing line; flow rates changed btwn. discharges (60 mL/min. - 80 mL/min.)

1110 - Sample start
↳ PFAS, VOCs, 1,4-Diox., SVOCs and metals

1145 - Pump off

1210 - Set up at TRY_MW-508X
Decon w/ PFAS-free DI H2O
- modified sampling required
• SEE LOW FLOW SHEETS FOR SAMPLING DETAILS •

1315 - Sample start
↳ VOCs, 1,4-Diox., SVOCs, and metals

1400 - Pump off

→

cont... TROY MILLS LANDFILL SUPERFUND 10-31-18
04.0190325.28

1440 - Picked up MJB's Unit # 1 and returned to base camp to begin performing cal. checks on Units # 1 and # 2

1505 - Picked up EBD's Unit # 3 for cal. check
↳ ALL UNITS PASSED!
- Assisted with breakdown and cooler prep
- Prep for tomorrow sampling

1705 - GZA off-site

10-31-18
MEM

TROY MILLS LANDFILL SUPERFUND 11-1-18
Troy / Fitzwilliam, NH
04.0190325.28

TIME ON SITE: 0720 - 1730
WEATHER: Rain, 40s-50s
PERSONNEL: MEM (Megan Murphy)
ADD. PERSONNEL: MJB, EBD (Matt Bergan, Erik Dymess)
TASK: Low flow GW sampling of onsite wells
EQUIP: Unit #2, SamplePro # 37761 (See Inventory)

0720 - GZA on-site → begin prep for sampling.

0815 - Set up at TRY_MW-105D
- Decon DI H_2O
- SEE LOW FLOW SHEETS FOR SAMPLING DETAILS -
- Reached 2 hour limit - WL did not stabilize

1130 - Sample start
↳ VOCs, 1,4-Diox., SVOCs, metals

1205 - Pump off

→

cont.. TROY MILLS LANDFILL SUPERFUND 11-1-18
04.0190325.28

1215 - Set up at TRY_MW-105S
- Decon PFAS-free DI H_2O
- modified sampling required
- Due to mouse nest & damage to outlet tubing, the damaged tubing was removed and replaced with approx. 2-feet of Teflon tubing attached with #15 silastic tubing.
- SEE LOW FLOW SHEETS FOR SAMPLING DETAILS -

1255 - Sample start
↳ PFAS, VOCs, 1,4-Dioxane, SVOCs, metals

1340 - Pump off

1415 - Back at base camp; unload vehicle

1445 - Begin cal. checks for Units #1-3 → Unit #1 fell out of cal. for ORP; recaled and passed! TRY_MW-501D & X QUALIFIED

1730 - Finished breakdown & prep.; GZA off-site

11-1-18 MEM

TROY MILLS LANDFILL SUPERFUND 11-2-18
Troy / Fitzwilliam, NH
04.0190325.28

TIME ONSITE: 0715 - 1730
WEATHER: Rain (heavy at times), 50s-60s
PERSONNEL: MEM (Megan Murphy)
ADD. PERSONNEL: EBD, TPJ (Erik Dymess, Tonya Justham)
TASK: Low flow GW sampling of onsite wells
EQUIP: UNIT #2, Sample Pro #~~34023~~ 37761 MM 11-2-18
(See 10-30-18)

0715 - GZA arrive on-site - begin prep. for sampling and reorg. truck

0800 - TPJ on-site

0900 - Set up at TRY_MW-802
- Decon w/ DI H_2O
- SEE LOW FLOW SHEETS FOR SAMPLING DETAILS -
- modified sampling triggered at 1035 (GW dropped below screen)

1035 - Sample start → VOCs, 1,4-Diox, SVOCs, metals
1115 - Pump off

→

.cont... TROY MILLS LANDFILL SUPERFUND 11-2-18
04.0190325.28

1145 - Back to base camp to decon Sample Pro

1240 - Set up at TRY_MW-801
- Decon DI H_2O
- SEE LOW FLOW SHEETS FOR SAMPLING DETAILS -
- Reached stabilization at 1345
↳ 1350 - lightening & thunder caused delay in sampling

1440 - Sample start
↳ VOCs, 1,4-Diox, SVOCs, and metals

1510 - Pump off

1545 - Return to base camp

1600 - Begin cal. checks - all units passed!

1730 - Off-site

10-2-18, MEM

Appendix F – Site Photographic Log



Photo No. 1	**Field assessment of the use of dedicated sampling equipment for collection of PFAS samples.**



Photo No. 2	**View of sign post near the northern entrance with missing "Private Property" sign.**



Photo No. 3	**View of sign post after replacement of the sign.**



Photo No. 4	**View of northern gate with missing "Private Property" sign.**



Photo No. 5	**View of northern gate after replacement of the sign.**



Photo No. 6	**View of landfilled textiles on the ground surface at the location of one of the 2017 test pits.**



Photo No. 7	**Frozen bladder pump screen prior to installation into well TRY_MW-205.**



Photo No. 8	**Upstream view from TRY_SW-100.**



Photo No. 9	**View across Rockwood Brook at TRY_SW-100.**



Photo No. 10	**View of sampling location at TRY_SW-100.**



Photo No. 11	Downstream view from TRY_SW-100.



Photo No. 12	Upstream view from TRY_SW-3.



Photo No. 13	View across Rockwood Brook at TRY_SW-3.



Photo No. 14	View of sampling location at TRY_SW-3.



Photo No. 15	Downstream view from TRY_SW-3.



Photo No. 16	Upstream view from TRY_SW-4 (confluence of east and west branches of Rockwood Brook).



Photo No. 17	View across Rockwood Brook at TRY_SW-4.



Photo No. 18	View of sampling location at TRY_SW-4.



Photo No. 19	**Downstream view from TRY_SW-4.**



Photo No. 20	**Upstream view from TRY_SW-1 on the East Branch of Rockwood Brook.**



Photo No. 21	**View across Rockwood Brook at TRY_SW-1.**



Photo No. 22	**View of sampling location at TRY_SW-1.**



Photo No. 23	**Downstream view from TRY_SW-1.**



Photo No. 24	**Upstream view from leachate sampling location TRY_SW-LEACH-B.**



Photo No. 25	View of sampling location at TRY_SW-LEACH-B.



Photo No. 26	Downstream view from leachate sampling location TRY_SW-LEACH-B where it meets Rockwood Brook.



Photo No. 27	**View of leachate sampling location TRY_SW-LEACHATE.**



Photo No. 28	**Downstream view from leachate sampling location TRY_SW-LEACHATE.**

Appendix G – Completed Field Measurement Forms

Water Level Worksheet

M. Bergen
E. Dymess

Date: 10/29/18

Water Level Worksheet

Troy Mills Landfill Superfund Site, Troy, New Hampshire

Field Personnel: _____

Monitoring Well Designation	Well Type (2-in, 1.5-in etc.)	Measuring Point	Reported Depth to Well Bottom (ft., referenced to measuring point)	Measured Depth To Water (ft., referenced to measuring point)	Measured Depth to Well Bottom (ft., referenced to measuring point) Only if specified in SAP & as noted below.	Comments
TRY_M-1	1 1/2-in PVC	PVC	67.3 [2]	7.44		Measure depth next time pump is removed
TRY_M-7	1 1/2-in PVC	PVC	17.3	7.93		
TRY_M-7D	1 1/2-in PVC	PVC	81.36	3.93		
TRY_MW-A28	1 1/2-in PVC	PVC	13.03	8.98		
TRY_MW-C6S	2-in PVC	PVC	15.2	5.88		
TRY_MW-C6D	2-in PVC	PVC	38.0	6.34		
TRY_MW-101S	2-in PVC	PVC	29.40	20.04		
TRY_MW-101D	2-in PVC	PVC	67.12	17.77		
TRY_MW-102	2-in PVC	Casing	36.2 [2]	21.45		
TRY_MW-104S	2-in PVC	PVC	17.7 [2,3]	3.26		
TRY_MW-104D	2-in PVC	PVC	52.1 [2]	3.38		
TRY_MW-105S	2-in PVC	PVC	21.08	8.17		Mouse nest in standpipe mouse chewed single tubing
TRY_MW-105D	2-in PVC	PVC	87.92	11.91		
TRY_MW-201SX	2-in PVC	PVC	17.23	6.25		
TRY_MW-202P	4-in PVC	PVC	61.55	9.13		
TRY_MW-204	2-in PVC	PVC	32.8	18.67		
TRY_MW-205	2-in PVC	PVC	39.1	28.80		missing j-plug
TRY_MW-301X	2-in PVC	PVC	52.5	33.90		
TRY_MW-501D	2-in PVC	PVC	31.85	5.43		
TRY_MW-501X	2-in PVC	PVC	14.04	5.96		
TRY_MW-508X	2-in PVC	PVC	9.7	4.64		
TRY_MW-601S	2-in PVC	PVC	29.3	20.36		
TRY_MW-601D	2-in PVC	PVC	62.1	21.53		
TRY_MW-602B	2-in PVC	PVC	47.5	17.82		
TRY_MW-701	2-in PVC	PVC	78.3	6.55		

Water Level Worksheet

Troy Mills Landfill Superfund Site, Troy, New Hampshire

Date: 10/29/18

Field Personnel:

Monitoring Well Designation	Well Type (2-in, 1.5-in etc.)	Measuring Point	Reported Depth to Well Bottom (ft., referenced to measuring point)	Measured Depth To Water (ft., referenced to measuring point)	Measured Depth to Well Bottom (ft., referenced to measuring point) Only if specified in SAP & as noted below.	Comments
TRY_MW-702SX	2-in PVC	PVC	15.4	6.18	14.8 pvc	15.09 casing Measure depth in 2018
TRY_MW-702D	2-in PVC	PVC	46.4 [2,3]	4.79		
TRY_MW-801	2-in PVC	PVC	46.4	30.21		
TRY_MW-802	2-in PVC	PVC	35.6	24.59		
TRY_MW-803	2-in PVC	PVC	32.3	22.99		
TRY_MW-804	2-in PVC	PVC	36.0	27.96		
TRY_MW-805	2-in PVC	PVC	42.4	28.86		
Surface Water Location [4]						
TRY_SW-4	NA	NA	NA	2.26	NA	

Notes:

1. NA = not applicable
2. Downhole information was not verified during the October 8, 2008 camera survey.
3. GZA notes that there appears to be a minor discrepancy between the historical information regarding the bottom of screen/well and that which was measured in July 2008 by GZA in three wells (TRY_MW-702S, TRY_MW-702D, & TRY_MW-104S).
4. The depth of water measurement at TRY_SW-4 is reference to the permanently installed stream gage at that location

SmarTroll Low-Flow Test Reports

Low-Flow Test Report:

Test Date / Time: 10/31/2018 12:25:21 PM
Project: TRY_M-1 Troy Mills Landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_M-1 **Well Diameter: 1.5 in** **Casing Type: PVC** **Screen Length: 59 ft** **Top of Screen: 8.3 ft** **Total Depth: 67.3 ft** **Initial Depth to Water: 7.1 ft**	**Pump Type: QED T1300** (TPJ) **Tubing Type: ~~Polyethlyene~~** Teflon **Tubing Inner Diameter: 0.25 in** **Pump Intake From TOC: 55 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 96 ml/min** **Final Draw Down: 0.24 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369778**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED T1300
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hach 2100Q

Total tubing length (inside & outside of well): 55+1.5=56.5
PVR (including calculations): (55+1.5)×9.7+300=850 ml

Maximum allowable drawdown rate: 0.02
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1225

Parameters reached stabilization? Yes
If no, list parameters: n/a
Total volume purged prior to sampling: 4L
Minimum PVR reached (compare purge amount to PVR)? 4L > 850 mL
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): no
Condition that triggered Modified Sampling: n/a

Final pressure of bladder pump: 30 psi
Final refill rate: 52
Final discharge rate: 8

Any adjustments made (including flow rates, tubing, etc.): discharge reduced from 10 to 8

Final water level:7.34

Total actual volume purged (delete Estimated Purge Volume): 5L
Measured Well Depth, if required (note variation in total depth compared to previously documented): n/a
Pump Off: 1335

Weather Conditions:
Overcast, 40s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
10/31/2018 12:25 PM	00:00	7.91 pH	10.25 °C	232.49 µS/cm	5.43 mg/L	67.00 NTU	5.3 mV	7.10 ft	100.00 ml/min
10/31/2018 12:30 PM	05:00	7.18 pH	10.31 °C	280.49 µS/cm	1.09 mg/L	237.00 NTU	-7.5 mV	7.33 ft	100.00 ml/min
10/31/2018 12:35 PM	10:00	6.63 pH	10.27 °C	180.59 µS/cm	0.49 mg/L	232.00 NTU	47.9 mV	7.33 ft	100.00 ml/min
10/31/2018 12:40 PM	15:00	6.27 pH	10.28 °C	148.96 µS/cm	0.36 mg/L	271.00 NTU	85.9 mV	7.34 ft	98.00 ml/min
10/31/2018 12:45 PM	20:00	6.07 pH	10.29 °C	146.21 µS/cm	0.30 mg/L	218.00 NTU	98.2 mV	7.34 ft	100.00 ml/min
10/31/2018 12:50 PM	25:00	6.02 pH	10.31 °C	145.47 µS/cm	0.25 mg/L	263.00 NTU	103.8 mV	7.34 ft	100.00 ml/min
10/31/2018 12:55 PM	30:00	5.95 pH	10.43 °C	144.99 µS/cm	0.23 mg/L	232.00 NTU	106.6 mV	7.34 ft	100.00 ml/min
10/31/2018 1:00 PM	35:00	5.90 pH	10.53 °C	144.66 µS/cm	0.21 mg/L	140.00 NTU	109.3 mV	7.34 ft	100.00 ml/mi
10/31/2018 1:05 PM	40:00	5.88 pH	10.67 °C	144.85 µS/cm	0.22 mg/L	142.00 NTU	107.8 mV	7.34 ft	100.00 ml/min
10/31/2018 1:10 PM	45:00	5.87 pH	10.84 °C	144.79 µS/cm	0.22 mg/L	151.00 NTU	108.2 mV	7.34 ft	96.00 ml/min

Samples

Sample ID:	Description:
TRY_M-1	1320-1335 SVOCS VOCs Total MN and AS 1,4-Dioxane

Low-Flow Test Report:

Test Date / Time: 10/31/2018 1:12:22 PM
Project: TRY_M-7 Troy Mills Landfill (2)
Operator Name: Matt Bergen

Location Name: TRY_M-7	**Pump Type: QED T1300** (TRJ)	**Instrument Used: SmarTROLL MP**
Well Diameter: 1.5 in	**Tubing Type: ~~polyethylene~~** Teflon	**Serial Number: 369323**
Casing Type: PVC	**Tubing Inner Diameter: 0.25 in**	
Screen Length: 9.5 ft	**Tubing Length: 18 ft**	
Top of Screen: 7.8 ft	**Pump Intake From TOC: 15.8 ft**	
Total Depth: 17.3 ft	**Flow Cell Volume: 90 ml**	
Initial Depth to Water: 7.87 ft	**Final Flow Rate: 50 ml/min**	
	Final Draw Down: 0.03 ft	

Test Notes:

PRIOR TO SAMPLING:

Pump serial number:QED T1300
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits):HACH 2100Q 2303

Total tubing length (inside & outside of well): 18 FT
Tubing inner diameter. 0.25 in
PVR (including calculations): 18 ft x 9.7 ml/ft + 220 ml = 394.6 ml

Maximum allowable drawdown rate: 0.02 ft
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time:1310 hrs

Parameters reached stabilization? No, modified sample
If no, list parameters: none
Total volume purged prior to sampling: 450 ml
Minimum PVR reached (compare purge amount to PVR)? Yes, 450 ml > 394.6 ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): Yes, from start.
Condition that triggered Modified Sampling: Initial water level below top of screen.

Final pressure of bladder pump:8 psi
Final refill rate: 55 seconds
Final discharge rate: 5 seconds

Any adjustments made (including flow rates, tubing, etc.): took a number of trys to get the flow stable at 50 ml/min.
Note: while filling sample jars, the water level in tubing would retreat about 1.5 ft between pushes.

Final water level: 7.91
Total actual volume purged (delete Estimated Purge Volume):1,100 ml
Measured Well Depth, if required (note variation in total depth compared to previously documented):
Pump Off:1415 hrs

Weather Conditions:
Overcast 40s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
10/31/2018 1:12 PM	00:00	7.42 pH	7.77 °C	273.02 µS/cm	7.86 mg/L	1.00 NTU	341.8 mV	7.90 ft	60.00 ml/min
10/31/2018 1:17 PM	05:00	6.27 pH	8.78 °C	293.34 µS/cm	1.76 mg/L	1.00 NTU	138.4 mV	7.90 ft	40.00 ml/min
10/31/2018 1:22 PM	10:00	5.92 pH	8.87 °C	295.88 µS/cm	1.39 mg/L	1.00 NTU	130.4 mV	7.90 ft	50.00 ml/min

Samples

Sample ID:	Description:
~~TRY_MW-7~~ TRY_M-7 TPJ	Sample analysis: PFAS, VOCS, 1,4-DIOXANE, SVOCs, and TOTAL Mn and As ~~Collected Duplicate sample for 1,4-dioxane only~~ TPJ Collected ~~FIELD BLANK for PFAS~~. TPJ Sample time: 1325 hrs for PFAS 1340 hrs for VOCS, 1,4-DIOXANE, SVOCs, and TOTAL Mn and As Stop sample of 1415 hrs

TRY_M-7 DUP 1,4-dioxane 1340-1415 (TPJ)

FIELD BLANK PFAS 1325 (TPJ)

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/31/2018 9:51:23 AM
Project: TRY_M-7D Troy Mills Landfill (2)
Operator Name: Matt Bergen

Location Name: TRY_M-7D **Well Diameter: 1.5 in** **Casing Type: PVC** **Screen Length: 30 ft** **Top of Screen: 50.8 ft** **Total Depth: 81.36 ft** **Initial Depth to Water: 4.01 ft**	**Pump Type: Peristaltic** (TB) **Tubing Type: ~~Polyethylene~~** Teflon **Tubing Inner Diameter: 0.25 in** **Tubing Length: 76 ft** **Pump Intake From TOC: 74 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 50 ml/min** **Final Draw Down: 1.73 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369323**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: Geopump 040800
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): HACH 2100Q 2303

Total tubing length (inside & outside of well): 76 ft
Tubing inner diameter: 0.25 inch
PVR (including calculations): 76ft x 9.7 ml/ft = 737.2 ml

Maximum allowable drawdown rate: 0.02 ft
Is #14 tubing used at this location? Yes

DURING/AFTER SAMPLING:

Pump start time: 0945

Parameters reached stabilization? No
If no, list parameters: Water level
Total volume purged prior to sampling: 6,000 ml
Minimum PVR reached (compare purge amount to PVR)? Yes 6,000 ml > 737.2 ml
2 Hour time limit reached? Yes

Modified sampling required? (Clock time when modified sampling begins): no
Condition that triggered na

Any adjustments made (including flow rates, tubing, etc.):
NO adjustments. However, this is the second year in a row where the WL did not stabilize, recommend insufficient recharge going forward.

Final water level:5.82 ft
Total actual volume purged (delete Estimated Purge Volume): 6,300 ml

TRY_M-70

Measured Well Depth, if required (note variation in total dept compared to previously documented):
Pump Off: 1235 hrs.

Weather Conditions:
Cloudy 40s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
10/31/2018 9:51 AM	00:00	8.18 pH	3.17 °C	135.42 µS/cm	9.21 mg/L	1.00 NTU	233.4 mV	4.23 ft	50.00 ml/min
10/31/2018 9:56 AM	05:00	7.74 pH	5.08 °C	123.93 µS/cm	4.30 mg/L	1.00 NTU	110.2 mV	4.42 ft	50.00 ml/min
10/31/2018 10:01 AM	10:00	7.43 pH	6.32 °C	120.25 µS/cm	2.19 mg/L	1.00 NTU	85.9 mV	4.51 ft	52.00 ml/min
10/31/2018 10:06 AM	15:00	7.34 pH	6.76 °C	119.28 µS/cm	1.56 mg/L	1.00 NTU	69.2 mV	4.62 ft	52.00 ml/min
10/31/2018 10:11 AM	20:00	7.35 pH	7.05 °C	118.62 µS/cm	1.29 mg/L	1.00 NTU	62.0 mV	4.72 ft	52.00 ml/min
10/31/2018 10:16 AM	25:00	7.41 pH	7.24 °C	117.79 µS/cm	1.14 mg/L	0.00 NTU	55.9 mV	4.82 ft	50.00 ml/min
10/31/2018 10:21 AM	30:00	7.49 pH	7.29 °C	117.91 µS/cm	1.09 mg/L	1.00 NTU	51.4 mV	4.92 ft	50.00 ml/min
10/31/2018 10:26 AM	35:00	7.54 pH	7.45 °C	117.88 µS/cm	1.02 mg/L	1.00 NTU	46.9 mV	5.00 ft	50.00 ml/mi
10/31/2018 10:31 AM	40:00	7.60 pH	7.54 °C	117.60 µS/cm	0.97 mg/L	1.00 NTU	43.6 mV	5.05 ft	50.00 ml/min
10/31/2018 10:36 AM	45:00	7.67 pH	7.53 °C	117.88 µS/cm	0.98 mg/L	0.00 NTU	45.1 mV	5.12 ft	50.00 ml/min
10/31/2018 10:41 AM	50:00	7.72 pH	7.64 °C	118.03 µS/cm	0.95 mg/L	1.00 NTU	40.9 mV	5.18 ft	50.00 ml/min
10/31/2018 10:46 AM	55:00	7.78 pH	7.72 °C	117.58 µS/cm	0.92 mg/L	1.00 NTU	39.7 mV	5.25 ft	50.00 ml/min
10/31/2018 10:51 AM	01:00:00	7.83 pH	7.73 °C	117.59 µS/cm	0.91 mg/L	0.00 NTU	39.0 mV	5.30 ft	50.00 ml/min
10/31/2018 10:56 AM	01:05:00	7.88 pH	7.83 °C	117.11 µS/cm	0.89 mg/L	1.00 NTU	36.7 mV	5.34 ft	50.00 ml/min
10/31/2018 11:01 AM	01:10:00	7.92 pH	7.90 °C	116.97 µS/cm	0.88 mg/L	0.00 NTU	33.1 mV	5.39 ft	50.00 ml/min
10/31/2018 11:06 AM	01:15:00	7.96 pH	7.92 °C	117.28 µS/cm	0.88 mg/L	0.00 NTU	37.8 mV	5.43 ft	50.00 ml/min
10/31/2018 11:11 AM	01:20:00	8.00 pH	8.02 °C	116.70 µS/cm	0.86 mg/L	1.00 NTU	35.1 mV	5.48 ft	50.00 ml/min
10/31/2018 11:16 AM	01:25:00	8.03 pH	7.99 °C	116.65 µS/cm	0.86 mg/L	1.00 NTU	35.7 mV	5.52 ft	50.00 ml/min
10/31/2018 11:21 AM	01:30:00	8.08 pH	8.06 °C	116.35 µS/cm	0.84 mg/L	0.00 NTU	33.9 mV	5.55 ft	50.00 ml/min
10/31/2018 11:26 AM	01:35:00	8.11 pH	8.06 °C	116.87 µS/cm	0.81 mg/L	1.00 NTU	33.6 mV	5.58 ft	50.00 ml/min
10/31/2018 11:31 AM	01:40:00	8.13 pH	8.08 °C	116.66 µS/cm	0.82 mg/L	1.00 NTU	32.3 mV	5.61 ft	50.00 ml/mi
10/31/2018 11:36 AM	01:45:00	8.15 pH	8.06 °C	116.70 µS/cm	0.82 mg/L	0.00 NTU	33.0 mV	5.65 ft	50.00 ml/min

10/31/2018 11:41 AM	01:50:00	8.18 pH	8.04 °C	116.47 µS/cm	0.80 mg/L	0.00 NTU	31.3 mV	5.68 ft	50.00 ml/min
10/31/2018 11:46 AM	01:55:00	8.19 pH	8.06 °C	116.59 µS/cm	0.80 mg/L	1.00 NTU	33.4 mV	5.71 ft	50.00 ml/min
10/31/2018 11:51 AM	02:00:00	8.21 pH	8.12 °C	117.05 µS/cm	0.79 mg/L	1.00 NTU	30.8 mV	5.74 ft	50.00 ml/min

Samples

Sample ID:	Description:
~~TRY_MW-7D~~ TRY-M-70	Sample analysis: VOCS, 1,4-DIOXANE, SVOCs, and TOTAL Mn and AS NO QA samples collected Sample time: 1155 hrs Stop time 1235 hrs

Low-Flow Test Report:

Test Date / Time: 11/5/2018 12:12:24 PM
Project: TRY_MW-A28 Troy Mills Landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_MW-A28 **Well Diameter: 1.5 in** **Casing Type: PVC** **Screen Length: 5 ft** **Top of Screen: 8.03 ft** **Total Depth: 13.03 ft** **Initial Depth to Water: 7.55 ft**	**Pump Type: Peristaltic** **Tubing Type: Teflon** **Tubing Inner Diameter: 0.17 in** **Tubing Length: ~~14.1 ft~~ 16.1 ft (TAJ)** **Pump Intake From TOC: 11.1 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 50 ml/min** **Final Draw Down: 0.41 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369778**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: Pine Geopump 040800
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hach 2100Q 10080C004245

Total tubing length (inside & outside of well): 11.1+5=16.1
PVR (including calculations): (11.1+5)×4.5=75 ml

Maximum allowable drawdown rate: 0.02
Is #14 tubing used at this location? Yes

DURING/AFTER SAMPLING:

Pump start time: 1210

Parameters reached stabilization? No
If no, list parameters: All
Total volume purged prior to sampling: 250 ml
Minimum PVR reached (compare purge amount to PVR)? Yes, 250 ml > 75 ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): yes, 1215
Condition that triggered Modified Sampling: initial water level was within 0.5' of the top of screen

Any adjustments made (including flow rates, tubing, etc.): no

Final water level: 8.14
Total actual volume purged (delete Estimated Purge Volume): 500 ml
easured Well Depth, if required (note variation in total depth compared to previously documented): n/a
Pump Off: 1320

Weather Conditions:
Overcast 40s, chance of rain

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/5/2018 12:12 PM	00:00	6.81 pH	6.18 °C	214.77 µS/cm	5.65 mg/L		3.4 mV	7.55 ft	50.00 ml/min
11/5/2018 12:17 PM	05:00	6.54 pH	8.29 °C	201.24 µS/cm	1.46 mg/L	3.50 NTU	9.6 mV	7.96 ft	50.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-A28	1215-1320 PFAS SVOCS VOCS TOTAL MN AND AS 1,4-DIOXANE
TRY_MW-A28 DUP	1215-1320 SVOCS

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/31/2018 3:03:03 PM
Project: TRY_MW-C6S Troy Mills Landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_M-C6S **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 5.2 ft** **Total Depth: 15.2 ft** **Initial Depth to Water: 5.88 ft**	**Pump Type: Peristaltic** (TAJ) **Tubing Type: ~~Polyethylene~~** Teflon **Tubing Inner Diameter: 0.25 in** **Pump Intake From TOC: 10.2 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 50 ml/min** **Final Draw Down: 0.09 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369778**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: Geopump 040800
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): hach 2100Q 10080C004245

Total tubing length (inside & outside of well): 10.2+5=15.2
PVR (including calculations): (10.2+5)×9.7=150 ml

aximum allowable drawdown rate: 0.02
Is #14 tubing used at this location? Yes

DURING/AFTER SAMPLING:

Pump start time: 1455

Parameters reached stabilization? No
If no, list parameters: all parameters
Total volume purged prior to sampling: 350 mL
Minimum PVR reached (compare purge amount to PVR)? Yes, 350 > 150
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): 1500, GRAB sample, WL was observed below the top of screen
Condition that triggered Modified Sampling: waster level was below the top of screen

Any adjustments made (including flow rates, tubing, etc.): no

Final water level: 5.99
Total actual volume purged (delete Estimated Purge Volume): 500 ml
easured Well Depth, if required (note variation in total depth compared to previously documented): n/a
Pump Off: 1610

Weather Conditions:
Partly sunny, 40s-50s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
10/31/2018 3:03 PM	00:00	6.08 pH	12.71 °C	358.86 µS/cm	6.09 mg/L	11.20 NTU	101.7 mV	5.88 ft	52.00 ml/min
10/31/2018 3:08 PM	05:00	6.13 pH	11.83 °C	374.72 µS/cm	2.87 mg/L	8.90 NTU	86.7 mV	5.97 ft	50.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-C6S	1500-1610 PFAS SVOCs VOCs Total MN and AS 1,4-Dioxane
TRY_MW-C6S DUP	1500-1610 PFAS VOCS TOTAL MN AND AS 1,4-DIOXANE
FIELD BLANK- Dyrness	1505 PFAS

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/31/2018 9:37:15 AM
Project: TRY_MW-C6D Troy Mills Landfill (2)
Operator Name: E. Dyrdess (MEM)

Location Name: TRY_MW-C6D	**Pump Type: QED T1250** (TRJ)	**Instrument Used: SmarTROLL MP**
Well Diameter: 2 in	**Tubing Type: ~~Polyethylene~~** teflon	**Serial Number: 369778**
Casing Type: PVC	**Tubing Inner Diameter: 0.17 in**	
Screen Length: 10 ft	**Pump Intake From TOC: 33 ft**	
Top of Screen: 28 ft	**Flow Cell Volume: 90 ml**	
Total Depth: 37.97 ft	**Final Flow Rate: 54 ml/min**	
Initial Depth to Water: 6.35 ft	**Final Draw Down: 0.94 ft**	

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED T1250
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): HACH 2100Q 10080C004245

Total tubing length (inside & outside of well): 33+2=35
PVR (including calculations): (33+2)×4.5=156 +100mL = 256 mL (TRJ)

Maximum allowable drawdown rate: 0.02
Is #14 tubing used at this location? NO

DURING/AFTER SAMPLING:

Pump start time: 0930

Parameters reached stabilization? Yes
If no, list parameters: n/a
Total volume purged prior to sampling: 3L
Minimum PVR reached (compare purge amount to PVR)? Yes
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): no
Condition that triggered Modified Sampling: n/a

Final pressure of bladder pump: 20 psi
Final refill rate:52
Final discharge rate: 8

Any adjustments made (including flow rates, tubing, etc.): n/a

Final water level:7.31

Total actual volume purged (delete Estimated Purge Volume): 3.5L
Measured Well Depth, if required (note variation in total depth compared to previously documented): n/a
Pump Off: 1100

Weather Conditions:
Partly sunny, 40s, rain

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
10/31/2018 9:37 AM	00:00	8.70 pH	4.09 °C	289.44 µS/cm	6.54 mg/L	5.00 NTU	42.8 mV	6.35 ft	56.00 ml/min
10/31/2018 9:42 AM	05:00	8.42 pH	7.38 °C	267.65 µS/cm	1.79 mg/L	3.40 NTU	-22.5 mV	6.79 ft	60.00 ml/min
10/31/2018 9:47 AM	10:00	8.25 pH	8.06 °C	256.54 µS/cm	0.85 mg/L	2.30 NTU	-45.5 mV	6.96 ft	56.00 ml/min
10/31/2018 9:52 AM	15:00	8.16 pH	8.29 °C	252.93 µS/cm	0.54 mg/L	1.80 NTU	-53.8 mV	7.08 ft	52.00 ml/min
10/31/2018 9:57 AM	20:02	8.10 pH	8.49 °C	251.50 µS/cm	0.44 mg/L	1.40 NTU	-65.5 mV	7.17 ft	56.00 ml/min
10/31/2018 10:03 AM	26:33	8.05 pH	8.69 °C	250.93 µS/cm	0.38 mg/L	1.70 NTU	-57.2 mV	7.24 ft	54.00 ml/min
10/31/2018 10:08 AM	31:33	8.02 pH	8.50 °C	251.06 µS/cm	0.38 mg/L	1.60 NTU	-62.2 mV	7.25 ft	56.00 ml/min
10/31/2018 10:13 AM	36:33	8.01 pH	8.60 °C	250.77 µS/cm	0.33 mg/L	1.60 NTU	-61.7 mV	7.28 ft	56.00 ml/mi
10/31/2018 10:18 AM	41:33	8.00 pH	8.60 °C	250.79 µS/cm	0.31 mg/L	1.80 NTU	-63.5 mV	7.29 ft	56.00 ml/min
10/31/2018 10:23 AM	46:33	7.99 pH	8.46 °C	250.66 µS/cm	0.32 mg/L	2.00 NTU	-63.3 mV	7.29 ft	54.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-C6D	1030-1100 SVOCS VOCS TOTAL MN &AS 1,4-DIOXANE

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/30/2018 1:19:39 PM
Project: TRY_MW-101S Troy Mills Landfill
Operator Name: M. Murphy

Location Name: TRY_MW-101S	**Pump Type: QED T1250** (TPS)	**Instrument Used: SmarTROLL MP**
Well Diameter: 2 in	**Tubing Type: ~~Polyethylene~~ Teflon**	**Serial Number: 352760**
Casing Type: PVC	**Tubing Inner Diameter: 0.17 in**	
Screen Length: 10 ft	**Tubing Length: 26.9 ft**	
Top of Screen: 19.4 ft	**Pump Intake From TOC: 24.4 ft**	
Total Depth: 29.4 ft	**Flow Cell Volume: 90 ml**	
Initial Depth to Water: 20.09 ft	**Final Flow Rate: 50 ml/min**	
	Final Draw Down: 0.23 ft	

Test Notes:
Pump serial number: QED T1250 Model MP-10 4411
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hatch 2100Q 037336

Total tubing length (inside & outside of well): (24.4 ft + 2.5 ft) = 26.9 ft
PVR (including calculations): (26.9ft × 4.5 mL/ft) + 100 = 221.05 mL

Maximum allowable drawdown rate: 0.02ft per 5mins
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1305

Parameters reached stabilization? No
If no, list parameters: None of the parameters reached stabilization
Total volume purged prior to sampling: 850 mL
Minimum PVR reached (compare purge amount to PVR)? Yes, 850 mL > 221.05 mL
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): Yes, at time of pump start
Condition that triggered Modified Sampling: Groundwater elevation (20.09 ft) was measured below top of the well screen (19.4 ft).

Final pressure of bladder pump: 16 psi
Final refill rate: 55 seconds
Final discharge rate: 5 seconds

Any adjustments made (including flow rates, tubing, etc.): Periodically turn pressure up to maintain 16 psi.

Final water level: 21.09ft
Total actual volume purged (delete Estimated Purge Volume): 1.0L
Measured Well Depth, if required (note variation in total depth compared to previously documented): NA

Pump Off: 1420

Weather Conditions:
Partially cloudy, high 30s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
10/30/2018 1:19 PM	00:00	6.25 pH	10.82 °C	271.20 µS/cm	6.58 mg/L		45.4 mV	20.18 ft	54.00 ml/min
10/30/2018 1:24 PM	05:00	6.28 pH	10.26 °C	401.98 µS/cm	1.78 mg/L	14.00 NTU	15.9 mV	20.32 ft	50.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-101S	Sample Start Time: 1330 Parameters: PFAS, VOCs, 1,4-dioxane, SVOCs, metals (Mn + As) (MEM) Sample End Time: 1420

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 11/6/2018 9:21:01 AM
Project: TRY_MW-101D Troy Mills landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_MW-101D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 57.1 ft** **Total Depth: 67.12 ft** **Initial Depth to Water: 16.86 ft**	**Pump Type: QED T1250** **Tubing Type: Teflon** **Tubing Inner Diameter: 0.17 in** **Tubing Length: ~~62.1 ft~~** 64.1 ft (TPJ) **Pump Intake From TOC: 62.1 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 60 ml/min** **Final Draw Down: 3.69 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369778**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED T1250
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hach 2100Q 10080C004245

Total tubing length (inside & outside of well): 62.1+2=64.1
PVR (including calculations): (62.1+2)×4.5+100=390 ml

Maximum allowable drawdown rate: 0.02
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 0915

Parameters reached stabilization? No
If no, list parameters: WL, ORP
Total volume purged prior to sampling: 7.5 L
Minimum PVR reached (compare purge amount to PVR)? Yes, 7.5 L > 390 ml
2 Hour time limit reached? Yes

Modified sampling required? (Clock time when modified sampling begins): yes, 1125
Condition that triggered Modified Sampling: 2 hour ~~event~~ time limit reached, (TPJ)

Final pressure of bladder pump: 30 psi
Final refill rate: 50
Final discharge rate: 10

Any adjustments made (including flow rates, tubing, etc.): discharge was decreased to try and reach stabilization. At the 2 hour mark, the tablet was rotated (TPJ) sideways to confirm Parameters stabilization. When the tablet was ~~reasted~~ rotated back to the input/ live reading screen, the program/ tabket froze and closed out. The smartroll unit disconnected and reconnected

TRY_MW-101D

automatically when the program was restarted. The low flow sheet was still running when reopened, however orp fell out of stabilization. It is unknown if this is from the tablet glitch, or actual water quality.

Final water level: 20.73
Total actual volume purged (delete Estimated Purge Volume): 8 L
Measured Well Depth, if required (note variation in total depth compared to previously documented): n/a
Pump Off: 1155

Weather Conditions:
Overcast 40s, light rain

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/6/2018 9:21 AM	00:00	8.93 pH	10.40 °C	120.85 µS/cm	4.33 mg/L		72.7 mV	16.86 ft	78.00 ml/min
11/6/2018 9:26 AM	05:00	8.58 pH	10.06 °C	119.07 µS/cm	0.80 mg/L	25.00 NTU	44.5 mV	17.63 ft	68.00 ml/min
11/6/2018 9:31 AM	10:00	8.35 pH	9.97 °C	119.01 µS/cm	0.47 mg/L	25.00 NTU	28.8 mV	18.09 ft	72.00 ml/min
11/6/2018 9:38 AM	17:18	8.13 pH	10.02 °C	119.07 µS/cm	0.37 mg/L	22.00 NTU	25.0 mV	18.51 ft	70.00 ml/min
11/6/2018 9:43 AM	22:18	8.01 pH	10.01 °C	119.00 µS/cm	0.30 mg/L	19.00 NTU	26.1 mV	18.87 ft	72.00 ml/mi
11/6/2018 9:48 AM	27:18	7.91 pH	9.97 °C	119.16 µS/cm	0.28 mg/L	33.00 NTU	22.9 mV	19.13 ft	72.00 ml/min
11/6/2018 9:53 AM	32:18	7.83 pH	9.98 °C	119.18 µS/cm	0.28 mg/L	35.00 NTU	23.6 mV	19.30 ft	60.00 ml/min
11/6/2018 9:58 AM	37:18	7.75 pH	10.06 °C	119.07 µS/cm	0.26 mg/L	33.00 NTU	23.4 mV	19.42 ft	60.00 ml/min
11/6/2018 10:03 AM	42:18	7.69 pH	10.06 °C	118.67 µS/cm	0.25 mg/L	30.00 NTU	25.7 mV	19.58 ft	62.00 ml/min
11/6/2018 10:08 AM	47:18	7.64 pH	10.03 °C	118.88 µS/cm	0.24 mg/L	32.00 NTU	24.3 mV	19.58 ft	60.00 ml/min
11/6/2018 10:13 AM	52:18	7.60 pH	10.04 °C	118.75 µS/cm	0.23 mg/L	26.00 NTU	25.1 mV	19.75 ft	60.00 ml/min
11/6/2018 10:18 AM	57:18	7.57 pH	10.02 °C	118.74 µS/cm	0.23 mg/L	23.00 NTU	24.5 mV	19.81 ft	60.00 ml/min
11/6/2018 10:23 AM	01:02:18	7.53 pH	10.01 °C	118.62 µS/cm	0.20 mg/L	25.00 NTU	24.5 mV	19.95 ft	60.00 ml/min
11/6/2018 10:28 AM	01:07:18	7.50 pH	9.99 °C	118.73 µS/cm	0.20 mg/L	22.00 NTU	22.0 mV	20.07 ft	60.00 ml/min
11/6/2018 10:33 AM	01:12:18	7.47 pH	9.98 °C	118.25 µS/cm	0.18 mg/L	26.00 NTU	22.5 mV	20.09 ft	60.00 ml/min
11/6/2018 10:38 AM	01:17:18	7.47 pH	9.97 °C	118.47 µS/cm	0.17 mg/L	21.00 NTU	20.1 mV	20.17 ft	60.00 ml/min
11/6/2018 10:43 AM	01:22:18	7.46 pH	9.98 °C	118.49 µS/cm	0.17 mg/L	24.00 NTU	18.8 mV	20.20 ft	60.00 ml/min
11/6/2018 10:48 AM	01:27:18	7.45 pH	9.98 °C	118.26 µS/cm	0.16 mg/L	20.00 NTU	16.5 mV	20.26 ft	62.00 ml/mi
11/6/2018 10:53 AM	01:32:18	7.43 pH	10.00 °C	118.18 µS/cm	0.15 mg/L	22.00 NTU	16.0 mV	20.30 ft	62.00 ml/min

11/6/2018 10:58 AM	01:37:18	7.42 pH	10.02 °C	117.83 µS/cm	0.15 mg/L	19.00 NTU	13.5 mV	20.35 ft	60.00 ml/min
11/6/2018 11:03 AM	01:42:18	7.42 pH	9.99 °C	117.03 µS/cm	0.14 mg/L	20.00 NTU	12.7 mV	20.43 ft	60.00 ml/min
11/6/2018 11:08 AM	01:47:18	7.43 pH	9.89 °C	117.20 µS/cm	0.14 mg/L	19.00 NTU	8.6 mV	20.45 ft	60.00 ml/min
11/6/2018 11:13 AM	01:52:18	7.42 pH	9.92 °C	117.04 µS/cm	0.13 mg/L	16.00 NTU	8.4 mV	20.47 ft	60.00 ml/min
11/6/2018 11:18 AM	01:57:18	7.42 pH	9.97 °C	117.06 µS/cm	0.17 mg/L	17.00 NTU	7.0 mV	20.50 ft	62.00 ml/min
11/6/2018 11:23 AM	02:02:18	7.41 pH	9.97 °C	116.60 µS/cm	0.14 mg/L	15.00 NTU	4.9 mV	20.52 ft	60.00 ml/min
11/6/2018 11:25 AM	02:04:52	7.38 pH	9.97 °C	116.35 µS/cm	0.13 mg/L	16.00 NTU	-10.1 mV	20.55 ft	60.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-101D	1125-1155 SVOCS VOCS TOTAL MN AND AS 1,4-DIOXANE

Low-Flow Test Report:

Test Date / Time: 11/5/2018 1:24:13 PM
Project: TRY_MW-102 Troy Mills Landfill (2)
Operator Name: Matt Bergen

Location Name: TRY_MW-102 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 21.2 ft** **Total Depth: 36.2 ft** **Initial Depth to Water: 21.58 ft**	**Pump Type: QED Sample Pro** **Tubing Type: Teflon** **Tubing Inner Diameter: 0.17 in** **Tubing Length: 35 ft** **Pump Intake From TOC: 34 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 50 ml/min** **Final Draw Down: 0.3 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369323**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED Sample Pro 37761
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits):HACH 2100Q 2303

Total tubing length (inside & outside of well): 35
Tubing inner diameter 0.17 in
PVR (including calculations): 35 ft x 4.5 ml/ft + 100 ml = 257.5 ml

Maximum allowable drawdown rate: 0.02 ft
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time:1317 hrs

Parameters reached stabilization? Yes.
If no, list parameters:
Total volume purged prior to sampling:4,000 ml
Minimum PVR reached (compare purge amount to PVR)? Yes, 4,000 ml > 257.5 ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): No.
Condition that triggered Modified Sampling: Initially, sample was supposed to be a modified sample because initial depth to water was below the top of screen. However initial Turbidity was high(> 1000 ntu). Called Tanya Justham, notified her of the high Turbidity, and that it stabilized at a lower value in the past, so Tanya said not to perform a modified sample at this location.

Final pressure of bladder pump: 30 psi
Final refill rate: 54 seconds
Final discharge rate: 6 seconds

TRY_MW-102

Any adjustments made (including flow rates, tubing, etc.): none

Final water level: 22.02 ft
Total actual volume purged (delete Estimated Purge Volume):4,800 ml
Measured Well Depth, if required (note variation in total depth compared to previously documented):
Pump Off:1537 hrs

Weather Conditions:
40s light rain

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/5/2018 1:24 PM	00:00	6.09 pH	9.63 °C	398.74 µS/cm	6.55 mg/L	1,000.00 NTU	88.1 mV	21.76 ft	50.00 ml/min
11/5/2018 1:29 PM	05:00	6.08 pH	9.94 °C	426.30 µS/cm	2.29 mg/L	964.00 NTU	82.2 mV	21.78 ft	50.00 ml/min
11/5/2018 1:34 PM	10:00	6.07 pH	9.86 °C	429.70 µS/cm	1.63 mg/L	374.00 NTU	83.7 mV	21.80 ft	50.00 ml/min
11/5/2018 1:39 PM	15:00	6.07 pH	9.93 °C	430.30 µS/cm	1.29 mg/L	267.00 NTU	84.6 mV	21.82 ft	52.00 ml/min
11/5/2018 1:44 PM	20:00	6.07 pH	9.96 °C	429.69 µS/cm	1.06 mg/L	212.00 NTU	86.4 mV	21.83 ft	52.00 ml/mi.
11/5/2018 1:49 PM	25:00	6.07 pH	10.05 °C	429.30 µS/cm	0.94 mg/L	181.00 NTU	87.6 mV	21.85 ft	52.00 ml/min
11/5/2018 1:54 PM	30:00	6.07 pH	10.10 °C	428.52 µS/cm	0.85 mg/L	140.00 NTU	88.5 mV	21.85 ft	50.00 ml/min
11/5/2018 1:59 PM	35:00	6.08 pH	10.15 °C	428.17 µS/cm	0.79 mg/L	145.00 NTU	89.4 mV	21.86 ft	50.00 ml/min
11/5/2018 2:04 PM	40:00	6.07 pH	10.17 °C	428.42 µS/cm	0.74 mg/L	147.00 NTU	89.1 mV	21.86 ft	50.00 ml/min
11/5/2018 2:09 PM	45:00	6.07 pH	10.18 °C	427.78 µS/cm	0.72 mg/L	132.00 NTU	89.9 mV	21.86 ft	50.00 ml/min
11/5/2018 2:14 PM	50:00	6.07 pH	10.06 °C	427.34 µS/cm	0.68 mg/L	119.00 NTU	89.4 mV	21.87 ft	50.00 ml/min
11/5/2018 2:19 PM	55:00	6.07 pH	10.19 °C	426.83 µS/cm	0.64 mg/L	117.00 NTU	89.5 mV	21.87 ft	50.00 ml/min
11/5/2018 2:24 PM	01:00:00	6.08 pH	10.15 °C	426.82 µS/cm	0.59 mg/L	107.00 NTU	89.5 mV	21.87 ft	50.00 ml/min
11/5/2018 2:29 PM	01:05:00	6.08 pH	10.15 °C	426.62 µS/cm	0.54 mg/L	105.00 NTU	89.3 mV	21.88 ft	50.00 ml/min
11/5/2018 2:34 PM	01:10:00	6.08 pH	10.01 °C	426.91 µS/cm	0.52 mg/L	95.00 NTU	89.2 mV	21.88 ft	50.00 ml/min
11/5/2018 2:39 PM	01:15:00	6.08 pH	9.98 °C	426.65 µS/cm	0.51 mg/L	90.00 NTU	89.0 mV	21.88 ft	50.00 ml/min
11/5/2018 2:44 PM	01:20:00	6.08 pH	10.06 °C	427.17 µS/cm	0.48 mg/L	96.00 NTU	88.6 mV	21.88 ft	50.00 ml/min

Flag metals results
TPJ

Samples

Sample ID:	Description:
TRY_MW-102	Sample analysis: PFAS, VOCS, 1,4-DIOXANE, SVOCs, and TOTAL Mn and As. NO QA samples collected Sample time : 1455 hrs Stop time : 1535 hrs

Low-Flow Test Report:

Test Date / Time: 10/30/2018 1:40:02 PM
Project: TRY_MW-104S Troy Mills Landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_MW-104S **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 12 ft** **Top of Screen: 5 ft** **Total Depth: 17.7 ft** **Initial Depth to Water: 3.36 ft**	**Pump Type: QED T1250** (TPJ) **Tubing Type: ~~Polyethylene~~** Teflon **Tubing Inner Diameter: 0.17 in** **Pump Intake From TOC: 15.5 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 94 ml/min** **Final Draw Down: 0.02 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369778**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED T1250
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hach 2100Q

Total tubing length (inside & outside of well): 15.5+3=18.5
PVR (including calculations): (15.5+3)4.5=83 mL +100 = 183 mL

Maximum allowable drawdown rate: 0.02
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1335

Parameters reached stabilization? Yes
If no, list parameters: n/a
Total volume purged prior to sampling: 4.5 L
Minimum PVR reached (compare purge amount to PVR)? Yes
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): n/a
Condition that triggered Modified Sampling: n/a

Final pressure of bladder pump: 15 psi
Final refill rate:40
Final discharge rate: 20

Any adjustments made (including flow rates, tubing, etc.): no

Final water level: 3.38

Total actual volume purged (delete Estimated Purge Volume): 5 L
Measured Well Depth, if required (note variation in total depth compared to previously documented): n/a
Pump Off: 1455

Weather Conditions:
Overcast 40s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
10/30/2018 1:40 PM	00:00	7.37 pH	9.23 °C	366.86 µS/cm	6.21 mg/L	31.00 NTU	15.3 mV	3.36 ft	88.00 ml/min
10/30/2018 1:45 PM	05:00	6.82 pH	10.49 °C	468.00 µS/cm	0.53 mg/L	37.00 NTU	-3.3 mV	3.37 ft	92.00 ml/min
10/30/2018 1:50 PM	10:00	6.60 pH	10.64 °C	464.52 µS/cm	0.38 mg/L	27.00 NTU	-8.1 mV	3.37 ft	86.00 ml/min
10/30/2018 1:55 PM	15:00	6.51 pH	10.72 °C	465.84 µS/cm	0.34 mg/L	33.00 NTU	-10.7 mV	3.38 ft	88.00 ml/min
10/30/2018 2:00 PM	20:00	6.47 pH	10.81 °C	465.30 µS/cm	0.28 mg/L	42.00 NTU	-11.6 mV	3.38 ft	100.00 ml/min
10/30/2018 2:05 PM	25:00	6.45 pH	10.78 °C	464.43 µS/cm	0.29 mg/L	31.00 NTU	-11.5 mV	3.38 ft	90.00 ml/min
10/30/2018 2:10 PM	30:00	6.44 pH	10.75 °C	465.24 µS/cm	0.25 mg/L	17.00 NTU	-12.7 mV	3.38 ft	86.00 ml/min
10/30/2018 2:15 PM	35:00	6.43 pH	10.74 °C	465.25 µS/cm	0.25 mg/L	14.00 NTU	-12.9 mV	3.38 ft	86.00 ml/min
10/30/2018 2:20 PM	40:00	6.43 pH	10.81 °C	465.49 µS/cm	0.27 mg/L	10.00 NTU	-12.4 mV	3.38 ft	92.00 ml/min
10/30/2018 2:25 PM	45:00	6.43 pH	10.74 °C	465.46 µS/cm	0.33 mg/L	9.00 NTU	-12.6 mV	3.38 ft	86.00 ml/min
10/30/2018 2:30 PM	50:00	6.42 pH	10.73 °C	465.65 µS/cm	0.29 mg/L	9.00 NTU	-12.4 mV	3.38 ft	94.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-104S	1435-1455 SVOCs VOCS TOTAL MN & AS 1,4-Dioxane

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/30/2018 11:01:04 AM
Project: TRY_MW-104D Troy Mills Landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_MW-104D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 37.1 ft** **Total Depth: 52.1 ft** **Initial Depth to Water: 3.36 ft**	**Pump Type: QED T1250** (TRJ) **Tubing Type: ~~Polyethylene~~** Teflon **Tubing Inner Diameter: 0.17 in** **Pump Intake From TOC: 48 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 50 ml/min** **Final Draw Down: 2.49 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369778**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED T1250
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): HACH 2100Q 100P80C004245

Total tubing length (inside & outside of well): 48+1.5=49.5
PVR (including calculations): (48+1.5)×4.5=223 mL + 100 = 323mL (TRJ)

Maximum allowable drawdown rate: 0.02
Is #14 tubing used at this location? NO

DURING/AFTER SAMPLING:

Pump start time: 1055

Parameters reached stabilization? Yes
If no, list parameters: n/a
Total volume purged prior to sampling: 5L
Minimum PVR reached (compare purge amount to PVR)? Yes
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): n/a
Condition that triggered Modified Sampling: n/a

Final pressure of bladder pump: 25
Final refill rate:53
Final discharge rate: 7

Any adjustments made (including flow rates, tubing, etc.): no

Final water level: 5.04

Total actual volume purged (delete Estimated Purge Volume):5.5 L
Measured Well Depth, if required (note variation in total depth compared to previously documented): n/a
Pump Off: 1315

Weather Conditions:
Overcast, high 30s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
10/30/2018 11:01 AM	00:00	7.97 pH	7.68 °C	124.82 µS/cm	9.45 mg/L		113.1 mV	3.36 ft	40.00 ml/min
10/30/2018 11:06 AM	05:00	7.74 pH	8.91 °C	115.40 µS/cm	2.73 mg/L	5.00 NTU	70.4 mV	3.76 ft	55.00 ml/min
10/30/2018 11:11 AM	10:00	7.64 pH	9.23 °C	111.50 µS/cm	1.56 mg/L	6.00 NTU	46.2 mV	3.98 ft	56.00 ml/min
10/30/2018 11:16 AM	15:00	7.59 pH	9.30 °C	110.09 µS/cm	0.89 mg/L	6.00 NTU	31.2 mV	4.15 ft	50.00 ml/min
10/30/2018 11:21 AM	20:00	7.58 pH	9.34 °C	109.27 µS/cm	0.67 mg/L	5.00 NTU	28.5 mV	4.26 ft	50.00 ml/min
10/30/2018 11:26 AM	25:00	7.59 pH	9.31 °C	109.33 µS/cm	0.61 mg/L	5.00 NTU	24.3 mV	4.39 ft	50.00 ml/min
10/30/2018 11:31 AM	30:00	7.59 pH	9.36 °C	109.74 µS/cm	0.58 mg/L	4.40 NTU	27.1 mV	4.42 ft	54.00 ml/min
10/30/2018 11:36 AM	35:00	7.61 pH	9.36 °C	109.32 µS/cm	0.58 mg/L	4.80 NTU	26.2 mV	4.51 ft	54.00 ml/min
10/30/2018 11:41 AM	40:00	7.63 pH	9.38 °C	109.05 µS/cm	0.56 mg/L	3.50 NTU	29.6 mV	4.56 ft	52.00 ml/min
10/30/2018 11:46 AM	45:00	7.67 pH	9.41 °C	108.87 µS/cm	0.50 mg/L	4.90 NTU	29.2 mV	4.61 ft	54.00 ml/min
10/30/2018 11:51 AM	50:00	7.69 pH	9.50 °C	108.66 µS/cm	0.44 mg/L	6.00 NTU	29.4 mV	4.62 ft	56.00 ml/min
10/30/2018 11:56 AM	55:00	7.72 pH	9.45 °C	108.59 µS/cm	0.45 mg/L	7.00 NTU	37.6 mV	4.67 ft	52.00 ml/min
10/30/2018 12:01 PM	01:00:00	7.72 pH	9.32 °C	109.01 µS/cm	0.44 mg/L	7.00 NTU	32.7 mV	4.68 ft	54.00 ml/min
10/30/2018 12:06 PM	01:05:00	7.74 pH	9.45 °C	108.75 µS/cm	0.42 mg/L	7.00 NTU	31.1 mV	4.73 ft	54.00 ml/min
10/30/2018 12:11 PM	01:10:00	7.76 pH	9.52 °C	108.77 µS/cm	0.42 mg/L	8.00 NTU	34.8 mV	4.77 ft	50.00 ml/min
10/30/2018 12:16 PM	01:15:00	7.78 pH	9.43 °C	108.71 µS/cm	0.39 mg/L	8.00 NTU	34.3 mV	4.81 ft	52.00 ml/min
10/30/2018 12:21 PM	01:20:00	7.80 pH	9.52 °C	108.77 µS/cm	0.36 mg/L	9.00 NTU	34.0 mV	5.82 ft	52.00 ml/min
10/30/2018 12:26 PM	01:25:00	7.81 pH	9.42 °C	108.78 µS/cm	0.38 mg/L	10.00 NTU	34.0 mV	5.85 ft	50.00 ml/min
10/30/2018 12:31 PM	01:30:00	7.82 pH	9.52 °C	108.94 µS/cm	0.37 mg/L	10.00 NTU	33.0 mV	5.85 ft	52.00 ml/min
10/30/2018 12:36 PM	01:35:00	7.84 pH	9.55 °C	108.73 µS/cm	0.39 mg/L	9.00 NTU	30.9 mV	5.85 ft	50.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-104D	1240-1315 SVOCs VOCs Total Mn & As 1,4-Dioxane

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 11/1/2018 12:32:53 PM
Project: TRY_MW-105S Troy Mills Landfill
Operator Name: M. Murphy

Location Name: TRY_MW-105S **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 13 ft** **Top of Screen: 6.5 ft** **Total Depth: 21.08 ft** **Initial Depth to Water: 10.75 ft**	**Pump Type: QED T1250** **Tubing Type: ~~Polyethylene~~** Teflon (MEM) **Tubing Inner Diameter: 0.17 in** **Tubing Length: ~~70 ft~~** 19.5 ft (TPS) **Pump Intake From TOC: 17.5 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 50 ml/min** **Final Draw Down: 0.03 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 352760**

Test Notes:
Pump serial number: QED T1250 Model MP-10 2501
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hatch 2100Q 037336

Total tubing length (inside & outside of well): (17.5 ft + 2 ft) = 19.5ft
PVR (including calculations): (19.5ft × 4.5 mL/ft) + 100 mL = 187.75 mL

Maximum allowable drawdown rate: 0.02ft per 5mins
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1225

Parameters reached stabilization? No
If no, list parameters: All parameters did not reach stabilization.
Total volume purged prior to sampling: 500 mL
Minimum PVR reached (compare purge amount to PVR)?Yes, 500 mL > 187.75 mL
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): Yes, at time of pump start.
Condition that triggered Modified Sampling: Groundwater elevation (10.75 ft) was measured below top of well screen (6.5 ft).

Final pressure of bladder pump: 15 psi
Final refill rate: 50 seconds
Final discharge rate: 10 seconds

Any adjustments made (including flow rates, tubing, etc.): A new 2 ft outlet tubing was added to the well to replace the prior tubing that was damaged (e.g. chewed through causing leaks).

A leak was found within the tubing once pump started causing two inaccurate parameter readings to be taken on the SmarTroll before water was actively flowing. The tubing was repaired and groundwater continued flowing through the flow through cell at the "10:00" minute mark.

Final water level: 10.78 ft
Total actual volume purged (delete Estimated Purge Volume): 650mL
Measured Well Depth, if required (note variation in total depth compared to previously documented): NA
Pump Off: 1340

Weather Conditions:
Raining, 50s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/1/2018 12:32 PM	00:00	6.10 pH	11.05 °C	174.72 µS/cm	7.92 mg/L		158.5 mV	10.75 ft	
11/1/2018 12:37 PM	05:00	5.95 pH	11.20 °C	165.03 µS/cm	5.78 mg/L		66.3 mV	10.75 ft	
11/1/2018 12:42 PM	10:00	5.89 pH	11.29 °C	160.70 µS/cm	3.01 mg/L	3.00 NTU	51.6 mV	10.78 ft	100.00 ml/min
11/1/2018 12:47 PM	15:00	5.88 pH	11.33 °C	160.74 µS/cm	1.69 mg/L	3.00 NTU	45.3 mV	10.78 ft	50.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-105S	Sample Start Time: 1255 Parameters: PFAS, VOCs, 1,4-dioxane, SVOCs, metals Sample End Time: 1340

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 11/1/2018 9:27:52 AM
Project: TRY_MW-105D Troy Mills Landfill
Operator Name: M. Murphy

Location Name: TRY_MW-105D	**Pump Type: QED Sample Pro** (TPS)	**Instrument Used: SmarTROLL MP**
Well Diameter: 2 in	**Tubing Type: ~~Polyethylene~~** Teflon	**Serial Number: 352760**
Casing Type: PVC	**Tubing Inner Diameter: 0.17 in**	
Screen Length: 39.7 ft	**Tubing Length: 70 ft**	
Top of Screen: 48.5 ft	**Pump Intake From TOC: 68 ft**	
Total Depth: 87.92 ft	**Flow Cell Volume: 90 ml**	
Initial Depth to Water: 9.61 ft	**Final Flow Rate: 50 ml/min**	
	Final Draw Down: 8.57 ft	

Test Notes:
Pump serial number: QED T1250 Model MP-10 2501
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hatch 2100Q 037336

Total tubing length (inside & outside of well): (68 ft + 2 ft) = 70 ft
PVR (including calculations): (70 ft × 4.5 mL/ft) + 100 = 415 mL

Maximum allowable drawdown rate: 0.02ft per 5mins
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 0925

Parameters reached stabilization? No
If no, list parameters: Water Level
Total volume purged prior to sampling: 7.0L
Minimum PVR reached (compare purge amount to PVR)? Yes, 7.0L > 415 mL
2 Hour time limit reached? Yes

Modified sampling required? (Clock time when modified sampling begins): No
Condition that triggered Modified Sampling: NA

Final pressure of bladder pump: 40 psi
Final refill rate: 46 seconds
Final discharge rate: 14 seconds

Any adjustments made (including flow rates, tubing, etc.): NA

Final water level: 19.93 ft
Total actual volume purged (delete Estimated Purge Volume): 7.0L
Measured Well Depth, if required (note variation in total depth compared to previously documented): NA

TRY_MW-105D

Pump Off: 1205

Weather Conditions:
Cloudy, sprinkling

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/1/2018 9:27 AM	00:00	6.13 pH	10.73 °C	131.68 µS/cm	6.97 mg/L		99.8 mV	10.49 ft	60.00 ml/min
11/1/2018 9:32 AM	05:00	6.11 pH	10.49 °C	135.87 µS/cm	3.34 mg/L	9.00 NTU	53.1 mV	11.06 ft	50.00 ml/min
11/1/2018 9:37 AM	10:00	6.10 pH	10.53 °C	135.39 µS/cm	2.83 mg/L	8.00 NTU	50.6 mV	11.29 ft	50.00 ml/min
11/1/2018 9:42 AM	15:00	6.10 pH	10.55 °C	134.13 µS/cm	2.76 mg/L	7.00 NTU	53.2 mV	11.91 ft	50.00 ml/min
11/1/2018 9:47 AM	20:00	6.07 pH	10.52 °C	132.05 µS/cm	2.26 mg/L	8.00 NTU	51.8 mV	12.11 ft	50.00 ml/min
11/1/2018 9:52 AM	25:00	6.05 pH	10.48 °C	130.70 µS/cm	1.94 mg/L	8.00 NTU	53.0 mV	12.49 ft	50.00 ml/min
11/1/2018 9:57 AM	30:00	6.02 pH	10.47 °C	127.87 µS/cm	1.72 mg/L	8.00 NTU	52.4 mV	12.76 ft	50.00 ml/min
11/1/2018 10:02 AM	35:00	5.99 pH	10.45 °C	125.62 µS/cm	1.56 mg/L	8.00 NTU	53.8 mV	13.12 ft	50.00 ml/min
11/1/2018 10:07 AM	40:00	5.97 pH	10.43 °C	124.19 µS/cm	1.45 mg/L	8.00 NTU	52.9 mV	13.59 ft	50.00 ml/min
11/1/2018 10:12 AM	45:00	5.96 pH	10.39 °C	123.37 µS/cm	1.36 mg/L	7.00 NTU	53.6 mV	13.80 ft	50.00 ml/min
11/1/2018 10:17 AM	50:00	5.95 pH	10.37 °C	122.17 µS/cm	1.31 mg/L	7.00 NTU	52.7 mV	14.14 ft	50.00 ml/min
11/1/2018 10:22 AM	55:00	5.94 pH	10.35 °C	121.49 µS/cm	1.26 mg/L	7.00 NTU	53.5 mV	14.62 ft	50.00 ml/min
11/1/2018 10:27 AM	01:00:00	5.93 pH	10.35 °C	120.25 µS/cm	1.24 mg/L	8.00 NTU	53.0 mV	14.99 ft	50.00 ml/min
11/1/2018 10:32 AM	01:05:00	5.92 pH	10.31 °C	119.58 µS/cm	1.22 mg/L	8.00 NTU	53.9 mV	15.18 ft	50.00 ml/min
11/1/2018 10:37 AM	01:10:00	5.92 pH	10.34 °C	119.07 µS/cm	1.19 mg/L	7.00 NTU	53.0 mV	15.48 ft	50.00 ml/min
11/1/2018 10:42 AM	01:15:00	5.91 pH	10.35 °C	118.56 µS/cm	1.19 mg/L	8.00 NTU	54.1 mV	15.78 ft	50.00 ml/min
11/1/2018 10:47 AM	01:20:00	5.91 pH	10.31 °C	118.38 µS/cm	1.19 mg/L	8.00 NTU	53.1 mV	16.04 ft	50.00 ml/min
11/1/2018 10:52 AM	01:25:00	5.91 pH	10.35 °C	118.20 µS/cm	1.19 mg/L	7.00 NTU	54.1 mV	16.35 ft	50.00 ml/min
11/1/2018 10:57 AM	01:30:00	5.91 pH	10.30 °C	117.80 µS/cm	1.18 mg/L	6.00 NTU	53.2 mV	16.69 ft	50.00 ml/min
11/1/2018 11:02 AM	01:35:00	5.91 pH	10.35 °C	117.81 µS/cm	1.17 mg/L	8.00 NTU	54.0 mV	16.89 ft	50.00 ml/min
11/1/2018 11:07 AM	01:40:00	5.91 pH	10.35 °C	117.53 µS/cm	1.16 mg/L	7.00 NTU	53.0 mV	17.17 ft	50.00 ml/min
11/1/2018 11:12 AM	01:45:00	5.91 pH	10.31 °C	117.51 µS/cm	1.15 mg/L	6.00 NTU	54.0 mV	17.43 ft	50.00 ml/min
11/1/2018 11:17 AM	01:50:00	5.91 pH	10.30 °C	117.27 µS/cm	1.14 mg/L	6.00 NTU	52.9 mV	17.68 ft	50.00 ml/min

11/1/2018 11:22 AM	01:55:00	5.91 pH	10.31 °C	117.17 µS/cm	1.13 mg/L	6.00 NTU	53.8 mV	17.92 ft	50.00 ml/min
11/1/2018 11:27 AM	02:00:00	5.91 pH	10.31 °C	117.13 µS/cm	1.13 mg/L	6.00 NTU	52.8 mV	18.18 ft	50.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-105D	Sample Start Time: 1130 Parameters: VOCs, 1,4-dioxane, SVOCs, metals (As + Mn) TPJ Sample End Time: 1205

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 11/6/2018 1:37:53 PM
Project: TRY_MW-201SX Troy Mills Landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_MW-201SX **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 7.2 ft** **Total Depth: 17.23 ft** **Initial Depth to Water: 5.16 ft**	**Pump Type: QED T1250** **Tubing Type: Teflon** **Tubing Inner Diameter: 0.17 in** **Tubing Length: ~~12.2 ft~~** 14.7 (TRJ) **Pump Intake From TOC: 12.2 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 62 ml/min** **Final Draw Down: 0.04 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369778**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED T1250
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hach2100Q 10080C004245

Total tubing length (inside & outside of well): 12.2+2.5=14.7
PVR (including calculations): (12.2+2.4)×4.5+100=170 ml
Maximum allowable drawdown rate: 0.02
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1330

Parameters reached stabilization? Yes
If no, list parameters: n/a
Total volume purged prior to sampling: 2 L
Minimum PVR reached (compare purge amount to PVR)? Yes, 2L > 170 ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): no
Condition that triggered Modified Sampling: n/a

Final pressure of bladder pump: 13 psi
Final refill rate: 52
Final discharge rate: 8

Any adjustments made (including flow rates, tubing, etc.): pressure was increased to allow flow

Final water level: 5.19
Total actual volume purged (delete Estimated Purge Volume): 2.25 L
Measured Well Depth, if required (note variation in total depth compared to previously documented): n/a
Pump Off: 1440

Weather Conditions:
Rain 40s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/6/2018 1:37 PM	00:00	6.96 pH	10.06 °C	287.68 µS/cm	6.91 mg/L		-22.0 mV	5.16 ft	78.00 ml/min
11/6/2018 1:42 PM	05:00	6.62 pH	10.79 °C	508.48 µS/cm	1.66 mg/L	62.00 NTU	-32.9 mV	5.18 ft	78.00 ml/min
11/6/2018 1:47 PM	10:00	6.59 pH	10.81 °C	509.85 µS/cm	0.80 mg/L	49.00 NTU	-39.2 mV	5.18 ft	64.00 ml/min
11/6/2018 1:52 PM	15:00	6.59 pH	10.67 °C	511.33 µS/cm	0.46 mg/L	18.00 NTU	-41.0 mV	5.18 ft	64.00 ml/min
11/6/2018 1:57 PM	20:00	6.60 pH	10.64 °C	522.76 µS/cm	0.28 mg/L	13.00 NTU	-41.7 mV	5.19 ft	66.00 ml/min
11/6/2018 2:02 PM	25:00	6.61 pH	10.72 °C	534.92 µS/cm	0.18 mg/L	4.80 NTU	-42.1 mV	5.20 ft	62.00 ml/min
11/6/2018 2:07 PM	30:00	6.60 pH	10.77 °C	545.53 µS/cm	0.12 mg/L	3.60 NTU	-42.5 mV	5.20 ft	62.00 ml/min
11/6/2018 2:12 PM	35:00	6.60 pH	10.81 °C	551.09 µS/cm	0.09 mg/L	2.80 NTU	-42.3 mV	5.20 ft	62.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-201SX	1415-1440 SVOCS VOCs TOTAL MN AND AS 1,4-Dioxane

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 11/5/2018 10:01:31 AM
Project: TRY_MW-202P Troy Mills Landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_MW-202P	**Pump Type: QED Sample Pro**	**Instrument Used: SmarTROLL MP**
Well Diameter: 4 in	**Tubing Type: ~~Polyethylene~~** Teflon (TPJ)	**Serial Number: 369778**
Casing Type: PVC	**Tubing Inner Diameter: 0.17 in**	
Screen Length: 55 ft	**Tubing Length: ~~52.5 ft~~** 54.2 ft	
Top of Screen: 4.9 ft	**Pump Intake From TOC: 52.5 ft**	
Total Depth: 61.55 ft	**Flow Cell Volume: 90 ml**	
Initial Depth to Water: 8.23 ft	**Final Flow Rate: 50 ml/min**	
	Final Draw Down: 0.13 ft	

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED Sample Pro
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hach 2100q 10080C004245 (TPJ)

Total tubing length (inside & outside of well): 52.5+2=54.2
PVR (including calculations): (52.5+2)×4.5+190=350 ml

Maximum allowable drawdown rate: 0.01
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1000

Parameters reached stabilization? No
If no, list parameters: All
Total volume purged prior to sampling: 400 ml
Minimum PVR reached (compare purge amount to PVR)? Yes 400 ml > 350 ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): yes, 1010
Condition that triggered Modified Sampling: Initial waterr level was below top of screen

Final pressure of bladder pump: 35 psi
Final refill rate: 50
Final discharge rate: 10

Any adjustments made (including flow rates, tubing, etc.): discharge was reduced to achieve 50 ml/min for GRAB sample, water level prior to sample 8.36

Final water level: 8.49
Total actual volume purged (delete Estimated Purge Volume): 600 ml
Measured Well Depth, if required (note variation in total depth compared to previously documented): n/a
Pump Off: 1045

Weather Conditions:
Overcast 30s-40s, possible rain

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/5/2018 10:01 AM	00:00	8.27 pH	6.91 °C	289.12 µS/cm	10.01 mg/L		16.2 mV	8.23 ft	52.00 ml/min
11/5/2018 10:06 AM	05:00	7.62 pH	8.36 °C	286.97 µS/cm	4.13 mg/L	9.00 NTU	24.7 mV	8.36 ~~8.23 ft~~	50.00 ml/min

TRY

Samples

Sample ID:	Description:
TRY_MW-202P	1010-1045 SVOCS VOCS TOTAL MN AND AS 1,4-DIOXANE

Low-Flow Test Report:

Test Date / Time: 11/1/2018 1:50:39 PM
Project: TRY_MW-204 Troy Mills Landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_MW-204 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 22.8 ft** **Total Depth: 32.8 ft** **Initial Depth to Water: 18.72 ft**	**Pump Type: QED T1250** **Tubing Type: Teflon** **Tubing Inner Diameter: 0.17 in** **Tubing Length: 33.3 ft** **Pump Intake From TOC: 31.3 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 84 ml/min** **Final Draw Down: 0.19 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369778**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED T1250
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): hach 2100Q 10080C004245

Total tubing length (inside & outside of well): 31.3+2=33.3
PVR (including calculations): (31.3+2)×4.5+100=250 ml

Maximum allowable drawdown rate: 0.02
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1350

Parameters reached stabilization? Yes
If no, list parameters: n/a
Total volume purged prior to sampling: 2.5 L
Minimum PVR reached (compare purge amount to PVR)? Yes, 2.5L > 250 ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): no
Condition that triggered Modified Sampling: n/a

Final pressure of bladder pump: 20 psi
Final refill rate:47
Final discharge rate: 13

Any adjustments made (including flow rates, tubing, etc.): discharge rate reduced

Final water level: 18.92
Total actual volume purged (delete Estimated Purge Volume): 3 L
Measured Well Depth, if required (note variation in total depth compared to previously documented): n/a
Pump Off: 1455

Weather Conditions:
Rain, 50s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/1/2018 1:50 PM	00:00	6.56 pH	11.46 °C	266.04 µS/cm	7.79 mg/L	9.00 NTU	91.9 mV	18.72 ft	86.00 ml/min
11/1/2018 1:55 PM	05:00	6.39 pH	10.44 °C	241.43 µS/cm	1.82 mg/L	39.00 NTU	59.6 mV	18.91 ft	82.00 ml/min
11/1/2018 2:00 PM	10:00	6.28 pH	10.16 °C	224.93 µS/cm	0.62 mg/L	33.00 NTU	63.2 mV	18.91 ft	86.00 ml/min
11/1/2018 2:05 PM	15:00	6.23 pH	10.15 °C	223.23 µS/cm	0.44 mg/L	22.00 NTU	62.9 mV	18.91 ft	86.00 ml/min
11/1/2018 2:10 PM	20:00	6.21 pH	10.11 °C	226.03 µS/cm	0.36 mg/L	14.00 NTU	59.2 mV	18.91 ft	80.00 ml/min
11/1/2018 2:15 PM	25:00	6.21 pH	10.14 °C	228.28 µS/cm	0.33 mg/L	10.00 NTU	56.8 mV	18.91 ft	82.00 ml/min
11/1/2018 2:20 PM	30:00	6.20 pH	10.16 °C	230.30 µS/cm	0.30 mg/L	10.00 NTU	54.9 mV	18.91 ft	86.00 ml/min
11/1/2018 2:25 PM	35:00	6.20 pH	10.10 °C	231.83 µS/cm	0.29 mg/L	9.00 NTU	54.2 mV	18.91 ft	84.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-204	1430-1455 SVOCS VOCs Total MN and AS 1,4-Dioxane

Low-Flow Test Report:

Test Date / Time: 11/7/2018 10:38:01 AM
Project: TRY_MW-205 Troy Mills Landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_MW-205 (TP) **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 29.1 ft** **Total Depth: 39.1 ft** **Initial Depth to Water: 28.81 ft**	**Pump Type: QED T1250** **Tubing Type: Teflon** **Tubing Inner Diameter: 0.17 in** **Tubing Length: ~~37.6 ft~~** 40.1 ft **Pump Intake From TOC: 37.6 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 52 ml/min** **Final Draw Down: 0.33 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369778**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED T1250
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hach 2100Q 10080C004245

Total tubing length (inside & outside of well): 37.6+2.5=40.1
PVR (including calculations): (37.6+2.5)×4.5+100=280 ml

Maximum allowable drawdown rate: 0.02
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1030

Parameters reached stabilization? No
If no, list parameters: All
Total volume purged prior to sampling: 400 ml
Minimum PVR reached (compare purge amount to PVR)? Yes, 400 ml > 280 ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): yes, 1045
Condition that triggered Modified Sampling: Water level was within 0.5 ft of the top of screen prior to starting the purge

Final pressure of bladder pump: 25 psi
Final refill rate: 55
Final discharge rate: 5

Any adjustments made (including flow rates, tubing, etc.): discharge was reduced to achieve the 50 ml/min flow rate

Final water level: 29.36
Total actual volume purged (delete Estimated Purge Volume): 750 ml
Measured Well Depth, if required (note variation in total depth compared to previously documented): n/a
Pump Off: 1130

Weather Conditions:
Sunny 50s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/7/2018 10:38 AM	00:00	8.50 pH	15.42 °C	248.37 µS/cm	9.18 mg/L		-59.2 mV	28.81 ft	54.00 ml/min
11/7/2018 10:43 AM	05:00	7.42 pH	12.70 °C	600.53 µS/cm	2.81 mg/L	3.90 NTU	-35.3 mV	29.14 ft	52.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-205	1050-1130 PFAS SVOCS VOCS TOTAL MN AND AS 1,4-DIOXANE

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 11/5/2018 10:24:26 AM
Project: TRY_MW-301X Troy Mills Landfill (2)
Operator Name: Matt Bergen

Location Name: TRY_MW-301X **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 42.5 ft** **Total Depth: 52.5 ft** **Initial Depth to Water: 33.87 ft**	**Pump Type: QED Sample Pro** **Tubing Type: Teflon** **Tubing Inner Diameter: 0.17 in** **Tubing Length: 51 ft** **Pump Intake From TOC: 47.5 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 60 ml/min** **Final Draw Down: 0.13 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369323**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED Sample Pro 37761
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): HACH 2100Q 2303

Total tubing length (inside & outside of well): 51 ft
Tubing inner diameter 0.17 in
PVR (including calculations): 51 ft x 4.5 ml/ft +100 ml = 329.5 ml

Maximum allowable drawdown rate:0.02 ft
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time:1019 hrs

Parameters reached stabilization? Yes
If no, list parameters:
Total volume purged prior to sampling: 1,900 ml
Minimum PVR reached (compare purge amount to PVR)? Yes 1,900 ml > 329.5 ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): No
Condition that triggered Modified Sampling:NA

Final pressure of bladder pump: 30 psi
Final refill rate: 48 seconds
Final discharge rate: 12 seconds

Any adjustments made (including flow rates, tubing, etc.): no

Final water level:34.00 ft
Total actual volume purged (delete Estimated Purge Volume):2,400 ml
Measured Well Depth, if required (note variation in total depth compared to previously documented):
Pump Off: 1137 hrs

Weather Conditions:
Cloudy, 40s chance of rain

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/5/2018 10:24 AM	00:00	7.07 pH	7.00 °C	272.60 µS/cm	7.93 mg/L		241.3 mV	34.02 ft	80.00 ml/min
11/5/2018 10:29 AM	05:00	5.90 pH	8.49 °C	261.26 µS/cm	2.01 mg/L	7.00 NTU	133.8 mV	34.00 ft	62.00 ml/min
11/5/2018 10:34 AM	10:00	5.78 pH	9.01 °C	258.60 µS/cm	1.40 mg/L	2.00 NTU	131.5 mV	34.00 ft	62.00 ml/min
11/5/2018 10:39 AM	15:00	5.76 pH	9.39 °C	257.78 µS/cm	1.09 mg/L	2.00 NTU	128.9 mV	34.00 ft	62.00 ml/min
11/5/2018 10:44 AM	20:00	5.76 pH	9.49 °C	256.12 µS/cm	0.96 mg/L	1.00 NTU	129.7 mV	34.00 ft	62.00 ml/min
11/5/2018 10:49 AM	25:00	5.76 pH	9.40 °C	255.60 µS/cm	0.87 mg/L	1.00 NTU	129.1 mV	34.00 ft	62.00 ml/min
11/5/2018 10:54 AM	30:00	5.76 pH	9.43 °C	255.94 µS/cm	0.86 mg/L	1.00 NTU	127.0 mV	34.00 ft	60.00 ml/min
11/5/2018 10:59 AM	35:00	5.75 pH	9.48 °C	255.37 µS/cm	0.78 mg/L	1.00 NTU	128.7 mV	34.00 ft	60.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-301X	Sample analysis: VOCS, 1,4-DIOXANE, SVOCs, TOTAL Mn and As NO QA samples collected Sample time: 1105 hrs Stop time: 1137 hrs

Low-Flow Test Report:

Test Date / Time: 11/1/2018 12:20:30 PM
Project: TRY_MW-501X Troy Mills Landfill (2)
Operator Name: Matt Bergen

Location Name: TRTY_MW-501X **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 4 ft** **Total Depth: 14.04 ft** **Initial Depth to Water: 5.72 ft**	**Pump Type: QED Sample Pro** **Tubing Type: ~~Polyethylene~~** Teflon **Tubing Inner Diameter: 0.17 in** (TRJ) **Tubing Length: 13 ft** **Pump Intake From TOC: 10.8 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 50 ml/min** **Final Draw Down: 0.46 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369323**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED Sample Pro 34023
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits):HACH 2100Q 2303

Total tubing length (inside & outside of well): 13 ft
Tubing inner diameter: 0.17 in
PVR (including calculations): 13 ft x 4.5 ml/ft +100 ml = 158.5

Maximum allowable drawdown rate: 0.02
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1213 hrs

Parameters reached stabilization? No
If no, list parameters: all
Total volume purged prior to sampling: 180 ml
Minimum PVR reached (compare purge amount to PVR)? Yes, 180 ml> 158.5 ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): Initial
Condition that triggered Modified Sampling: Initial WL below top of screen, and insufficient recharge.

Any adjustments made (including flow rates, tubing, etc.): no

Final pressure: 10 PSI
Final refill rate: 54 seconds
Final discharge rate: 6 seconds

Final water level:7.76 ft
Total actual volume purged (delete Estimated Purge Volume): 900 ml
Measured Well Depth, if required (note variation in total depth compared to previously documented):
Pump Off:1303 hrs.

Weather Conditions:
50s raining

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/1/2018 12:20 PM	00:00	7.18 pH	11.47 °C	347.64 µS/cm	3.25 mg/L	538.00 NTU	-36.8 mV	6.18 ft	50.00 ml/min

flag metals samples

Samples

Sample ID:	Description:
TRY_MW-501X	Sample analysis: VOCS, 1,4-DIOXANE, SVOCs, and TOTAL Mn and As NO QA samples collected Sample time : 1225 hrs Stop time:1303

Created using VuSitu from In-Situ, Inc

Low-Flow Test Report:

Test Date / Time: 11/1/2018 8:50:42 AM
Project: TRY_MW-501D Troy Mills Landfill (2)
Operator Name: Matt Bergen

Location Name: TRY_MW-501D	**Pump Type: QED T1250** (TPS)	**Instrument Used: SmarTROLL MP**
Well Diameter: 2 in	**Tubing Type: ~~Polyethylene~~** Teflon	**Serial Number: 369323**
Casing Type: PVC	**Tubing Inner Diameter: 0.17 in**	
Screen Length: 10 ft	**Pump Intake From TOC: 26.9 ft**	
Top of Screen: 21.9 ft	**Flow Cell Volume: 90 ml**	
Total Depth: 31.85 ft	**Final Flow Rate: 62 ml/min**	
Initial Depth to Water: 5.52 ft	**Final Draw Down: 2.03 ft**	

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED T1250
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits):HACH 2100Q 2303

Total tubing length (inside & outside of well): 29 ft
Tubing inner diameter: 0.17 in
PVR (including calculations): 29 ft x 4.5 ml/ft + 100 ml = 230.5 ml

Maximum allowable drawdown rate: 0.02 ft
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 5.52 ft

Parameters reached stabilization?yes
If no, list parameters:
Total volume purged prior to sampling: 6,200 ml
Minimum PVR reached (compare purge amount to PVR)? Yes, 6,200 ml > 230.5 ml
2 Hour time limit reached? Yes

Modified sampling required? (Clock time when modified sampling begins): No
Condition that triggered Modified Sampling: NA

Any adjustments made (including flow rates, tubing, etc.): at 0948 had flow reading below 50 ml/min. Increased Recharge/Fill rate. It took multiple adjustments to obtain a flow over 50 ml/min. Ended up increasing recharge/Fill rate from 54/6 to 51/9. At 0956 hrs flow was at 80 ml/min, decreased recharge/Fill rate to 53/7. At this rate, and for the remainder of the sampling, flow rate ranged from 56 to 70 ml/min.
Flow variability was recorded during the 2016 sampling round as well. If a steady flow of 50 ml/min could be achieved, stabilization may have been able to achieved sooner. Otherwise this may be an insufficient recharge.
Also, note that DO was higher then it was in the past.

TRY_MW-501D

Final water level:7.88 ft
Total actual volume purged (delete Estimated Purge Volume): 6,600 ml
Measured Well Depth, if required (note variation in total depth compared to previously documented):
Pump Off:1122 hrs

Weather Conditions:
50s chance of rain

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/1/2018 8:50 AM	00:00	8.31 pH	11.85 °C	119.27 µS/cm	7.28 mg/L	5.00 NTU	285.5 mV	5.75 ft	52.00 ml/min
11/1/2018 8:55 AM	05:00	7.60 pH	11.47 °C	120.48 µS/cm	2.36 mg/L	7.00 NTU	118.3 mV	6.02 ft	70.00 ml/min
11/1/2018 9:00 AM	10:00	7.45 pH	11.39 °C	120.82 µS/cm	0.73 mg/L	8.00 NTU	73.2 mV	6.30 ft	54.00 ml/min
11/1/2018 9:05 AM	15:00	7.49 pH	11.36 °C	120.98 µS/cm	0.51 mg/L	7.00 NTU	77.5 mV	6.47 ft	54.00 ml/min
11/1/2018 9:10 AM	20:00	7.56 pH	11.27 °C	121.01 µS/cm	0.48 mg/L	6.00 NTU	75.8 mV	6.57 ft	50.00 ml/min
11/1/2018 9:15 AM	25:00	7.62 pH	11.27 °C	121.10 µS/cm	0.45 mg/L	6.00 NTU	73.1 mV	6.66 ft	54.00 ml/mi
11/1/2018 9:20 AM	30:00	7.68 pH	11.30 °C	121.11 µS/cm	0.42 mg/L	6.00 NTU	70.7 mV	6.76 ft	50.00 ml/min
11/1/2018 9:25 AM	35:00	7.73 pH	11.31 °C	121.07 µS/cm	0.45 mg/L	5.00 NTU	71.2 mV	6.85 ft	50.00 ml/min
11/1/2018 9:30 AM	40:00	7.78 pH	11.28 °C	121.04 µS/cm	0.50 mg/L	4.00 NTU	74.3 mV	6.87 ft	50.00 ml/min
11/1/2018 9:35 AM	45:00	7.82 pH	11.31 °C	120.85 µS/cm	0.50 mg/L	3.00 NTU	76.9 mV	5.90 ft	50.00 ml/min
11/1/2018 9:40 AM	50:00	7.86 pH	11.35 °C	120.72 µS/cm	0.54 mg/L	4.00 NTU	73.4 mV	5.94 ft	48.00 ml/min
11/1/2018 9:45 AM	55:00	7.89 pH	11.36 °C	120.85 µS/cm	0.84 mg/L	3.00 NTU	70.3 mV	5.94 ft	40.00 ml/min
11/1/2018 9:50 AM	01:00:00	7.92 pH	11.36 °C	120.90 µS/cm	0.72 mg/L	5.00 NTU	68.0 mV	5.94 ft	50.00 ml/min
11/1/2018 9:55 AM	01:05:00	7.94 pH	11.36 °C	120.59 µS/cm	0.67 mg/L	5.00 NTU	64.8 mV	7.08 ft	80.00 ml/min
11/1/2018 10:00 AM	01:10:00	7.97 pH	11.30 °C	120.44 µS/cm	0.84 mg/L	4.00 NTU	75.0 mV	7.21 ft	54.00 ml/min
11/1/2018 10:05 AM	01:15:00	7.99 pH	11.28 °C	120.56 µS/cm	0.98 mg/L	4.00 NTU	75.5 mV	7.23 ft	62.00 ml/min
11/1/2018 10:10 AM	01:20:00	8.01 pH	11.31 °C	120.60 µS/cm	1.08 mg/L	2.00 NTU	75.6 mV	7.29 ft	70.00 ml/min
11/1/2018 10:15 AM	01:25:00	8.02 pH	11.31 °C	120.61 µS/cm	1.16 mg/L	3.00 NTU	73.6 mV	7.36 ft	64.00 ml/min
11/1/2018 10:20 AM	01:30:00	8.03 pH	11.35 °C	120.61 µS/cm	1.24 mg/L	3.00 NTU	77.4 mV	7.38 ft	64.00 ml/min
11/1/2018 10:25 AM	01:35:00	8.04 pH	11.36 °C	120.57 µS/cm	1.21 mg/L	2.00 NTU	74.3 mV	7.44 ft	62.00 ml/min

11/1/2018 10:30 AM	01:40:00	8.06 pH	11.34 °C	120.59 µS/cm	1.18 mg/L	3.00 NTU	76.6 mV	7.47 ft	66.00 ml/min
11/1/2018 10:35 AM	01:45:00	8.07 pH	11.27 °C	120.61 µS/cm	1.23 mg/L	2.00 NTU	75.1 mV	7.50 ft	62.00 ml/min
11/1/2018 10:40 AM	01:50:00	8.08 pH	11.27 °C	120.66 µS/cm	1.27 mg/L	2.00 NTU	77.0 mV	7.53 ft	60.00 ml/min
11/1/2018 10:45 AM	01:55:00	8.08 pH	11.28 °C	120.69 µS/cm	1.26 mg/L	2.00 NTU	73.4 mV	7.54 ft	56.00 ml/min
11/1/2018 10:50 AM	02:00:00	8.09 pH	11.28 °C	120.73 µS/cm	1.27 mg/L	2.00 NTU	75.3 mV	7.55 ft	62.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-501D	Sample analysis: VOCS, 1,4-DIOXANE, SVOCS, TOTAL Mn and As NO QA samples collected Sample time: 1055 hrs Stop time: 1122 hrs

Low-Flow Test Report:

Test Date / Time: 10/31/2018 1:01:05 PM
Project: TRY_MW-508X Troy Mills Landfill
Operator Name: M. Murphy

Location Name: TRY_MW-508X **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 5 ft** **Top of Screen: 4.7 ft** **Total Depth: 9.7 ft** **Initial Depth to Water: 5.33 ft**	**Pump Type: QED Sample pro** (TPJ) **Tubing Type: ~~Polyethylene~~** Teflon **Tubing Inner Diameter: 0.17 in** **Tubing Length: 9.6 ft** **Pump Intake From TOC: 8.1 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 50 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 352760**

Test Notes:
Pump serial number: QED SamplePro #34023 Model MP-10 2501
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hatch 2100Q 037336

Total tubing length (inside & outside of well): (1.5 ft + 8.1 ft) = 9.6 ft
PVR (including calculations): (9.6 ft × 4.5 mL/ft) + 100 mL = 143.2 mL

Maximum allowable drawdown rate: 0.02ft per 5mins
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1255

Parameters reached stabilization? No
If no, list parameters: All parameters did not reach stabilization.
Total volume purged prior to sampling: 1.0L
Minimum PVR reached (compare purge amount to PVR)? Yes, 1.0L > 143.2 mL
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): Yes at start of purge.
Condition that triggered Modified Sampling: Groundwater elevation (5.33 ft) was measured below top of well screen (4.7 ft).

Final pressure of bladder pump: 10 psi
Final refill rate: 54 seconds
Final discharge rate: 6 seconds

Any adjustments made (including flow rates, tubing, etc.): Pressure turned down to achieve 50 mL/minute

Final water level: 5.33 ft
Total actual volume purged (delete Estimated Purge Volume): 1.5 L
Measured Well Depth, if required (note variation in total depth compared to previously documented): NA

Pump Off: 1400

Weather Conditions:
Cloudy, 40s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
10/31/2018 1:01 PM	00:00	5.06 pH	8.99 °C	24.45 µS/cm	9.16 mg/L	40.00 NTU	189.8 mV	5.33 ft	60.00 ml/min
10/31/2018 1:06 PM	05:00	4.98 pH	9.41 °C	21.73 µS/cm	8.71 mg/L	38.00 NTU	85.1 mV	5.33 ft	50.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-508X	Sample Start Time: 1315 Parameters: VOCs, 1,4-dioxane, SVOCs, metals (As + Mn) (TPS) Sample End Time: 1400

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Low-Flow Test Report:

Test Date / Time: 11/1/2018 11:57:12 AM
Project: TRY_MW-601S Troy Mills Landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_MW-601S **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 14.3 ft** **Total Depth: 29.3 ft** **Initial Depth to Water: 20.38 ft**	**Pump Type: QED T1250** (TPJ) **Tubing Type: ~~Polyethylene~~** Teflon **Tubing Inner Diameter: 0.17 in** **Pump Intake From TOC: 27.8 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 52 ml/min** **Final Draw Down: 0.36 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369778**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED T1250
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hach 2100Q

Total tubing length (inside & outside of well): 27.8+2.5=30.3 ~~+100ml=~~ TPJ
PVR (including calculations): (27.8+2.5)×4.5+100=240 ml

Maximum allowable drawdown rate: 0.002
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1155

Parameters reached stabilization? No
If no, list parameters: All
Total volume purged prior to sampling: 400 ml
Minimum PVR reached (compare purge amount to PVR)? Yes, 400 ml > 240 ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): yes, 1200
Condition that triggered Modified Sampling: initial water level below top of screen

Final pressure of bladder pump: 25 psi
Final refill rate: 57
Final discharge rate: 3

Any adjustments made (including flow rates, tubing, etc.): no

Final water level: 21.57

Total actual volume purged (delete Estimated Purge Volume): 500 ml
Measured Well Depth, if required (note variation in total depth compared to previously documented):n/a
Pump Off: 1240

Weather Conditions:
Rain, 50s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/1/2018 11:57 AM	00:00	7.10 pH	12.03 °C	165.40 µS/cm	6.56 mg/L		98.3 mV	20.38 ft	80.00 ml/min
11/1/2018 12:02 PM	05:00	6.52 pH	10.98 °C	205.33 µS/cm	0.86 mg/L	7.00 NTU	98.0 mV	20.74 ft	52.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-601S	1200-1240 SVOCs VOCs Total MN and AS 1,4-Dioxane

Low-Flow Test Report:

Test Date / Time: 11/1/2018 8:46:33 AM
Project: TRY_MW-601D Troy Mills Landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_MW-601D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 52.1 ft** **Total Depth: 62.1 ft** **Initial Depth to Water: 21.54 ft**	**Pump Type: QED T1250** (TRJ) **Tubing Type: ~~Polyethylene~~** Teflon **Tubing Inner Diameter: 0.17 in** **Pump Intake From TOC: 57.1 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 50 ml/min** **Final Draw Down: 2.71 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369778**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED T1250
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hach 2100Q 10080C004245

Total tubing length (inside & outside of well): 57.1+2=59.1
PVR (including calculations): (57.1+2)×4.5+100=366 ml

Maximum allowable drawdown rate: 0.02
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 0845

Parameters reached stabilization? No
If no, list parameters: Water level
Total volume purged prior to sampling: 6L
Minimum PVR reached (compare purge amount to PVR)? Yes, 6L> 366ml
2 Hour time limit reached? Yes

Modified sampling required? (Clock time when modified sampling begins): yes, 1100
Condition that triggered Modified Sampling: insufficient recharge

Final pressure of bladder pump: 35 psi
Final refill rate: 53
Final discharge rate: 7

Any adjustments made (including flow rates, tubing, etc.): no

Final water level: 24.49

TRY_ MW-601D

Total actual volume purged (delete Estimated Purge Volume): 6.25 L
Measured Well Depth, if required (note variation in total depth compared to previously documented): n/a
Pump Off: 1130

Weather Conditions:
Overcast, rain 50s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/1/2018 8:46 AM	00:00	8.52 pH	12.01 °C	234.00 µS/cm	5.96 mg/L		98.2 mV	21.54 ft	49.00 ml/min
11/1/2018 8:53 AM	07:22	7.65 pH	10.91 °C	239.43 µS/cm	1.46 mg/L	1.80 NTU	-6.5 mV	22.25 ft	54.00 ml/min
11/1/2018 8:58 AM	12:22	7.42 pH	10.83 °C	241.51 µS/cm	0.89 mg/L	1.20 NTU	-16.8 mV	22.55 ft	56.00 ml/min
11/1/2018 9:03 AM	17:22	7.29 pH	10.86 °C	242.09 µS/cm	0.63 mg/L	2.60 NTU	-23.5 mV	22.71 ft	54.00 ml/min
11/1/2018 9:08 AM	22:22	7.21 pH	10.82 °C	242.68 µS/cm	0.53 mg/L	3.10 NTU	-24.8 mV	22.96 ft	54.00 ml/min
11/1/2018 9:13 AM	27:22	7.15 pH	10.81 °C	243.43 µS/cm	0.50 mg/L	3.50 NTU	-23.1 mV	23.13 ft	54.00 ml/min
11/1/2018 9:18 AM	32:22	7.11 pH	10.81 °C	244.14 µS/cm	0.48 mg/L	6.00 NTU	-22.6 mV	23.31 ft	52.00 ml/min
11/1/2018 9:23 AM	37:22	7.07 pH	10.79 °C	245.45 µS/cm	0.50 mg/L	8.00 NTU	-20.4 mV	23.42 ft	52.00 ml/mi
11/1/2018 9:28 AM	42:22	7.04 pH	10.81 °C	247.08 µS/cm	0.59 mg/L	8.00 NTU	-13.6 mV	23.56 ft	50.00 ml/min
11/1/2018 9:33 AM	47:22	7.00 pH	10.81 °C	248.52 µS/cm	0.68 mg/L	9.00 NTU	-8.5 mV	23.65 ft	52.00 ml/min
11/1/2018 9:38 AM	52:22	6.97 pH	10.81 °C	249.38 µS/cm	0.75 mg/L	9.00 NTU	-6.5 mV	23.75 ft	50.00 ml/min
11/1/2018 9:43 AM	57:22	6.95 pH	10.76 °C	248.52 µS/cm	0.73 mg/L	10.00 NTU	-6.7 mV	23.83 ft	52.00 ml/min
11/1/2018 9:48 AM	01:02:22	6.94 pH	10.76 °C	247.60 µS/cm	0.70 mg/L	9.00 NTU	-11.1 mV	23.89 ft	52.00 ml/min
11/1/2018 9:53 AM	01:07:22	6.93 pH	10.78 °C	246.06 µS/cm	0.65 mg/L	11.00 NTU	-14.5 mV	23.95 ft	54.00 ml/min
11/1/2018 9:58 AM	01:12:22	6.93 pH	10.76 °C	245.96 µS/cm	0.64 mg/L	9.00 NTU	-14.1 mV	23.99 ft	50.00 ml/min
11/1/2018 10:03 AM	01:17:22	6.92 pH	10.77 °C	246.14 µS/cm	0.62 mg/L	9.00 NTU	-14.9 mV	24.03 ft	52.00 ml/min
11/1/2018 10:08 AM	01:22:22	6.93 pH	10.76 °C	245.27 µS/cm	0.70 mg/L	10.00 NTU	-13.9 mV	24.06 ft	50.00 ml/min
11/1/2018 10:13 AM	01:27:22	6.92 pH	10.73 °C	244.77 µS/cm	0.69 mg/L	10.00 NTU	-11.7 mV	24.10 ft	54.00 ml/min
11/1/2018 10:18 AM	01:32:22	6.92 pH	10.69 °C	244.67 µS/cm	0.68 mg/L	10.00 NTU	-11.6 mV	24.14 ft	50.00 ml/min
11/1/2018 10:23 AM	01:37:22	6.91 pH	10.73 °C	245.18 µS/cm	0.68 mg/L	13.00 NTU	-10.9 mV	24.15 ft	50.00 ml/min
11/1/2018 10:28 AM	01:42:22	6.91 pH	10.77 °C	244.68 µS/cm	0.68 mg/L	12.00 NTU	-9.8 mV	24.18 ft	52.00 ml/mi
11/1/2018 10:33 AM	01:47:22	6.90 pH	10.78 °C	244.44 µS/cm	0.65 mg/L	13.00 NTU	-11.2 mV	24.19 ft	52.00 ml/min

11/1/2018 10:38 AM	01:52:22	6.91 pH	10.81 °C	243.93 µS/cm	0.63 mg/L	12.00 NTU	-12.0 mV	24.21 ft	52.00 ml/min
11/1/2018 10:43 AM	01:57:22	6.91 pH	10.83 °C	243.96 µS/cm	0.62 mg/L	12.00 NTU	-11.6 mV	24.24 ft	50.00 ml/min
11/1/2018 10:48 AM	02:02:22	6.91 pH	10.89 °C	243.92 µS/cm	0.62 mg/L	12.00 NTU	-12.2 mV	24.25 ft	50.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-601D	1100-1130 SVOCS VOCs TOTAL MN AND AS 1,4-Dioxane

Low-Flow Test Report:

Test Date / Time: 10/30/2018 10:57:31 AM
Project: TRY_MW-602B Troy Mills Landfill
Operator Name: M. Murphy

Location Name: TRY_MW-602B	**Pump Type: QED T1250**	**Instrument Used: SmarTROLL MP**
Well Diameter: 2 in	**Tubing Type: ~~Polyethylene~~** TPS Teflon	**Serial Number: 352760**
Casing Type: PVC	**Tubing Inner Diameter: 0.17 in**	
Screen Length: 10 ft	**Tubing Length: 46 ft**	
Top of Screen: 37.5 ft	**Pump Intake From TOC: 42.5 ft**	
Total Depth: 47.5 ft	**Flow Cell Volume: 90 ml**	
Initial Depth to Water: 17.95 ft	**Final Flow Rate: 62 ml/min**	
	Final Draw Down: 0.19 ft	

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED T1250 MODEL MP-10 4411
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hach 2100Q 037336

Total tubing length (inside & outside of well): (3.5ft + 42.5ft) = 46 ft
PVR (including calculations): (46 ft × 4.5 mL) + 100 mL = 307 mL

Maximum allowable drawdown rate: 0.02ft per 5mins
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1040

Parameters reached stabilization? Yes
If no, list parameters: NA
Total volume purged prior to sampling: 1.0L
Minimum PVR reached (compare purge amount to PVR)? Yes, 1.0L > 308 mL
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): No
Condition that triggered Modified Sampling: NA

Final pressure of bladder pump: 22 psi
Final refill rate: 40 seconds
Final discharge rate: 20 seconds

ny adjustments made (including flow rates, tubing, etc.): Pressure increased periodically to maintain 22 psi

Final water level: 18.19 ft
Total actual volume purged (delete Estimated Purge Volume): 3.5L
Measured Well Depth, if required (note variation in total depth compared to previously documented): NA
Pump Off: 1225

Weather Conditions:
Partially cloudy, high 40s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
10/30/2018 10:57 AM	00:00	7.28 pH	10.92 °C	176.59 µS/cm	7.81 mg/L	3.00 NTU	131.6 mV	18.05 ft	80.00 ml/min
10/30/2018 11:02 AM	05:00	6.14 pH	9.99 °C	200.11 µS/cm	2.67 mg/L	2.00 NTU	37.6 mV	18.07 ft	66.00 ml/min
10/30/2018 11:07 AM	10:00	6.15 pH	10.08 °C	225.14 µS/cm	0.83 mg/L	1.00 NTU	24.9 mV	18.10 ft	62.00 ml/min
10/30/2018 11:12 AM	15:00	6.16 pH	10.36 °C	229.86 µS/cm	0.40 mg/L	2.00 NTU	23.1 mV	18.11 ft	68.00 ml/min
10/30/2018 11:17 AM	20:00	6.16 pH	9.89 °C	230.99 µS/cm	0.36 mg/L	2.00 NTU	23.9 mV	18.12 ft	61.00 ml/min
10/30/2018 11:22 AM	25:00	6.16 pH	9.75 °C	230.94 µS/cm	0.26 mg/L	5.00 NTU	24.1 mV	18.13 ft	63.00 ml/min
10/30/2018 11:27 AM	30:00	6.16 pH	9.37 °C	231.90 µS/cm	0.27 mg/L	5.00 NTU	25.4 mV	18.14 ft	59.00 ml/min
10/30/2018 11:32 AM	35:00	6.17 pH	9.43 °C	230.39 µS/cm	0.21 mg/L	5.00 NTU	25.4 mV	18.15 ft	55.00 ml/min
10/30/2018 11:37 AM	40:00	6.18 pH	9.22 °C	229.21 µS/cm	0.22 mg/L	5.00 NTU	26.3 mV	18.14 ft	62.00 ml/min

Samples

Sample ID:	Description:
Field Blank-Murphy	Sample Start Time : 1140 Parameters: PFAS Sample End Time:1143
TRY_MW- 602B	Sample Start Time: 1145 Parameters: PFAS, VOCS, 1,4-dioxane, SVOCs, metals (Mn+As) MEM Sample End Time: 1220

Low-Flow Test Report:

Test Date / Time: 10/31/2018 10:44:05 AM
Project: TRY_MW-701 Troy Mills Landfill
Operator Name: M. Murphy

Location Name: TRY_MW-701	**Pump Type: QED T1250** (TP)	**Instrument Used: SmarTROLL MP**
Well Diameter: 2 in	**Tubing Type: ~~Polyethylene~~** Teflon	**Serial Number: 352760**
Casing Type: PVC	**Tubing Inner Diameter: 0.17 in**	
Screen Length: 60 ft	**Tubing Length: 51.3 ft**	
Top of Screen: 18.3 ft	**Pump Intake From TOC: 48.3 ft**	
Total Depth: 78.3 ft	**Flow Cell Volume: 90 ml**	
Initial Depth to Water: 6.37 ft	**Final Flow Rate: 68 ml/min**	
	Final Draw Down: 0.08 ft	

Test Notes:
Pump serial number: QED T1250 Model MP-10 2501
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hatch 2100Q 037336

Total tubing length (inside & outside of well): (48.3 ft + 3 ft) = 51.3 ft
PVR (including calculations): (51.3 ft × 4.5 mL/ft) + 100 mL = 330.85 mL

Maximum allowable drawdown rate: 0.02ft per 5mins
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1018

Parameters reached stabilization? Yes
If no, list parameters: NA
Total volume purged prior to sampling: 2.0L
Minimum PVR reached (compare purge amount to PVR)? Yes, 2.0L > 330.85 mL
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): No
Condition that triggered Modified Sampling: NA

Final pressure of bladder pump: 45 psi
Final refill rate: 40 seconds
Final discharge rate: 20 seconds

Any adjustments made (including flow rates, tubing, etc.): Water retreated back into tubing approximately 8-inches. Purge rate fluctuated between discharges between 60 mL/min. and 80 mL/min.

Final water level: 6.45 ft
Total actual volume purged (delete Estimated Purge Volume): 3.0L
Measured Well Depth, if required (note variation in total depth compared to previously documented): NA

Pump Off: 1145

Weather Conditions:
Partially cloudy, 30s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
10/31/2018 10:44 AM	00:00	5.73 pH	6.05 °C	54.06 µS/cm	9.42 mg/L		83.0 mV	6.45 ft	64.00 ml/min
10/31/2018 10:49 AM	05:00	5.60 pH	7.60 °C	36.84 µS/cm	8.75 mg/L	8.00 NTU	66.7 mV	6.45 ft	70.00 ml/min
10/31/2018 10:54 AM	10:00	5.60 pH	8.08 °C	34.65 µS/cm	8.48 mg/L	5.00 NTU	66.2 mV	6.45 ft	64.00 ml/min
10/31/2018 10:59 AM	15:00	5.60 pH	8.25 °C	34.12 µS/cm	8.30 mg/L	5.00 NTU	68.3 mV	6.45 ft	78.00 ml/min
10/31/2018 11:04 AM	20:00	5.59 pH	8.46 °C	33.69 µS/cm	8.33 mg/L	5.00 NTU	68.1 mV	6.45 ft	68.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-701	Sample Start Time: 1110 Parameters: PFAS, VOCs, 1,4-dioxane, SVOCs, metals (Mn + As) (TPS) Sample End Time: 1145

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/30/2018 1:35:35 PM
Project: TRY_MW-702SX Troy Mills Landfill (2)
Operator Name: Matt Bergen

Location Name: TRY_MW-702SX	**Pump Type: QED Sample Pro**	**Instrument Used: SmarTROLL MP**
Well Diameter: 2 in	**Tubing Type: ~~polyethylene~~ Teflon**	**Serial Number: 369323**
Casing Type: PVC	**Tubing Inner Diameter: 0.17 in**	
Screen Length: 10 ft	**Tubing Length: 15 ft**	
Top of Screen: 5.4 ft	**Pump Intake From TOC: 11.7 ft**	
Total Depth: 15.8 ft	**Flow Cell Volume: 90 ml**	
Initial Depth to Water: 6.35 ft	**Final Flow Rate: 90 ml/min**	
	Final Draw Down: 0.03 ft	

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED Sample Pro 37761
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): HACH 2100Q 2303

Total tubing length (inside & outside of well): 15 ft
PVR (including calculations): 15ft x 4.5 ml/ft + 100 ml = 167.5 ml

Maximum allowable drawdown rate: 0.02 ft
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1331

Parameters reached stabilization? Yes
If no, list parameters:
Total volume purged prior to sampling: 4,000 ml
Minimum PVR reached (compare purge amount to PVR)? Yes, 4,000 ml > 167.5 ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): No
Condition that triggered Modified Sampling:

Final pressure of bladder pump:12 PSI
Final refill rate:51 seconds
Final discharge rate: 9 seconds

Any adjustments made (including flow rates, tubing, etc.):
Initial DTW is below top of screen. Usually do not perform modified sample at this location. Tanya Justham wanted to collect a modified sample. Set up for a modified sample, but the initial Turbidity was 227 NTU, in the past, Turbidity was usually in single

digits when sampling. Notified Tanya Justham about turbidty, and she decided not to perform modified sample.

Final water level: 6.38 ft
Total actual volume purged (delete Estimated Purge Volume):4,600 ml
Measured Well Depth, if required (note variation in total depth compared to previously documented):
Pump Off:1448 hrs

Weather Conditions:
Cloudy 40-50s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
10/30/2018 1:35 PM	00:00	6.44 pH	8.20 °C	29.84 µS/cm	8.08 mg/L	227.00 NTU	260.3 mV	6.35 ft	50.00 ml/min
10/30/2018 1:40 PM	05:00	5.89 pH	8.75 °C	23.38 µS/cm	5.20 mg/L	140.00 NTU	195.7 mV	6.36 ft	80.00 ml/min
10/30/2018 1:45 PM	10:00	5.56 pH	9.39 °C	22.48 µS/cm	4.90 mg/L	76.00 NTU	179.0 mV	6.38 ft	90.00 ml/min
10/30/2018 1:50 PM	15:00	5.39 pH	9.72 °C	22.05 µS/cm	4.57 mg/L	30.00 NTU	175.2 mV	6.38 ft	88.00 ml/min
10/30/2018 1:55 PM	20:00	5.30 pH	9.75 °C	21.96 µS/cm	4.63 mg/L	19.00 NTU	165.5 mV	6.38 ft	88.00 ml/min
10/30/2018 2:00 PM	25:00	5.24 pH	9.79 °C	21.88 µS/cm	4.66 mg/L	14.00 NTU	167.5 mV	6.38 ft	88.00 ml/min
10/30/2018 2:05 PM	30:00	5.19 pH	9.77 °C	21.90 µS/cm	4.50 mg/L	9.00 NTU	160.3 mV	6.38 ft	88.00 ml/min
10/30/2018 2:10 PM	35:00	5.15 pH	9.81 °C	21.82 µS/cm	4.38 mg/L	6.00 NTU	161.3 mV	6.38 ft	90.00 ml/min
10/30/2018 2:15 PM	40:00	5.12 pH	9.81 °C	21.75 µS/cm	4.30 mg/L	5.00 NTU	155.3 mV	6.38 ft	90.00 ml/min
10/30/2018 2:20 PM	45:00	5.11 pH	9.87 °C	21.80 µS/cm	4.14 mg/L	5.00 NTU	158.4 mV	6.38 ft	90.00 ml/min
10/30/2018 2:25 PM	50:00	5.09 pH	9.84 °C	21.80 µS/cm	3.98 mg/L	5.00 NTU	152.1 mV	6.38 ft	90.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-702SX	Sample analysis: VOCS, 1,4-DIOXANE, SVOCS, and TOTAL MN and AS NO QA SAMPLES COLLECTED Sample time 1430 hrs Stop time 1448 hrs

Low-Flow Test Report:

Test Date / Time: 10/30/2018 10:53:36 AM
Project: TRY_MW-702D Troy Mills Landfill (2)
Operator Name: Matt Bergen

Location Name: TRY_MW-702D	**Pump Type: QED Sample Pro** TPJ	**Instrument Used: SmarTROLL MP**
Well Diameter: 2 in	**Tubing Type: ~~Polyethylene~~** Teflon	**Serial Number: 369323**
Casing Type: PVC	**Tubing Inner Diameter: 0.17 in**	
Screen Length: 27 ft	**Tubing Length: 35 ft**	
Top of Screen: 19.4 ft	**Pump Intake From TOC: 33 ft**	
Total Depth: 46.4 ft	**Flow Cell Volume: 90 ml**	
Initial Depth to Water: 4.86 ft	**Final Flow Rate: 58 ml/min**	
	Final Draw Down: 0.62 ft	

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED Sample Pro 37761
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): HACH 2100Q 2303

Total tubing length (inside & outside of well):35 ft
PVR (including calculations): 35 ft x 4.5 ml/ft + 100 ml = 257.5 ml

Maximum allowable drawdown rate: 0.02 ft
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1050 hrs

Parameters reached stabilization? Yes
If no, list parameters:
Total volume purged prior to sampling: 3,000 ml
Minimum PVR reached (compare purge amount to PVR)? Yes, 3,000 ml > 257.5 ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): No
Condition that triggered Modified Sampling: NA

Final pressure of bladder pump: 22 PSI
Final refill rate: 52 seconds
Final discharge rate: 8 seconds

Any adjustments made (including flow rates, tubing, etc.): Decreased flow rate from 72 ml/min to 58 ml/min at 1123 hrs because e WL was still dropping. The initial flow was similar to that's used during the 2016 sampling round.

Final water level: 5.55 ft

Total actual volume purged (delete Estimated Purge Volume):3,500 ml
Measured Well Depth, if required (note variation in total depth compared to previously documented): NA
Pump Off: 1215 hrs

Weather Conditions:
Overcast, 40-50s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
10/30/2018 10:53 AM	00:00	8.09 pH	8.06 °C	58.61 µS/cm	11.39 mg/L		311.4 mV	5.26 ft	100.00 ml/min
10/30/2018 10:58 AM	05:00	7.50 pH	8.73 °C	51.61 µS/cm	6.78 mg/L	15.00 NTU	162.5 mV	5.29 ft	72.00 ml/min
10/30/2018 11:03 AM	10:00	7.03 pH	8.92 °C	50.91 µS/cm	6.20 mg/L	12.00 NTU	152.8 mV	5.31 ft	72.00 ml/min
10/30/2018 11:08 AM	15:00	6.80 pH	8.86 °C	50.32 µS/cm	5.95 mg/L	13.00 NTU	159.0 mV	5.33 ft	72.00 ml/min
10/30/2018 11:13 AM	20:00	6.71 pH	8.96 °C	50.29 µS/cm	5.86 mg/L	12.00 NTU	153.9 mV	5.39 ft	70.00 ml/min
10/30/2018 11:18 AM	25:00	6.67 pH	8.97 °C	50.14 µS/cm	5.74 mg/L	11.00 NTU	159.1 mV	5.44 ft	70.00 ml/min
10/30/2018 11:23 AM	30:00	6.64 pH	8.88 °C	49.99 µS/cm	5.70 mg/L	11.00 NTU	149.1 mV	5.48 ft	58.00 ml/min
10/30/2018 11:28 AM	35:00	6.63 pH	8.84 °C	50.10 µS/cm	5.61 mg/L	11.00 NTU	153.3 mV	5.48 ft	58.00 ml/min
10/30/2018 11:33 AM	40:00	6.63 pH	8.78 °C	50.00 µS/cm	5.60 mg/L	11.00 NTU	145.7 mV	5.48 ft	58.00 ml/min
10/30/2018 11:38 AM	45:00	6.63 pH	8.77 °C	50.05 µS/cm	5.57 mg/L	11.00 NTU	147.0 mV	5.48 ft	58.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-702D	Sample analysis: VOCS, 1,4-DIOXANE, SVOCS, and TOTAL METALS (As & Mn) TRS NO QA samples collected Sample time: 1145 hrs Stop time: 1215 hrs

Low-Flow Test Report:

Test Date / Time: 11/2/2018 1:03:13 PM
Project: TRY_MW-801 Troy Mills Landfill
Operator Name: M. Murphy

Location Name: TRY_MW-801	**Pump Type: QED Sample Pro** (TRJ)	**Instrument Used: SmarTROLL MP**
Well Diameter: 2 in	**Tubing Type: ~~Polyethylene~~** Teflon	**Serial Number: 352760**
Casing Type: PVC	**Tubing Inner Diameter: 0.17 in**	
Screen Length: 10 ft	**Pump Intake From TOC: 41.4 ft**	
Top of Screen: 36.4 ft	**Flow Cell Volume: 90 ml**	
Total Depth: 46.4 ft	**Final Flow Rate: 80 ml/min**	
Initial Depth to Water: 30.27 ft	**Final Draw Down: 0.02 ft**	

Test Notes:
Pump serial number: ~~QED T1250 Model MP-10 2501~~ QED Sample Pro (TRJ)
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hatch 2100Q 037336
Sample Pro: 37761

Total tubing length (inside & outside of well): (3 ft + 41.4 ft) = 44.4 ft
PVR (including calculations): (44.4 ft × 4.5 mL/ft) + 100 mL = 299.8 mL

Maximum allowable drawdown rate: 0.02ft per 5mins
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1257

Parameters reached stabilization? Yes
If no, list parameters: NA
Total volume purged prior to sampling: 9.5L
Minimum PVR reached (compare purge amount to PVR)? Yes, 9.5L > 299.8 mL
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): No
Condition that triggered Modified Sampling: NA

Final pressure of bladder pump: 25 psi
Final refill rate: 45
Final discharge rate: 15

Any adjustments made (including flow rates, tubing, etc.): Due to observed thunder and lightning a delay was caused prior to sampling after reaching stabilization at 1345.

Final water level: 30.30 ft
Total actual volume purged (delete Estimated Purge Volume): 9.5L

Measured Well Depth, if required (note variation in total depth compared to previously documented): NA
Pump Off: 1510

Weather Conditions:
Rain, 50s-60s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/2/2018 1:03 PM	00:00	6.10 pH	14.67 °C	342.61 µS/cm	7.20 mg/L		-6.5 mV	30.27 ft	60.00 ml/min
11/2/2018 1:08 PM	05:00	5.95 pH	12.56 °C	370.40 µS/cm	1.70 mg/L	7.00 NTU	-4.4 mV	30.30 ft	80.00 ml/min
11/2/2018 1:13 PM	10:00	5.93 pH	12.15 °C	371.26 µS/cm	0.98 mg/L	5.00 NTU	-3.3 mV	30.30 ft	82.00 ml/min
11/2/2018 1:18 PM	15:00	5.92 pH	12.02 °C	370.28 µS/cm	0.78 mg/L	4.00 NTU	-1.6 mV	30.30 ft	80.00 ml/min
11/2/2018 1:23 PM	20:00	5.92 pH	11.82 °C	368.22 µS/cm	0.65 mg/L	4.00 NTU	0.6 mV	30.29 ft	84.00 ml/min
11/2/2018 1:28 PM	25:00	5.93 pH	11.73 °C	375.77 µS/cm	0.53 mg/L	3.00 NTU	2.6 mV	30.28 ft	80.00 ml/min
11/2/2018 1:33 PM	30:00	5.94 pH	11.77 °C	378.31 µS/cm	0.45 mg/L	2.00 NTU	3.3 mV	30.29 ft	82.00 ml/min
11/2/2018 1:38 PM	35:00	5.94 pH	11.62 °C	380.12 µS/cm	0.40 mg/L	2.00 NTU	5.2 mV	30.29 ft	80.00 ml/min
11/2/2018 1:43 PM	40:00	5.95 pH	11.50 °C	380.04 µS/cm	0.36 mg/L	2.00 NTU	7.8 mV	30.29 ft	80.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-801	Sample Start Time: 1440 Parameters: VOCs, 1,4-dioxane, SVOCs, metals (Mn + As) MEM Sample End Time: 1505

Low-Flow Test Report:

Test Date / Time: 11/2/2018 9:56:15 AM
Project: TRY_MW-802 Troy Mills Landfill
Operator Name: M. Murphy

Location Name: TRY_MW-802	**Pump Type: QED Sample Pro**	**Instrument Used: SmarTROLL MP**
Well Diameter: 2 in	**Tubing Type: Teflon**	**Serial Number: 352760**
Casing Type: PVC	**Tubing Inner Diameter: 0.17 in**	
Screen Length: 10 ft	**Tubing Length: 34.9 ft**	
Top of Screen: 25.6 ft	**Pump Intake From TOC: 32.4 ft**	
Total Depth: 35.6 ft	**Flow Cell Volume: 90 ml**	
Initial Depth to Water: 24.59 ft	**Final Flow Rate: 50 ml/min**	
	Final Draw Down: 1.02 ft	

Test Notes:
Pump serial number: ~~QED T1250 Model MP-10 2501~~ QED Sample Pro (TPJ)
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): Hatch 2100Q 037336
Sample Pro Pump: 37761

Total tubing length (inside & outside of well): (2.5 ft + 32.4 ft) = 34.9 ft
PVR (including calculations): (34.9 ft × 4.5 mL/ft) + 100 = 257.05 mL

Maximum allowable drawdown rate: 0.02ft per 5mins
#14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 0950

Parameters reached stabilization? No
If no, list parameters: WL ~~and DO~~ (TPJ)
Total volume purged prior to sampling: 2.0L
Minimum PVR reached (compare purge amount to PVR)? Yes, 2.0L > 257.05 mL
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): Yes, 1035
Condition that triggered Modified Sampling: Groundwater elevation (25.61 ft) was measured below the top of well screen (25.6 ft).

Final pressure of bladder pump: 18 psi
Final refill rate: 47 seconds
Final discharge rate: 13 seconds

Any adjustments made (including flow rates, tubing, etc.): NA

Final water level: 25.61 ft
Total actual volume purged (delete Estimated Purge Volume): 2.5 L

Measured Well Depth, if required (note variation in total depth compared to previously documented): NA
Pump Off: 1115

Weather Conditions:
Heavy rain, 50s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/2/2018 9:56 AM	00:00	7.40 pH	17.54 °C	351.76 µS/cm	8.07 mg/L		-5.9 mV	24.99 ft	60.00 ml/min
11/2/2018 10:01 AM	05:00	6.23 pH	14.51 °C	474.95 µS/cm	3.18 mg/L	5.00 NTU	-17.8 mV	25.11 ft	54.00 ml/min
11/2/2018 10:06 AM	10:00	6.20 pH	13.87 °C	474.56 µS/cm	1.65 mg/L	4.00 NTU	-15.9 mV	25.26 ft	50.00 ml/min
11/2/2018 10:11 AM	15:00	6.19 pH	13.66 °C	476.39 µS/cm	1.24 mg/L	3.00 NTU	-16.7 mV	25.36 ft	50.00 ml/min
11/2/2018 10:16 AM	20:00	6.18 pH	13.67 °C	477.94 µS/cm	1.04 mg/L	4.00 NTU	-19.2 mV	25.43 ft	50.00 ml/min
11/2/2018 10:21 AM	25:00	6.18 pH	13.60 °C	473.61 µS/cm	0.91 mg/L	3.00 NTU	-18.8 mV	25.51 ft	50.00 ml/min
11/2/2018 10:26 AM	30:00	6.18 pH	13.53 °C	471.71 µS/cm	0.81 mg/L	4.00 NTU	-20.6 mV	25.58 ft	50.00 ml/min
11/2/2018 10:31 AM	35:00	6.18 pH	13.57 °C	476.15 µS/cm	0.77 mg/L	3.00 NTU	-20.6 mV	25.61 ft	50.00 ml/mi

Samples

Sample ID:	Description:
TRY_MW-802	Sample Start Time: 1035 Parameters: VOCs, 1,4-dioxane, SVOCs, metals (Mn + As) (MEM) Sample End Time: 1115

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 11/6/2018 9:16:55 AM
Project: TRY_MW-803 Troy Mills Landfill (2)
Operator Name: Matt Bergen

Location Name: TRY_MW-803 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 22.3 ft** **Total Depth: 32.3 ft** **Initial Depth to Water: 23.51 ft**	**Pump Type: QED T1250** **Tubing Type: Teflon** **Tubing Inner Diameter: 0.17 in** **Tubing Length: 34 ft** **Pump Intake From TOC: 30.7 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 50 ml/min** **Final Draw Down: 0.36 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369323**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED T1250
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits):HACH 2100Q 2303

Total tubing length (inside & outside of well): 34 FT
Tubing inner diameter 0.17 INCHES
PVR (including calculations): 34 ft x 4.5 ml/ft + 100 ml =253 ml

Maximum allowable drawdown rate: 0.02
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time:0912 hrs

Parameters reached stabilization? No (modified sample)
If no, list parameters: all
Total volume purged prior to sampling: 405 ml
Minimum PVR reached (compare purge amount to PVR)? Yes, 405 ml > 253 ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): yes, Initial
Condition that triggered Modified Sampling: the initial WL (23.51 ft) is below the top of screen (22.3 ft).

Final pressure of bladder pump: 20 psi
Final refill rate: 54 seconds
Final discharge rate: 6 seconds

Any adjustments made (including flow rates, tubing, etc.): no

Final water level:24.55 ft
Total actual volume purged (delete Estimated Purge Volume): 800 ml
Measured Well Depth, if required (note variation in total depth compared to previously documented):
Pump Off:1008 hrs

Weather Conditions:
Cloudy 50s chance of rain

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/6/2018 9:16 AM	00:00	7.39 pH	11.50 °C	619.56 µS/cm	3.94 mg/L		-5.8 mV	23.79 ft	45.00 ml/min
11/6/2018 9:21 AM	05:00	6.60 pH	9.96 °C	772.90 µS/cm	1.07 mg/L	15.00 NTU	25.2 mV	23.87 ft	50.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-803	Sample analysis: VOCS, 1,4-DIOXANE, SVOCs, TOTAL Mn and As NO QA samples collected Sample time: 0930 hrs Stop time: 1008 hrs

Created using VuSitu from In-Situ, Inc.

* The afternoon calibration check for ORP was not within the acceptable range; therefore, the ORP value can only be used for determining stabilization and not as representative of actual ORP values of the water being sampled.

Low-Flow Test Report:

Test Date / Time: 11/6/2018 1:21:47 PM
Project: TRY_MW-804 Troy Mills Landfill (2)
Operator Name: Matt Bergen

Location Name: TRY_MW-804 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 26 ft** **Total Depth: 36 ft** **Initial Depth to Water: 27.65 ft**	**Pump Type: QED T1250** **Tubing Type: Teflon** **Tubing Inner Diameter: 0.17 in** **Tubing Length: 36.5 ft** **Pump Intake From TOC: 33.9 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 50 ml/min**	**Instrument Used: SmarTROLL MP** **Serial Number: 369323**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED T 1250
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits):HACH 2100Q 2303

Total tubing length (inside & outside of well): 36.5 ft
Tubing inner diameter 0.17 in
PVR (including calculations): 36.5 ft x 4.5 ml/ft + 100 ml 264.25 ml

Maximum allowable drawdown rate: 0.02 ft
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1316 hrs

Parameters reached stabilization? No, modified sample.
If no, list parameters: all
Total volume purged prior to sampling: 350 ml
Minimum PVR reached (compare purge amount to PVR)? Yes, 350 ml > 264.25 ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): Yes, initial.
Condition that triggered Modified Sampling: Initial WL (27.65 ft) is below the top of screen (26.0 ft).

Final pressure of bladder pump: 20 PSI
Final refill rate: 55 seconds
Final discharge rate: 5 seconds

Any adjustments made (including flow rates, tubing, etc.):
Initial water level was entered in incorrectly, so final draw down was incorrect, so I deleted it.
Observed a sheen on the sample water.

Final water level: 27.88 hrs
Total actual volume purged (delete Estimated Purge Volume): 800 ml
Measured Well Depth, if required (note variation in total depth compared to previously documented):
Pump Off:1438 hrs

Weather Conditions:
50s raining

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/6/2018 1:21 PM	00:00	6.70 pH	10.29 °C	235.62 µS/cm	2.33 mg/L	28.00 NTU	107.9 mV	27.73 cm	50.00 ml/min
11/6/2018 1:26 PM	05:00	6.18 pH	10.08 °C	390.33 µS/cm	1.00 mg/L	7.00 NTU	84.0 mV	27.73 cm	50.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-804	Sample analysis: PFAS, VOCS, 1,4-DIOXANE, SVOCS, and TOTAL Mn and As Duplicate sample collected for PFAS, VOCS, SVOCs, and TOTAL Mn and As Sample time 1330 hrs Stop time1438 hrs
TRY_MW-804 DUP	Sample analysis: PFAS, VOCS, SVOCS, AND TOTAL Mn and As Sample time: 1330hrs Stop 1438 hrs

Created using VuSitu from In-Situ, Inc.

* The afternoon calibration check for ORP was not within the acceptable range; therefore, the ORP value can only be used for determining stabilization and not as representative of actual ORP values of the water being sampled.

Low-Flow Test Report:

Test Date / Time: 11/2/2018 9:55:06 AM
Project: TRY_MW-805 Troy Mills Landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_MW-805 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 32.4 ft** **Total Depth: 42.4 ft** **Initial Depth to Water: 28.86 ft**	**Pump Type: QED Sample Pro** **Tubing Type: Teflon** **Tubing Inner Diameter: 0.17 in** **Tubing Length: 40.4 ft** **Pump Intake From TOC: 37.4 ft** **Flow Cell Volume: 90 ml** **Final Flow Rate: 110 ml/min** **Final Draw Down: 0.08 ft**	**Instrument Used: SmarTROLL MP** **Serial Number: 369778**

Test Notes:

PRIOR TO SAMPLING:

Pump serial number: QED Sample Pro
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): hach 2100Q 10080C004245

Total tubing length (inside & outside of well): 40.4
PVR (including calculations): (37.4+3)×4.5+100=280 ml

Maximum allowable drawdown rate: 0.02
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 0950

Parameters reached stabilization? Yes
If no, list parameters: n/a
Total volume purged prior to sampling: 5L
Minimum PVR reached (compare purge amount to PVR)? Yes, 5L > 280ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): no
Condition that triggered Modified Sampling: n/a

Final pressure of bladder pump: 25 psi
Final refill rate: 40
Final discharge rate: 20

Any adjustments made (including flow rates, tubing, etc.): no

Final water level: 28.94
Total actual volume purged (delete Estimated Purge Volume): 6.5 L
Measured Well Depth, if required (note variation in total depth compared to previously documented): n/a
Pump Off: 1115

Weather Conditions:
Raining, 40s-50s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5	
11/2/2018 9:55 AM	00:00	7.96 pH	15.43 °C	415.12 µS/cm	4.81 mg/L	36.00 NTU	-24.8 mV	28.86 ft	110.00 ml/min
11/2/2018 10:00 AM	05:00	6.87 pH	12.01 °C	532.83 µS/cm	0.87 mg/L	28.00 NTU	-27.0 mV	28.91 ft	110.00 ml/min
11/2/2018 10:05 AM	10:00	6.52 pH	11.78 °C	527.64 µS/cm	0.62 mg/L	32.00 NTU	-23.9 mV	28.93 ft	110.00 ml/min
11/2/2018 10:10 AM	15:00	6.37 pH	11.71 °C	525.77 µS/cm	0.49 mg/L	32.00 NTU	-19.7 mV	28.94 ft	108.00 ml/min
11/2/2018 10:15 AM	20:00	6.31 pH	11.69 °C	537.30 µS/cm	0.42 mg/L	29.00 NTU	-20.2 mV	28.94 ft	108.00 ml/min
11/2/2018 10:20 AM	25:00	6.29 pH	11.82 °C	546.74 µS/cm	0.35 mg/L	27.00 NTU	-35.8 mV	28.94 ft	110.00 ml/min
11/2/2018 10:25 AM	30:00	6.27 pH	11.79 °C	551.88 µS/cm	0.32 mg/L	24.00 NTU	-35.1 mV	28.94 ft	108.00 ml/min
11/2/2018 10:30 AM	35:00	6.27 pH	11.82 °C	556.46 µS/cm	0.30 mg/L	22.00 NTU	-28.5 mV	28.94 ft	106.00 ml/min
11/2/2018 10:35 AM	40:00	6.27 pH	11.73 °C	561.52 µS/cm	0.28 mg/L	22.00 NTU	-26.5 mV	28.94 ft	110.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-805	1045-1115 PFAS SVOCS VOCS TOTAL MN AND AS 1,4-DIOXANE

Surface Water / Sediment Worksheet

Surface Water ...iment Worksheet
Troy Mills Landfill Superfund Site, Troy, New Hampshire

Date: 11/7/18 Time: 1200 Field Personnel: T. Justham & E. Dyrness

WEATHER CONDITIONS

CURRENT		Weather Station Location Used For Historical data:	PAST 7 DAYs						
Barometric Pressure (in mm/hg)		Date	10/31/18	11/1/18	11/2/18	11/3/18	11/4/18	11/5/18	11/6/18
Storm (heavy rain): circle one	Yes or No	Barometric Pressure (in mm/hg)							
Rain (Steady Rain): circle one	Yes or No	Estimated Rainfall (in)	0.00	0.24	1.22	1.17	0.00	0.22	0.64
Intermittent Showers: circle one	Yes or No	Comments							
Cloud Cover (%)	18								
Clear/Sunny: circle one	Yes or No								
Comments	high 50s								

STREAM / SAMPLING LOCATION CHARACTERIZATION

Provide physical description of sampling locations at the time of sampling. Provide a physical description of sediment samples if collected.

Sample Location: TRY_SW-100 — bottom sandy to cobble covered, clear water, swiftly flowing, high flow stage, depth 12"-14"

Photograph #, date & time #1, #2, #3, #4 11/7/18 1230 upstream, across stream, sample location, downstream

Sample Location: TRY_SW-3 — bottom sand to fine gravel, grass mat and organics, wood debris, swiftly flowing, high water stage depth 24"

Photograph #, date & time #5, #6, #7, #8 11/7/18 1305 Photos same as above

Sample Location: TRY_SW-4 — Sand grass, leaf litter, organics, clear water, swiftly flowing, high water stage, ~3ft in depth

Photograph #, date & time #9, #10 #11 #12 11/7/18 1340 Photos same as above

Sample Location: TRY_SW-1 — Cobbles, little sand & gravel, ~~no~~ little organics & leaf litter, clear, swiftly flowing, high water stage, depth ~18.0 in center ~~face~~ of stream

Photograph #, date & time #13, #14, #15, #16 11/7/18 1405 Photos same as above

IN SITU SURFACE WATER QUALITY DATA

Minimum 2 minute parameter stabilization period met (Y/N)?

Sample Location ID	Temperature (°C)	Specific Conductivity (µS/cm)	pH units	ORP/Eh (mV)	DO (mg/L)	Turbidity (NTU)	Sample Time	Comments
TRY_SW-1	8.45	27.90	6.93	126	11.27	<5 (1.6)	1405 ~~1225~~ EST	
TRY_SW-3	8.87	23.77	7.40	119	11.05	<5 (18)	1315	
TRY_SW-4	8.64	25.23	6.95	125	11.20	<5 (2.6)	1345	

TRY_SW-4 STREAM-STAGE MEASUREMENT (FT)

Initial Synoptic Stream-Stage (from Water Level Measurement Form)	Date:	10/29/18	Depth of Water (ft):	2.26	Comments:	
Stream-stage when sampling TRY_MW-104S/D cluster	Date:	10/30/18	Depth of Water (ft):	2.18	Comments:	
Stream-stage when sampling surface water TRY_SW-4	Date:	11/7/18	Depth of Water (ft):	2.36	Comments:	

Notes: 1. Surface Water Quality Parameters are collected using the multiparameter meter and Hach 2100P/2100Q units. Both units are calibrated in accordance with the calibration SOP in the SAP.

TRY-SW-100 9.42 23.27 7.97 106 10.95 <5 (4.3) 1240

Appendix H – Waste Disposal Manifest

SO1805706921

Form Approved. OMB No. 2050-0039

Please print or type.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NHD510177678	1	800 535-5053	019921002 JJK

GENERATOR

5. Generator's Name and Mailing Address
NH Dept of Environmental Serv Attn: Mike Summerlin
29 Hazen Dr
Concord, NH 03301
Generator's Phone: 603 271-3649

Generator's Site Address (if different than mailing address)
Troy Mills Landfill Superfund Site
Rockwood Pond Rd
Troy, NH 03465

6. Transporter 1 Company Name: Strategic Environmental Services, Inc. — U.S. EPA ID Number: MAC300102423

7. Transporter 2 Company Name: Robbie D. Wood inc — U.S. EPA ID Number: ALD 067138891

8. Designated Facility Name and Site Address
Spring Grove Resource Recovery, Inc.
4879 Spring Grove Ave
Cincinnati, OH 45232
U.S. EPA ID Number: OHD000816629
Facility's Phone: 513 681-6242

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1993, Waste Flammable liquids, n.o.s., (Hexane, 2-Propanol), 3, PGII	0001	DF	5	G	D001
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
CH#110775
1) CH1741469 Hexane Decon
GSA Proj#04.0190325.28
APIL 59A1ONS
IX

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: pAgent for Scott Lajoie — Signature: pAS Agent for — Month 11 Day 07 Year 18

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: SCOTT LAJOIE — Signature — Month 11 Day 07 Year 18

Transporter 2 Printed/Typed Name: John Gallups — Signature — Month 11 Day 12 Year 18

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H141 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: LaKeshia Mason — Signature — Month 11 Day 14 Year 18

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

SO 180570692 1

CLEAN HARBORS ENVIRONMENTAL SERVICES, INC.
LAND DISPOSAL RESTRICTION FORM LDR-1

MANIFEST NO 019921002 JJK

THE HAZARDOUS WASTES IDENTIFIED ON THE HAZARDOUS WASTE MANIFEST IDENTIFIED ABOVE AND BEARING THE EPA HAZARDOUS WASTE CODES LISTED BELOW ARE RESTRICTED WASTES WHICH ARE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT UNDER THE LAND DISPOSAL RESTRICTIONS, 40 CFR PART 268 .7 (a)(2), AND RCRA SECTION 3004(D). IN ACCORDANCE WITH 40 CFR 268.7(a), THE EPA WASTE CODE, WASTE SUBCATEGORY, AND TREATABILITY GROUPS, AS APPLICABLE, ARE INCLUDED BELOW.

INSTRUCTIONS -- COMPLETE ALL SECTIONS. REFER TO PAGE 3 OF THIS FORM FOR KEY TERMS/DEFINITIONS.

Column 1 - Line Item: Enter the manifest line item number (e.g., 11a) that corresponds to the waste code(s).
Column 2 - Waste Codes/Subcategory: Check off all applicable waste codes. For D001 through D043, also check applicable subcategory; for F001 through F005, check applicable constituents.
Column 3 - Wastewater/Non-wastewater: Check off "WW" for wastewater and "Non-WW" for non-wastewaters.
Column 4 - LDR Handling Code: Circle the appropriate handling code, as follows:

1 = The waste is a characteristic hazardous waste D001, D002, D003, D004-D011, or D018-43 which is intended for treatment/disposal in a CWA system, CWA-equivalent system, or Class I SDWA system. Underlying Hazardous Constituents (UHC's) are NOT required to be identified.

1A = The waste is a characteristic hazardous waste D001 High TOC Ignitable Liquids Subcategory (i.e., greater than or equal to 10% TOC). Pursuant to 40 CFR 268.40, the waste must be treated using organic recovery (RORGS) or combustion (CMBST) technology. UHC's are NOT required to be identified.

2 = The waste is a characteristic hazardous waste D001 (other than High TOC Ignitable Liquids), D002, D003 Explosive, Water Reactive or Other Reactive subcategory, D004-D011, D012-17 non-wastewater, or D018-43 which is intended for treatment/disposal in a non-CWA system, non-CWA-equivalent system, or non-Class I SDWA system located in the United States. All UHC's which are reasonably expected to be present must be identified, except for D001 waste that is intended to be treated using organic recovery (RORGS) or combustion (CMBST) technologies. Identify UHC's by completing Sections I and IV of CHI Form LDR-1 Addendum and attach completed Addendum to this form.

3 = The waste is a characteristic (i.e., D-code) or listed (i.e., F-, K-, U-, or P-code) hazardous waste which is intended for export and treatment/disposal at a facility located outside the United States. LDR treatment standards do not apply to hazardous waste treated/disposed in a foreign country, and per USEPA guidance, the identification of UHC's (if applicable) is not required for hazardous waste that is intended to be exported. Note however that if the exported waste is subsequently returned for treatment/disposal in the United States, all applicable LDR regulations would apply and a revised LDR notification would be required.

4 = The waste meets the definition of hazardous debris pursuant to 40 CFR 268.2(h) and is intended for treatment/ disposal in compliance with the alternate debris treatment technologies of 40 CFR 268.45. In accordance with the requirements of 40 CFR 268.7(a)(2) : the contaminants subject to treatment (CSTT's) must be identified as part of this notification. Identify CSTT's by completing Section III and IV of the CHI Form LDR-1 Addendum and attach completed Addendum to this form. These constituents are being treated to comply with 40 CFR 268.45.

5 = The waste is a characteristic waste D003 Reactive Sulfide, Reactive Cyanide, or Unexploded Ordnance subcategory, a characteristic waste D012- 17 wastewater, or a listed (i.e., F-, K-, U-, or P-code) hazardous waste. UHC's are NOT required to be identified.

6 = The waste is a lab pack that is intended for incineration using the alternative lab pack treatment standard under 40 CFR 268.42(c). UHC's are NOT required to be identified; however, the generator must complete and attach the lab pack certification statement on CHI Form LDR-LP. Note that in accordance with 40 CFR Part 268 Appendix IV, lab packs which contain waste codes D009, F019, K003, K004, K005, K006, K062, K071, K100, K106, P010, P011, P012, P076, P078, U134, and U151 are not eligible for alternative lab pack treatment standard.

*** **NOTE: IF THE WASTE IS A SOIL CONTAMINATED WITH A LISTED OR CHARACTERISTIC WASTE AND THE GENERATOR WANTS TO USE THE ALTERNATE TREATMENT STANDARD FOR SOILS, CONTACT CORPORATE COMPLIANCE FOR THE APPROPRIATE LDR NOTIFICATION FORM.**

SECTION I. CHARACTERISTIC WASTES D001 THROUGH D043

COLUMN 1: LINE ITEM SEE MANIFEST	COLUMN 2: WASTE CODE / SUBCATEGORY	COLUMN 3: WASTEWATER/ NON-WASTEWATER	COLUMN 4: HANDLING CODE
1	[ ] D001 Ignitables, except High TOC subcategory	[ ] WW [ ] Non-WW	1 2 3 4 6
	[x] D001 High TOC Ignitable Liquids Subcategory (Greater than or equal to 10% TOC)	[x] Non-WW only	3 6
	[ ] D002 Corrosives	[ ] WW [ ] Non-WW	1 2 3 4 6
	[ ] D003		
	[ ] Reactive Sulfide, per 261.23 (a)(5)	[ ] WW [ ] Non-WW	1 3 4 5 6
	[ ] Reactive Cyanide, per 261.23(a)(5)	[ ] WW [ ] Non-WW	1 3 4 5 6
	[ ] Explosive, per 261.23(a)(6), (7) & (8)	[ ] WW [ ] Non-WW	1 2 3 4 6
	[ ] Water Reactive, per 261.23(a)(2), (3) & (4)	[ ] Non-WW only	1 2 3 4 6
	[ ] Other Reactive, per 261.23(a)(1)	[ ] WW [ ] Non-WW	1 2 3 4 6
	[ ] Unexploded Ordnance, Emergency Response	[ ] WW [ ] Non-WW	1 3 4 5 6
	[ ] D004 Arsenic	[ ] WW [ ] Non-WW	1 2 3 4 6
	[ ] D005 Barium	[ ] WW [ ] Non-WW	1 2 3 4 6
	[ ] D006		
	[ ] Cadmium	[ ] WW [ ] Non-WW	1 2 3 4 6
	[ ] Cadmium Containing Batteries	[ ] Non-WW only	2 3 6
	[ ] D007 Chromium	[ ] WW [ ] Non-WW	1 2 3 4 6
	[ ] D008		
	[ ] Lead	[ ] WW [ ] Non-WW	1 2 3 4 6
	[ ] Lead Acid Batteries	[ ] Non-WW only	2 3 6

CLEAN HARBORS ENVIRONMENTAL SERVICES, INC.
LAND DISPOSAL RESTRICTION FORM LDR-1

MANIFEST NO 019921002JJK

SECTION I. CHARACTERISTIC WASTES D001-43 (CONTINUED)

COLUMN 1: LINE ITEM SEE MANIFEST	COLUMN 2: WASTE CODE / SUBCATEGORY	COLUMN 3: WASTEWATER/ NON-WASTEWATER	COLUMN 4: HANDLING CODE
_____	[ ] D009	[ ] WW [ ] Non-WW	1 2 3 4
	[ ] Low Mercury, less than 260 mg/kg Mercury	[ ] Non-WW only	2 3 4
	[ ] High Mercury Organic Subcategory	[ ] Non-WW only	2 3 4
	[ ] High Mercury Inorganic Subcategory		
_____	[ ] D010 Selenium	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D011 Silver	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D012 Endrin	[ ] WW [ ] Non-WW	2 3 4 5 6
_____	[ ] D013 Lindane	[ ] WW [ ] Non-WW	2 3 4 5 6
_____	[ ] D014 Methoxychlor	[ ] WW [ ] Non-WW	2 3 4 5 6
_____	[ ] D015 Toxaphene	[ ] WW [ ] Non-WW	2 3 4 5 6
_____	[ ] D016 2,4-D	[ ] WW [ ] Non-WW	2 3 4 5 6
_____	[ ] D017 2,4,5-TP (Silvex)	[ ] WW [ ] Non-WW	2 3 4 5 6
_____	[ ] D018 Benzene	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D019 Carbon tetrachloride	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D020 Chlordane	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D021 Chlorobenzene	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D022 Chloroform	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D023 o-Cresol	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D024 m-Cresol	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D025 p-Cresol	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D026 Cresol	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D027 1,4-Dichlorobenzene	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D028 1,2-Dichloroethane	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D029 1,1-Dichloroethylene	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D030 2,4-Dinitrotoluene	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D031 Heptachlor (and its epoxide)	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D032 Hexachlorobenzene	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D033 Hexachlorobutadiene	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D034 Hexachloroethane	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D035 Methyl ethyl ketone	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D036 Nitrobenzene	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D037 Pentachlorophenol	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D038 Pyridine	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D039 Tetrachloroethylene	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D040 Trichloroethylene	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D041 2,4,5-Trichlorophenol	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D042 2,4,6-Trichlorophenol	[ ] WW [ ] Non-WW	1 2 3 4 6
_____	[ ] D043 Vinyl Chloride	[ ] WW [ ] Non-WW	1 2 3 4 6

SECTION II. SPENT SOLVENT WASTES F001 THROUGH F005

COLUMN 1: LINE ITEM SEE MANIFEST	COLUMN 2: WASTE CODE / SUBCATEGORY	COLUMN 3: WASTEWATER/ NON-WASTEWATER	COLUMN 4: HANDLING CODE
_____	[ ] F001 [ ] F002 [ ] F003 [ ] F004 [ ] F005	[ ] WW [ ] Non-WW	3 4 5 6

_____	[ ] 1. ALL F001-F005	_____	[ ] 12. Cyclohexanone	_____	[ ] 25. Pyridine
_____	[ ] 2. Acetone	_____	[ ] 13. o-Dichlorobenzene	_____	[ ] 26. Tetrachloroethylene
_____	[ ] 3. Benzene	_____	[ ] 14. 2-Ethoxyethanol (F005 only)	_____	[ ] 27. Toluene
_____	[ ] 4. n-Butyl alcohol			_____	[ ] 28. 1,1,1-Trichloroethane
_____	[ ] 5. Carbon disulfide	_____	[ ] 15. Ethyl acetate		
_____	[ ] 6. Carbon tetrachloride	_____	[ ] 16. Ethyl benzene	_____	[ ] 29. 1,1,2-Trichloroethane
_____	[ ] 7. Chlorobenzene	_____	[ ] 17. Ethyl ether		
_____	[ ] 8. o-Cresol	_____	[ ] 18. Isobutyl alcohol	_____	[ ] 30. Trichloroethylene
_____	[ ] 9. m-Cresol (difficult to distinguish from p-cresol)	_____	[ ] 19. Methanol	_____	[ ] 31. 1,1,2-Trichloro-1,2,2-trifluoroethane
		_____	[ ] 20. Methylene chloride		
		_____	[ ] 21. Methyl ethyl ketone	_____	[ ] 32.Trichloromonofluoromethane
_____	[ ] 10. p-Cresol (difficult to distinguish from m-cresol)	_____	[ ] 22. Methyl isobutyl ketone		
		_____	[ ] 23. Nitrobenzene	_____	[ ] 33. Xylene - mixed isomers (sum of o-, m-, and p-xylene)
_____	[ ] 11. Cresol - mixed isomers (sum of o-, m- and p-cresol)	_____	[ ] 24. 2-Nitropropane (F005 only)		

CLEAN HARBORS ENVIRONMENTAL SERVICES, INC.
LAND DISPOSAL RESTRICTION FORM LDR-1

MANIFEST NO 019921002 JJK

SECTION III. CALIFORNIA LIST WASTES

COLUMN 1: LINE ITEM SEE MANIFEST	COLUMN 2: WASTE CODE / SUBCATEGORY	COLUMN 3: WASTEWATER/ NON-WASTEWATER	COLUMN 4: HANDLING CODE
_____	Hazardous waste containing one or more of the following California List constituents:	[ ] WW [ ] Non-WW	1 2 3 4 6

[ ] ALL CALIFORNIA LIST CONSTITUENTS
[ ] Liquids with nickel greater than or equal to 134 mg/l
[ ] Liquids with thallium greater than or equal to 130 mg/l
[ ] Liquids with PCB's > or = 50 ppm
[ ] Waste containing HOC's > or = 1,000 mg/kg

SECTION IV. OTHER LISTED WASTES (F006-12, F019-F028, F037-38, F039, K-, U-, AND P-CODES)

COLUMN 1: LINE ITEM SEE MANIFEST	COLUMN 2: WASTE CODE / SUBCATEGORY	COLUMN 3: WASTEWATER/ NON-WASTEWATER	COLUMN 4: HANDLING CODE
_____	_____	[ ] WW [ ] Non-WW	3 4 5 6
_____	_____	[ ] WW [ ] Non-WW	3 4 5 6
_____	_____	[ ] WW [ ] Non-WW	3 4 5 6
_____	_____	[ ] WW [ ] Non-WW	3 4 5 6
_____	_____	[ ] WW [ ] Non-WW	3 4 5 6

[ ] CHECK HERE IF ADDITIONAL LISTED WASTE CODES ARE PRESENT. COMPLETE AND ATTACH LDR-1 CONTINUATION SHEET.
[ ] CHECK HERE IF WASTE CODE F039 (MULTISOURCE LEACHATE) IS PRESENT. IDENTIFY F039 CONSTITUENTS BY COMPLETING SECTIONS II AND IV OF CHI FORM LDR-1 ADDENDUM AND ATTACH COMPLETED ADDENDUM TO THIS FORM.

SECTION V. CONTACT NAME AND DATE

Print Name: Agent for Scott LaJoie Date: 11072018
Agent for Scott LaJoie 11-7-2018

KEY TERMS/DEFINITIONS

CLASS I SDWA SYSTEM means a Class I deep well facility regulated under the Safe Drinking Water Act (SDWA).

CWA SYSTEM means a centralized wastewater treatment facility discharging under a Clean Water Act (CWA) permit. For example, a CWA facility would treat organic or inorganic aqueous wastes and discharge the treated effluent to the local sewer system. Examples of CWA treatment systems owned and operated by Clean Harbors include the wastewater treatment operations at Baltimore (including the CES system), Bristol, Chicago, Cincinnati and Cleveland.

CWA-EQUIVALENT SYSTEM means a "zero discharge system" that engages in "CWA-equivalent" treatment before land disposal. Zero-discharge facilities treat hazardous wastes using "CWA-equivalent" treatment methods, but do not discharge the treatment effluent to a sewer or water body (e.g., spray irrigation land farm). "CWA-equivalent" treatment methods means biological treatment for organics, alkaline chlorination, or ferrous sulfate precipitation for cyanide, precipitation/ sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or greater than these technologies.

HIGH TOC IGNITABLE LIQUIDS SUBCATEGORY means an ignitable liquid hazardous waste (waste code D001) which contains greater than or equal to 10% total organic carbon (TOC). Pursuant to 40 CFR 268.40, such wastes must be treated using organic recovery (RORGS) or combustion (CMBST) technology. Examples of RORGS technologies include the CES unit at Clean Harbors of Baltimore. Examples of CMBST technologies include hazardous waste fuel blending and subsequent reuse at a cement kiln, or destruction at a RCRA incinerator.

WASTEWATERS are wastes that contain less than 1% by weight total organic carbon (TOC) and less than 1% by weight total suspended solids (TSS). [See 40 CFR 268.2(f)]

Appendix I – Vendor Certifications and Instrument Calibration / Maintenance Logs

Vendor Equipment Certifications

Back up

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
29 Washington Avenue, Unit A
Scarborough, ME 04074
Toll-free: (888) 779-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 30670
Description smarTROLL MPS
Calibrated 10/24/2018 9:28:02AM

Manufacturer In-Situ
Model Number WQA55000-5
Serial Number/ Lot Number 516400
Location Maine
Department

State Certified
Status Pass
Temp °C 19
Humidity % 41

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	7.00	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.00	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	10.00	10.00	0.00%	Pass

Group # 2
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
1.413 / 1.413	ms/cm	1.413	ms/cm	1.413	1.413	0.00%	Pass

Group # 3
Group Name Redox (ORP)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.00 / 240.00	mv	240.00	mv	240.00	240.00	0.00%	Pass

Group # 4
Group Name Dissolved Oxygen
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.00 / 100.00	%	100.00	%	100.00	100.00	0.00%	Pass

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

Back up

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
29 Washington Avenue, Unit A
Scarborough, ME 04074
Toll-free: (888) 779-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 30670
Description smarTROLL MPS
Calibrated 10/24/2018 9:28:02AM

Notes about this calibration

Manufacture - Aqua Phenix
PH-7 Lot # 8GC117 Exp: March 2020
PH-4 Lot # 8Gc347 Exp: March 2020
PH-10 Lot # 8GB1055 Exp: Feb 2020
1.413 Lot# 8GC421 Exp : Mar 2019

Manufacturer : Hanna
240. mV Lot #:2079 Exp 10/2022

NIST thermometer S/N : 170140224 Exp Feb 24, 2019 Reading :17.29 degrees C

SmartTroll Temp Reading: 17.28 degrees C

Calibration Result Calibration Successful
Who Calibrated Nathan Pettingill

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

BACK-UP

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
29 Washington Avenue, Unit A
Scarborough, ME 04074
Toll-free: (888) 779-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 38758
Description HACH 2100Q Turbidimeter
Calibrated 10/22/2018 2:50:57PM

Manufacturer HACH
Model Number 2100Q
Serial Number/ Lot Number 17020C056314
Location Maine
Department

State Certified NJ Cert#: 11034
Status Pass
Temp °C 23.1
Humidity % 27

Calibration Specifications

Group # 1
Group Name Turbidity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 10.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
10.00 / 10.00	NTU	10.00	NTU	10.60	10.10	1.00%	Pass
20.00 / 20.00	NTU	20.00	NTU	27.90	21.80	9.00%	Pass
100.00 / 100.00	NTU	100.00	NTU	125.00	105.00	5.00%	Pass
800.00 / 800.00	NTU	800.00	NTU	863.00	803.00	0.38%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Jamee Austin

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

UNIT #1

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
22 Prestige Park Circle, Unit 3
East Hartford, CT 06108
P: (860) 206-1139

Pine Environmental Services, Inc.

Instrument ID 25467
Description SmarTROLL MPS
Calibrated 10/23/2018 5:02:06PM

Manufacturer In-Situ
Model Number smarTroll MPS
Serial Number/ Lot Number 369323
Location Connecticut
Department

State Certified
Status Pass
Temp °C 20
Humidity % 37

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	7.00	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.00	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	10.00	10.00	0.00%	Pass

Group # 2
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
1.413 / 1.413	ms/cm	1.413	ms/cm	1.413	1.413	0.00%	Pass

Group # 3
Group Name Redox (ORP)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.00 / 240.00	mv	240.00	mv	240.00	240.00	0.00%	Pass

Group # 4
Group Name Disolved Oxygen Span
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.00 / 100.00	%	100.00	%	100.00	100.00	0.00%	Pass

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

UNIT #1

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

22 Prestige Park Circle, Unit 3
East Hartford, CT 06108
P: (860) 206-1139

Pine Environmental Services, Inc.

Instrument ID 25467
Description SmarTROLL MPS
Calibrated 10/23/2018 5:02:06PM

Notes about this calibration

Manufacture - Aqua Phenix
PH-7 Lot # 8GC117 Exp: March 2020
PH-4 Lot # 8Gc347 Exp: March 2020
PH-10 Lot # 8GB1055 Exp: Feb 2020
1.413 Lot# 8GC421 Exp : Mar 2019

Manufacturer : Hanna
240. mV Lot #:2079 Exp 10/2022

NIST thermometer S/N : 170140224 Exp Feb 24, 2019 Reading :18.15 degrees C

SmartTroll Temp Reading: 18.19 degrees C

Calibration Result Calibration Successful
Who Calibrated Nathan Pettingill

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

UNIT# 1

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
29 Washington Avenue, Unit A
Scarborough, ME 04074
Toll-free: (888) 779-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 26435
Description HACH 2100Q Turbidimeter
Calibrated 10/22/2018 1:47:02PM

Manufacturer HACH
Model Number 2100Q
Serial Number/ Lot Number 14040C032303
Location Maine
Department

State Certified
Status Pass
Temp °C 23.3
Humidity % 27

Calibration Specifications

Group # 1
Group Name Turbidity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
10.00 / 10.00	NTU	10.00	NTU	10.10	9.84	-1.60%	Pass
20.00 / 20.00	NTU	20.00	NTU	21.30	20.40	2.00%	Pass
100.00 / 100.00	NTU	100.00	NTU	104.00	100.00	0.00%	Pass
800.00 / 800.00	NTU	800.00	NTU	877.00	806.00	0.75%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Jamee Austin

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

UNIT #2

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
29 Washington Avenue, Unit A
Scarborough, ME 04074
Toll-free: (888) 779-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 24480
Description SmarTROLL MP
Calibrated 10/23/2018 10:01:26AM

Manufacturer In-Situ
Model Number Smar Troll MP
Serial Number/ Lot Number 352760
Location Maine
Department

State Certified
Status Pass
Temp °C 19
Humidity % 34

Calibration Specifications

Group # 1
Group Name pH
Stated Accy
Range Acc % 3.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
4.00 / 4.00	PH	4.00	PH	4.00	4.00	0.00%	Pass
7.00 / 7.00	PH	7.00	PH	7.00	7.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	10.00	10.00	0.00%	Pass

Group # 2
Group Name Conductivity
Stated Accy
Range Acc % 0.0000
Reading Acc % 0.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
1.413 / 1.413	M/S	1.413	M/S	1.413	1.413	0.00%	Pass

Group # 3
Group Name ORP
Stated Accy
Range Acc % 0.0000
Reading Acc % 0.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.00 / 240.00	mv	240.00	mv	240.00	240.00	0.00%	Pass

Group # 4
Group Name RDO
Stated Accy
Range Acc % 0.0000
Reading Acc % 0.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
20.00 / 20.00	°C	0.00	%	0.00	0.00	0.00%	Pass

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

UNIT #2

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
29 Washington Avenue, Unit A
Scarborough, ME 04074
Toll-free: (888) 779-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 24480
Description SmarTROLL MP
Calibrated 10/23/2018 10:01:26AM

Notes about this calibration

Manufacture - Aqua Phenix
PH-7 Lot # 8GC117 Exp: March 2020
PH-4 Lot # 8Gc347 Exp: March 2020
PH-10 Lot # 8GB1055 Exp: Feb 2020
1.413 Lot# 8GC421 Exp : Mar 2019

Manufacturer : Hanna
240. mV Lot #:2079 Exp 10/2022

NIST thermometer S/N : 170140224 Exp Feb 24, 2019 Reading :18.95 degrees C

SmartTroll Temp Reading: 18.99 degrees C

Calibration Result Calibration Successful
Who Calibrated Nathan Pettingill

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

UNIT #2

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
29 Washington Avenue, Unit A
Scarborough, ME 04074
Toll-free: (888) 779-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 37336
Description HACH 2100Q Turbidimeter
Calibrated 10/22/2018 1:45:00PM

Manufacturer HACH
Model Number 2100Q
Serial Number/ Lot Number 16110C053543
Location Maine
Department

State Certified
Status Pass
Temp °C 23.3
Humidity % 27

Calibration Specifications

Group # 1
Group Name Turbidity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
10.00 / 10.00	NTU	10.00	NTU	10.30	10.30	3.00%	Pass
20.00 / 20.00	NTU	20.00	NTU	19.40	19.50	-2.50%	Pass
100.00 / 100.00	NTU	100.00	NTU	101.00	97.30	-2.70%	Pass
800.00 / 800.00	NTU	800.00	NTU	865.00	804.00	0.50%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Jamee Austin

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Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

UNIT #3

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
29 Washington Avenue, Unit A
Scarborough, ME 04074
Toll-free: (888) 779-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 25478
Description SmarTROLL MPS
Calibrated 10/23/2018 5:11:36PM

Manufacturer In-Situ
Model Number smarTroll MP Handheld Instrument
Serial Number/ Lot Number 369778
Location Maine
Department

State Certified
Status Pass
Temp °C 20
Humidity % 37

Calibration Specifications

Group # 1
Group Name pH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	7.00	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.00	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	10.00	10.00	0.00%	Pass

Group # 2
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
1.413 / 1.413	ms/cm	1.413	ms/cm	1.413	1.413	0.00%	Pass

Group # 3
Group Name Redox (ORP)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.0 / 240.0	mv	240.0	mv	240.0	240.0	0.00%	Pass

Group # 4
Group Name Dissolved Oxygen Span
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.0 / 100.0	%	100.0	%	100.0	100.0	0.00%	Pass

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

UNIT #3

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

29 Washington Avenue, Unit A
Scarborough, ME 04074
Toll-free: (888) 779-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 25478
Description SmarTROLL MPS
Calibrated 10/23/2018 5:11:36PM

Notes about this calibration

Type New Note Here

Manufacture - Aqua Phenix
PH-7 Lot # 8GC117 Exp: March 2020
PH-4 Lot # 8Gc347 Exp: March 2020
PH-10 Lot # 8GB1055 Exp: Feb 2020
1.413 Lot# 8GC421 Exp : Mar 2019

Manufacturer : Hanna
240. mV Lot #:2079 Exp 10/2022

NIST thermometer S/N : 170140224 Exp Feb 24, 2019 Reading :17.81 degrees C

SmartTroll Temp Reading: 17.85 degrees C

Calibration Result Calibration Successful
Who Calibrated Nathan Pettingill

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

UNIT #3

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
29 Washington Avenue, Unit A
Scarborough, ME 04074
Toll-free: (888) 779-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 17129
Description Turbidimeter
Calibrated 10/22/2018 2:41:35PM

Manufacturer HACH
Model Number 2100Q
Serial Number/ Lot Number 10080C004245
Location Maine
Department

State Certified
Status Pass
Temp °C 23.1
Humidity % 27

Calibration Specifications

Group # 1
Group Name Turbidity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 10.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
10.00 / 10.00	NTU	10.00	NTU	10.20	10.00	0.00%	Pass
20.00 / 20.00	NTU	20.00	NTU	18.40	19.80	-1.00%	Pass
100.00 / 100.00	NTU	100.00	NTU	94.00	101.00	1.00%	Pass
800.00 / 800.00	NTU	800.00	NTU	781.00	803.00	0.38%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Jamee Austin

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

Instrument Calibration Logs

PREFIELD CHECK

UNIT #1

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 10-25-18 Time: 845 | Field Personnel: M. Murphy

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 254667

Probe Pre-cleaned Certification Provided By (Personnel): N.P. Date: 10-23-18

Temperature Calibration: Personnel: N.P. Date: 10-23-18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 18.19 NIST: 18.15 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results.**

BEGINNING CALIBRATION CHECK

Date: 10-25-18 Time: 1000 | Personnel: M. Murphy

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.01	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.16	+/- 5%	Y	8651	3/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1460	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 19 °C	239	236	+/- 5%	Y	17E100693	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10	10.1	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: M. Murphy (Print) Megan Murphy (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: Time:		Personnel:					
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%	MM			Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%	10-25-18			Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution ____ °C			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P[5]	20		+/- 5%				Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA

NA

PREFIELD CHECK

UNIT# 1

INSTRUMENT CALIBRATION

Date: 10-25-18 Time: 845

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%	✓			Allow time for stabilization per manufacturer
DO mg/l reading	8.75	✓			Record these values immediately after calibration
DO Temp. (°C) reading	21.17	✓			
DO (0% Saturation)-SmarTROLL	0%	✓	WW1	4/19	2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7	✓	8651	3/20	
2nd Standard	4	✓	9440	10/20	
3rd Standard	10	✓	8398	12/19	
Specific Conductance (µS/cm)	718	✓	SGC6866	3/19	One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution 19 °C		✓			See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution	239	✓	17E100693	5/22	

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ **Personnel:** M. Murphy

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (NA)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or NO

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU	NA	NA	NA	Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU	✓	A8214	11/19	
3rd Standard	100 NTU	✓	A8219	11/19	
4th Standard	800 NTU	✓	A8219 (26435)	11/19	

HACH Model (circle one) P or Q Serial Number: 14040C032303 **Rental Company:** PINE

*** NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.**

Calibration Performed by M. Murphy
Print Name

Meagan Murphy
Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

UNIT #1

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 10/30/18 Time: 0750 | Field Personnel: E. Dymess

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 25467

Probe Pre-cleaned Certification Provided By (Personnel): NP Date: 10/23/18

Temperature Calibration: Personnel: NP Date: 10-23-18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 18.19 NIST: 18.15 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results.**

BEGINNING CALIBRATION CHECK

Date: 10/30/18 Time: 0750 | Personnel: E. Dymess

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.03	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.12	+/- 5%	Y	3651	3/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1475	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	248	245	+/- 5%	Y	17E100693	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 12 °C							
Turbidity Standard (NTU) 2100P	20	NA	+/- 5%	NA	—	—	Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10	10.2	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: M. Murphy (Print) Megan Murphy (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 10-30-18 Time: 1600		Personnel: M. Murphy					
Zero DO check (mg/l)	0	0.01	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.15	+/- 5%	Y	3651	3/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1440	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	253	250	+/- 5%	Y	17E100693	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 8 °C							
Turbidity Standard (NTU) 2100P[5]	20	NA	+/- 5%	NA	—	—	Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.1	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: M. Murphy (Print) Megan Murphy (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA

NA

UNIT #1

INSTRUMENT CALIBRATION

Date: Time:

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-SmarTROLL	0%		N/A		2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7		10-30-18		
2nd Standard	4				
3rd Standard	10				
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution _____ °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: N/A mm Hg [BP inches N/A x 25.4 + BP N/A mm Hg]

Dissolved Oxygen Charge (YSI Meters): N/A (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ **Personnel:** M. Murphy

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (N/A)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or NO

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU		N/A		Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU				
3rd Standard	100 NTU		10-30-18		
4th Standard	800 NTU				

HACH Model (circle one) P or Q Serial Number: **Rental Company:**

*** NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.**

Calibration Performed by M. Murphy (Print Name) Megan Tuckey (Signature)

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

UNIT #1

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 10-31-18 Time: 1440 | Field Personnel: M. Murphy

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 254607

Probe Pre-cleaned Certification Provided By (Personnel): N.P. Date: 10-23-18

Temperature Calibration: Personnel: N.P. Date: 10-23-18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 18.19 NIST: 18.15 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results.**

BEGINNING CALIBRATION CHECK

Date: Time: | Personnel:

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0		0 to 0.5 mg/L		NA		
pH 7 check	7		+/- 5%				Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%		10-31-18		Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution _____ °C							
Turbidity Standard (NTU) 2100P	20		+/- 5%				Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 10-31-18 Time: 1440		Personnel: M. Murphy					
Zero DO check (mg/l)	0	0.03	0 to 0.5 mg/L	Y	NW1	4/19	
pH 7 check	7	7.17	+/- 5%	Y	8770	4/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1424	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	247	239	+/- 5%	Y	17E100693	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 13 °C							
Turbidity Standard (NTU) 2100P[5]	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.4	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: M. Murphy (Print) Meghan Murphy (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA

NA

UNIT #1

INSTRUMENT CALIBRATION

Date: Time:

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-SmarTROLL	0%				2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7		10-31-18		
2nd Standard	4				
3rd Standard	10				
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution _____ °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ **Personnel:** M Murphy

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (NA)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or NO

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU				Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU		10-31-18		
3rd Standard	100 NTU				
4th Standard	800 NTU				
HACH Model (circle one) P or Q Serial Number:					Rental Company:

*** NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.**

Calibration Performed by M. Murphy
Print Name

Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

Unit #1

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 11-1-18 Time: 1455 | Field Personnel: M. Murphy

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 254607

Probe Pre-cleaned Certification Provided By (Personnel): NP | Date: 10-23-18

Temperature Calibration: Personnel: NP | Date: 10-23-18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 18.19 NIST: 18.15 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results. **

BEGINNING CALIBRATION CHECK

Date: Time: | Personnel:

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%	N/A			Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%				Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution _____ °C			+/- 5%	11-1-18			See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P	20		+/- 5%				Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 11-1-18 Time: 1455		Personnel: M. Murphy					
Zero DO check (mg/l)	0	0.02	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.18	+/- 5%	Y	8770	4/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1436	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 13 °C	247	255	+/- 5%	Y	17E100693	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P[5]	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.60	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: M. Murphy (Print) Maryann Murphy (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

~~TRY-MW-501D~~ TRJ
~~TRY-MW-501X~~ TRJ

NA

UNIT #1

INSTRUMENT CALIBRATION

Date: Time:

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-SmarTROLL	0%		MM		2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7				
2nd Standard	4	~~10~~ MM	~~3~~	11-1-18	
3rd Standard	10				One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Specific Conductance (µS/cm)					
Zobell Solution 13 °C		✓			See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution	247	✓	17E100693	5/22	

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ Personnel: M.Murphy

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (NA)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or (NO)

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU				Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU		MM		
3rd Standard	100 NTU				
4th Standard	800 NTU		11-1-18		
HACH Model (circle one) P or Q Serial Number:				Rental Company:	

* NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.

Calibration Performed by M.Murphy
Print Name

Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

UNIT #1

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 11/5/18 Time: 0815 | Field Personnel: E. Dymess

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 25467

Probe Pre-cleaned Certification Provided By (Personnel): NP Date: 10/23/18

Temperature Calibration: Personnel: NP Date: 10/23/18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 18.19 NIST: 18.15 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results.**

BEGINNING CALIBRATION CHECK

Date: 11/5/18 Time: 0815 | Personnel: E. Dymess

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.01	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.18	+/- 5%	Y	8770	4/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1474	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 9 °C	258	260	+/- 5%	Y	1851W0160	9/23	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10	9.5	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: E. Dymess (Print) E. Dymess (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 11/5/18 Time: 1500		Personnel: E. Dymess			EOD		
Zero DO check (mg/l)	0	0.02	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.21	+/- 5%	Y	8770	4/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1466	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 9 °C	252	242	+/- 5%	Y	1851W0160	9/23	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P[5]	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.3	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: E. Dymess (Print) E. Dymess (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA

NA

UNIT # 1

INSTRUMENT CALIBRATION

Date: 11/5/18 Time: 0815

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-SmarTROLL	0%				2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7	11/5/18			
2nd Standard	4				
3rd Standard	10				
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution 4 °C		✓			See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution	258	✓	18510060	9/23	

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ Personnel: E. Dymess

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (NA)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or (NO)

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU				Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU				
3rd Standard	100 NTU				
4th Standard	800 NTU		11/5/18		

HACH Model (circle one) P or Q Serial Number: Rental Company:

* NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.

Calibration Performed by NA END E. Dymess (Print Name)

NA END Erik Dymess (Signature)

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

UNIT #1

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 11/6/18 Time: 1540 | Field Personnel: E. Dyness

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 25467

Probe Pre-cleaned Certification Provided By (Personnel): NP | Date: 10/23/18

Temperature Calibration: Personnel: NP | Date:

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 18.19 NIST: 18.15 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results.**

BEGINNING CALIBRATION CHECK

Date: Time: | Personnel:

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.04	0 to 0.5 mg/L				
pH 7 check	7		+/- 5%				Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%	ETD			Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution _____ °C			+/- 5%	11/6/18			See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P	20		+/- 5%				Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 11/6/18 Time: 1540		Personnel: E. Dyness					
Zero DO check (mg/l)	0	0.04	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.28	+/- 5%	Y	8720	4/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1430	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 12 °C	248	201	+/- 5%	N	185100100	9/23	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P[5]	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.7	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: E. Dyness (Print) Erik Dyness (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

TRY-MW-803
TRY-MW-804

UNIT #1

INSTRUMENT CALIBRATION

Date: Time:

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-SmarTROLL	0%		EISD		2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7				
2nd Standard	4		11/6/18		
3rd Standard	10				
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution _____ °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ Personnel: E. Dyrness

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (NA)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or (NO)

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU		EISD		Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU				
3rd Standard	100 NTU		11/6/18		
4th Standard	800 NTU				

HACH Model (circle one) P or Q Serial Number: Rental Company:

* NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.

Calibration Performed by E. Dyrness (Print Name) Erik Dyrness (Signature)

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	267	254-280	10	251	238-264	23	234	222-246
-2	266	253-279	11	249	237-261	24	232	220-244
-1	265	252-278	12	248	236-260	25	231	219-243
0	264	251-277	13	247	235-259	26	230	219-242
1	262	249-275	14	245	233-257	27	228	217-239
2	261	248-274	15	244	232-256	28	227	216-238
3	260	247-273	16	243	231-255	29	226	215-237
4	258	245-271	17	241	229-253	30	225	214-236
5	257	244-270	18	240	228-252	31	223	212-234
6	256	243-269	19	239	227-251	32	222	211-233
7	254	241-267	20	238	226-250	33	221	210-232
8	253	240-266	21	236	224-248	34	219	208-230
9	252	239-265	22	235	223-247	35	218	207-229

PREFIELD CHECK UNIT #2

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 10-25-18 Time: 850 | Field Personnel: E. Dyrness

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 24480

Probe Pre-cleaned Certification Provided By (Personnel): N.P. Date: 10-23-18

Temperature Calibration: Personnel: N.P. Date: 10-23-18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 18.99 NIST: 18.95 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results.**

BEGINNING CALIBRATION CHECK

Date: 10-25-18 Time: 1010 | Personnel: M. Murphy

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.00	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.04	+/- 5%	Y	86571	3/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1440	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	238	236	+/- 5%	Y	17E100693	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution WW 17 20 °C							
Turbidity Standard (NTU) 2100P	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10	9.96	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: M. Murphy (Print) Meagan Murphy (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: Time:			Personnel:				
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%	KMM			Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%	10-25-18			Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution _____ °C							
Turbidity Standard (NTU) 2100P[5]	20		+/- 5%				Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA

NA

PREFIELD CHECK UNIT #2

INSTRUMENT CALIBRATION

Date: 10/25/18 Time: 0850

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%	✓			Allow time for stabilization per manufacturer
DO mg/l reading	7.94	✓			Record these values immediately after calibration
DO Temp. (°C) reading	21.46	✓			
DO (0% Saturation)-SmarTROLL	0%	0.04 ✓	WW7	4/19	2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7	✓	86051	3/20	
2nd Standard	4	✓	9440	10/20	
3rd Standard	10	✓	8398	12/19	
Specific Conductance (µS/cm)	718	✓	8GC686	3/19	One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution 19 °C		✓			See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution	239	✓	17E100693	5/22	

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ Personnel: E. Dymess

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (NA)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or (NO)

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU	NA	NA	NA	Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU	✓	A8214	11/19	
3rd Standard	100 NTU	✓	A8219	11/19	
4th Standard	800 NTU	✓	A8219 (037330)	11/19	

HACH Model (circle one) P or (Q) Serial Number: 161100053543 Rental Company: PINE

* NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.

Calibration Performed by M. Murphy (Print Name) Meagan Murphy (Signature)

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

UNIT #2

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 10/30/18 Time: 0755 | Field Personnel: E. Dymess

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 24480

Probe Pre-cleaned Certification Provided By (Personnel): NP Date: 10/23/18

Temperature Calibration: Personnel: NP Date:

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 18.99 NIST: 18.95 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results. **

BEGINNING CALIBRATION CHECK

Date: 10/30/18 Time: 0755 | Personnel: E. Dymess

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.01	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.06	+/- 5%	Y	8651	3/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1469	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 10 °C	251	249	+/- 5%	Y	17E100693	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P	20	N/A	+/- 5%	N/A			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10	10.2	+/- 10%	Y	A82219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: E. Dymess (Print) E. Dymess (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 10-30-18 Time: 1605		Personnel: M. Murphy					
Zero DO check (mg/l)	0	0.01	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.14	+/- 5%	Y	8651	3/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1423	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 3 °C	253	250	+/- 5%	Y	17E100693		See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P[5]	20	N/A	+/- 5%	N/A			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.4	+/- 10%	Y	A82219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: M. Murphy (Print) Meagan Murphy (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

N/A

N/A

UNIT #2

INSTRUMENT CALIBRATION

Date: Time:

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-SmarTROLL	0%			MM	2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7		10-30-15		
2nd Standard	4				
3rd Standard	10				
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution _____ °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: N/A mm Hg [BP inches N/A x 25.4 + BP N/A mm Hg]

Dissolved Oxygen Charge (YSI Meters): N/A (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) V **Personnel:** M. Murphy

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (N/A)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or NO

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU				Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU			MM	
3rd Standard	100 NTU				
4th Standard	800 NTU		10-30-15		
HACH Model (circle one) P or Q Serial Number:				Rental Company:	

*** NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.**

Calibration Performed by M. Murphy (Print Name) Maya Mile (Signature)

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

UNIT #2

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 10-31-18 Time: 1445 | Field Personnel: M. Murphy

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PING

Multimeter Serial Numbers (Sonde & Meter): 24480

Probe Pre-cleaned Certification Provided By (Personnel): N.P. Date: 10-23-18

Temperature Calibration: Personnel: N.P. Date: 10-23-18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 18.99 NIST: 18.95 Difference: 0.04

When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results.

BEGINNING CALIBRATION CHECK

Date: Time: | Personnel:

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%				Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%				Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution ____ °C			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P	20		+/- 5%				Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 10-31-18 Time: 1445		Personnel: M. Murphy					
Zero DO check (mg/l)	0	0.00	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.10	+/- 5%	Y	8770	4/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1410	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 12 °C	248	240	+/- 5%	Y	17E100693	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P[5]	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.4	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: M. Murphy (Print) Megan M/M (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA

NA

UNIT #2

INSTRUMENT CALIBRATION

Date: Time:

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-SmarTROLL	0%				2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7				
2nd Standard	4				
3rd Standard	10				
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution _____ °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ Personnel: M. Murphy

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO NA

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or NO

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU				Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU				
3rd Standard	100 NTU				
4th Standard	800 NTU				
HACH Model (circle one) P or Q Serial Number:					Rental Company:

* NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.

Calibration Performed by M. Murphy
Print Name

Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	267	254-280	10	251	238-264	23	234	222-246
-2	266	253-279	11	249	237-261	24	232	220-244
-1	265	252-278	12	248	236-260	25	231	219-243
0	264	251-277	13	247	235-259	26	230	219-242
1	262	249-275	14	245	233-257	27	228	217-239
2	261	248-274	15	244	232-256	28	227	216-238
3	260	247-273	16	243	231-255	29	226	215-237
4	258	245-271	17	241	229-253	30	225	214-236
5	257	244-270	18	240	228-252	31	223	212-234
6	256	243-269	19	239	227-251	32	222	211-233
7	254	241-267	20	238	226-250	33	221	210-232
8	253	240-266	21	236	224-248	34	219	208-230
9	252	239-265	22	235	223-247	35	218	207-229

UNIT #2

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 11-1-18 Time: 1500 | Field Personnel: M. Murphy

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 24480

Probe Pre-cleaned Certification Provided By (Personnel): N.P. Date: 10-22-18

Temperature Calibration: Personnel: N.P. Date: 10-23-18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 18.99 NIST: 18.95 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results. **

BEGINNING CALIBRATION CHECK

Date: Time: | Personnel:

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%				Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check		11-1-18	+/- 5%				Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution _____ °C			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P	20		+/- 5%				Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 11-1-18 Time: 1500		Personnel: M. Murphy					
Zero DO check (mg/l)	0	0.00	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.11	+/- 5%	Y	8770	4/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1445	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 14 °C	245	238	+/- 5%	Y	17E100693	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P[5]	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.9	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: M. Murphy (Print) Meagan Murphy (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA

NA

UNIT #2

INSTRUMENT CALIBRATION

Date: Time:

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-SmarTROLL	0%				2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7			MM	
2nd Standard	4			11-1-18	
3rd Standard	10				
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution _____ °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: N/A mm Hg [BP inches N/A x 25.4 + BP N/A mm Hg]

Dissolved Oxygen Charge (YSI Meters): N/A (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ **Personnel:** M. Murphy

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (N/A)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or (NO)

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU			MM	Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU				
3rd Standard	100 NTU			11-1-18	
4th Standard	800 NTU				

HACH Model (circle one) P or Q Serial Number: **Rental Company:**

*** NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.**

Calibration Performed by M. Murphy (Print Name) — Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

UNIT 2

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 11-2-18 Time: 1600 | Field Personnel: M. Murphy

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 24480

Probe Pre-cleaned Certification Provided By (Personnel): NP Date: 10-23-18

Temperature Calibration: Personnel: NP Date: 10-23-18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 18.99 NIST: 18.95 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results. **

BEGINNING CALIBRATION CHECK

Date: Time: | Personnel:

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0		0 to 0.5 mg/L	N/A			
pH 7 check	7		+/- 5%				Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%	11-2-18			Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution _____ °C							
Turbidity Standard (NTU) 2100P	20		+/- 5%				Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 11-2-18 Time: 1600		Personnel: M. Murphy MM 11-2-18					
Zero DO check (mg/l)	0	0.02	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.11	+/- 5%	Y	8770	4/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1418	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	243	231	+/- 5%	Y	17E10069	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 16 °C							
Turbidity Standard (NTU) 2100P[5]	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.8	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: M. Murphy (Print) Meagan Murphy (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA

NA

UNIT #2

INSTRUMENT CALIBRATION

Date: Time:

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-SmarTROLL	0%				2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7				
2nd Standard	4				
3rd Standard	10		11-2-18		
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards). Using one standard for both is unacceptable.
Zobell Solution _____ °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ Personnel: M. Murphy

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (NA)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or NO

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU				Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU				
3rd Standard	100 NTU		11-2-18		
4th Standard	800 NTU				

HACH Model (circle one) P or Q Serial Number: Rental Company:

*** NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.**

Calibration Performed by M. Murphy
Print Name

Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

PREFIELD CHECK

UNIT #3

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 10-25-18 Time: 1100 | Field Personnel: E. Dyrness

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 25478

Probe Pre-cleaned Certification Provided By (Personnel): N.P. Date: 10-23-18

Temperature Calibration: Personnel: N.P. Date: 10-23-18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 17.85 NIST: 17.81 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results.**

BEGINNING CALIBRATION CHECK

Date: 10/25/18 Time: 1100 | Personnel: E. Dyrness

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.01	0 to 0.5 mg/L	✓ Y	WW1	4/19	
pH 7 check	7	7.29	+/- 5%	✓ Y	3651	3/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1468	+/- 5%	✓ Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	235	233	+/- 5%	✓ Y	17E100693	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 22 °C							
Turbidity Standard (NTU) 2100P	20	NA	+/- 5%	NA	—	—	Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10	10.4	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: E. Dyrness (Print) E. Dyrness (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: Time:		Personnel:					
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%				Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%	EBD			Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution ____ °C							
Turbidity Standard (NTU) 2100P[5]	20		+/- 5%	10/25/18			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA

NA

PREFIELD CHECK UNIT #3

INSTRUMENT CALIBRATION

Date: 10/25/18 Time: 1100

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%	✓			Allow time for stabilization per manufacturer
DO mg/l reading	8.43	✓			Record these values immediately after calibration
DO Temp. (°C) reading	21.32	✓			
DO (0% Saturation)-SmarTROLL	0%	✓	WW1	4/19	2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7	✓	8651	3/20	
2nd Standard	4	✓	9440	10/20	
3rd Standard	10	✓	8398	12/19	
Specific Conductance (µS/cm)	718	✓	8GC686	3/19	One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution 21 °C		✓			See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution	235	✓	17E100693	5/22	

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ Personnel: E. Dymess

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (NA)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or (NO)

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU	NA			Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU	✓	A8214	11/19	
3rd Standard	100 NTU	✓	A8219	11/19	
4th Standard	800 NTU	✓	A8219	11/19	

HACH Model (circle one) P or (Q) Serial Number: 10030C004245 (17129) Rental Company: PINE

* NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.

Calibration Performed by E. Dymess (Print Name) Erik Dymess (Signature)

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

UNIT #3

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 10-30-18 Time: 0800 | Field Personnel: M Murphy

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 25478

Probe Pre-cleaned Certification Provided By (Personnel): N.P. Date: 10-23-18

Temperature Calibration: Personnel: N.P. Date: 10-23-18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 17.85 NIST: 17.81 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results. **

BEGINNING CALIBRATION CHECK

Date: 10-30-18 Time: 0800 | Personnel: M. Murphy

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.05	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.32	+/- 5%	Y	8651	3/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1444	+/- 5%	Y	EBD 4t 3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 9 °C	252	253	+/- 5%	Y	17E100693	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P	20	N/A	+/- 5%	N/A			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10	10.4	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: Erik Dykness (Print) Erik Dykness (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 10-30-18 Time: 1610		Personnel: M. Murphy					
Zero DO check (mg/l)	0	0.03	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.23	+/- 5%	Y	8710	4/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1452	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 8 °C	253	253	+/- 5%	Y	17E100693	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P[5]	20	N/A	+/- 5%	N/A			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.3	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: M. Murphy (Print) Meagan Mela (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

N/A

N/A

UNIT #3

INSTRUMENT CALIBRATION

Date: **Time:**

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (˚C) reading					
DO (0% Saturation)-SmarTROLL	0%				2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7			NM	
2nd Standard	4		10-30-18		
3rd Standard	10				
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution _____ ˚C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ **Personnel:** M. Murphy

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (NA)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or (NO)

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU		NM		Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU				
3rd Standard	100 NTU				
4th Standard	800 NTU		10-30-18		

HACH Model (circle one) P or Q Serial Number: **Rental Company:**

*** NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate**

Calibration Performed by M. Murphy
Print Name

Megan Murphy
Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 ºC rounds up to 24 ºC)

Temp. ºC	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. ºC	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. ºC	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

UNIT #3

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 10-31-18 Time: 1450 | Field Personnel: M. Murphy

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PING

Multimeter Serial Numbers (Sonde & Meter): 25478

Probe Pre-cleaned Certification Provided By (Personnel): N.P. Date: 10-23-18

Temperature Calibration: Personnel: N.P. Date: 10-23-18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 17.85 NIST: 17.81 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results. **

BEGINNING CALIBRATION CHECK

Date: Time: | Personnel:

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%				Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%				Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution _____ °C							
Turbidity Standard (NTU) 2100P	20		+/- 5%				Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 10-31-18 Time: 1450		Personnel: M. Murphy					
Zero DO check (mg/l)	0	0.02	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.08	+/- 5%	Y	8770	4/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1435	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	248	243	+/- 5%	Y	17E100693	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 12 °C							
Turbidity Standard (NTU) 2100P[5]	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.6	+/- 10%	Y	AB219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: M. Murphy (Print) Megan Murphy (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA

NA

UNIT #3

INSTRUMENT CALIBRATION

Date: Time:

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-SmarTROLL	0%				2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7		10-31-16		
2nd Standard	4				
3rd Standard	10				
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution _____ °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ **Personnel:** M. Murphy

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO NA

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or NO

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU				Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU				
3rd Standard	100 NTU		10-31-16		
4th Standard	800 NTU				
HACH Model (circle one) P or Q Serial Number:					Rental Company:

*** NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.**

Calibration Performed by M. Murphy
Print Name

Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	267	254-280	10	251	238-264	23	234	222-246
-2	266	253-279	11	249	237-261	24	232	220-244
-1	265	252-278	12	248	236-260	25	231	219-243
0	264	251-277	13	247	235-259	26	230	219-242
1	262	249-275	14	245	233-257	27	228	217-239
2	261	248-274	15	244	232-256	28	227	216-238
3	260	247-273	16	243	231-255	29	226	215-237
4	258	245-271	17	241	229-253	30	225	214-236
5	257	244-270	18	240	228-252	31	223	212-234
6	256	243-269	19	239	227-251	32	222	211-233
7	254	241-267	20	238	226-250	33	221	210-232
8	253	240-266	21	236	224-248	34	219	208-230
9	252	239-265	22	235	223-247	35	218	207-229

UNIT #3

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 11-1-18 Time: 1505 | Field Personnel: M. Murphy

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 2548

Probe Pre-cleaned Certification Provided By (Personnel): NP Date: 10-23-18

Temperature Calibration: Personnel: NP Date: 10-23-18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 17.85 NIST: 17.81 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results. **

BEGINNING CALIBRATION CHECK

Date: Time: | Personnel:

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%	MM			Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%	11-1-18			Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution _____ °C			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P	20		+/- 5%				Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 11-1-18 Time: 1505		Personnel: M. Murphy					
Zero DO check (mg/l)	0	0.03	0 to 0.5 mg/L	Y	WLW	4/19	
pH 7 check	7	7.26	+/- 5%	Y	8770	4/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1479	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 13 °C	247	241	+/- 5%	Y	17E100693	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P[5]	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.8	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: M. Murphy (Print) Megan Murphy (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA

NA

UNIT #3

INSTRUMENT CALIBRATION

Date: Time:

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-SmarTROLL	0%			MM	2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7			11-1-18	
2nd Standard	4				
3rd Standard	10				
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution _____ °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ Personnel: M. Murphy

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (NA)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or NO

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU				Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU		MM		
3rd Standard	100 NTU				
4th Standard	800 NTU		11-1-18		
HACH Model (circle one) P or Q Serial Number:				Rental Company:	

* NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.

Calibration Performed by M. Murphy
Print Name

Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

UNIT #3

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 11-2-18 Time: 1605 | Field Personnel: M. Murphy

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 25478

Probe Pre-cleaned Certification Provided By (Personnel): NP | Date: 10-23-18

Temperature Calibration: Personnel: NP | Date: 10-23-18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 17.85 NIST: 17.81 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results.**

BEGINNING CALIBRATION CHECK

Date: Time: | Personnel:

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%				Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%	11-2-18 MM			Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution ____ °C							
Turbidity Standard (NTU) 2100P	20		+/- 5%				Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 11/2/18 Time: 1605		Personnel: M. Murphy					
Zero DO check (mg/l)	0	0.04	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.25	+/- 5%	Y	8770	4/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1444	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	243	234	+/- 5%	Y	17E100693	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 16 °C							
Turbidity Standard (NTU) 2100P[5]	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.4	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: M. Murphy (Print) Megan Murphy (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA

NA

UNIT #3

INSTRUMENT CALIBRATION

Date: Time:

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-SmarTROLL	0%				2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7		11-2-18		
2nd Standard	4				
3rd Standard	10		MM		
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution _____ °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ Personnel: M. Murphy

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO NA

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or NO

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU			11-2-18	Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU				
3rd Standard	100 NTU			MM	
4th Standard	800 NTU				

HACH Model (circle one) P or Q Serial Number: Rental Company:

* NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.

Calibration Performed by M. Murphy (Print Name) Megan Murphy (Signature)

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

UNIT # 3

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 11/5/18 Time: 0820 | Field Personnel: E. Dymess

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 25478

Probe Pre-cleaned Certification Provided By (Personnel): NS Date: 10/23/18

Temperature Calibration: Personnel: NS Date: 10/23/18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 17.85 NIST: 17.81 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results.**

BEGINNING CALIBRATION CHECK

Date: 11/5/18 Time: 0820 | Personnel: E. Dymess

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.02	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.32	+/- 5%	Y	8770	4/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1482	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 8 °C	253	246	+/- 5%	Y	17E100613	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10	10.3	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: E. Dymess (Print) Erik Dymess (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 11/5/18 Time: 1505		Personnel: E. Dymess					
Zero DO check (mg/l)	0	0.03	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.3	+/- 5%	Y	8770	4/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1476	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 8 °C	253	254	+/- 5%	Y	18S100160	9/23	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P[5]	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.7	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: E. Dymess (Print) Erik Dymess (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA

NA

UNIT #3

INSTRUMENT CALIBRATION

Date: Time:

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-SmarTROLL	0%	ETD			2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7				
2nd Standard	4				
3rd Standard	10	11/5/18			
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution _____ °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ **Personnel:** E. Dymond 2035

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (NA)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or NO

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU		ETD		Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU				
3rd Standard	100 NTU	11/5/18			
4th Standard	800 NTU				

HACH Model (circle one) P or Q Serial Number: **Rental Company:**

*** NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.**

Calibration Performed by NA (Print Name) NA (Signature)

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

UNIT #3

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 11/6/18 Time: 1545 | Field Personnel: E. Dymess

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 25478

Probe Pre-cleaned Certification Provided By (Personnel): NP Date: 10/23/18

Temperature Calibration: Personnel: NP Date: 10/23/18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 17.85 NIST: 17.81 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results.**

BEGINNING CALIBRATION CHECK

Date: Time: | Personnel:

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%				Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%	EBP			Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution _____ °C				11/6/18			
Turbidity Standard (NTU) 2100P	20		+/- 5%				Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 11/6/18 Time: 1545		Personnel: E. Dymess					
Zero DO check (mg/l)	0	0.02	0 to 0.5 mg/L	Y	WW1	9/19	
pH 7 check	7	7.32	+/- 5%	Y	8770	9/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1429	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	248	247	+/- 5%	Y	18516160	9/23	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 12 °C							
Turbidity Standard (NTU) 2100P[5]	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.5	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: E. Dymess (Print) Erik Dymess (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA

NA

UNIT #3

INSTRUMENT CALIBRATION

Date: Time:

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-SmarTROLL	0%		EBD		2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7				
2nd Standard	4		11/6/18		
3rd Standard	10				
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution _____ °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ **Personnel:** E. Dymess

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (NA)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or NO

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU		EBD		Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU				
3rd Standard	100 NTU		11/6/18		
4th Standard	800 NTU				

HACH Model (circle one) P or Q Serial Number: **Rental Company:**

*** NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.**

Calibration Performed by E. Dymess (Print Name) Erik Dymess (Signature)

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	267	254-280	10	251	238-264	23	234	222-246
-2	266	253-279	11	249	237-261	24	232	220-244
-1	265	252-278	12	248	236-260	25	231	219-243
0	264	251-277	13	247	235-259	26	230	219-242
1	262	249-275	14	245	233-257	27	228	217-239
2	261	248-274	15	244	232-256	28	227	216-238
3	260	247-273	16	243	231-255	29	226	215-237
4	258	245-271	17	241	229-253	30	225	214-236
5	257	244-270	18	240	228-252	31	223	212-234
6	256	243-269	19	239	227-251	32	222	211-233
7	254	241-267	20	238	226-250	33	221	210-232
8	253	240-266	21	236	224-248	34	219	208-230
9	252	239-265	22	235	223-247	35	218	207-229

UNIT #3

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 11/7/18 Time: 1430 | Field Personnel: E. Dyness

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 25478

Probe Pre-cleaned Certification Provided By (Personnel): NP Date: 10/23/18

Temperature Calibration: Personnel: NP Date: 10/23/18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 17.85 NIST: 17.81 Difference: 0.04

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results. **

BEGINNING CALIBRATION CHECK

Date: Time: | Personnel:

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%	EBT			Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%				Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution _____ °C				11/7/18			
Turbidity Standard (NTU) 2100P	20		+/- 5%				Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 11/7/18 Time: 1430		Personnel: E. Dyness					
Zero DO check (mg/l)	0	0.02	0 to 0.5 mg/L	Y	WW1	4/19	
pH 7 check	7	7.21	+/- 5%	Y	8770	4/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1420	+/- 5%	Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	243	238	+/- 5%	Y	185/100160	9/23	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 16 °C							
Turbidity Standard (NTU) 2100P[5]	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.3	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: E. Dyness (Print) E. Dyness (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED:

NA

NA

UNIT # 3

INSTRUMENT CALIBRATION

Date: 11/7/18 Time: 1450

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-SmarTROLL	0%				2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7		EBD		
2nd Standard	4				
3rd Standard	10		11/7/18		
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution _____ °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ Personnel: E. Dymess

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (NA)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or (NO)

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU				Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU		EBD		
3rd Standard	100 NTU				
4th Standard	800 NTU		11/7/18		
HACH Model (circle one) P or Q Serial Number:				Rental Company:	

* NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.

Calibration Performed by E. Dymess (Print Name) Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	267	254-280	10	251	238-264	23	234	222-246
-2	266	253-279	11	249	237-261	24	232	220-244
-1	265	252-278	12	248	236-260	25	231	219-243
0	264	251-277	13	247	235-259	26	230	219-242
1	262	249-275	14	245	233-257	27	228	217-239
2	261	248-274	15	244	232-256	28	227	216-238
3	260	247-273	16	243	231-255	29	226	215-237
4	258	245-271	17	241	229-253	30	225	214-236
5	257	244-270	18	240	228-252	31	223	212-234
6	256	243-269	19	239	227-251	32	222	211-233
7	254	241-267	20	238	226-250	33	221	210-232
8	253	240-266	21	236	224-248	34	219	208-230
9	252	239-265	22	235	223-247	35	218	207-229

PREFIELD CHECK BACK-UP

TROY INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 10/25/18 Time: 1110 | Field Personnel: Er. K Dyrness

Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: SmarTROLL | Rental Company: PINE

Multimeter Serial Numbers (Sonde & Meter): 516400

Probe Pre-cleaned Certification Provided By (Personnel): NP Date: 10/24/18

Temperature Calibration: Personnel: NP Date: 10/24/18

Manufacturer's Accuracy Range of Sensor: +/- 0.2°C Vendor's check results Unit: 17.28 NIST: 17.29 Difference: 0.01

** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results.**

BEGINNING CALIBRATION CHECK

10/25/18 (FA)

Date: ~~10/25/18~~ Time: 1110 | Personnel: E. Dyrness

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.01	0 to 0.5 mg/L	✓Y	WW1	4/19	
pH 7 check	7	7.06	+/- 5%	✓Y	8651	3/20	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1470	+/- 5%	✓Y	3130	6/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	235	232	+/- 5%	✓Y	17E100643	5/22	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 22 °C							
Turbidity Standard (NTU) 2100P	20	NA	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10	10.3	+/- 10%	Y	A8219	11/19	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark √ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: E. Dyrness (Print) Erik Dyrness (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: Time:		Personnel:					
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%				Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%	ETSD			Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution ____ °C							
Turbidity Standard (NTU) 2100P[5]	20		+/- 5%	10/25/18			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA NA

PREFIELD CHECK BACK-UP

INSTRUMENT CALIBRATION

Date: 10/25/18 **Time:** 1110

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%	✓			Allow time for stabilization per manufacturer
DO mg/l reading	8.68	✓			Record these values immediately after calibration
DO Temp. (°C) reading	21.41	✓			
DO (0% Saturation)-SmarTROLL	0%	✓	WW1	4/19	2 point DO Calibration for SmarTROLL only (100 & 0%)
pH 1st Standard	7	✓	8651	3/20	
2nd Standard	4	✓	9440	10/20	
3rd Standard	10	✓	8398	12/19	
Specific Conductance (µS/cm)	718	✓	8GC686	3/19	One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution 22 °C		✓			See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution	233	✓	17E100693	5/22	

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: NA mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ **Personnel:** E. Dymess

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO (NA)

Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES or (NO)

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU	NA			Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU	✓	A8214	11/19	
3rd Standard	100 NTU	✓	A8219	11/19	
4th Standard	800 NTU	✓	A8219	11/19	

HACH Model (circle one) P or Q **Serial Number:** 170200056314(0338758 **Rental Company:** PINE

*** NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.**

Calibration Performed by E. Dymess (Print Name) Erik Dymess (Signature)

Zobell Solution mV Value Based on Temperature for ORP Calibration
Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

Appendix J – Laboratory Analytical Data Packages

Alpha Analytical Data Packages

ANALYTICAL REPORT

Lab Number:	L1833005
Client:	GZA GeoEnvironmental, Inc. 5 Commerce Park, N. Suite 201 Bedford, NH 03110
ATTN:	Tanya Justham
Phone:	(603) 232-8765
Project Name:	TROY MILLS LANDFILL SUPERFUND
Project Number:	04.0190325.28
Report Date:	10/01/18

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190325.28

Lab Number: L1833005
Report Date: 10/01/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1833005-01	TRIP BLANK	WATER	TROY, NH	08/21/18 10:30	08/22/18
L1833005-02	TRY_MW-501D	WATER	TROY, NH	08/21/18 12:20	08/22/18
L1833005-03	EQUIP. BLANK-PVC	WATER	TROY, NH	08/21/18 11:10	08/22/18
L1833005-04	FIELD BLANK	WATER	TROY, NH	08/21/18 11:00	08/22/18

Project Name:	TROY MILLS LANDFILL SUPERFUND	**Lab Number:**	L1833005
Project Number:	04.0190325.28	**Report Date:**	10/01/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	TROY MILLS LANDFILL SUPERFUND	**Lab Number:**	L1833005
Project Number:	04.0190325.28	**Report Date:**	10/01/18

Case Narrative (continued)

Report Revision

October 1, 2018: The compound list has been revised.

Perfluorinated Alkyl Acids by Isotope Dilution

WG1152082QC: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

The WG1152082-2/-3 LCS/LCSD RPD(s), associated with L1833005-01 through -04, are above the acceptance criteria for 1h,1h,2h,2h-perfluorodecanesulfonic acid (8:2fts) (34%) and perfluorotridecanoic acid (pftrda) (33%).

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Susan E O'Neil Susan O' Neil

Title: Technical Director/Representative Date: 10/01/18

ORGANICS

SEMIVOLATILES

Project Name: TROY MILLS LANDFILL SUPERFUND **Lab Number:** L1833005

Project Number: 04.0190325.28 **Report Date:** 10/01/18

SAMPLE RESULTS

Lab ID: L1833005-01
Client ID: TRIP BLANK
Sample Location: TROY, NH

Date Collected: 08/21/18 10:30
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 09/12/18 22:14
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 08/30/18 08:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.84	--	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.84	--	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.84	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.84	--	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.84	--	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.84	--	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.84	--	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.84	--	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.84	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.84	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.84	--	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.84	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.84	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.84	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.84	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.84	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.84	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.84	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.84	--	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.84	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.84	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.84	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.84	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.84	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND **Lab Number:** L1833005

Project Number: 04.0190325.28 **Report Date:** 10/01/18

SAMPLE RESULTS

Lab ID: L1833005-01 Date Collected: 08/21/18 10:30

Client ID: TRIP BLANK Date Received: 08/22/18

Sample Location: TROY, NH Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	87		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	99		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	100		31-159
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	111		1-313
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	76		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	87		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	104		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	82		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	114		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	78		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	92		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	65		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	124		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	105		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	64		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	2		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	100		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	72		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	89		33-143

Project Name: TROY MILLS LANDFILL SUPERFUND **Lab Number:** L1833005

Project Number: 04.0190325.28 **Report Date:** 10/01/18

SAMPLE RESULTS

Lab ID: L1833005-02
Client ID: TRY_MW-501D
Sample Location: TROY, NH

Date Collected: 08/21/18 12:20
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 09/12/18 23:04
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 08/30/18 08:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.78	--	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.78	--	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.78	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.78	--	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.78	--	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.78	--	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.78	--	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.78	--	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.78	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.78	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.78	--	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.78	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.78	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.78	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.78	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.78	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.78	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.78	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.78	--	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.78	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.78	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.78	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.78	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.78	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND **Lab Number:** L1833005

Project Number: 04.0190325.28 **Report Date:** 10/01/18

SAMPLE RESULTS

Lab ID: L1833005-02 Date Collected: 08/21/18 12:20

Client ID: TRY_MW-501D Date Received: 08/22/18

Sample Location: TROY, NH Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	89		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	101		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	101		31-159
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	115		1-313
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	82		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	90		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	109		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	89		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	138		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	96		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	92		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	82		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	144		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	116		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	90		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	4		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	127		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	80		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	109		33-143

Project Name: TROY MILLS LANDFILL SUPERFUND **Lab Number:** L1833005

Project Number: 04.0190325.28 **Report Date:** 10/01/18

SAMPLE RESULTS

Lab ID: L1833005-03
Client ID: EQUIP. BLANK-PVC
Sample Location: TROY, NH

Date Collected: 08/21/18 11:10
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 09/12/18 22:31
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 08/30/18 08:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.82	--	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.82	--	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.82	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.82	--	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.82	--	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.82	--	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.82	--	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.82	--	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.82	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.82	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.82	--	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.82	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.82	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.82	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.82	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.82	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.82	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.82	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.82	--	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.82	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.82	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.82	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.82	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.82	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND **Lab Number:** L1833005

Project Number: 04.0190325.28 **Report Date:** 10/01/18

SAMPLE RESULTS

Lab ID: L1833005-03 Date Collected: 08/21/18 11:10

Client ID: EQUIP. BLANK-PVC Date Received: 08/22/18

Sample Location: TROY, NH Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	93		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	106		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	109		31-159
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	132		1-313
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	85		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	96		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	110		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	96		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	156		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	87		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	101		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	77		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	159		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	129		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	75		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	2		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	104		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	85		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	94		33-143

Project Name: TROY MILLS LANDFILL SUPERFUND **Lab Number:** L1833005

Project Number: 04.0190325.28 **Report Date:** 10/01/18

SAMPLE RESULTS

Lab ID: L1833005-04
Client ID: FIELD BLANK
Sample Location: TROY, NH

Date Collected: 08/21/18 11:00
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 09/12/18 22:48
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 08/30/18 08:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.82	--	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.82	--	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.82	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.82	--	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.82	--	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.82	--	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.82	--	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.82	--	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.82	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.82	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.82	--	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.82	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.82	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.82	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.82	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.82	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.82	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.82	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.82	--	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.82	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.82	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.82	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.82	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.82	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND **Lab Number:** L1833005

Project Number: 04.0190325.28 **Report Date:** 10/01/18

SAMPLE RESULTS

Lab ID: L1833005-04 Date Collected: 08/21/18 11:00

Client ID: FIELD BLANK Date Received: 08/22/18

Sample Location: TROY, NH Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	87		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	94		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	96		31-159
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	101		1-313
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	78		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	89		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	99		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	86		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	117		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	88		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	90		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	79		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	130		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	134		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	83		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	11		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	122		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	82		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	96		33-143

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190325.28
Lab Number: L1833005
Report Date: 10/01/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 09/01/18 03:24
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 08/30/18 08:45

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-04 Batch: WG1152082-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	--
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	--
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	--
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.00	--
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	--
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.00	--
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	--
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	--
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	--
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	--
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	--
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	--
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	--
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	--
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	--
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.00	--
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	--
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	--
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	--
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	--
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	--
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	--
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	--
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	--

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190325.28
Lab Number: L1833005
Report Date: 10/01/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 09/01/18 03:24
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 08/30/18 08:45

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-04 Batch: WG1152082-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	113		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	126		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	146		31-159
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	230		1-313
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	106		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	115		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	143		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	112		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**259**	Q	1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	111		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	133		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	107		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	**309**	Q	7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	171		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	98		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	37		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	**163**	Q	23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	109		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	106		33-143

Lab Control Sample Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND

Project Number: 04.0190325.28

Lab Number: L1833005

Report Date: 10/01/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 Batch: WG1152082-2 WG1152082-3								
Perfluorobutanoic Acid (PFBA)	107		108		67-148	1		30
Perfluoropentanoic Acid (PFPeA)	113		115		63-161	2		30
Perfluorobutanesulfonic Acid (PFBS)	103		105		65-157	2		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	122		134		37-219	9		30
Perfluorohexanoic Acid (PFHxA)	112		113		69-168	1		30
Perfluoropentanesulfonic Acid (PFPeS)	131		129		52-156	2		30
Perfluoroheptanoic Acid (PFHpA)	100		104		58-159	4		30
Perfluorohexanesulfonic Acid (PFHxS)	104		100		69-177	4		30
Perfluorooctanoic Acid (PFOA)	100		107		63-159	7		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	106		112		49-187	6		30
Perfluoroheptanesulfonic Acid (PFHpS)	114		107		61-179	6		30
Perfluorononanoic Acid (PFNA)	112		113		68-171	1		30
Perfluorooctanesulfonic Acid (PFOS)	91		91		52-151	0		30
Perfluorodecanoic Acid (PFDA)	113		107		63-171	5		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	92		130		56-173	**34**	Q	30
Perfluorononanesulfonic Acid (PFNS)	77		75		48-150	3		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	133		100		60-166	28		30
Perfluoroundecanoic Acid (PFUnA)	105		102		60-153	3		30
Perfluorodecanesulfonic Acid (PFDS)	81		90		38-156	11		30
Perfluorooctanesulfonamide (FOSA)	79		84		46-170	6		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	142		118		45-170	18		30
Perfluorododecanoic Acid (PFDoA)	93		117		67-153	23		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND

Project Number: 04.0190325.28

Lab Number: L1833005

Report Date: 10/01/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 Batch: WG1152082-2 WG1152082-3								
Perfluorotridecanoic Acid (PFTrDA)	74		103		48-158	**33**	Q	30
Perfluorotetradecanoic Acid (PFTA)	107		102		59-182	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	89		93		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	98		102		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	108		126		31-159
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	187		213		1-313
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	88		89		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	95		101		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	103		122		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	93		93		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	199		218		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	89		93		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	97		107		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	83		88		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	**172**	Q	**190**	Q	7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	115		137		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	87		84		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	6		9		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	101		126		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	87		75		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	75		83		33-143

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190325.28

Lab Number: L1833005
Report Date: 10/01/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1833005-01A	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		3.3	Y	Present/Intact		A2-537-ISOTOPE(14)
L1833005-02A	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		3.3	Y	Present/Intact		A2-537-ISOTOPE(14)
L1833005-02B	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		3.3	Y	Present/Intact		A2-537-ISOTOPE(14)
L1833005-02C	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		3.3	Y	Present/Intact		A2-537-ISOTOPE(14)
L1833005-03A	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		3.3	Y	Present/Intact		A2-537-ISOTOPE(14)
L1833005-03B	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		3.3	Y	Present/Intact		A2-537-ISOTOPE(14)
L1833005-03C	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		3.3	Y	Present/Intact		A2-537-ISOTOPE(14)
L1833005-04A	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		3.3	Y	Present/Intact		A2-537-ISOTOPE(14)

*Values in parentheses indicate holding time in days

Project Name:	TROY MILLS LANDFILL SUPERFUND	**Lab Number:**	L1833005
Project Number:	04.0190325.28	**Report Date:**	10/01/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample¿s toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: Data Usability Report

Project Name:	TROY MILLS LANDFILL SUPERFUND	**Lab Number:**	L1833005
Project Number:	04.0190325.28	**Report Date:**	10/01/18

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	TROY MILLS LANDFILL SUPERFUND	**Lab Number:**	L1833005
Project Number:	04.0190325.28	**Report Date:**	10/01/18

REFERENCES

122 Determination of Selected Perfluorintated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537, EPA/600/R-08/092. Version 1.1, September 2009.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

MANSFIELD CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 8/22/18

ALPHA Job #: L1833005

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: GZA GeoEnvironmental, Inc
Address: 5 Commerce Park North, Suite 201 Bedford, NH
Phone: 603-232-8765
Fax: 603-624-9463
Email: tanya.justham@gza.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Troy Mills Landfill Superfund Site
Project Location: Troy, NH
Project #: 04.0190325.08
Project Manager: Tanya Justham
ALPHA Quote #: 5603

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☑ EMAIL
☑ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #: 20197

Regulatory Requirements/Report Limits

State /Fed Program	Criteria
NHDES	Sampling and Analysis Plan limits

Other Project Specific Requirements/Comments/Detection Limits:
Trizma preserved samples. Please provide an excel file formatted for upload to NHDES EMD.

PLEASE NOTE
MS/MSD (at unit cost) will be omitted unless you check here: ☐

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: PFAS (24 compound list)	Sample Specific Comments	TOTAL # BOTTLES
1833005-01	TRIP BLANK	8/21/18	1030	AQ	MJB	X		1
-02	TRY-MW-501D	8/21/18	1220	GW	MJB	X		3
-03	EQUIP BLANK - PVC	8/21/18	1110	AQ	MJB	X		3
-04	FIELD BLANK	8/21/18	1100	AQ	MJB	X		1

SAMPLE HANDLING
Filtration
☐ Done ☑ Not needed ☐ Lab to do
Preservation
☐ Lab to do (Please specify below)

Container Type: P
Preservative: D

Relinquished By:	Date/Time	Received By:	Date/Time
	8/22/18 0900	Courier 1	8/22/18 0900
T. Hamblin	8/22/18 1520	T. Hamblin	8/22/18 1450
	8-22-18 2120		8/22/18 1520
			8/22/18 21:20

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 101-09 (Rev. 27-SEP-10)

ARA Analytical Data Packages

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Michael Summerlin
NHDES-Superfund
29 Hazen Drive
Concord, NH 03301

PO Number: Contct#1061488(2589-
Job ID: 46656
Date Received: 11/9/18

Project: Troy Mills Landfill Superfund Site DES #198405082

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

Jennifer Lowe
Laboratory Manager

Date of Approval: 12/3/2018
Total number of pages: 36

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Troy Mills Landfill Superfund Site DES #198405082

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
TRIP BLANK	Water	11/6/2018 8:00	46656-001	
				VOCs in water by 8260 Petro & Haz Waste
TRIP BLANK	Water	11/6/2018 8:00	46656-002	
				Low level 1,4-dioxane in water by 8260 SIM
TRY_MW-101D	Water	11/6/2018 11:25	46656-003	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_MW-201SX	Water	11/6/2018 14:15	46656-004	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_MW-205	Water	11/7/2018 10:50	46656-005	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46656
Sample#: 46656-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/6/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46656

Sample#: 46656-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/6/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**94**	78-114	%	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
toluene-D8 SUR	**97**	88-110	%	1	LMM		1803278	11/14/18	4:00	SW5030C8260C
4-bromofluorobenzene SUR	**101**	86-115	%	1	LMM		1803278	11/14/18	4:00	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46656
Sample#: 46656-003
Sample ID: TRY_MW-101D
Matrix: Water
Sampled: 11/6/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46656
Sample#: 46656-003
Sample ID: TRY_MW-101D
Matrix: Water
Sampled: 11/6/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**95**	78-114	%	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
toluene-D8 SUR	**101**	88-110	%	1	LMM		1803278	11/14/18	7:52	SW5030C8260C
4-bromofluorobenzene SUR	**105**	86-115	%	1	LMM		1803278	11/14/18	7:52	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46656
Sample#: 46656-004
Sample ID: TRY_MW-201SX
Matrix: Water
Sampled: 11/6/18 14:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46656
Sample#: 46656-004
Sample ID: TRY_MW-201SX
Matrix: Water
Sampled: 11/6/18 14:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
tert-butylbenzene	**2**	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
sec-butylbenzene	**6**	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**91**	78-114	%	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	LMM		1803278	11/14/18	8:18	SW5030C8260C
4-bromofluorobenzene SUR	**106**	86-115	%	1	LMM		1803278	11/14/18	8:18	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46656
Sample#: 46656-005
Sample ID: TRY_MW-205
Matrix: Water
Sampled: 11/7/18 10:50

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46656
Sample#: 46656-005
Sample ID: TRY_MW-205
Matrix: Water
Sampled: 11/7/18 10:50

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
ethylbenzene	**110**	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
m&p-xylenes	**130**	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
isopropylbenzene	**48**	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
n-propylbenzene	**44**	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,3,5-trimethylbenzene	**260**	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,2,4-trimethylbenzene	**450**	10	ug/L	5	LMM		1803298	11/14/18	17:53	SW5030C8260C
sec-butylbenzene	**28**	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
4-isopropyltoluene	**25**	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
naphthalene	**70**	5	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**94**	78-114	%	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
toluene-D8 SUR	**98**	88-110	%	1	LMM		1803278	11/14/18	8:44	SW5030C8260C
4-bromofluorobenzene SUR	**113**	86-115	%	1	LMM		1803278	11/14/18	8:44	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46656

Sample#: 46656-002
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/6/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803283	11/14/18	4:21	modSW8260C

Sample#: 46656-003
Sample ID: TRY_MW-101D
Matrix: Water
Sampled: 11/6/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803293	11/15/18	0:00	modSW8260C

Sample#: 46656-004
Sample ID: TRY_MW-201SX
Matrix: Water
Sampled: 11/6/18 14:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	**0.27**	0.25	ug/L	1	LMM		1803293	11/15/18	0:31	modSW8260C

Sample#: 46656-005
Sample ID: TRY_MW-205
Matrix: Water
Sampled: 11/7/18 10:50

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803293	11/15/18	1:02	modSW8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46656
Sample#: 46656-003
Sample ID: TRY_MW-101D
Matrix: Water
Sampled: 11/6/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46656
Sample#: 46656-003
Sample ID: TRY_MW-101D
Matrix: Water
Sampled: 11/6/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**25**	21-100	%	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
phenol-D5 SUR	**13**	10-102	%	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
2,4,6-tribromophenol SUR	**62**	10-123	%	1	CL	11/12/18	11205	11/14/18	16:15	SW3510C8270D
nitrobenzene-D5 SUR	**45**	35-114	%	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
2-fluorobiphenyl SUR	**62**	43-116	%	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D
p-terphenyl-D14 SUR	**62**	33-141	%	1	CL	11/12/18	11205	11/14/18	16:44	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46656
Sample#: 46656-004
Sample ID: TRY_MW-201SX
Matrix: Water
Sampled: 11/6/18 14:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46656
Sample#: 46656-004
Sample ID: TRY_MW-201SX
Matrix: Water
Sampled: 11/6/18 14:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**23**	21-100	%	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
phenol-D5 SUR	**19**	10-102	%	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
2,4,6-tribromophenol SUR	**65**	10-123	%	1	CL	11/12/18	11205	11/14/18	17:14	SW3510C8270D
nitrobenzene-D5 SUR	**43**	35-114	%	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
2-fluorobiphenyl SUR	**57**	43-116	%	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D
p-terphenyl-D14 SUR	**61**	33-141	%	1	CL	11/12/18	11205	11/14/18	17:43	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46656
Sample#: 46656-005
Sample ID: TRY_MW-205
Matrix: Water
Sampled: 11/7/18 10:50

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
naphthalene	**34**	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
2-methylnaphthalene	**4.1**	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46656
Sample#: 46656-005
Sample ID: TRY_MW-205
Matrix: Water
Sampled: 11/7/18 10:50

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
bis(2-ethylhexyl)phthalate	**13**	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**25**	21-100	%	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
phenol-D5 SUR	**21**	10-102	%	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
2,4,6-tribromophenol SUR	**58**	10-123	%	1	CL	11/12/18	11205	11/14/18	18:13	SW3510C8270D
nitrobenzene-D5 SUR	**45**	35-114	%	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
2-fluorobiphenyl SUR	**59**	43-116	%	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D
p-terphenyl-D14 SUR	**57**	33-141	%	1	CL	11/12/18	11205	11/14/18	18:42	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082

Job ID: 46656

Sample#: 46656-003
Sample ID: TRY_MW-101D
Matrix: Water
Sampled: 11/6/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/14/18	11213	11/16/18	6:19	SW3005A6020A
Manganese	**0.39**	0.01	mg/L	1	AGN	11/14/18	11213	11/16/18	6:19	SW3005A6020A

Sample#: 46656-004
Sample ID: TRY_MW-201SX
Matrix: Water
Sampled: 11/6/18 14:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/14/18	11213	11/16/18	6:45	SW3005A6020A
Manganese	**8.7**	0.01	mg/L	1	AGN	11/14/18	11213	11/16/18	6:45	SW3005A6020A

Sample#: 46656-005
Sample ID: TRY_MW-205
Matrix: Water
Sampled: 11/7/18 10:50

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/14/18	11213	11/16/18	6:51	SW3005A6020A
Manganese	**1.5**	0.01	mg/L	1	AGN	11/14/18	11213	11/16/18	6:51	SW3005A6020A

Quality Control Report



124 Heritage Avenue Unit 16
Portsmouth, NH 03801
www.absoluteresourceassociates.com

Absolute Resource
associates

Case Narrative
Lab # 46656

Sample Receiving and Chain of Custody Discrepancies

Samples were received in acceptable condition, at 0 degrees C, on ice, and in accordance with sample handling, preservation and integrity guidelines.

Calibration

No exceptions noted.

Method Blank

No exceptions noted.

Surrogate Recoveries

No exceptions noted.

Laboratory Control Sample Results

VOC: The LCS/D1803278 did not meet the acceptance criteria for bromomethane. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.
SVOC: The LCS11205 did not meet the acceptance criteria for pyridine, N-nitrosodimethylamine, phenol, hexachlorocyclopentadiene, and 4-nitrophenol. The LCSD11205 did not meet the acceptance criteria for pyridine, N-nitrosodimethylamine, phenol, and 4-nitrophenol. The relative percent difference between the LCS and LCSD11205 was outside the acceptance criteria hexachlorocyclopentadiene, indeno(1,2,3-cd)pyrene, and benzo(g,h,i)perylene. Since <20% of the compounds were outside of the acceptance criteria, reanalysis is not required.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

Not requested for this project.

Other

The reported results have undergone the standard process of review for data quality. The final report meets the reporting and documentation requirements of the contract.

Jennifer Guerette QA Officer

Reporting Limits: Dilutions performed during the analysis are noted on the result pages.

No other exceptions noted.

GLOSSARY

%R	Percent Recovery
BLK	Blank (Method Blank, Preparation Blank)
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
Dil'n	Dilution
DL	Detection Limit
DUP	Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MB	Methanol Blank (associated with solid VOC samples)
MLCS	Methanol Laboratory Control Sample (associated with solid VOC samples)
MLCSD	Methanol Laboratory Control Sample Duplicate (associated with solid VOC samples)
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PB	Preparation Blank
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SUR	Surrogate

- QC Report -

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
modSW8260C	BLK1803283	1,4-dioxane		<	0.25	ug/L						
modSW8260C	LCS1803283	1,4-dioxane			8.2	ug/L	8	103	70	130		
modSW8260C	LCSD1803283	1,4-dioxane			8.3	ug/L	8	103	70	130	0	20
modSW8260C	BLK1803293	1,4-dioxane		<	0.25	ug/L						
modSW8260C	LCS1803293	1,4-dioxane			7.6	ug/L	8	95	70	130		
modSW8260C	LCSD1803293	1,4-dioxane			7.9	ug/L	8	99	70	130	4	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803278	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					
		bromoform		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803278	isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			92	%			78	114		
		toluene-D8 SUR			97	%			88	110		
		4-bromofluorobenzene SUR			98	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCS1803278	dichlorodifluoromethane		15	ug/L	20	75		70	130		
		chloromethane		17	ug/L	20	83		70	130		
		vinyl chloride		22	ug/L	20	110		70	130		
		bromomethane		11	ug/L	20	54	*	70	130		
		chloroethane		18	ug/L	20	90		70	130		
		trichlorofluoromethane		18	ug/L	20	92		70	130		
		diethyl ether		21	ug/L	20	105		70	130		
		acetone		20	ug/L	20	100		70	130		
		1,1-dichloroethene		18	ug/L	20	92		70	130		
		methylene chloride		20	ug/L	20	101		70	130		
		carbon disulfide		14	ug/L	20	72		70	130		
		methyl t-butyl ether (MTBE)		16	ug/L	20	82		70	130		
		trans-1,2-dichloroethene		19	ug/L	20	94		70	130		
		isopropyl ether (DIPE)		17	ug/L	20	84		70	130		
		ethyl t-butyl ether (ETBE)		17	ug/L	20	83		70	130		
		1,1-dichloroethane		19	ug/L	20	96		70	130		
		t-butanol (TBA)		88	ug/L	100	88		70	130		
		2-butanone (MEK)		17	ug/L	20	85		70	130		
		2,2-dichloropropane		17	ug/L	20	86		70	130		
		cis-1,2-dichloroethene		19	ug/L	20	94		70	130		
		chloroform		19	ug/L	20	97		70	130		
		bromochloromethane		18	ug/L	20	92		70	130		
		tetrahydrofuran (THF)		20	ug/L	20	101		70	130		
		1,1,1-trichloroethane		18	ug/L	20	90		70	130		
		1,1-dichloropropene		19	ug/L	20	94		70	130		
		t-amyl-methyl ether (TAME)		17	ug/L	20	87		70	130		
		carbon tetrachloride		17	ug/L	20	87		70	130		
		1,2-dichloroethane		18	ug/L	20	91		70	130		
		benzene		19	ug/L	20	93		70	130		
		trichloroethene		19	ug/L	20	96		70	130		
		1,2-dichloropropane		20	ug/L	20	99		70	130		
		bromodichloromethane		18	ug/L	20	88		70	130		
		1,4-dioxane		< 50	ug/L	40	77		70	130		
		dibromomethane		18	ug/L	20	91		70	130		
		4-methyl-2-pentanone (MIBK)		17	ug/L	20	87		70	130		
		cis-1,3-dichloropropene		19	ug/L	20	94		70	130		
		toluene		20	ug/L	20	99		70	130		
		trans-1,3-dichloropropene		19	ug/L	20	94		70	130		
		2-hexanone		18	ug/L	20	91		70	130		
		1,1,2-trichloroethane		19	ug/L	20	93		70	130		
		1,3-dichloropropane		19	ug/L	20	97		70	130		
		tetrachloroethene		18	ug/L	20	91		70	130		
		dibromochloromethane		16	ug/L	20	81		70	130		
		1,2-dibromoethane (EDB)		19	ug/L	20	94		70	130		
		chlorobenzene		17	ug/L	20	87		70	130		
		1,1,1,2-tetrachloroethane		19	ug/L	20	93		70	130		
		ethylbenzene		20	ug/L	20	99		70	130		
		m&p-xylenes		40	ug/L	40	101		70	130		
		o-xylene		17	ug/L	20	84		70	130		
		styrene		19	ug/L	20	93		70	130		
		bromoform		16	ug/L	20	78		70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803278	isopropylbenzene		20	ug/L	20	98	70	130		
		1,1,2,2-tetrachloroethane		21	ug/L	20	107	70	130		
		1,2,3-trichloropropane		23	ug/L	20	113	70	130		
		n-propylbenzene		22	ug/L	20	109	70	130		
		bromobenzene		20	ug/L	20	100	70	130		
		1,3,5-trimethylbenzene		22	ug/L	20	108	70	130		
		2-chlorotoluene		21	ug/L	20	104	70	130		
		4-chlorotoluene		22	ug/L	20	108	70	130		
		tert-butylbenzene		21	ug/L	20	107	70	130		
		1,2,4-trimethylbenzene		21	ug/L	20	105	70	130		
		sec-butylbenzene		21	ug/L	20	105	70	130		
		1,3-dichlorobenzene		19	ug/L	20	96	70	130		
		4-isopropyltoluene		22	ug/L	20	109	70	130		
		1,4-dichlorobenzene		19	ug/L	20	96	70	130		
		1,2-dichlorobenzene		20	ug/L	20	99	70	130		
		n-butylbenzene		20	ug/L	20	101	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		20	ug/L	20	101	70	130		
		1,2,4-trichlorobenzene		20	ug/L	20	102	70	130		
		1,3,5-trichlorobenzene		20	ug/L	20	102	70	130		
		hexachlorobutadiene		23	ug/L	20	116	70	130		
		naphthalene		22	ug/L	20	109	70	130		
		1,2,3-trichlorobenzene		20	ug/L	20	100	70	130		
		dibromofluoromethane SUR		96	%			78	114		
		toluene-D8 SUR		104	%			88	110		
		4-bromofluorobenzene SUR		105	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803278	dichlorodifluoromethane		14	ug/L	20	71		70	130	4	20
		chloromethane		17	ug/L	20	83		70	130	1	20
		vinyl chloride		21	ug/L	20	107		70	130	3	20
		bromomethane		11	ug/L	20	55	*	70	130	1	20
		chloroethane		18	ug/L	20	91		70	130	1	20
		trichlorofluoromethane		18	ug/L	20	92		70	130	0	20
		diethyl ether		21	ug/L	20	104		70	130	2	20
		acetone		22	ug/L	20	109		70	130	9	20
		1,1-dichloroethene		19	ug/L	20	93		70	130	2	20
		methylene chloride		20	ug/L	20	102		70	130	1	20
		carbon disulfide		15	ug/L	20	77		70	130	7	20
		methyl t-butyl ether (MTBE)		17	ug/L	20	86		70	130	6	20
		trans-1,2-dichloroethene		19	ug/L	20	94		70	130	1	20
		isopropyl ether (DIPE)		17	ug/L	20	87		70	130	4	20
		ethyl t-butyl ether (ETBE)		18	ug/L	20	88		70	130	6	20
		1,1-dichloroethane		20	ug/L	20	98		70	130	2	20
		t-butanol (TBA)		110	ug/L	100	106		70	130	18	20
		2-butanone (MEK)		21	ug/L	20	103		70	130	19	20
		2,2-dichloropropane		17	ug/L	20	87		70	130	0	20
		cis-1,2-dichloroethene		19	ug/L	20	96		70	130	2	20
		chloroform		20	ug/L	20	99		70	130	2	20
		bromochloromethane		18	ug/L	20	91		70	130	1	20
		tetrahydrofuran (THF)		21	ug/L	20	106		70	130	5	20
		1,1,1-trichloroethane		18	ug/L	20	89		70	130	1	20
		1,1-dichloropropene		19	ug/L	20	97		70	130	3	20
		t-amyl-methyl ether (TAME)		18	ug/L	20	92		70	130	5	20
		carbon tetrachloride		17	ug/L	20	87		70	130	0	20
		1,2-dichloroethane		18	ug/L	20	92		70	130	2	20
		benzene		19	ug/L	20	93		70	130	1	20
		trichloroethene		19	ug/L	20	95		70	130	1	20
		1,2-dichloropropane		21	ug/L	20	103		70	130	3	20
		bromodichloromethane		18	ug/L	20	91		70	130	4	20
		1,4-dioxane		< 50	ug/L	40	92		70	130	17	20
		dibromomethane		19	ug/L	20	95		70	130	5	20
		4-methyl-2-pentanone (MIBK)		18	ug/L	20	92		70	130	5	20
		cis-1,3-dichloropropene		19	ug/L	20	96		70	130	2	20
		toluene		20	ug/L	20	99		70	130	0	20
		trans-1,3-dichloropropene		20	ug/L	20	98		70	130	5	20
		2-hexanone		20	ug/L	20	99		70	130	8	20
		1,1,2-trichloroethane		19	ug/L	20	94		70	130	1	20
		1,3-dichloropropane		21	ug/L	20	107		70	130	10	20
		tetrachloroethene		19	ug/L	20	97		70	130	6	20
		dibromochloromethane		19	ug/L	20	94		70	130	15	20
		1,2-dibromoethane (EDB)		21	ug/L	20	106		70	130	12	20
		chlorobenzene		19	ug/L	20	95		70	130	8	20
		1,1,1,2-tetrachloroethane		21	ug/L	20	103		70	130	10	20
		ethylbenzene		22	ug/L	20	108		70	130	8	20
		m&p-xylenes		43	ug/L	40	109		70	130	7	20
		o-xylene		19	ug/L	20	93		70	130	11	20
		styrene		20	ug/L	20	102		70	130	9	20
		bromoform		18	ug/L	20	89		70	130	12	20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803278	isopropylbenzene		21	ug/L	20	105	70	130	6	20
		1,1,2,2-tetrachloroethane		23	ug/L	20	113	70	130	6	20
		1,2,3-trichloropropane		24	ug/L	20	121	70	130	7	20
		n-propylbenzene		22	ug/L	20	112	70	130	3	20
		bromobenzene		21	ug/L	20	103	70	130	4	20
		1,3,5-trimethylbenzene		22	ug/L	20	110	70	130	2	20
		2-chlorotoluene		22	ug/L	20	108	70	130	4	20
		4-chlorotoluene		23	ug/L	20	113	70	130	5	20
		tert-butylbenzene		22	ug/L	20	108	70	130	1	20
		1,2,4-trimethylbenzene		22	ug/L	20	108	70	130	3	20
		sec-butylbenzene		21	ug/L	20	106	70	130	1	20
		1,3-dichlorobenzene		20	ug/L	20	98	70	130	3	20
		4-isopropyltoluene		22	ug/L	20	111	70	130	2	20
		1,4-dichlorobenzene		20	ug/L	20	101	70	130	5	20
		1,2-dichlorobenzene		20	ug/L	20	101	70	130	2	20
		n-butylbenzene		20	ug/L	20	101	70	130	1	20
		1,2-dibromo-3-chloropropane (DBCP)		23	ug/L	20	113	70	130	11	20
		1,2,4-trichlorobenzene		22	ug/L	20	108	70	130	5	20
		1,3,5-trichlorobenzene		20	ug/L	20	99	70	130	3	20
		hexachlorobutadiene		23	ug/L	20	117	70	130	1	20
		naphthalene		25	ug/L	20	127	70	130	15	20
		1,2,3-trichlorobenzene		23	ug/L	20	115	70	130	13	20
		dibromofluoromethane SUR		97	%			78	114		
		toluene-D8 SUR		102	%			88	110		
		4-bromofluorobenzene SUR		112	%			86	115		
SW5030C8260C	BLK1803298	1,2,4-trimethylbenzene		< 2	ug/L						
SW5030C8260C	LCS1803298	1,2,4-trimethylbenzene		22	ug/L	20	109	70	130		
SW5030C8260C	LCSD1803298	1,2,4-trimethylbenzene		20	ug/L	20	98	70	130	10	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW3510C8270D	BLK11205	pyridine		<	2	ug/L					
		N-nitrosodimethylamine		<	2	ug/L					
		aniline		<	2	ug/L					
		phenol		<	2	ug/L					
		2-chlorophenol		<	5	ug/L					
		bis(2-chloroethyl)ether		<	2	ug/L					
		1,3-dichlorobenzene		<	2	ug/L					
		1,4-dichlorobenzene		<	2	ug/L					
		1,2-dichlorobenzene		<	2	ug/L					
		benzyl alcohol		<	2	ug/L					
		2-methylphenol		<	5	ug/L					
		2,2'-oxybis(1-chloropropane)		<	2	ug/L					
		hexachloroethane		<	2	ug/L					
		N-nitroso-di-N-propylamine		<	2	ug/L					
		4-methylphenol		<	2	ug/L					
		nitrobenzene		<	2	ug/L					
		isophorone		<	5	ug/L					
		2-nitrophenol		<	2	ug/L					
		2,4-dimethylphenol		<	5	ug/L					
		bis(2-chloroethoxy)methane		<	5	ug/L					
		2,4-dichlorophenol		<	5	ug/L					
		1,2,4-trichlorobenzene		<	5	ug/L					
		naphthalene		<	0.5	ug/L					
		benzoic acid		<	50	ug/L					
		4-chloroaniline		<	2	ug/L					
		hexachlorobutadiene		<	2	ug/L					
		4-chloro-3-methylphenol		<	2	ug/L					
		2-methylnaphthalene		<	0.5	ug/L					
		hexachlorocyclopentadiene		<	10	ug/L					
		2,4,6-trichlorophenol		<	2	ug/L					
		2,4,5-trichlorophenol		<	2	ug/L					
		2-chloronaphthalene		<	5	ug/L					
		2-nitroaniline		<	2	ug/L					
		acenaphthylene		<	0.5	ug/L					
		dimethylphthalate		<	5	ug/L					
		2,6-dinitrotoluene		<	5	ug/L					
		2,4-dinitrotoluene		<	5	ug/L					
		acenaphthene		<	0.5	ug/L					
		3-nitroaniline		<	2	ug/L					
		2,4-dinitrophenol		<	50	ug/L					
		dibenzofuran		<	0.5	ug/L					
		4-nitrophenol		<	10	ug/L					
		fluorene		<	0.5	ug/L					
		diethyl phthalate		<	5	ug/L					
		4-chlorophenyl phenyl ether		<	5	ug/L					
		4-nitroaniline		<	5	ug/L					
		4,6-dinitro-2-methylphenol		<	20	ug/L					
		azobenzene		<	2	ug/L					
		N-nitrosodiphenylamine		<	2	ug/L					
		4-bromophenyl phenyl ether		<	2	ug/L					
		hexachlorobenzene		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	BLK11205	pentachlorophenol		<	10	ug/L						
		phenanthrene		<	0.5	ug/L						
		anthracene		<	0.5	ug/L						
		carbazole		<	2	ug/L						
		di-n-butylphthalate		<	5	ug/L						
		fluoranthene		<	0.5	ug/L						
		benzidine		<	30	ug/L						
		pyrene		<	0.5	ug/L						
		butyl benzyl phthalate		<	5	ug/L						
		benzo(a)anthracene		<	0.5	ug/L						
		chrysene		<	0.5	ug/L						
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate		<	5	ug/L						
		di-n-octyl phthalate		<	5	ug/L						
		benzo(b)fluoranthene		<	0.5	ug/L						
		benzo(k)fluoranthene		<	0.5	ug/L						
		benzo(a)pyrene		<	0.2	ug/L						
		indeno(1,2,3-cd)pyrene		<	0.5	ug/L						
		dibenzo(a,h)anthracene		<	0.5	ug/L						
		benzo(g,h,i)perylene		<	0.5	ug/L						
		2-fluorophenol SUR			26	%			21	100		
		phenol-D5 SUR			14	%			10	102		
		2,4,6-tribromophenol SUR			67	%			10	123		
		nitrobenzene-D5 SUR			45	%			35	114		
		2-fluorobiphenyl SUR			63	%			43	116		
		p-terphenyl-D14 SUR			69	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCS11205	pyridine		9.9	ug/L	40	25	*	30	130		
		N-nitrosodimethylamine		11	ug/L	40	28	*	40	140		
		aniline		24	ug/L	40	59		40	140		
		phenol		7	ug/L	40	18	*	30	130		
		2-chlorophenol		28	ug/L	40	70		30	130		
		bis(2-chloroethyl)ether		29	ug/L	40	73		40	140		
		1,3-dichlorobenzene		28	ug/L	40	71		40	140		
		1,4-dichlorobenzene		29	ug/L	40	74		40	140		
		1,2-dichlorobenzene		31	ug/L	40	78		40	140		
		benzyl alcohol		22	ug/L	40	56		30	130		
		2-methylphenol		22	ug/L	40	54		30	130		
		2,2'-oxybis(1-chloropropane)		45	ug/L	40	112		40	140		
		hexachloroethane		24	ug/L	40	60		40	140		
		N-nitroso-di-N-propylamine		30	ug/L	40	74		40	140		
		4-methylphenol		20	ug/L	40	49		30	130		
		nitrobenzene		22	ug/L	40	56		40	140		
		isophorone		26	ug/L	40	64		40	140		
		2-nitrophenol		27	ug/L	40	68		30	130		
		2,4-dimethylphenol		28	ug/L	40	70		30	130		
		bis(2-chloroethoxy)methane		28	ug/L	40	69		40	140		
		2,4-dichlorophenol		29	ug/L	40	72		30	130		
		1,2,4-trichlorobenzene		26	ug/L	40	64		40	140		
		naphthalene		31	ug/L	40	79		40	140		
		benzoic acid		< 50	ug/L							
		4-chloroaniline		36	ug/L	40	89		40	140		
		hexachlorobutadiene		22	ug/L	40	55		40	140		
		4-chloro-3-methylphenol		27	ug/L	40	66		30	130		
		2-methylnaphthalene		35	ug/L	40	88		40	140		
		hexachlorocyclopentadiene		14	ug/L	40	35	*	40	140		
		2,4,6-trichlorophenol		28	ug/L	40	70		30	130		
		2,4,5-trichlorophenol		30	ug/L	40	75		30	130		
		2-chloronaphthalene		29	ug/L	40	73		40	140		
		2-nitroaniline		32	ug/L	40	80		40	140		
		acenaphthylene		32	ug/L	40	80		40	140		
		dimethylphthalate		27	ug/L	40	69		40	140		
		2,6-dinitrotoluene		35	ug/L	40	87		40	140		
		2,4-dinitrotoluene		31	ug/L	40	78		40	140		
		acenaphthene		32	ug/L	40	80		40	140		
		3-nitroaniline		32	ug/L	40	81		40	140		
		2,4-dinitrophenol		< 50	ug/L							
		dibenzofuran		32	ug/L	40	80		40	140		
		4-nitrophenol		< 10	ug/L	40	16	*	30	130		
		fluorene		32	ug/L	40	81		40	140		
		diethyl phthalate		31	ug/L	40	78		40	140		
		4-chlorophenyl phenyl ether		33	ug/L	40	82		40	140		
		4-nitroaniline		29	ug/L	40	74		40	140		
		4,6-dinitro-2-methylphenol		23	ug/L	40	59		30	130		
		azobenzene		29	ug/L	40	73		40	140		
		N-nitrosodiphenylamine		42	ug/L	40	106		40	140		
		4-bromophenyl phenyl ether		34	ug/L	40	86		40	140		
		hexachlorobenzene		35	ug/L	40	87		40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCS11205	pentachlorophenol			29	ug/L	40	72	30	130		
		phenanthrene			37	ug/L	40	92	40	140		
		anthracene			35	ug/L	40	88	40	140		
		carbazole			35	ug/L	40	88	40	140		
		di-n-butylphthalate			36	ug/L	40	91	40	140		
		fluoranthene			34	ug/L	40	86	40	140		
		benzidine		<	30	ug/L						
		pyrene			31	ug/L	40	78	40	140		
		butyl benzyl phthalate			32	ug/L	40	80	40	140		
		benzo(a)anthracene			35	ug/L	40	88	40	140		
		chrysene			28	ug/L	40	71	40	140		
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate			35	ug/L	40	87	40	140		
		di-n-octyl phthalate			29	ug/L	40	73	40	140		
		benzo(b)fluoranthene			32	ug/L	40	79	40	140		
		benzo(k)fluoranthene			33	ug/L	40	83	40	140		
		benzo(a)pyrene			35	ug/L	40	87	40	140		
		indeno(1,2,3-cd)pyrene			40	ug/L	40	100	40	140		
		dibenzo(a,h)anthracene			26	ug/L	40	65	40	140		
		benzo(g,h,i)perylene			43	ug/L	40	107	40	140		
		2-fluorophenol SUR			27	%			21	100		
		phenol-D5 SUR			16	%			10	102		
		2,4,6-tribromophenol SUR			81	%			10	123		
		nitrobenzene-D5 SUR			51	%			35	114		
		2-fluorobiphenyl SUR			66	%			43	116		
		p-terphenyl-D14 SUR			72	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD		RPD Limit
SW3510C8270D	LCSD11205	pyridine		10	ug/L	40	26	*	30	130	3		20
		N-nitrosodimethylamine		11	ug/L	40	27	*	40	140	4		20
		aniline		23	ug/L	40	57		40	140	4		20
		phenol		6	ug/L	40	16	*	30	130	13		20
		2-chlorophenol		25	ug/L	40	63		30	130	11		20
		bis(2-chloroethyl)ether		27	ug/L	40	68		40	140	6		20
		1,3-dichlorobenzene		28	ug/L	40	70		40	140	1		20
		1,4-dichlorobenzene		28	ug/L	40	71		40	140	4		20
		1,2-dichlorobenzene		29	ug/L	40	73		40	140	6		20
		benzyl alcohol		22	ug/L	40	56		30	130	1		20
		2-methylphenol		19	ug/L	40	47		30	130	14		20
		2,2'-oxybis(1-chloropropane)		42	ug/L	40	105		40	140	7		20
		hexachloroethane		24	ug/L	40	61		40	140	2		20
		N-nitroso-di-N-propylamine		26	ug/L	40	66		40	140	12		20
		4-methylphenol		17	ug/L	40	44		30	130	12		20
		nitrobenzene		22	ug/L	40	56		40	140	0		20
		isophorone		26	ug/L	40	64		40	140	0		20
		2-nitrophenol		23	ug/L	40	58		30	130	16		20
		2,4-dimethylphenol		24	ug/L	40	60		30	130	16		20
		bis(2-chloroethoxy)methane		27	ug/L	40	66		40	140	4		20
		2,4-dichlorophenol		26	ug/L	40	64		30	130	13		20
		1,2,4-trichlorobenzene		27	ug/L	40	66		40	140	3		20
		naphthalene		30	ug/L	40	76		40	140	4		20
		benzoic acid		< 50	ug/L								20
		4-chloroaniline		33	ug/L	40	83		40	140	7		20
		hexachlorobutadiene		23	ug/L	40	57		40	140	3		20
		4-chloro-3-methylphenol		25	ug/L	40	63		30	130	6		20
		2-methylnaphthalene		34	ug/L	40	84		40	140	5		20
		hexachlorocyclopentadiene		18	ug/L	40	45		40	140	24	*	20
		2,4,6-trichlorophenol		27	ug/L	40	68		30	130	2		20
		2,4,5-trichlorophenol		27	ug/L	40	67		30	130	12		20
		2-chloronaphthalene		30	ug/L	40	75		40	140	3		20
		2-nitroaniline		33	ug/L	40	83		40	140	3		20
		acenaphthylene		32	ug/L	40	81		40	140	1		20
		dimethylphthalate		29	ug/L	40	71		40	140	4		20
		2,6-dinitrotoluene		35	ug/L	40	88		40	140	0		20
		2,4-dinitrotoluene		33	ug/L	40	84		40	140	6		20
		acenaphthene		33	ug/L	40	82		40	140	3		20
		3-nitroaniline		33	ug/L	40	83		40	140	3		20
		2,4-dinitrophenol		< 50	ug/L								20
		dibenzofuran		32	ug/L	40	81		40	140	1		20
		4-nitrophenol		< 10	ug/L	40	15	*	30	130	5		20
		fluorene		33	ug/L	40	82		40	140	1		20
		diethyl phthalate		32	ug/L	40	79		40	140	2		20
		4-chlorophenyl phenyl ether		32	ug/L	40	80		40	140	4		20
		4-nitroaniline		33	ug/L	40	81		40	140	10		20
		4,6-dinitro-2-methylphenol		25	ug/L	40	63		30	130	8		20
		azobenzene		28	ug/L	40	70		40	140	4		20
		N-nitrosodiphenylamine		41	ug/L	40	103		40	140	3		20
		4-bromophenyl phenyl ether		32	ug/L	40	81		40	140	5		20
		hexachlorobenzene		33	ug/L	40	83		40	140	4		20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD		RPD Limit
SW3510C8270D	LCSD11205	pentachlorophenol			28	ug/L	40	71	30	130	1		20
		phenanthrene			35	ug/L	40	88	40	140	4		20
		anthracene			35	ug/L	40	87	40	140	2		20
		carbazole			36	ug/L	40	90	40	140	2		20
		di-n-butylphthalate			35	ug/L	40	89	40	140	2		20
		fluoranthene			36	ug/L	40	90	40	140	5		20
		benzidine		<	30	ug/L							20
		pyrene			31	ug/L	40	76	40	140	3		20
		butyl benzyl phthalate			31	ug/L	40	77	40	140	3		20
		benzo(a)anthracene			35	ug/L	40	87	40	140	0		20
		chrysene			29	ug/L	40	72	40	140	1		20
		3,3'-dichlorobenzidine		<	30	ug/L							20
		bis(2-ethylhexyl)phthalate			33	ug/L	40	82	40	140	6		20
		di-n-octyl phthalate			31	ug/L	40	79	40	140	8		20
		benzo(b)fluoranthene			33	ug/L	40	82	40	140	4		20
		benzo(k)fluoranthene			35	ug/L	40	88	40	140	5		20
		benzo(a)pyrene			35	ug/L	40	88	40	140	1		20
		indeno(1,2,3-cd)pyrene			32	ug/L	40	80	40	140	22	*	20
		dibenzo(a,h)anthracene			22	ug/L	40	54	40	140	19		20
		benzo(g,h,i)perylene			32	ug/L	40	81	40	140	28	*	20
		2-fluorophenol SUR			25	%			21	100			
		phenol-D5 SUR			15	%			10	102			
		2,4,6-tribromophenol SUR			78	%			10	123			
		nitrobenzene-D5 SUR			52	%			35	114			
		2-fluorobiphenyl SUR			67	%			43	116			
		p-terphenyl-D14 SUR			71	%			33	141			

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3005A6020A	BLK11213	Arsenic		<	0.005	mg/L						
		Manganese		<	0.01	mg/L						
SW3005A6020A	DUP11213	Arsenic	46655-002	<	0.005	mg/L						20
		Manganese	46655-002		0.05	mg/L					10	20
SW3005A6020A	LCS11213	Arsenic			0.49	mg/L	0.5	99	80	120		
		Manganese			0.50	mg/L	0.5	99	80	120		
SW3005A6020A	LCSD11213	Arsenic			0.50	mg/L	0.5	101	80	120	2	20
		Manganese			0.50	mg/L	0.5	100	80	120	1	20
SW3005A6020A	MS11213	Arsenic	46363-009		4.9	mg/L	5	97	75	125		
SW3005A6020A	MS11213	Arsenic	46655-002		0.48	mg/L	0.5	95	75	125		
		Manganese	46655-002		0.61	mg/L	0.5	110	75	125		

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

46656

Company Name: Dept. of Environmental Services, State of New Hampshire

Company Address: 29 Hazen Drive, P.O. Box 95

Report To: Michael Summerlin, P.E.

Phone #: (603) 271-3649

Invoice to Email: michael.summerlinjr@des.nh.gov

☐ Hard Copy Invoice Required

Project Name: Troy Mills Landfill Superfund Site

Project #: DES #198405082

Project Location: NH MA ME VT NY Other

Protocol: RCRA SDWA NPDES MCP NHDES OTHER

Reporting Limits: QAPP GW-1 S-1 EPA DW Other SAP

Quote # ☐ NH Reimbursement Pricing

PO # Contract No. 1051314 (2589-00 T)

ANALYSIS REQUEST

☒ VOC 8260 NHDES ☐ VOC 8260 MADEP
☐ VOC 8260 ☐ VOC 624 ☐ VOC BTEX ☐ MtBE, only ☐ VOC 8021VT
☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☒ 1,4-Dioxane 8260 SIM
☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:
☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint
☐ 8270PAH ☒ 8270ABN ☐ 625 ☐ EDB
☐ 8082 PCB ☐ 8081 Pesticides ☐
☐ O&G 1664 ☐ Mineral O&G SM5520F
☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity
☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity
☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☒ Hardness
☒ Total Metals-list: As, ~~Cd, Cr, Pb~~, Mn, ~~Ni~~
☐ Dissolved Metals-list:
☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☒ TOC
☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN
☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P
☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride
☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP
☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide
Subcontract: ☒ Grain Size ☐ Herbicides ☐ Formaldehyde
Grab (G) or Composite (C)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER
466560	TRIP BLANK	1	X			X					11-06-18	0800	MB
-02	TRIP BLANK	2	X								11-06-18	0800	MB
-03	TRY_MW-101D	6	X			X	X				11-06-18	1125	ED
-04	TRY_MW-201SX	6	X			X	X				11-06-18	1415	ED
-05	TRY_MW-205	6	X			X	X				11-07-18	1050	ED

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ☒
*Date Needed _____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Please contact Tanya Justham at (603) 493-1548 for sample questions and Michael Summerlin for all others.

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) and Excel; Please send results to michael.summerlinjr@des.nh.gov and tanya.justham@gza.com
☐ HARD COPY REQUIRED ☐ FAX (FAX#)_____

RECEIVED ON ICE ☐ YES ☐ NO
TEMPERATURE 0 °C

CUSTODY RECORD
QSD-01 Revision 10/14/15

	Relinquished by Sampler:	Date	Time	Received by:	Date	Time
1		11-8-18	0930		11/8/18	11:05
2	Relinquished by:	11/9/18	1105	Received by:	11/8/18	0930
3	Relinquished by:	11/9/18	1430	Received by Laboratory:	11/9/18	14:30

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Michael Summerlin
NHDES-Superfund
29 Hazen Drive
Concord, NH 03301

PO Number: Contrct#1061488(2589-
Job ID: 46519
Date Received: 10/31/18

Project: Troy Mills Landfill Superfund Site DES # 198405082

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

Jennifer Lowe
Laboratory Manager

Date of Approval: 11/14/2018
Total number of pages: 42

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Troy Mills Landfill Superfund Site DES # 198405082

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
TRIP BLANK	Water	10/30/2018 8:00	46519-001	VOCs in water by 8260 Petro & Haz Waste
TRIP BLANK	Water	10/30/2018 8:00	46519-002	Low level 1,4-dioxane in water by 8260 SIM
TRY_MW-702D	Water	10/30/2018 11:45	46519-003	Acid & Base/Neutral Extractables in water by 8270 Arsenic in water by 6020 Low level 1,4-dioxane in water by 8260 SIM Manganese in water by 6020 VOCs in water by 8260 Petro & Haz Waste Water Digestion for ICPMS Analysis
TRY_MW-702SX	Water	10/30/2018 14:30	46519-004	Acid & Base/Neutral Extractables in water by 8270 Arsenic in water by 6020 Low level 1,4-dioxane in water by 8260 SIM Manganese in water by 6020 VOCs in water by 8260 Petro & Haz Waste Water Digestion for ICPMS Analysis
TRY_MW-101S	Water	10/30/2018 13:30	46519-005	Acid & Base/Neutral Extractables in water by 8270 Arsenic in water by 6020 Low level 1,4-dioxane in water by 8260 SIM Manganese in water by 6020 VOCs in water by 8260 Petro & Haz Waste Water Digestion for ICPMS Analysis

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46519
Sample#: 46519-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 10/30/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
chloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
bromomethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
chloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
acetone	< 50	50	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
chloroform	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
benzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
toluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46519

Sample#: 46519-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 10/30/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
o-xylene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
styrene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
bromoform	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
naphthalene	< 5	5	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**104**	78-114	%	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
toluene-D8 SUR	**95**	88-110	%	1	AJD		1803172	11/6/18	3:49	SW5030C8260C
4-bromofluorobenzene SUR	**95**	86-115	%	1	AJD		1803172	11/6/18	3:49	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46519
Sample#: 46519-003
Sample ID: TRY_MW-702D
Matrix: Water
Sampled: 10/30/18 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
chloromethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
bromomethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
chloroethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
acetone	< 50	50	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
chloroform	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
benzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
toluene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46519
Sample#: 46519-003
Sample ID: TRY_MW-702D
Matrix: Water
Sampled: 10/30/18 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
o-xylene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
styrene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
bromoform	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
naphthalene	< 5	5	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**98**	78-114	%	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	AJD		1803162	11/5/18	15:41	SW5030C8260C
4-bromofluorobenzene SUR	**94**	86-115	%	1	AJD		1803162	11/5/18	15:41	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46519
Sample#: 46519-004
Sample ID: TRY_MW-702SX
Matrix: Water
Sampled: 10/30/18 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
chloromethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
bromomethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
chloroethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
acetone	< 50	50	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
chloroform	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
benzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
toluene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46519
Sample#: 46519-004
Sample ID: TRY_MW-702SX
Matrix: Water
Sampled: 10/30/18 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
o-xylene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
styrene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
bromoform	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
naphthalene	< 5	5	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**95**	78-114	%	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	AJD		1803162	11/5/18	16:07	SW5030C8260C
4-bromofluorobenzene SUR	**91**	86-115	%	1	AJD		1803162	11/5/18	16:07	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46519
Sample#: 46519-005
Sample ID: TRY_MW-101S
Matrix: Water
Sampled: 10/30/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
chloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
bromomethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
chloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
acetone	< 50	50	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
chloroform	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
benzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
toluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46519
Sample#: 46519-005
Sample ID: TRY_MW-101S
Matrix: Water
Sampled: 10/30/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
ethylbenzene	**55**	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
m&p-xylenes	**63**	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
o-xylene	**4**	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
styrene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
bromoform	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
isopropylbenzene	**24**	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
n-propylbenzene	**30**	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,3,5-trimethylbenzene	**140**	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,2,4-trimethylbenzene	**330**	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
sec-butylbenzene	**13**	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
4-isopropyltoluene	**15**	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
naphthalene	**25**	5	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**90**	78-114	%	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
toluene-D8 SUR	**96**	88-110	%	1	AJD		1803172	11/6/18	8:08	SW5030C8260C
4-bromofluorobenzene SUR	**104**	86-115	%	1	AJD		1803172	11/6/18	8:08	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46519

Sample#: 46519-002
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 10/30/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803165	11/5/18	14:01	modSW8260C

Sample#: 46519-003
Sample ID: TRY_MW-702D
Matrix: Water
Sampled: 10/30/18 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803177	11/6/18	12:19	modSW8260C

Sample#: 46519-004
Sample ID: TRY_MW-702SX
Matrix: Water
Sampled: 10/30/18 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803177	11/6/18	12:51	modSW8260C

Sample#: 46519-005
Sample ID: TRY_MW-101S
Matrix: Water
Sampled: 10/30/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803177	11/6/18	16:04	modSW8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46519
Sample#: 46519-003
Sample ID: TRY_MW-702D
Matrix: Water
Sampled: 10/30/18 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46519
Sample#: 46519-003
Sample ID: TRY_MW-702D
Matrix: Water
Sampled: 10/30/18 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**29**	21-100	%	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
phenol-D5 SUR	**15**	10-102	%	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
2,4,6-tribromophenol SUR	**81**	10-123	%	1	CL	11/6/18	11178	11/7/18	13:01	SW3510C8270D
nitrobenzene-D5 SUR	**52**	35-114	%	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
2-fluorobiphenyl SUR	**70**	43-116	%	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D
p-terphenyl-D14 SUR	**66**	33-141	%	1	CL	11/6/18	11178	11/7/18	13:31	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46519
Sample#: 46519-004
Sample ID: TRY_MW-702SX
Matrix: Water
Sampled: 10/30/18 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46519
Sample#: 46519-004
Sample ID: TRY_MW-702SX
Matrix: Water
Sampled: 10/30/18 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**27**	21-100	%	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
phenol-D5 SUR	**15**	10-102	%	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
2,4,6-tribromophenol SUR	**92**	10-123	%	1	CL	11/6/18	11178	11/7/18	14:02	SW3510C8270D
nitrobenzene-D5 SUR	**55**	35-114	%	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
2-fluorobiphenyl SUR	**72**	43-116	%	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D
p-terphenyl-D14 SUR	**68**	33-141	%	1	CL	11/6/18	11178	11/7/18	14:32	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46519
Sample#: 46519-005
Sample ID: TRY_MW-101S
Matrix: Water
Sampled: 10/30/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
naphthalene	**9.5**	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46519
Sample#: 46519-005
Sample ID: TRY_MW-101S
Matrix: Water
Sampled: 10/30/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**23**	21-100	%	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
phenol-D5 SUR	**18**	10-102	%	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
2,4,6-tribromophenol SUR	**70**	10-123	%	1	CL	11/6/18	11178	11/7/18	15:02	SW3510C8270D
nitrobenzene-D5 SUR	**36**	35-114	%	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
2-fluorobiphenyl SUR	**43**	43-116	%	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D
p-terphenyl-D14 SUR	**39**	33-141	%	1	CL	11/6/18	11178	11/7/18	15:32	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES # 198405082

Job ID: 46519

Sample#: 46519-003

Sample ID: TRY_MW-702D

Matrix: Water

Sampled: 10/30/18 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/5/18	11174	11/7/18	0:40	SW3005A6020A
Manganese	< 0.01	0.01	mg/L	1	AGN	11/5/18	11174	11/7/18	0:40	SW3005A6020A

Sample#: 46519-004

Sample ID: TRY_MW-702SX

Matrix: Water

Sampled: 10/30/18 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/5/18	11174	11/7/18	0:47	SW3005A6020A
Manganese	**0.05**	0.01	mg/L	1	AGN	11/5/18	11174	11/7/18	0:47	SW3005A6020A

Sample#: 46519-005

Sample ID: TRY_MW-101S

Matrix: Water

Sampled: 10/30/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/5/18	11174	11/7/18	0:54	SW3005A6020A
Manganese	**5.2**	0.01	mg/L	1	AGN	11/5/18	11174	11/7/18	0:54	SW3005A6020A

Quality Control Report



124 Heritage Avenue Unit 16
Portsmouth, NH 03801
www.absoluteresourceassociates.com

Absolute Resource
associates

Case Narrative
Lab # 46519

Sample Receiving and Chain of Custody Discrepancies

Samples were received in acceptable condition, at 0 degrees C, on ice, and in accordance with sample handling, preservation and integrity guidelines.

Calibration

No exceptions noted.

Method Blank

No exceptions noted.

Surrogate Recoveries

No exceptions noted.

Laboratory Control Sample Results

VOC: The LCS/D1803162 did not meet the acceptance criteria for bromomethane. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.
VOC: The LCS1803172 did not meet the acceptance criteria for vinyl chloride and bromomethane. The LCSD1803172 did not meet the acceptance criteria for bromomethane. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.
SVOC: The LCS/D11178 did not meet the acceptance criteria for pyridine, N-nitrosodimethylamine, phenol, and 4-nitrophenol. The relative percent difference between the LCS and LCSD11178 was outside the acceptance criteria for 4-nitrophenol. Since <20% of the compounds were outside of the acceptance criteria, reanalysis is not required.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

Not requested for this project.

Other

The reported results have undergone the standard process of review for data quality. The final report meets the reporting and documentation requirements of the contract. Jennifer Guerette

Jennifer Guerette QA Officer

Reporting Limits: Dilutions performed during the analysis are noted on the result pages.

No other exceptions noted.

GLOSSARY

%R	Percent Recovery
BLK	Blank (Method Blank, Preparation Blank)
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
Dil'n	Dilution
DL	Detection Limit
DUP	Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MB	Methanol Blank (associated with solid VOC samples)
MLCS	Methanol Laboratory Control Sample (associated with solid VOC samples)
MLCSD	Methanol Laboratory Control Sample Duplicate (associated with solid VOC samples)
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PB	Preparation Blank
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SUR	Surrogate

- QC Report -

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
modSW8260C	BLK1803165	1,4-dioxane		<	0.25	ug/L						
modSW8260C	LCS1803165	1,4-dioxane			7.8	ug/L	8	98	70	130		
modSW8260C	LCSD1803165	1,4-dioxane			7.8	ug/L	8	97	70	130	1	20
modSW8260C	BLK1803177	1,4-dioxane		<	0.25	ug/L						
modSW8260C	LCS1803177	1,4-dioxane			8.0	ug/L	8	100	70	130		
modSW8260C	LCSD1803177	1,4-dioxane			7.7	ug/L	8	96	70	130	4	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803162	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					
		bromoform		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803162	isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			98	%			78	114		
		toluene-D8 SUR			96	%			88	110		
		4-bromofluorobenzene SUR			87	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCS1803162	dichlorodifluoromethane		16	ug/L	20	78		70	130		
		chloromethane		16	ug/L	20	81		70	130		
		vinyl chloride		23	ug/L	20	116		70	130		
		bromomethane		6	ug/L	20	30	*	70	130		
		chloroethane		21	ug/L	20	104		70	130		
		trichlorofluoromethane		19	ug/L	20	96		70	130		
		diethyl ether		22	ug/L	20	112		70	130		
		acetone		18	ug/L	20	92		70	130		
		1,1-dichloroethene		20	ug/L	20	98		70	130		
		methylene chloride		22	ug/L	20	108		70	130		
		carbon disulfide		16	ug/L	20	80		70	130		
		methyl t-butyl ether (MTBE)		18	ug/L	20	91		70	130		
		trans-1,2-dichloroethene		20	ug/L	20	99		70	130		
		isopropyl ether (DIPE)		19	ug/L	20	93		70	130		
		ethyl t-butyl ether (ETBE)		19	ug/L	20	95		70	130		
		1,1-dichloroethane		20	ug/L	20	102		70	130		
		t-butanol (TBA)		96	ug/L	100	96		70	130		
		2-butanone (MEK)		19	ug/L	20	93		70	130		
		2,2-dichloropropane		18	ug/L	20	88		70	130		
		cis-1,2-dichloroethene		20	ug/L	20	100		70	130		
		chloroform		20	ug/L	20	102		70	130		
		bromochloromethane		20	ug/L	20	101		70	130		
		tetrahydrofuran (THF)		22	ug/L	20	108		70	130		
		1,1,1-trichloroethane		18	ug/L	20	92		70	130		
		1,1-dichloropropene		19	ug/L	20	94		70	130		
		t-amyl-methyl ether (TAME)		19	ug/L	20	97		70	130		
		carbon tetrachloride		19	ug/L	20	93		70	130		
		1,2-dichloroethane		20	ug/L	20	98		70	130		
		benzene		19	ug/L	20	93		70	130		
		trichloroethene		19	ug/L	20	97		70	130		
		1,2-dichloropropane		21	ug/L	20	107		70	130		
		bromodichloromethane		19	ug/L	20	97		70	130		
		1,4-dioxane		< 50	ug/L	40	110		70	130		
		dibromomethane		20	ug/L	20	101		70	130		
		4-methyl-2-pentanone (MIBK)		19	ug/L	20	94		70	130		
		cis-1,3-dichloropropene		20	ug/L	20	101		70	130		
		toluene		21	ug/L	20	103		70	130		
		trans-1,3-dichloropropene		20	ug/L	20	102		70	130		
		2-hexanone		19	ug/L	20	95		70	130		
		1,1,2-trichloroethane		20	ug/L	20	101		70	130		
		1,3-dichloropropane		21	ug/L	20	105		70	130		
		tetrachloroethene		19	ug/L	20	97		70	130		
		dibromochloromethane		19	ug/L	20	93		70	130		
		1,2-dibromoethane (EDB)		20	ug/L	20	102		70	130		
		chlorobenzene		19	ug/L	20	94		70	130		
		1,1,1,2-tetrachloroethane		21	ug/L	20	103		70	130		
		ethylbenzene		20	ug/L	20	102		70	130		
		m&p-xylenes		43	ug/L	40	107		70	130		
		o-xylene		18	ug/L	20	92		70	130		
		styrene		20	ug/L	20	99		70	130		
		bromoform		18	ug/L	20	90		70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803162	isopropylbenzene		20	ug/L	20	100	70	130		
		1,1,2,2-tetrachloroethane		21	ug/L	20	105	70	130		
		1,2,3-trichloropropane		22	ug/L	20	110	70	130		
		n-propylbenzene		21	ug/L	20	105	70	130		
		bromobenzene		20	ug/L	20	101	70	130		
		1,3,5-trimethylbenzene		21	ug/L	20	107	70	130		
		2-chlorotoluene		20	ug/L	20	100	70	130		
		4-chlorotoluene		21	ug/L	20	107	70	130		
		tert-butylbenzene		21	ug/L	20	104	70	130		
		1,2,4-trimethylbenzene		21	ug/L	20	104	70	130		
		sec-butylbenzene		20	ug/L	20	100	70	130		
		1,3-dichlorobenzene		19	ug/L	20	95	70	130		
		4-isopropyltoluene		21	ug/L	20	105	70	130		
		1,4-dichlorobenzene		19	ug/L	20	95	70	130		
		1,2-dichlorobenzene		20	ug/L	20	99	70	130		
		n-butylbenzene		19	ug/L	20	97	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		22	ug/L	20	111	70	130		
		1,2,4-trichlorobenzene		20	ug/L	20	100	70	130		
		1,3,5-trichlorobenzene		20	ug/L	20	101	70	130		
		hexachlorobutadiene		23	ug/L	20	115	70	130		
		naphthalene		21	ug/L	20	106	70	130		
		1,2,3-trichlorobenzene		19	ug/L	20	97	70	130		
		dibromofluoromethane SUR		99	%			78	114		
		toluene-D8 SUR		102	%			88	110		
		4-bromofluorobenzene SUR		102	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803162	dichlorodifluoromethane		16	ug/L	20	80		70	130	3	20
		chloromethane		15	ug/L	20	77		70	130	5	20
		vinyl chloride		23	ug/L	20	114		70	130	2	20
		bromomethane		7	ug/L	20	36	*	70	130	17	20
		chloroethane		21	ug/L	20	103		70	130	1	20
		trichlorofluoromethane		19	ug/L	20	96		70	130	0	20
		diethyl ether		23	ug/L	20	114		70	130	2	20
		acetone		21	ug/L	20	106		70	130	14	20
		1,1-dichloroethene		20	ug/L	20	98		70	130	0	20
		methylene chloride		22	ug/L	20	110		70	130	2	20
		carbon disulfide		17	ug/L	20	85		70	130	6	20
		methyl t-butyl ether (MTBE)		19	ug/L	20	94		70	130	3	20
		trans-1,2-dichloroethene		20	ug/L	20	99		70	130	0	20
		isopropyl ether (DIPE)		18	ug/L	20	92		70	130	1	20
		ethyl t-butyl ether (ETBE)		19	ug/L	20	94		70	130	1	20
		1,1-dichloroethane		20	ug/L	20	100		70	130	2	20
		t-butanol (TBA)		100	ug/L	100	102		70	130	5	20
		2-butanone (MEK)		20	ug/L	20	98		70	130	5	20
		2,2-dichloropropane		18	ug/L	20	88		70	130	0	20
		cis-1,2-dichloroethene		20	ug/L	20	100		70	130	0	20
		chloroform		21	ug/L	20	103		70	130	0	20
		bromochloromethane		21	ug/L	20	103		70	130	2	20
		tetrahydrofuran (THF)		21	ug/L	20	107		70	130	1	20
		1,1,1-trichloroethane		18	ug/L	20	92		70	130	0	20
		1,1-dichloropropene		20	ug/L	20	99		70	130	5	20
		t-amyl-methyl ether (TAME)		20	ug/L	20	99		70	130	3	20
		carbon tetrachloride		18	ug/L	20	92		70	130	1	20
		1,2-dichloroethane		20	ug/L	20	98		70	130	1	20
		benzene		19	ug/L	20	95		70	130	2	20
		trichloroethene		20	ug/L	20	99		70	130	2	20
		1,2-dichloropropane		21	ug/L	20	105		70	130	2	20
		bromodichloromethane		20	ug/L	20	99		70	130	2	20
		1,4-dioxane		< 50	ug/L	40	97		70	130	12	20
		dibromomethane		21	ug/L	20	104		70	130	3	20
		4-methyl-2-pentanone (MIBK)		19	ug/L	20	93		70	130	1	20
		cis-1,3-dichloropropene		20	ug/L	20	100		70	130	1	20
		toluene		20	ug/L	20	101		70	130	2	20
		trans-1,3-dichloropropene		21	ug/L	20	103		70	130	1	20
		2-hexanone		20	ug/L	20	102		70	130	7	20
		1,1,2-trichloroethane		20	ug/L	20	98		70	130	2	20
		1,3-dichloropropane		21	ug/L	20	105		70	130	0	20
		tetrachloroethene		19	ug/L	20	95		70	130	3	20
		dibromochloromethane		19	ug/L	20	95		70	130	2	20
		1,2-dibromoethane (EDB)		21	ug/L	20	106		70	130	4	20
		chlorobenzene		18	ug/L	20	92		70	130	2	20
		1,1,1,2-tetrachloroethane		20	ug/L	20	102		70	130	0	20
		ethylbenzene		20	ug/L	20	102		70	130	1	20
		m&p-xylenes		42	ug/L	40	105		70	130	2	20
		o-xylene		18	ug/L	20	88		70	130	4	20
		styrene		20	ug/L	20	98		70	130	1	20
		bromoform		19	ug/L	20	93		70	130	3	20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803162	isopropylbenzene		20	ug/L	20	100	70	130	0	20
		1,1,2,2-tetrachloroethane		22	ug/L	20	112	70	130	7	20
		1,2,3-trichloropropane		23	ug/L	20	113	70	130	3	20
		n-propylbenzene		22	ug/L	20	109	70	130	4	20
		bromobenzene		22	ug/L	20	108	70	130	7	20
		1,3,5-trimethylbenzene		22	ug/L	20	109	70	130	1	20
		2-chlorotoluene		21	ug/L	20	104	70	130	4	20
		4-chlorotoluene		22	ug/L	20	110	70	130	3	20
		tert-butylbenzene		21	ug/L	20	106	70	130	2	20
		1,2,4-trimethylbenzene		21	ug/L	20	106	70	130	2	20
		sec-butylbenzene		21	ug/L	20	103	70	130	2	20
		1,3-dichlorobenzene		20	ug/L	20	98	70	130	3	20
		4-isopropyltoluene		22	ug/L	20	108	70	130	3	20
		1,4-dichlorobenzene		20	ug/L	20	99	70	130	4	20
		1,2-dichlorobenzene		20	ug/L	20	101	70	130	3	20
		n-butylbenzene		20	ug/L	20	98	70	130	1	20
		1,2-dibromo-3-chloropropane (DBCP)		24	ug/L	20	118	70	130	7	20
		1,2,4-trichlorobenzene		22	ug/L	20	109	70	130	9	20
		1,3,5-trichlorobenzene		20	ug/L	20	102	70	130	1	20
		hexachlorobutadiene		23	ug/L	20	117	70	130	2	20
		naphthalene		24	ug/L	20	120	70	130	12	20
		1,2,3-trichlorobenzene		22	ug/L	20	110	70	130	12	20
		dibromofluoromethane SUR		100	%			78	114		
		toluene-D8 SUR		97	%			88	110		
		4-bromofluorobenzene SUR		99	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803172	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					
		bromoform		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803172	isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			98	%			78	114		
		toluene-D8 SUR			95	%			88	110		
		4-bromofluorobenzene SUR			97	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCS1803172	dichlorodifluoromethane		17	ug/L	20	83		70	130		
		chloromethane		20	ug/L	20	101		70	130		
		vinyl chloride		26	ug/L	20	131	*	70	130		
		bromomethane		8	ug/L	20	41	*	70	130		
		chloroethane		23	ug/L	20	114		70	130		
		trichlorofluoromethane		20	ug/L	20	102		70	130		
		diethyl ether		24	ug/L	20	119		70	130		
		acetone		20	ug/L	20	100		70	130		
		1,1-dichloroethene		20	ug/L	20	99		70	130		
		methylene chloride		22	ug/L	20	112		70	130		
		carbon disulfide		17	ug/L	20	84		70	130		
		methyl t-butyl ether (MTBE)		18	ug/L	20	92		70	130		
		trans-1,2-dichloroethene		21	ug/L	20	103		70	130		
		isopropyl ether (DIPE)		18	ug/L	20	92		70	130		
		ethyl t-butyl ether (ETBE)		19	ug/L	20	95		70	130		
		1,1-dichloroethane		21	ug/L	20	106		70	130		
		t-butanol (TBA)		100	ug/L	100	103		70	130		
		2-butanone (MEK)		21	ug/L	20	106		70	130		
		2,2-dichloropropane		19	ug/L	20	94		70	130		
		cis-1,2-dichloroethene		21	ug/L	20	103		70	130		
		chloroform		21	ug/L	20	106		70	130		
		bromochloromethane		20	ug/L	20	102		70	130		
		tetrahydrofuran (THF)		23	ug/L	20	114		70	130		
		1,1,1-trichloroethane		19	ug/L	20	97		70	130		
		1,1-dichloropropene		21	ug/L	20	103		70	130		
		t-amyl-methyl ether (TAME)		19	ug/L	20	97		70	130		
		carbon tetrachloride		19	ug/L	20	97		70	130		
		1,2-dichloroethane		20	ug/L	20	98		70	130		
		benzene		20	ug/L	20	99		70	130		
		trichloroethene		21	ug/L	20	104		70	130		
		1,2-dichloropropane		22	ug/L	20	109		70	130		
		bromodichloromethane		20	ug/L	20	100		70	130		
		1,4-dioxane		< 50	ug/L	40	91		70	130		
		dibromomethane		21	ug/L	20	105		70	130		
		4-methyl-2-pentanone (MIBK)		19	ug/L	20	96		70	130		
		cis-1,3-dichloropropene		20	ug/L	20	102		70	130		
		toluene		21	ug/L	20	107		70	130		
		trans-1,3-dichloropropene		20	ug/L	20	102		70	130		
		2-hexanone		20	ug/L	20	101		70	130		
		1,1,2-trichloroethane		21	ug/L	20	103		70	130		
		1,3-dichloropropane		21	ug/L	20	104		70	130		
		tetrachloroethene		19	ug/L	20	96		70	130		
		dibromochloromethane		19	ug/L	20	93		70	130		
		1,2-dibromoethane (EDB)		21	ug/L	20	104		70	130		
		chlorobenzene		19	ug/L	20	94		70	130		
		1,1,1,2-tetrachloroethane		21	ug/L	20	105		70	130		
		ethylbenzene		21	ug/L	20	105		70	130		
		m&p-xylenes		44	ug/L	40	111		70	130		
		o-xylene		18	ug/L	20	92		70	130		
		styrene		21	ug/L	20	103		70	130		
		bromoform		18	ug/L	20	90		70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803172	isopropylbenzene		21	ug/L	20	105	70	130		
		1,1,2,2-tetrachloroethane		22	ug/L	20	108	70	130		
		1,2,3-trichloropropane		22	ug/L	20	108	70	130		
		n-propylbenzene		21	ug/L	20	107	70	130		
		bromobenzene		20	ug/L	20	102	70	130		
		1,3,5-trimethylbenzene		22	ug/L	20	110	70	130		
		2-chlorotoluene		21	ug/L	20	103	70	130		
		4-chlorotoluene		21	ug/L	20	107	70	130		
		tert-butylbenzene		21	ug/L	20	107	70	130		
		1,2,4-trimethylbenzene		21	ug/L	20	107	70	130		
		sec-butylbenzene		21	ug/L	20	104	70	130		
		1,3-dichlorobenzene		19	ug/L	20	96	70	130		
		4-isopropyltoluene		22	ug/L	20	109	70	130		
		1,4-dichlorobenzene		20	ug/L	20	98	70	130		
		1,2-dichlorobenzene		20	ug/L	20	98	70	130		
		n-butylbenzene		20	ug/L	20	100	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		23	ug/L	20	115	70	130		
		1,2,4-trichlorobenzene		21	ug/L	20	105	70	130		
		1,3,5-trichlorobenzene		20	ug/L	20	100	70	130		
		hexachlorobutadiene		22	ug/L	20	109	70	130		
		naphthalene		24	ug/L	20	118	70	130		
		1,2,3-trichlorobenzene		21	ug/L	20	106	70	130		
		dibromofluoromethane SUR		101	%			78	114		
		toluene-D8 SUR		101	%			88	110		
		4-bromofluorobenzene SUR		100	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803172	dichlorodifluoromethane		17	ug/L	20	85		70	130	2	20
		chloromethane		18	ug/L	20	92		70	130	10	20
		vinyl chloride		25	ug/L	20	127		70	130	3	20
		bromomethane		10	ug/L	20	49	*	70	130	18	20
		chloroethane		21	ug/L	20	107		70	130	6	20
		trichlorofluoromethane		21	ug/L	20	105		70	130	3	20
		diethyl ether		23	ug/L	20	116		70	130	3	20
		acetone		21	ug/L	20	106		70	130	6	20
		1,1-dichloroethene		21	ug/L	20	105		70	130	6	20
		methylene chloride		22	ug/L	20	111		70	130	2	20
		carbon disulfide		18	ug/L	20	88		70	130	5	20
		methyl t-butyl ether (MTBE)		19	ug/L	20	93		70	130	1	20
		trans-1,2-dichloroethene		21	ug/L	20	106		70	130	2	20
		isopropyl ether (DIPE)		18	ug/L	20	91		70	130	1	20
		ethyl t-butyl ether (ETBE)		19	ug/L	20	95		70	130	0	20
		1,1-dichloroethane		21	ug/L	20	105		70	130	0	20
		t-butanol (TBA)		100	ug/L	100	104		70	130	1	20
		2-butanone (MEK)		21	ug/L	20	107		70	130	1	20
		2,2-dichloropropane		19	ug/L	20	94		70	130	0	20
		cis-1,2-dichloroethene		20	ug/L	20	101		70	130	2	20
		chloroform		21	ug/L	20	104		70	130	1	20
		bromochloromethane		20	ug/L	20	100		70	130	2	20
		tetrahydrofuran (THF)		23	ug/L	20	116		70	130	2	20
		1,1,1-trichloroethane		19	ug/L	20	96		70	130	1	20
		1,1-dichloropropene		21	ug/L	20	103		70	130	1	20
		t-amyl-methyl ether (TAME)		20	ug/L	20	98		70	130	1	20
		carbon tetrachloride		19	ug/L	20	97		70	130	0	20
		1,2-dichloroethane		20	ug/L	20	98		70	130	0	20
		benzene		20	ug/L	20	99		70	130	1	20
		trichloroethene		21	ug/L	20	103		70	130	1	20
		1,2-dichloropropane		22	ug/L	20	108		70	130	2	20
		bromodichloromethane		20	ug/L	20	99		70	130	1	20
		1,4-dioxane		< 50	ug/L	40	91		70	130	0	20
		dibromomethane		20	ug/L	20	100		70	130	5	20
		4-methyl-2-pentanone (MIBK)		19	ug/L	20	97		70	130	2	20
		cis-1,3-dichloropropene		21	ug/L	20	103		70	130	1	20
		toluene		21	ug/L	20	105		70	130	2	20
		trans-1,3-dichloropropene		20	ug/L	20	101		70	130	1	20
		2-hexanone		21	ug/L	20	103		70	130	2	20
		1,1,2-trichloroethane		20	ug/L	20	100		70	130	3	20
		1,3-dichloropropane		20	ug/L	20	101		70	130	3	20
		tetrachloroethene		19	ug/L	20	96		70	130	0	20
		dibromochloromethane		18	ug/L	20	92		70	130	2	20
		1,2-dibromoethane (EDB)		20	ug/L	20	102		70	130	2	20
		chlorobenzene		18	ug/L	20	91		70	130	3	20
		1,1,1,2-tetrachloroethane		20	ug/L	20	100		70	130	5	20
		ethylbenzene		20	ug/L	20	102		70	130	3	20
		m&p-xylenes		42	ug/L	40	106		70	130	4	20
		o-xylene		18	ug/L	20	88		70	130	4	20
		styrene		20	ug/L	20	99		70	130	4	20
		bromoform		18	ug/L	20	90		70	130	0	20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803172	isopropylbenzene		21	ug/L	20	103	70	130	2	20
		1,1,2,2-tetrachloroethane		22	ug/L	20	108	70	130	0	20
		1,2,3-trichloropropane		23	ug/L	20	115	70	130	6	20
		n-propylbenzene		22	ug/L	20	109	70	130	2	20
		bromobenzene		20	ug/L	20	102	70	130	0	20
		1,3,5-trimethylbenzene		22	ug/L	20	110	70	130	0	20
		2-chlorotoluene		21	ug/L	20	103	70	130	0	20
		4-chlorotoluene		22	ug/L	20	108	70	130	0	20
		tert-butylbenzene		21	ug/L	20	103	70	130	4	20
		1,2,4-trimethylbenzene		21	ug/L	20	106	70	130	1	20
		sec-butylbenzene		21	ug/L	20	103	70	130	1	20
		1,3-dichlorobenzene		19	ug/L	20	96	70	130	0	20
		4-isopropyltoluene		22	ug/L	20	109	70	130	1	20
		1,4-dichlorobenzene		20	ug/L	20	98	70	130	0	20
		1,2-dichlorobenzene		19	ug/L	20	97	70	130	1	20
		n-butylbenzene		20	ug/L	20	101	70	130	1	20
		1,2-dibromo-3-chloropropane (DBCP)		22	ug/L	20	110	70	130	5	20
		1,2,4-trichlorobenzene		21	ug/L	20	105	70	130	0	20
		1,3,5-trichlorobenzene		21	ug/L	20	104	70	130	3	20
		hexachlorobutadiene		24	ug/L	20	119	70	130	9	20
		naphthalene		25	ug/L	20	123	70	130	4	20
		1,2,3-trichlorobenzene		22	ug/L	20	112	70	130	6	20
		dibromofluoromethane SUR		100	%			78	114		
		toluene-D8 SUR		101	%			88	110		
		4-bromofluorobenzene SUR		100	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW3510C8270D	BLK11178	pyridine		<	2	ug/L					
		N-nitrosodimethylamine		<	2	ug/L					
		aniline		<	2	ug/L					
		phenol		<	2	ug/L					
		2-chlorophenol		<	5	ug/L					
		bis(2-chloroethyl)ether		<	2	ug/L					
		1,3-dichlorobenzene		<	2	ug/L					
		1,4-dichlorobenzene		<	2	ug/L					
		1,2-dichlorobenzene		<	2	ug/L					
		benzyl alcohol		<	2	ug/L					
		2-methylphenol		<	5	ug/L					
		2,2'-oxybis(1-chloropropane)		<	2	ug/L					
		hexachloroethane		<	2	ug/L					
		N-nitroso-di-N-propylamine		<	2	ug/L					
		4-methylphenol		<	2	ug/L					
		nitrobenzene		<	2	ug/L					
		isophorone		<	5	ug/L					
		2-nitrophenol		<	2	ug/L					
		2,4-dimethylphenol		<	5	ug/L					
		bis(2-chloroethoxy)methane		<	5	ug/L					
		2,4-dichlorophenol		<	5	ug/L					
		1,2,4-trichlorobenzene		<	5	ug/L					
		naphthalene		<	0.5	ug/L					
		benzoic acid		<	50	ug/L					
		4-chloroaniline		<	2	ug/L					
		hexachlorobutadiene		<	2	ug/L					
		4-chloro-3-methylphenol		<	2	ug/L					
		2-methylnaphthalene		<	0.5	ug/L					
		hexachlorocyclopentadiene		<	10	ug/L					
		2,4,6-trichlorophenol		<	2	ug/L					
		2,4,5-trichlorophenol		<	2	ug/L					
		2-chloronaphthalene		<	5	ug/L					
		2-nitroaniline		<	2	ug/L					
		acenaphthylene		<	0.5	ug/L					
		dimethylphthalate		<	5	ug/L					
		2,6-dinitrotoluene		<	5	ug/L					
		2,4-dinitrotoluene		<	5	ug/L					
		acenaphthene		<	0.5	ug/L					
		3-nitroaniline		<	2	ug/L					
		2,4-dinitrophenol		<	50	ug/L					
		dibenzofuran		<	0.5	ug/L					
		4-nitrophenol		<	10	ug/L					
		fluorene		<	0.5	ug/L					
		diethyl phthalate		<	5	ug/L					
		4-chlorophenyl phenyl ether		<	5	ug/L					
		4-nitroaniline		<	5	ug/L					
		4,6-dinitro-2-methylphenol		<	20	ug/L					
		azobenzene		<	2	ug/L					
		N-nitrosodiphenylamine		<	2	ug/L					
		4-bromophenyl phenyl ether		<	2	ug/L					
		hexachlorobenzene		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	BLK11178	pentachlorophenol		<	10	ug/L						
		phenanthrene		<	0.5	ug/L						
		anthracene		<	0.5	ug/L						
		carbazole		<	2	ug/L						
		di-n-butylphthalate		<	5	ug/L						
		fluoranthene		<	0.5	ug/L						
		benzidine		<	30	ug/L						
		pyrene		<	0.5	ug/L						
		butyl benzyl phthalate		<	5	ug/L						
		benzo(a)anthracene		<	0.5	ug/L						
		chrysene		<	0.5	ug/L						
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate		<	5	ug/L						
		di-n-octyl phthalate		<	5	ug/L						
		benzo(b)fluoranthene		<	0.5	ug/L						
		benzo(k)fluoranthene		<	0.5	ug/L						
		benzo(a)pyrene		<	0.2	ug/L						
		indeno(1,2,3-cd)pyrene		<	0.5	ug/L						
		dibenzo(a,h)anthracene		<	0.5	ug/L						
		benzo(g,h,i)perylene		<	0.5	ug/L						
		2-fluorophenol SUR			29	%			21	100		
		phenol-D5 SUR			15	%			10	102		
		2,4,6-tribromophenol SUR			72	%			10	123		
		nitrobenzene-D5 SUR			50	%			35	114		
		2-fluorobiphenyl SUR			65	%			43	116		
		p-terphenyl-D14 SUR			69	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCS11178	pyridine		11	ug/L	40	26	*	30	130		
		N-nitrosodimethylamine		11	ug/L	40	27	*	40	140		
		aniline		20	ug/L	40	50		40	140		
		phenol		7	ug/L	40	19	*	30	130		
		2-chlorophenol		28	ug/L	40	71		30	130		
		bis(2-chloroethyl)ether		25	ug/L	40	62		40	140		
		1,3-dichlorobenzene		24	ug/L	40	60		40	140		
		1,4-dichlorobenzene		24	ug/L	40	59		40	140		
		1,2-dichlorobenzene		25	ug/L	40	62		40	140		
		benzyl alcohol		20	ug/L	40	49		30	130		
		2-methylphenol		21	ug/L	40	53		30	130		
		2,2'-oxybis(1-chloropropane)		37	ug/L	40	91		40	140		
		hexachloroethane		18	ug/L	40	45		40	140		
		N-nitroso-di-N-propylamine		24	ug/L	40	60		40	140		
		4-methylphenol		19	ug/L	40	47		30	130		
		nitrobenzene		23	ug/L	40	57		40	140		
		isophorone		25	ug/L	40	63		40	140		
		2-nitrophenol		29	ug/L	40	71		30	130		
		2,4-dimethylphenol		27	ug/L	40	67		30	130		
		bis(2-chloroethoxy)methane		26	ug/L	40	66		40	140		
		2,4-dichlorophenol		29	ug/L	40	72		30	130		
		1,2,4-trichlorobenzene		25	ug/L	40	63		40	140		
		naphthalene		29	ug/L	40	73		40	140		
		benzoic acid		< 50	ug/L							
		4-chloroaniline		34	ug/L	40	85		40	140		
		hexachlorobutadiene		21	ug/L	40	52		40	140		
		4-chloro-3-methylphenol		24	ug/L	40	60		30	130		
		2-methylnaphthalene		32	ug/L	40	80		40	140		
		hexachlorocyclopentadiene		18	ug/L	40	45		40	140		
		2,4,6-trichlorophenol		30	ug/L	40	76		30	130		
		2,4,5-trichlorophenol		30	ug/L	40	74		30	130		
		2-chloronaphthalene		31	ug/L	40	78		40	140		
		2-nitroaniline		33	ug/L	40	81		40	140		
		acenaphthylene		32	ug/L	40	80		40	140		
		dimethylphthalate		18	ug/L	40	46		40	140		
		2,6-dinitrotoluene		34	ug/L	40	86		40	140		
		2,4-dinitrotoluene		31	ug/L	40	77		40	140		
		acenaphthene		32	ug/L	40	79		40	140		
		3-nitroaniline		33	ug/L	40	82		40	140		
		2,4-dinitrophenol		< 50	ug/L							
		dibenzofuran		32	ug/L	40	81		40	140		
		4-nitrophenol		< 10	ug/L	40	14	*	30	130		
		fluorene		32	ug/L	40	80		40	140		
		diethyl phthalate		26	ug/L	40	66		40	140		
		4-chlorophenyl phenyl ether		32	ug/L	40	80		40	140		
		4-nitroaniline		28	ug/L	40	71		40	140		
		4,6-dinitro-2-methylphenol		30	ug/L	40	76		30	130		
		azobenzene		30	ug/L	40	75		40	140		
		N-nitrosodiphenylamine		41	ug/L	40	103		40	140		
		4-bromophenyl phenyl ether		34	ug/L	40	85		40	140		
		hexachlorobenzene		34	ug/L	40	85		40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCS11178	pentachlorophenol			30	ug/L	40	74	30	130		
		phenanthrene			35	ug/L	40	88	40	140		
		anthracene			35	ug/L	40	87	40	140		
		carbazole			34	ug/L	40	84	40	140		
		di-n-butylphthalate			34	ug/L	40	84	40	140		
		fluoranthene			33	ug/L	40	81	40	140		
		benzidine		<	30	ug/L						
		pyrene			33	ug/L	40	83	40	140		
		butyl benzyl phthalate			32	ug/L	40	80	40	140		
		benzo(a)anthracene			34	ug/L	40	86	40	140		
		chrysene			28	ug/L	40	70	40	140		
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate			33	ug/L	40	82	40	140		
		di-n-octyl phthalate			34	ug/L	40	85	40	140		
		benzo(b)fluoranthene			35	ug/L	40	87	40	140		
		benzo(k)fluoranthene			34	ug/L	40	85	40	140		
		benzo(a)pyrene			35	ug/L	40	88	40	140		
		indeno(1,2,3-cd)pyrene			33	ug/L	40	82	40	140		
		dibenzo(a,h)anthracene			22	ug/L	40	54	40	140		
		benzo(g,h,i)perylene			34	ug/L	40	86	40	140		
		2-fluorophenol SUR			30	%			21	100		
		phenol-D5 SUR			17	%			10	102		
		2,4,6-tribromophenol SUR			84	%			10	123		
		nitrobenzene-D5 SUR			54	%			35	114		
		2-fluorobiphenyl SUR			76	%			43	116		
		p-terphenyl-D14 SUR			75	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD		RPD Limit
SW3510C8270D	LCSD11178	pyridine		11	ug/L	40	27	*	30	130	2		20
		N-nitrosodimethylamine		11	ug/L	40	28	*	40	140	1		20
		aniline		21	ug/L	40	53		40	140	6		20
		phenol		7	ug/L	40	18	*	30	130	3		20
		2-chlorophenol		28	ug/L	40	70		30	130	1		20
		bis(2-chloroethyl)ether		25	ug/L	40	62		40	140	0		20
		1,3-dichlorobenzene		24	ug/L	40	59		40	140	1		20
		1,4-dichlorobenzene		24	ug/L	40	61		40	140	2		20
		1,2-dichlorobenzene		25	ug/L	40	63		40	140	2		20
		benzyl alcohol		20	ug/L	40	50		30	130	1		20
		2-methylphenol		20	ug/L	40	51		30	130	4		20
		2,2'-oxybis(1-chloropropane)		37	ug/L	40	93		40	140	1		20
		hexachloroethane		19	ug/L	40	47		40	140	4		20
		N-nitroso-di-N-propylamine		25	ug/L	40	62		40	140	3		20
		4-methylphenol		18	ug/L	40	46		30	130	3		20
		nitrobenzene		24	ug/L	40	60		40	140	5		20
		isophorone		26	ug/L	40	64		40	140	2		20
		2-nitrophenol		29	ug/L	40	72		30	130	0		20
		2,4-dimethylphenol		26	ug/L	40	64		30	130	4		20
		bis(2-chloroethoxy)methane		27	ug/L	40	69		40	140	4		20
		2,4-dichlorophenol		28	ug/L	40	70		30	130	3		20
		1,2,4-trichlorobenzene		26	ug/L	40	64		40	140	2		20
		naphthalene		30	ug/L	40	74		40	140	1		20
		benzoic acid		< 50	ug/L								20
		4-chloroaniline		34	ug/L	40	85		40	140	0		20
		hexachlorobutadiene		21	ug/L	40	52		40	140	0		20
		4-chloro-3-methylphenol		23	ug/L	40	58		30	130	3		20
		2-methylnaphthalene		33	ug/L	40	82		40	140	2		20
		hexachlorocyclopentadiene		18	ug/L	40	44		40	140	2		20
		2,4,6-trichlorophenol		29	ug/L	40	72		30	130	6		20
		2,4,5-trichlorophenol		28	ug/L	40	69		30	130	7		20
		2-chloronaphthalene		31	ug/L	40	78		40	140	1		20
		2-nitroaniline		33	ug/L	40	82		40	140	1		20
		acenaphthylene		32	ug/L	40	81		40	140	1		20
		dimethylphthalate		17	ug/L	40	42		40	140	8		20
		2,6-dinitrotoluene		34	ug/L	40	85		40	140	0		20
		2,4-dinitrotoluene		32	ug/L	40	80		40	140	4		20
		acenaphthene		32	ug/L	40	79		40	140	0		20
		3-nitroaniline		33	ug/L	40	83		40	140	1		20
		2,4-dinitrophenol		< 50	ug/L								20
		dibenzofuran		33	ug/L	40	81		40	140	1		20
		4-nitrophenol		< 10	ug/L	40	21	*	30	130	41	*	20
		fluorene		31	ug/L	40	79		40	140	2		20
		diethyl phthalate		26	ug/L	40	66		40	140	1		20
		4-chlorophenyl phenyl ether		31	ug/L	40	79		40	140	2		20
		4-nitroaniline		29	ug/L	40	73		40	140	3		20
		4,6-dinitro-2-methylphenol		29	ug/L	40	73		30	130	4		20
		azobenzene		29	ug/L	40	73		40	140	2		20
		N-nitrosodiphenylamine		40	ug/L	40	99		40	140	4		20
		4-bromophenyl phenyl ether		33	ug/L	40	83		40	140	3		20
		hexachlorobenzene		34	ug/L	40	84		40	140	1		20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCSD11178	pentachlorophenol			32	ug/L	40	79	30	130	7	20
		phenanthrene			35	ug/L	40	87	40	140	0	20
		anthracene			35	ug/L	40	87	40	140	0	20
		carbazole			35	ug/L	40	87	40	140	3	20
		di-n-butylphthalate			35	ug/L	40	86	40	140	3	20
		fluoranthene			34	ug/L	40	85	40	140	4	20
		benzidine		<	30	ug/L						20
		pyrene			31	ug/L	40	77	40	140	7	20
		butyl benzyl phthalate			31	ug/L	40	77	40	140	3	20
		benzo(a)anthracene			34	ug/L	40	85	40	140	1	20
		chrysene			28	ug/L	40	70	40	140	1	20
		3,3'-dichlorobenzidine		<	30	ug/L						20
		bis(2-ethylhexyl)phthalate			31	ug/L	40	79	40	140	4	20
		di-n-octyl phthalate			31	ug/L	40	78	40	140	9	20
		benzo(b)fluoranthene			32	ug/L	40	81	40	140	7	20
		benzo(k)fluoranthene			33	ug/L	40	82	40	140	3	20
		benzo(a)pyrene			34	ug/L	40	86	40	140	3	20
		indeno(1,2,3-cd)pyrene			31	ug/L	40	77	40	140	6	20
		dibenzo(a,h)anthracene			21	ug/L	40	52	40	140	4	20
		benzo(g,h,i)perylene			32	ug/L	40	80	40	140	7	20
		2-fluorophenol SUR			29	%			21	100		
		phenol-D5 SUR			16	%			10	102		
		2,4,6-tribromophenol SUR			80	%			10	123		
		nitrobenzene-D5 SUR			56	%			35	114		
		2-fluorobiphenyl SUR			75	%			43	116		
		p-terphenyl-D14 SUR			71	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3005A6020A	BLK11174	Arsenic		<	0.005	mg/L						
		Manganese		<	0.01	mg/L						
SW3005A6020A	DUP11174	Manganese	46514-001		0.84	mg/L					0	20
SW3005A6020A	LCS11174	Arsenic			0.45	mg/L	0.5	90	80	120		
		Manganese			0.47	mg/L	0.5	95	80	120		
SW3005A6020A	LCSD11174	Arsenic			0.43	mg/L	0.5	86	80	120	4	20
		Manganese			0.45	mg/L	0.5	90	80	120	5	20
SW3005A6020A	MS11174	Manganese	46514-001		1.3	mg/L	0.5	95	75	125		

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 46519

Company Name: Dept. of Environmental Services, State of New Hampshire
Company Address: 29 Hazen Drive, P.O. Box 95
Report To: Michael Summerlin, P.E.
Phone #: (603) 271-3649
Invoice to Email: michael.summerlinjr@des.nh.gov
☐ Hard Copy Invoice Required

Project Name: Troy Mills Landfill Superfund Site
Project #: DES #198405082
Project Location: NH MA ME VT NY Other
Protocol: RCRA SDWA NPDES MCP NHDES OTHER
Reporting Limits: QAPP GW-1 S-1 EPA DW Other SAP
Quote # ☐ NH Reimbursement Pricing
PO # Contract No. 1051314 (2589-00 T)

ANALYSIS REQUEST

☐ VOC 8260 ☒ VOC 8260 NHDES ☐ VOC 8260 MADEP
☐ VOC 624 ☐ VOC BTEX ☐ MtBE only ☐ VOC 8021VI
☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☒ 1,4-Dioxane 8260 SIM
☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:
☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint
☐ 8270PAH ☒ 8270ABN ☐ 625 ☐ EDB
☐ 8082 PCB ☐ 8081 Pesticides ☐
☐ O&G 1664 ☐ Mineral O&G SM5520F
☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity
☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity
☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☒ Hardness
☒ Total Metals-list: As, ~~Cd~~, Cr, Pb, Mn, ~~Ni~~
☐ Dissolved Metals-list:
☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☒ TOC
☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN
☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P
☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride
☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP
☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide
Subcontract: ☒ Grain Size ☐ Herbicides ☐ Formaldehyde
Grab (G) or Composite (C)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER
46519-01	TRIP BLANK	1	X			X					10/30/18	800	MB
-02	TRIP BLANK TRY 11130	1	X								10/30/18	800	MB
-03	TRY_MW-702D	6	X			X	X				10/30/18	1145	MB
-04	TRY_MW-702SX	6	X			X	X				10/30/18	1430	MB
-05	TRY_MW-101S	6	X			X	X				10/30/18	1330	MM

Lab Sample ID	VOC 8260	VOC 624	VPH MADEP	VOC 524.2	TPH	8270PAH	8082 PCB	O&G 1664	pH	TSS	RCRA Metals	Total Metals-list	Ammonia	T-Phosphorus	Cyanide	Nitrate	Nitrate + Nitrite	Corrosivity	TCLP Metals	Subcontract	Grab (G) or Composite (C)
46519-01	X																				
-02			X																		
-03	X		X			X						X									
-04	X		X			X						X									
-05	X		X			X						X									

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) X
*Date Needed _____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Please contact Tanya Justham at (603) 493-1548 for sample questions and Michael Summerlin for all others.

REPORTING INSTRUCTIONS X PDF (e-mail address) and Excel; Please send results to michael.summerlinjr@des.nh.gov and tanya.justham@gza.com
☐ HARD COPY REQUIRED ☐ FAX (FAX#) _____

RECEIVED ON ICE ☑ YES ☐ NO
TEMPERATURE _____ °C

CUSTODY RECORD
QSD-01 Revision 10/14/15

	Relinquished by Sampler:	Date	Time	Received by:	Date	Time
1		10-30-18	1700	Tanya J Justham	10/30/18	1700
2	Tanya J Justham	10/31/18	1500		10/31/18	1500
3		10/31/18	15:15	Received by Laboratory:	10/31/18	16:15

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Michael Summerlin
NHDES-Superfund
29 Hazen Drive
Concord, NH 03301

PO Number: Contrct#1061488(2589-
Job ID: 46521
Date Received: 10/31/18

Project: Troy Mills Landfill Superfund Site DES # 198405082

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

Jennifer Lowe
Laboratory Manager

Date of Approval: 11/14/2018
Total number of pages: 36

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Troy Mills Landfill Superfund Site DES # 198405082

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
TRIP BLANK	Water	10/30/2018 8:00	46521-001	
				VOCs in water by 8260 Petro & Haz Waste
TRIP BLANK	Water	10/30/2018 8:00	46521-002	
				Low level 1,4-dioxane in water by 8260 SIM
TRY_MW-104D	Water	10/30/2018 12:40	46521-003	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_MW-104S	Water	10/30/2018 14:35	46521-004	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_MW-602B	Water	10/30/2018 11:45	46521-005	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46521

Sample#: 46521-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 10/30/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
chloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
bromomethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
chloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
acetone	< 50	50	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
chloroform	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
benzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
toluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46521

Sample#: 46521-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 10/30/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
o-xylene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
styrene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
bromoform	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
naphthalene	< 5	5	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**98**	78-114	%	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
toluene-D8 SUR	**97**	88-110	%	1	AJD		1803172	11/6/18	4:15	SW5030C8260C
4-bromofluorobenzene SUR	**94**	86-115	%	1	AJD		1803172	11/6/18	4:15	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46521
Sample#: 46521-003
Sample ID: TRY_MW-104D
Matrix: Water
Sampled: 10/30/18 12:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
chloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
bromomethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
chloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
acetone	< 50	50	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
chloroform	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
benzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
toluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46521
Sample#: 46521-003
Sample ID: TRY_MW-104D
Matrix: Water
Sampled: 10/30/18 12:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
o-xylene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
styrene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
bromoform	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
naphthalene	< 5	5	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**98**	78-114	%	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
toluene-D8 SUR	**95**	88-110	%	1	AJD		1803172	11/6/18	8:34	SW5030C8260C
4-bromofluorobenzene SUR	**91**	86-115	%	1	AJD		1803172	11/6/18	8:34	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46521
Sample#: 46521-004
Sample ID: TRY_MW-104S
Matrix: Water
Sampled: 10/30/18 14:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
chloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
bromomethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
chloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
acetone	< 50	50	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
cis-1,2-dichloroethene	**2**	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
chloroform	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
benzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
toluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46521
Sample#: 46521-004
Sample ID: TRY_MW-104S
Matrix: Water
Sampled: 10/30/18 14:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
o-xylene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
styrene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
bromoform	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
tert-butylbenzene	**2**	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
sec-butylbenzene	**3**	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
naphthalene	< 5	5	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**100**	78-114	%	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
toluene-D8 SUR	**98**	88-110	%	1	AJD		1803172	11/6/18	9:00	SW5030C8260C
4-bromofluorobenzene SUR	**95**	86-115	%	1	AJD		1803172	11/6/18	9:00	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46521
Sample#: 46521-005
Sample ID: TRY_MW-602B
Matrix: Water
Sampled: 10/30/18 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
chloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
bromomethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
chloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
acetone	< 50	50	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
chloroform	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
benzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
toluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46521
Sample#: 46521-005
Sample ID: TRY_MW-602B
Matrix: Water
Sampled: 10/30/18 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
o-xylene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
styrene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
bromoform	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
tert-butylbenzene	**2**	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
sec-butylbenzene	**9**	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
naphthalene	< 5	5	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**98**	78-114	%	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
toluene-D8 SUR	**98**	88-110	%	1	AJD		1803172	11/6/18	9:26	SW5030C8260C
4-bromofluorobenzene SUR	**99**	86-115	%	1	AJD		1803172	11/6/18	9:26	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46521

Sample#: 46521-002
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 10/30/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803165	11/5/18	14:32	modSW8260C

Sample#: 46521-003
Sample ID: TRY_MW-104D
Matrix: Water
Sampled: 10/30/18 12:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803165	11/5/18	18:41	modSW8260C

Sample#: 46521-004
Sample ID: TRY_MW-104S
Matrix: Water
Sampled: 10/30/18 14:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803165	11/5/18	19:12	modSW8260C

Sample#: 46521-005
Sample ID: TRY_MW-602B
Matrix: Water
Sampled: 10/30/18 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803165	11/5/18	19:43	modSW8260C

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46521
Sample#: 46521-003
Sample ID: TRY_MW-104D
Matrix: Water
Sampled: 10/30/18 12:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46521
Sample#: 46521-003
Sample ID: TRY_MW-104D
Matrix: Water
Sampled: 10/30/18 12:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**23**	21-100	%	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
phenol-D5 SUR	**12**	10-102	%	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
2,4,6-tribromophenol SUR	**70**	10-123	%	1	CL	11/6/18	11178	11/7/18	16:03	SW3510C8270D
nitrobenzene-D5 SUR	**51**	35-114	%	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
2-fluorobiphenyl SUR	**67**	43-116	%	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D
p-terphenyl-D14 SUR	**65**	33-141	%	1	CL	11/6/18	11178	11/7/18	16:33	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46521
Sample#: 46521-004
Sample ID: TRY_MW-104S
Matrix: Water
Sampled: 10/30/18 14:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46521
Sample#: 46521-004
Sample ID: TRY_MW-104S
Matrix: Water
Sampled: 10/30/18 14:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**10** *	21-100	%	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
phenol-D5 SUR	**10**	10-102	%	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
2,4,6-tribromophenol SUR	**12**	10-123	%	1	CL	11/6/18	11178	11/7/18	17:04	SW3510C8270D
nitrobenzene-D5 SUR	**40**	35-114	%	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
2-fluorobiphenyl SUR	**53**	43-116	%	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D
p-terphenyl-D14 SUR	**54**	33-141	%	1	CL	11/6/18	11178	11/7/18	17:34	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46521
Sample#: 46521-005
Sample ID: TRY_MW-602B
Matrix: Water
Sampled: 10/30/18 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES # 198405082
Job ID: 46521
Sample#: 46521-005
Sample ID: TRY_MW-602B
Matrix: Water
Sampled: 10/30/18 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**13** *	21-100	%	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
phenol-D5 SUR	**11**	10-102	%	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
2,4,6-tribromophenol SUR	**41**	10-123	%	1	CL	11/6/18	11178	11/7/18	18:04	SW3510C8270D
nitrobenzene-D5 SUR	**46**	35-114	%	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
2-fluorobiphenyl SUR	**52**	43-116	%	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D
p-terphenyl-D14 SUR	**51**	33-141	%	1	CL	11/6/18	11178	11/7/18	18:34	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES # 198405082

Job ID: 46521

Sample#: 46521-003
Sample ID: TRY_MW-104D
Matrix: Water
Sampled: 10/30/18 12:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/5/18	11174	11/7/18	1:21	SW3005A6020A
Manganese	**0.24**	0.01	mg/L	1	AGN	11/5/18	11174	11/7/18	1:21	SW3005A6020A

Sample#: 46521-004
Sample ID: TRY_MW-104S
Matrix: Water
Sampled: 10/30/18 14:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/5/18	11174	11/7/18	1:28	SW3005A6020A
Manganese	**15**	0.20	mg/L	20	AGN	11/5/18	11174	11/7/18	22:58	SW3005A6020A

Sample#: 46521-005
Sample ID: TRY_MW-602B
Matrix: Water
Sampled: 10/30/18 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/5/18	11174	11/7/18	1:35	SW3005A6020A
Manganese	**8.8**	0.01	mg/L	1	AGN	11/5/18	11174	11/7/18	1:35	SW3005A6020A

Quality Control Report



124 Heritage Avenue Unit 16
Portsmouth, NH 03801
www.absoluteresourceassociates.com

Absolute Resource
associates

Case Narrative
Lab # 46521

Sample Receiving and Chain of Custody Discrepancies

Samples were received in acceptable condition, at 0 degrees C, on ice, and in accordance with sample handling, preservation and integrity guidelines.

Calibration

No exceptions noted.

Method Blank

No exceptions noted.

Surrogate Recoveries

SVOC: The surrogate 2-fluorophenol showed recovery outside the acceptance limits for samples 46521-004 and -005. Matrix interference suspected. No additional sample remained for re-analysis.

Laboratory Control Sample Results

VOC: The LCS1803172 did not meet the acceptance criteria for vinyl chloride and bromomethane. The LCSD1803172 did not meet the acceptance criteria for bromomethane. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.
SVOC: The LCS/D11178 did not meet the acceptance criteria for pyridine, N-nitrosodimethylamine, phenol, and 4-nitrophenol. The relative percent difference between the LCS and LCSD11178 was outside the acceptance criteria for 4-nitrophenol. Since <20% of the compounds were outside of the acceptance criteria, reanalysis is not required.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

Not requested for this project.

Other

The reported results have undergone the standard process of review for data quality. The final report meets the reporting and documentation requirements of the contract.

Jennifer Guerette QA Officer

Reporting Limits: Dilutions performed during the analysis are noted on the result pages.

No other exceptions noted.

GLOSSARY

%R	Percent Recovery
BLK	Blank (Method Blank, Preparation Blank)
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
Dil'n	Dilution
DL	Detection Limit
DUP	Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MB	Methanol Blank (associated with solid VOC samples)
MLCS	Methanol Laboratory Control Sample (associated with solid VOC samples)
MLCSD	Methanol Laboratory Control Sample Duplicate (associated with solid VOC samples)
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PB	Preparation Blank
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SUR	Surrogate

- QC Report -

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
modSW8260C	BLK1803165	1,4-dioxane		<	0.25	ug/L						
modSW8260C	LCS1803165	1,4-dioxane			7.8	ug/L	8	98	70	130		
modSW8260C	LCSD1803165	1,4-dioxane			7.8	ug/L	8	97	70	130	1	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803172	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					
		bromoform		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803172	isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			98	%			78	114		
		toluene-D8 SUR			95	%			88	110		
		4-bromofluorobenzene SUR			97	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCS1803172	dichlorodifluoromethane		17	ug/L	20	83		70	130		
		chloromethane		20	ug/L	20	101		70	130		
		vinyl chloride		26	ug/L	20	131	*	70	130		
		bromomethane		8	ug/L	20	41	*	70	130		
		chloroethane		23	ug/L	20	114		70	130		
		trichlorofluoromethane		20	ug/L	20	102		70	130		
		diethyl ether		24	ug/L	20	119		70	130		
		acetone		20	ug/L	20	100		70	130		
		1,1-dichloroethene		20	ug/L	20	99		70	130		
		methylene chloride		22	ug/L	20	112		70	130		
		carbon disulfide		17	ug/L	20	84		70	130		
		methyl t-butyl ether (MTBE)		18	ug/L	20	92		70	130		
		trans-1,2-dichloroethene		21	ug/L	20	103		70	130		
		isopropyl ether (DIPE)		18	ug/L	20	92		70	130		
		ethyl t-butyl ether (ETBE)		19	ug/L	20	95		70	130		
		1,1-dichloroethane		21	ug/L	20	106		70	130		
		t-butanol (TBA)		100	ug/L	100	103		70	130		
		2-butanone (MEK)		21	ug/L	20	106		70	130		
		2,2-dichloropropane		19	ug/L	20	94		70	130		
		cis-1,2-dichloroethene		21	ug/L	20	103		70	130		
		chloroform		21	ug/L	20	106		70	130		
		bromochloromethane		20	ug/L	20	102		70	130		
		tetrahydrofuran (THF)		23	ug/L	20	114		70	130		
		1,1,1-trichloroethane		19	ug/L	20	97		70	130		
		1,1-dichloropropene		21	ug/L	20	103		70	130		
		t-amyl-methyl ether (TAME)		19	ug/L	20	97		70	130		
		carbon tetrachloride		19	ug/L	20	97		70	130		
		1,2-dichloroethane		20	ug/L	20	98		70	130		
		benzene		20	ug/L	20	99		70	130		
		trichloroethene		21	ug/L	20	104		70	130		
		1,2-dichloropropane		22	ug/L	20	109		70	130		
		bromodichloromethane		20	ug/L	20	100		70	130		
		1,4-dioxane		< 50	ug/L	40	91		70	130		
		dibromomethane		21	ug/L	20	105		70	130		
		4-methyl-2-pentanone (MIBK)		19	ug/L	20	96		70	130		
		cis-1,3-dichloropropene		20	ug/L	20	102		70	130		
		toluene		21	ug/L	20	107		70	130		
		trans-1,3-dichloropropene		20	ug/L	20	102		70	130		
		2-hexanone		20	ug/L	20	101		70	130		
		1,1,2-trichloroethane		21	ug/L	20	103		70	130		
		1,3-dichloropropane		21	ug/L	20	104		70	130		
		tetrachloroethene		19	ug/L	20	96		70	130		
		dibromochloromethane		19	ug/L	20	93		70	130		
		1,2-dibromoethane (EDB)		21	ug/L	20	104		70	130		
		chlorobenzene		19	ug/L	20	94		70	130		
		1,1,1,2-tetrachloroethane		21	ug/L	20	105		70	130		
		ethylbenzene		21	ug/L	20	105		70	130		
		m&p-xylenes		44	ug/L	40	111		70	130		
		o-xylene		18	ug/L	20	92		70	130		
		styrene		21	ug/L	20	103		70	130		
		bromoform		18	ug/L	20	90		70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803172	isopropylbenzene		21	ug/L	20	105	70	130		
		1,1,2,2-tetrachloroethane		22	ug/L	20	108	70	130		
		1,2,3-trichloropropane		22	ug/L	20	108	70	130		
		n-propylbenzene		21	ug/L	20	107	70	130		
		bromobenzene		20	ug/L	20	102	70	130		
		1,3,5-trimethylbenzene		22	ug/L	20	110	70	130		
		2-chlorotoluene		21	ug/L	20	103	70	130		
		4-chlorotoluene		21	ug/L	20	107	70	130		
		tert-butylbenzene		21	ug/L	20	107	70	130		
		1,2,4-trimethylbenzene		21	ug/L	20	107	70	130		
		sec-butylbenzene		21	ug/L	20	104	70	130		
		1,3-dichlorobenzene		19	ug/L	20	96	70	130		
		4-isopropyltoluene		22	ug/L	20	109	70	130		
		1,4-dichlorobenzene		20	ug/L	20	98	70	130		
		1,2-dichlorobenzene		20	ug/L	20	98	70	130		
		n-butylbenzene		20	ug/L	20	100	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		23	ug/L	20	115	70	130		
		1,2,4-trichlorobenzene		21	ug/L	20	105	70	130		
		1,3,5-trichlorobenzene		20	ug/L	20	100	70	130		
		hexachlorobutadiene		22	ug/L	20	109	70	130		
		naphthalene		24	ug/L	20	118	70	130		
		1,2,3-trichlorobenzene		21	ug/L	20	106	70	130		
		dibromofluoromethane SUR		101	%			78	114		
		toluene-D8 SUR		101	%			88	110		
		4-bromofluorobenzene SUR		100	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803172	dichlorodifluoromethane		17	ug/L	20	85		70	130	2	20
		chloromethane		18	ug/L	20	92		70	130	10	20
		vinyl chloride		25	ug/L	20	127		70	130	3	20
		bromomethane		10	ug/L	20	49	*	70	130	18	20
		chloroethane		21	ug/L	20	107		70	130	6	20
		trichlorofluoromethane		21	ug/L	20	105		70	130	3	20
		diethyl ether		23	ug/L	20	116		70	130	3	20
		acetone		21	ug/L	20	106		70	130	6	20
		1,1-dichloroethene		21	ug/L	20	105		70	130	6	20
		methylene chloride		22	ug/L	20	111		70	130	2	20
		carbon disulfide		18	ug/L	20	88		70	130	5	20
		methyl t-butyl ether (MTBE)		19	ug/L	20	93		70	130	1	20
		trans-1,2-dichloroethene		21	ug/L	20	106		70	130	2	20
		isopropyl ether (DIPE)		18	ug/L	20	91		70	130	1	20
		ethyl t-butyl ether (ETBE)		19	ug/L	20	95		70	130	0	20
		1,1-dichloroethane		21	ug/L	20	105		70	130	0	20
		t-butanol (TBA)		100	ug/L	100	104		70	130	1	20
		2-butanone (MEK)		21	ug/L	20	107		70	130	1	20
		2,2-dichloropropane		19	ug/L	20	94		70	130	0	20
		cis-1,2-dichloroethene		20	ug/L	20	101		70	130	2	20
		chloroform		21	ug/L	20	104		70	130	1	20
		bromochloromethane		20	ug/L	20	100		70	130	2	20
		tetrahydrofuran (THF)		23	ug/L	20	116		70	130	2	20
		1,1,1-trichloroethane		19	ug/L	20	96		70	130	1	20
		1,1-dichloropropene		21	ug/L	20	103		70	130	1	20
		t-amyl-methyl ether (TAME)		20	ug/L	20	98		70	130	1	20
		carbon tetrachloride		19	ug/L	20	97		70	130	0	20
		1,2-dichloroethane		20	ug/L	20	98		70	130	0	20
		benzene		20	ug/L	20	99		70	130	1	20
		trichloroethene		21	ug/L	20	103		70	130	1	20
		1,2-dichloropropane		22	ug/L	20	108		70	130	2	20
		bromodichloromethane		20	ug/L	20	99		70	130	1	20
		1,4-dioxane		< 50	ug/L	40	91		70	130	0	20
		dibromomethane		20	ug/L	20	100		70	130	5	20
		4-methyl-2-pentanone (MIBK)		19	ug/L	20	97		70	130	2	20
		cis-1,3-dichloropropene		21	ug/L	20	103		70	130	1	20
		toluene		21	ug/L	20	105		70	130	2	20
		trans-1,3-dichloropropene		20	ug/L	20	101		70	130	1	20
		2-hexanone		21	ug/L	20	103		70	130	2	20
		1,1,2-trichloroethane		20	ug/L	20	100		70	130	3	20
		1,3-dichloropropane		20	ug/L	20	101		70	130	3	20
		tetrachloroethene		19	ug/L	20	96		70	130	0	20
		dibromochloromethane		18	ug/L	20	92		70	130	2	20
		1,2-dibromoethane (EDB)		20	ug/L	20	102		70	130	2	20
		chlorobenzene		18	ug/L	20	91		70	130	3	20
		1,1,1,2-tetrachloroethane		20	ug/L	20	100		70	130	5	20
		ethylbenzene		20	ug/L	20	102		70	130	3	20
		m&p-xylenes		42	ug/L	40	106		70	130	4	20
		o-xylene		18	ug/L	20	88		70	130	4	20
		styrene		20	ug/L	20	99		70	130	4	20
		bromoform		18	ug/L	20	90		70	130	0	20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803172	isopropylbenzene		21	ug/L	20	103	70	130	2	20
		1,1,2,2-tetrachloroethane		22	ug/L	20	108	70	130	0	20
		1,2,3-trichloropropane		23	ug/L	20	115	70	130	6	20
		n-propylbenzene		22	ug/L	20	109	70	130	2	20
		bromobenzene		20	ug/L	20	102	70	130	0	20
		1,3,5-trimethylbenzene		22	ug/L	20	110	70	130	0	20
		2-chlorotoluene		21	ug/L	20	103	70	130	0	20
		4-chlorotoluene		22	ug/L	20	108	70	130	0	20
		tert-butylbenzene		21	ug/L	20	103	70	130	4	20
		1,2,4-trimethylbenzene		21	ug/L	20	106	70	130	1	20
		sec-butylbenzene		21	ug/L	20	103	70	130	1	20
		1,3-dichlorobenzene		19	ug/L	20	96	70	130	0	20
		4-isopropyltoluene		22	ug/L	20	109	70	130	1	20
		1,4-dichlorobenzene		20	ug/L	20	98	70	130	0	20
		1,2-dichlorobenzene		19	ug/L	20	97	70	130	1	20
		n-butylbenzene		20	ug/L	20	101	70	130	1	20
		1,2-dibromo-3-chloropropane (DBCP)		22	ug/L	20	110	70	130	5	20
		1,2,4-trichlorobenzene		21	ug/L	20	105	70	130	0	20
		1,3,5-trichlorobenzene		21	ug/L	20	104	70	130	3	20
		hexachlorobutadiene		24	ug/L	20	119	70	130	9	20
		naphthalene		25	ug/L	20	123	70	130	4	20
		1,2,3-trichlorobenzene		22	ug/L	20	112	70	130	6	20
		dibromofluoromethane SUR		100	%			78	114		
		toluene-D8 SUR		101	%			88	110		
		4-bromofluorobenzene SUR		100	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW3510C8270D	BLK11178	pyridine		<	2	ug/L					
		N-nitrosodimethylamine		<	2	ug/L					
		aniline		<	2	ug/L					
		phenol		<	2	ug/L					
		2-chlorophenol		<	5	ug/L					
		bis(2-chloroethyl)ether		<	2	ug/L					
		1,3-dichlorobenzene		<	2	ug/L					
		1,4-dichlorobenzene		<	2	ug/L					
		1,2-dichlorobenzene		<	2	ug/L					
		benzyl alcohol		<	2	ug/L					
		2-methylphenol		<	5	ug/L					
		2,2'-oxybis(1-chloropropane)		<	2	ug/L					
		hexachloroethane		<	2	ug/L					
		N-nitroso-di-N-propylamine		<	2	ug/L					
		4-methylphenol		<	2	ug/L					
		nitrobenzene		<	2	ug/L					
		isophorone		<	5	ug/L					
		2-nitrophenol		<	2	ug/L					
		2,4-dimethylphenol		<	5	ug/L					
		bis(2-chloroethoxy)methane		<	5	ug/L					
		2,4-dichlorophenol		<	5	ug/L					
		1,2,4-trichlorobenzene		<	5	ug/L					
		naphthalene		<	0.5	ug/L					
		benzoic acid		<	50	ug/L					
		4-chloroaniline		<	2	ug/L					
		hexachlorobutadiene		<	2	ug/L					
		4-chloro-3-methylphenol		<	2	ug/L					
		2-methylnaphthalene		<	0.5	ug/L					
		hexachlorocyclopentadiene		<	10	ug/L					
		2,4,6-trichlorophenol		<	2	ug/L					
		2,4,5-trichlorophenol		<	2	ug/L					
		2-chloronaphthalene		<	5	ug/L					
		2-nitroaniline		<	2	ug/L					
		acenaphthylene		<	0.5	ug/L					
		dimethylphthalate		<	5	ug/L					
		2,6-dinitrotoluene		<	5	ug/L					
		2,4-dinitrotoluene		<	5	ug/L					
		acenaphthene		<	0.5	ug/L					
		3-nitroaniline		<	2	ug/L					
		2,4-dinitrophenol		<	50	ug/L					
		dibenzofuran		<	0.5	ug/L					
		4-nitrophenol		<	10	ug/L					
		fluorene		<	0.5	ug/L					
		diethyl phthalate		<	5	ug/L					
		4-chlorophenyl phenyl ether		<	5	ug/L					
		4-nitroaniline		<	5	ug/L					
		4,6-dinitro-2-methylphenol		<	20	ug/L					
		azobenzene		<	2	ug/L					
		N-nitrosodiphenylamine		<	2	ug/L					
		4-bromophenyl phenyl ether		<	2	ug/L					
		hexachlorobenzene		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	BLK11178	pentachlorophenol		<	10	ug/L						
		phenanthrene		<	0.5	ug/L						
		anthracene		<	0.5	ug/L						
		carbazole		<	2	ug/L						
		di-n-butylphthalate		<	5	ug/L						
		fluoranthene		<	0.5	ug/L						
		benzidine		<	30	ug/L						
		pyrene		<	0.5	ug/L						
		butyl benzyl phthalate		<	5	ug/L						
		benzo(a)anthracene		<	0.5	ug/L						
		chrysene		<	0.5	ug/L						
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate		<	5	ug/L						
		di-n-octyl phthalate		<	5	ug/L						
		benzo(b)fluoranthene		<	0.5	ug/L						
		benzo(k)fluoranthene		<	0.5	ug/L						
		benzo(a)pyrene		<	0.2	ug/L						
		indeno(1,2,3-cd)pyrene		<	0.5	ug/L						
		dibenzo(a,h)anthracene		<	0.5	ug/L						
		benzo(g,h,i)perylene		<	0.5	ug/L						
		2-fluorophenol SUR			29	%			21	100		
		phenol-D5 SUR			15	%			10	102		
		2,4,6-tribromophenol SUR			72	%			10	123		
		nitrobenzene-D5 SUR			50	%			35	114		
		2-fluorobiphenyl SUR			65	%			43	116		
		p-terphenyl-D14 SUR			69	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCS11178	pyridine		11	ug/L	40	26	*	30	130		
		N-nitrosodimethylamine		11	ug/L	40	27	*	40	140		
		aniline		20	ug/L	40	50		40	140		
		phenol		7	ug/L	40	19	*	30	130		
		2-chlorophenol		28	ug/L	40	71		30	130		
		bis(2-chloroethyl)ether		25	ug/L	40	62		40	140		
		1,3-dichlorobenzene		24	ug/L	40	60		40	140		
		1,4-dichlorobenzene		24	ug/L	40	59		40	140		
		1,2-dichlorobenzene		25	ug/L	40	62		40	140		
		benzyl alcohol		20	ug/L	40	49		30	130		
		2-methylphenol		21	ug/L	40	53		30	130		
		2,2'-oxybis(1-chloropropane)		37	ug/L	40	91		40	140		
		hexachloroethane		18	ug/L	40	45		40	140		
		N-nitroso-di-N-propylamine		24	ug/L	40	60		40	140		
		4-methylphenol		19	ug/L	40	47		30	130		
		nitrobenzene		23	ug/L	40	57		40	140		
		isophorone		25	ug/L	40	63		40	140		
		2-nitrophenol		29	ug/L	40	71		30	130		
		2,4-dimethylphenol		27	ug/L	40	67		30	130		
		bis(2-chloroethoxy)methane		26	ug/L	40	66		40	140		
		2,4-dichlorophenol		29	ug/L	40	72		30	130		
		1,2,4-trichlorobenzene		25	ug/L	40	63		40	140		
		naphthalene		29	ug/L	40	73		40	140		
		benzoic acid		< 50	ug/L							
		4-chloroaniline		34	ug/L	40	85		40	140		
		hexachlorobutadiene		21	ug/L	40	52		40	140		
		4-chloro-3-methylphenol		24	ug/L	40	60		30	130		
		2-methylnaphthalene		32	ug/L	40	80		40	140		
		hexachlorocyclopentadiene		18	ug/L	40	45		40	140		
		2,4,6-trichlorophenol		30	ug/L	40	76		30	130		
		2,4,5-trichlorophenol		30	ug/L	40	74		30	130		
		2-chloronaphthalene		31	ug/L	40	78		40	140		
		2-nitroaniline		33	ug/L	40	81		40	140		
		acenaphthylene		32	ug/L	40	80		40	140		
		dimethylphthalate		18	ug/L	40	46		40	140		
		2,6-dinitrotoluene		34	ug/L	40	86		40	140		
		2,4-dinitrotoluene		31	ug/L	40	77		40	140		
		acenaphthene		32	ug/L	40	79		40	140		
		3-nitroaniline		33	ug/L	40	82		40	140		
		2,4-dinitrophenol		< 50	ug/L							
		dibenzofuran		32	ug/L	40	81		40	140		
		4-nitrophenol		< 10	ug/L	40	14	*	30	130		
		fluorene		32	ug/L	40	80		40	140		
		diethyl phthalate		26	ug/L	40	66		40	140		
		4-chlorophenyl phenyl ether		32	ug/L	40	80		40	140		
		4-nitroaniline		28	ug/L	40	71		40	140		
		4,6-dinitro-2-methylphenol		30	ug/L	40	76		30	130		
		azobenzene		30	ug/L	40	75		40	140		
		N-nitrosodiphenylamine		41	ug/L	40	103		40	140		
		4-bromophenyl phenyl ether		34	ug/L	40	85		40	140		
		hexachlorobenzene		34	ug/L	40	85		40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCS11178	pentachlorophenol			30	ug/L	40	74	30	130		
		phenanthrene			35	ug/L	40	88	40	140		
		anthracene			35	ug/L	40	87	40	140		
		carbazole			34	ug/L	40	84	40	140		
		di-n-butylphthalate			34	ug/L	40	84	40	140		
		fluoranthene			33	ug/L	40	81	40	140		
		benzidine		<	30	ug/L						
		pyrene			33	ug/L	40	83	40	140		
		butyl benzyl phthalate			32	ug/L	40	80	40	140		
		benzo(a)anthracene			34	ug/L	40	86	40	140		
		chrysene			28	ug/L	40	70	40	140		
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate			33	ug/L	40	82	40	140		
		di-n-octyl phthalate			34	ug/L	40	85	40	140		
		benzo(b)fluoranthene			35	ug/L	40	87	40	140		
		benzo(k)fluoranthene			34	ug/L	40	85	40	140		
		benzo(a)pyrene			35	ug/L	40	88	40	140		
		indeno(1,2,3-cd)pyrene			33	ug/L	40	82	40	140		
		dibenzo(a,h)anthracene			22	ug/L	40	54	40	140		
		benzo(g,h,i)perylene			34	ug/L	40	86	40	140		
		2-fluorophenol SUR			30	%			21	100		
		phenol-D5 SUR			17	%			10	102		
		2,4,6-tribromophenol SUR			84	%			10	123		
		nitrobenzene-D5 SUR			54	%			35	114		
		2-fluorobiphenyl SUR			76	%			43	116		
		p-terphenyl-D14 SUR			75	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R		Limits		RPD		RPD Limit
SW3510C8270D	LCSD11178	pyridine			11	ug/L	40	27	*	30	130	2		20
		N-nitrosodimethylamine			11	ug/L	40	28	*	40	140	1		20
		aniline			21	ug/L	40	53		40	140	6		20
		phenol			7	ug/L	40	18	*	30	130	3		20
		2-chlorophenol			28	ug/L	40	70		30	130	1		20
		bis(2-chloroethyl)ether			25	ug/L	40	62		40	140	0		20
		1,3-dichlorobenzene			24	ug/L	40	59		40	140	1		20
		1,4-dichlorobenzene			24	ug/L	40	61		40	140	2		20
		1,2-dichlorobenzene			25	ug/L	40	63		40	140	2		20
		benzyl alcohol			20	ug/L	40	50		30	130	1		20
		2-methylphenol			20	ug/L	40	51		30	130	4		20
		2,2'-oxybis(1-chloropropane)			37	ug/L	40	93		40	140	1		20
		hexachloroethane			19	ug/L	40	47		40	140	4		20
		N-nitroso-di-N-propylamine			25	ug/L	40	62		40	140	3		20
		4-methylphenol			18	ug/L	40	46		30	130	3		20
		nitrobenzene			24	ug/L	40	60		40	140	5		20
		isophorone			26	ug/L	40	64		40	140	2		20
		2-nitrophenol			29	ug/L	40	72		30	130	0		20
		2,4-dimethylphenol			26	ug/L	40	64		30	130	4		20
		bis(2-chloroethoxy)methane			27	ug/L	40	69		40	140	4		20
		2,4-dichlorophenol			28	ug/L	40	70		30	130	3		20
		1,2,4-trichlorobenzene			26	ug/L	40	64		40	140	2		20
		naphthalene			30	ug/L	40	74		40	140	1		20
		benzoic acid		<	50	ug/L								20
		4-chloroaniline			34	ug/L	40	85		40	140	0		20
		hexachlorobutadiene			21	ug/L	40	52		40	140	0		20
		4-chloro-3-methylphenol			23	ug/L	40	58		30	130	3		20
		2-methylnaphthalene			33	ug/L	40	82		40	140	2		20
		hexachlorocyclopentadiene			18	ug/L	40	44		40	140	2		20
		2,4,6-trichlorophenol			29	ug/L	40	72		30	130	6		20
		2,4,5-trichlorophenol			28	ug/L	40	69		30	130	7		20
		2-chloronaphthalene			31	ug/L	40	78		40	140	1		20
		2-nitroaniline			33	ug/L	40	82		40	140	1		20
		acenaphthylene			32	ug/L	40	81		40	140	1		20
		dimethylphthalate			17	ug/L	40	42		40	140	8		20
		2,6-dinitrotoluene			34	ug/L	40	85		40	140	0		20
		2,4-dinitrotoluene			32	ug/L	40	80		40	140	4		20
		acenaphthene			32	ug/L	40	79		40	140	0		20
		3-nitroaniline			33	ug/L	40	83		40	140	1		20
		2,4-dinitrophenol		<	50	ug/L								20
		dibenzofuran			33	ug/L	40	81		40	140	1		20
		4-nitrophenol		<	10	ug/L	40	21	*	30	130	41	*	20
		fluorene			31	ug/L	40	79		40	140	2		20
		diethyl phthalate			26	ug/L	40	66		40	140	1		20
		4-chlorophenyl phenyl ether			31	ug/L	40	79		40	140	2		20
		4-nitroaniline			29	ug/L	40	73		40	140	3		20
		4,6-dinitro-2-methylphenol			29	ug/L	40	73		30	130	4		20
		azobenzene			29	ug/L	40	73		40	140	2		20
		N-nitrosodiphenylamine			40	ug/L	40	99		40	140	4		20
		4-bromophenyl phenyl ether			33	ug/L	40	83		40	140	3		20
		hexachlorobenzene			34	ug/L	40	84		40	140	1		20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCSD11178	pentachlorophenol			32	ug/L	40	79	30	130	7	20
		phenanthrene			35	ug/L	40	87	40	140	0	20
		anthracene			35	ug/L	40	87	40	140	0	20
		carbazole			35	ug/L	40	87	40	140	3	20
		di-n-butylphthalate			35	ug/L	40	86	40	140	3	20
		fluoranthene			34	ug/L	40	85	40	140	4	20
		benzidine		<	30	ug/L						20
		pyrene			31	ug/L	40	77	40	140	7	20
		butyl benzyl phthalate			31	ug/L	40	77	40	140	3	20
		benzo(a)anthracene			34	ug/L	40	85	40	140	1	20
		chrysene			28	ug/L	40	70	40	140	1	20
		3,3'-dichlorobenzidine		<	30	ug/L						20
		bis(2-ethylhexyl)phthalate			31	ug/L	40	79	40	140	4	20
		di-n-octyl phthalate			31	ug/L	40	78	40	140	9	20
		benzo(b)fluoranthene			32	ug/L	40	81	40	140	7	20
		benzo(k)fluoranthene			33	ug/L	40	82	40	140	3	20
		benzo(a)pyrene			34	ug/L	40	86	40	140	3	20
		indeno(1,2,3-cd)pyrene			31	ug/L	40	77	40	140	6	20
		dibenzo(a,h)anthracene			21	ug/L	40	52	40	140	4	20
		benzo(g,h,i)perylene			32	ug/L	40	80	40	140	7	20
		2-fluorophenol SUR			29	%			21	100		
		phenol-D5 SUR			16	%			10	102		
		2,4,6-tribromophenol SUR			80	%			10	123		
		nitrobenzene-D5 SUR			56	%			35	114		
		2-fluorobiphenyl SUR			75	%			43	116		
		p-terphenyl-D14 SUR			71	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3005A6020A	BLK11174	Arsenic		<	0.005	mg/L						
		Manganese		<	0.01	mg/L						
SW3005A6020A	DUP11174	Manganese	46514-001		0.84	mg/L					0	20
SW3005A6020A	LCS11174	Arsenic			0.45	mg/L	0.5	90	80	120		
		Manganese			0.47	mg/L	0.5	95	80	120		
SW3005A6020A	LCSD11174	Arsenic			0.43	mg/L	0.5	86	80	120	4	20
		Manganese			0.45	mg/L	0.5	90	80	120	5	20
SW3005A6020A	MS11174	Manganese	46514-001		1.3	mg/L	0.5	95	75	125		

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

46521

Company Name: Dept. of Environmental Services, State of New Hampshire
Company Address: 29 Hazen Drive, P.O. Box 95
Report To: Michael Summerlin, P.E.
Phone #: (603) 271-3649
Invoice to Email: michael.summerlinjr@des.nh.gov
☐ Hard Copy Invoice Required

Project Name: Troy Mills Landfill Superfund Site
Project #: DES #198405082
Project Location: NH MA ME VT NY Other
Protocol: RCRA SDWA NPDES MCP NHDES OTHER
Reporting Limits: QAPP GW-1 S-1 EPA DW Other SAP
Quote # ☐ NH Reimbursement Pricing
PO # Contract No. 1051314 (2589-00 T)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER
46521-01	TRIP BLANK 10/30	1	X			X						0800	MB
-02	TRIP BLANK 10/31	1	X									0800	MB
-03	TRY_MW-104D	6	X			X	X				10-30-18	1240	ED
-04	TRY_MW-104S	6	X			X	X				10-30-18	1435	ED
-05	TRY_MW-602B	6	X			X	X				10-30-18	1145	MM

ANALYSIS REQUEST

Lab Sample ID	VOC 8260	VOC 624	VPH MADEP	VOC 524.2	TPH	8270PAH	8082 PCB	O&G 1664	pH	TSS	RCRA Metals	Total Metals-list: As, ~~Cd~~, ~~Cr~~, Pb, Mn, ~~Ni~~	Dissolved Metals-list:	Ammonia	T-Phosphorus	Cyanide	Nitrate	Nitrite	Corrosivity	TCLP Metals	Subcontract:	Grab (G) or Composite (C)
46521-01	X																					
-02			X																			
-03	X		X			X						X										
-04	X		X			X						X										
-05	X		X			X						X										

Lab Sample ID	VOC 8260 NHDES	VOC BTEX	MtBE only	VOC 8021VT	1,4-Dioxane 8260 SIM	GRO 8015	MEGRO	DRO 8015	8270ABN	625	EDB	8081 Pesticides	Mineral O&G SM5520F	Conductivity	Turbidity	Alkalinity	TVS	TS	TDS	BOD	Hardness	TAL Metals	Priority Pollutant Metals	EPH MADEP	TPH Fingerprint	Gases-List:	VOC 524.2 NH List	Bacteria P/A	Bacteria MPN	Ortho P	Nitrate + Nitrite	Chloride	Sulfate	Bromide	Fluoride	Reactive S-	Ignitibility/FP	Reactive CN	TCLP SVOC	TCLP Pesticide	Grain Size	Herbicides	Formaldehyde
46521-01	X																																										
-02					X																																							
-03					X				X													X																						
-04					X				X													X																						
-05					X				X													X																						

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) X
*Date Needed _____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Please contact Tanya Justham at (603) 493-1548 for sample questions and Michael Summerlin for all others.

REPORTING INSTRUCTIONS X PDF (e-mail address) and Excel; Please send results to michael.summerlinjr@des.nh.gov and tanya.justham@gza.com
☐ HARD COPY REQUIRED ☐ FAX (FAX#) _____

RECEIVED ON ICE ☐ YES ☐ NO
TEMPERATURE 0 °C

CUSTODY RECORD
QSD-01 Revision 10/14/15

	Relinquished by Sampler:	Date	Time	Received by:	Date	Time
		10-30-18	1705	Tanya P Justham	10/30/18	1700
	Relinquished by: Tanya P Justham	10/31/18	1500	Received by:	10/30/18	1500
	Relinquished by: Jon Labrecque	10/31/18	1508	Received by Laboratory:	10/31/18	~~1508~~ 1608

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Michael Summerlin
NHDES-Superfund
29 Hazen Drive
Concord, NH 03301

PO Number: Contrct#1061488(2589-
Job ID: 46557
Date Received: 11/2/18

Project: Troy Mills Landfill Superfund Site DES #198405082

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

Jennifer Lowe
Laboratory Manager

Date of Approval: 11/20/2018
Total number of pages: 46

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Troy Mills Landfill Superfund Site DES #198405082

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
TRIP BLANK	Water	10/31/2018 8:00	46557-001	VOCs in water by 8260 Petro & Haz Waste
TRIP BLANK	Water	10/31/2018 8:00	46557-002	Low level 1,4-dioxane in water by 8260 SIM
TRY_M-7	Water	10/31/2018 13:40	46557-003	Acid & Base/Neutral Extractables in water by 8270 Arsenic in water by 6020 Low level 1,4-dioxane in water by 8260 SIM Manganese in water by 6020 VOCs in water by 8260 Petro & Haz Waste Water Digestion for ICPMS Analysis
TRY_M-7D	Water	10/31/2018 11:55	46557-004	Acid & Base/Neutral Extractables in water by 8270 Arsenic in water by 6020 Low level 1,4-dioxane in water by 8260 SIM Manganese in water by 6020 VOCs in water by 8260 Petro & Haz Waste Water Digestion for ICPMS Analysis
TRY_MW-701	Water	10/31/2018 11:10	46557-005	Acid & Base/Neutral Extractables in water by 8270 Arsenic in water by 6020 Low level 1,4-dioxane in water by 8260 SIM Manganese in water by 6020 VOCs in water by 8260 Petro & Haz Waste Water Digestion for ICPMS Analysis
TRY_MW-508X	Water	10/31/2018 13:15	46557-006	Acid & Base/Neutral Extractables in water by 8270 Arsenic in water by 6020 Low level 1,4-dioxane in water by 8260 SIM Manganese in water by 6020 VOCs in water by 8260 Petro & Haz Waste Water Digestion for ICPMS Analysis
TRY_M-7 DUP	Water	10/31/2018 13:40	46557-007	Low level 1,4-dioxane in water by 8260 SIM

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 10/31/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557

Sample#: 46557-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 10/31/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**97**	78-114	%	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
toluene-D8 SUR	**100**	88-110	%	1	LMM		1803204	11/8/18	1:50	SW5030C8260C
4-bromofluorobenzene SUR	**93**	86-115	%	1	LMM		1803204	11/8/18	1:50	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-003
Sample ID: TRY_M-7
Matrix: Water
Sampled: 10/31/18 13:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,1-dichloroethane	**4**	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-003
Sample ID: TRY_M-7
Matrix: Water
Sampled: 10/31/18 13:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**99**	78-114	%	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	LMM		1803230	11/9/18	18:22	SW5030C8260C
4-bromofluorobenzene SUR	**87**	86-115	%	1	LMM		1803230	11/9/18	18:22	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-004
Sample ID: TRY_M-7D
Matrix: Water
Sampled: 10/31/18 11:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-004
Sample ID: TRY_M-7D
Matrix: Water
Sampled: 10/31/18 11:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**96**	78-114	%	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
toluene-D8 SUR	**100**	88-110	%	1	LMM		1803204	11/8/18	4:25	SW5030C8260C
4-bromofluorobenzene SUR	**92**	86-115	%	1	LMM		1803204	11/8/18	4:25	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-005
Sample ID: TRY_MW-701
Matrix: Water
Sampled: 10/31/18 11:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-005
Sample ID: TRY_MW-701
Matrix: Water
Sampled: 10/31/18 11:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**95**	78-114	%	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
toluene-D8 SUR	**100**	88-110	%	1	LMM		1803204	11/8/18	4:51	SW5030C8260C
4-bromofluorobenzene SUR	**88**	86-115	%	1	LMM		1803204	11/8/18	4:51	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-006
Sample ID: TRY_MW-508X
Matrix: Water
Sampled: 10/31/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-006
Sample ID: TRY_MW-508X
Matrix: Water
Sampled: 10/31/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**96**	78-114	%	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
toluene-D8 SUR	**98**	88-110	%	1	LMM		1803204	11/8/18	5:17	SW5030C8260C
4-bromofluorobenzene SUR	**94**	86-115	%	1	LMM		1803204	11/8/18	5:17	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557

Sample#: 46557-002
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 10/31/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803165	11/5/18	15:03	modSW8260C

Sample#: 46557-003
Sample ID: TRY_M-7
Matrix: Water
Sampled: 10/31/18 13:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	**0.42**	0.25	ug/L	1	LMM		1803165	11/5/18	20:14	modSW8260C

Sample#: 46557-004
Sample ID: TRY_M-7D
Matrix: Water
Sampled: 10/31/18 11:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803165	11/5/18	20:45	modSW8260C

Sample#: 46557-005
Sample ID: TRY_MW-701
Matrix: Water
Sampled: 10/31/18 11:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803165	11/5/18	21:16	modSW8260C

Sample#: 46557-006
Sample ID: TRY_MW-508X
Matrix: Water
Sampled: 10/31/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803165	11/5/18	21:47	modSW8260C

Sample#: 46557-007
Sample ID: TRY_M-7 DUP
Matrix: Water
Sampled: 10/31/18 13:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	**0.48**	0.25	ug/L	1	LMM		1803165	11/5/18	22:18	modSW8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-003
Sample ID: TRY_M-7
Matrix: Water
Sampled: 10/31/18 13:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-003
Sample ID: TRY_M-7
Matrix: Water
Sampled: 10/31/18 13:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**14** *	21-100	%	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
phenol-D5 SUR	**12**	10-102	%	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
2,4,6-tribromophenol SUR	**42**	10-123	%	1	CL	11/6/18	11178	11/7/18	19:04	SW3510C8270D
nitrobenzene-D5 SUR	**43**	35-114	%	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
2-fluorobiphenyl SUR	**63**	43-116	%	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D
p-terphenyl-D14 SUR	**68**	33-141	%	1	CL	11/6/18	11178	11/7/18	19:34	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-004
Sample ID: TRY_M-7D
Matrix: Water
Sampled: 10/31/18 11:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-004
Sample ID: TRY_M-7D
Matrix: Water
Sampled: 10/31/18 11:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**20** *	21-100	%	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
phenol-D5 SUR	**12**	10-102	%	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
2,4,6-tribromophenol SUR	**72**	10-123	%	1	CL	11/6/18	11178	11/7/18	20:04	SW3510C8270D
nitrobenzene-D5 SUR	**44**	35-114	%	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
2-fluorobiphenyl SUR	**65**	43-116	%	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D
p-terphenyl-D14 SUR	**68**	33-141	%	1	CL	11/6/18	11178	11/7/18	20:34	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-005
Sample ID: TRY_MW-701
Matrix: Water
Sampled: 10/31/18 11:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-005
Sample ID: TRY_MW-701
Matrix: Water
Sampled: 10/31/18 11:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**19** *	21-100	%	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
phenol-D5 SUR	**10**	10-102	%	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
2,4,6-tribromophenol SUR	**71**	10-123	%	1	CL	11/6/18	11178	11/8/18	9:57	SW3510C8270D
nitrobenzene-D5 SUR	**42**	35-114	%	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
2-fluorobiphenyl SUR	**62**	43-116	%	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D
p-terphenyl-D14 SUR	**66**	33-141	%	1	CL	11/6/18	11178	11/8/18	10:27	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-006
Sample ID: TRY_MW-508X
Matrix: Water
Sampled: 10/31/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557
Sample#: 46557-006
Sample ID: TRY_MW-508X
Matrix: Water
Sampled: 10/31/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**16** *	21-100	%	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
phenol-D5 SUR	**10**	10-102	%	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
2,4,6-tribromophenol SUR	**71**	10-123	%	1	CL	11/6/18	11178	11/8/18	10:57	SW3510C8270D
nitrobenzene-D5 SUR	**41**	35-114	%	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
2-fluorobiphenyl SUR	**59**	43-116	%	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D
p-terphenyl-D14 SUR	**60**	33-141	%	1	CL	11/6/18	11178	11/8/18	11:27	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46557

Sample#: 46557-003
Sample ID: TRY_M-7
Matrix: Water
Sampled: 10/31/18 13:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Arsenic	< 0.025	0.025	mg/L	5	AGN	11/7/18	11184	11/15/18	23:47	SW3005A6020A
Note: Dilution was required due to matrix interference, causing internal standard suppression.										
Manganese	**0.86**	0.05	mg/L	5	AGN	11/7/18	11184	11/15/18	23:47	SW3005A6020A

Sample#: 46557-004
Sample ID: TRY_M-7D
Matrix: Water
Sampled: 10/31/18 11:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/7/18	11184	11/8/18	23:07	SW3005A6020A
Manganese	< 0.05	0.05	mg/L	5	AGN	11/7/18	11184	11/15/18	23:53	SW3005A6020A
Note: Dilution was required due to matrix interference, causing internal standard suppression.										

Sample#: 46557-005
Sample ID: TRY_MW-701
Matrix: Water
Sampled: 10/31/18 11:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Arsenic	< 0.025	0.025	mg/L	5	AGN	11/7/18	11184	11/16/18	0:00	SW3005A6020A
Note: Dilution was required due to matrix interference, causing internal standard suppression.										
Manganese	< 0.05	0.05	mg/L	5	AGN	11/7/18	11184	11/16/18	0:00	SW3005A6020A
Note: Dilution was required due to matrix interference, causing internal standard suppression.										

Sample#: 46557-006
Sample ID: TRY_MW-508X
Matrix: Water
Sampled: 10/31/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Arsenic	< 0.025	0.025	mg/L	5	AGN	11/7/18	11184	11/16/18	0:06	SW3005A6020A
Note: Dilution was required due to matrix interference, causing internal standard suppression.										
Manganese	< 0.05	0.05	mg/L	5	AGN	11/7/18	11184	11/16/18	0:06	SW3005A6020A
Note: Dilution was required due to matrix interference, causing internal standard suppression.										

Quality Control Report



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Absolute Resource
associates

Case Narrative
Lab # 46557

Sample Receiving and Chain of Custody Discrepancies

Samples were received in acceptable condition, at 0 degrees C, on ice, and in accordance with sample handling, preservation and integrity guidelines.

Calibration

No exceptions noted.

Method Blank

No exceptions noted.

Surrogate Recoveries

SVOC: The surrogate 2-fluorophenol for samples 46557-003, -004, -005, and -006 showed recovery below the acceptance limits. Matrix interference suspected. No additional sample remained for re-analysis.

Laboratory Control Sample Results

VOC: The LCS1803204 did not meet the acceptance criteria for vinyl chloride and t-butanol (TBA). The LCSD1803204 did not meet the acceptance criteria for vinyl chloride, acetone, and tetrahydrofuran (THF). These compounds showed high recovery. There is no impact to the data as these analytes were not detected in the associated samples.

VOC: The LCS/D1803230 did not meet the acceptance criteria for bromomethane. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.

SVOC: The LCS/D11178 did not meet the acceptance criteria for pyridine, N-nitrosodimethylamine, phenol, and 4-nitrophenol. The relative percent difference between the LCS and LCSD11178 was outside the acceptance criteria for 4-nitrophenol. Since <20% of the compounds were outside of the acceptance criteria, reanalysis is not required.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

Not requested for this project.

Other

Metals: Sample dilution was required for several samples due to matrix interferences, causing internal standard suppression, as noted on the result pages.

The reported results have undergone the standard process of review for data quality. The final report meets the reporting and documentation requirements of the contract.

Jennifer Guerette QA Officer

Reporting Limits: Dilutions performed during the analysis are noted on the result pages.

No other exceptions noted.

GLOSSARY

%R	Percent Recovery
BLK	Blank (Method Blank, Preparation Blank)
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
Dil'n	Dilution
DL	Detection Limit
DUP	Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MB	Methanol Blank (associated with solid VOC samples)
MLCS	Methanol Laboratory Control Sample (associated with solid VOC samples)
MLCSD	Methanol Laboratory Control Sample Duplicate (associated with solid VOC samples)
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PB	Preparation Blank
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SUR	Surrogate

- QC Report -

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
modSW8260C	BLK1803165	1,4-dioxane		<	0.25	ug/L						
modSW8260C	LCS1803165	1,4-dioxane			7.8	ug/L	8	98	70	130		
modSW8260C	LCSD1803165	1,4-dioxane			7.8	ug/L	8	97	70	130	1	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803204	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					
		bromoform		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803204	isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			97	%			78	114		
		toluene-D8 SUR			99	%			88	110		
		4-bromofluorobenzene SUR			100	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCS1803204	dichlorodifluoromethane		18	ug/L	20	89		70	130		
		chloromethane		24	ug/L	20	121		70	130		
		vinyl chloride		30	ug/L	20	151	*	70	130		
		bromomethane		14	ug/L	20	71		70	130		
		chloroethane		26	ug/L	20	128		70	130		
		trichlorofluoromethane		23	ug/L	20	115		70	130		
		diethyl ether		26	ug/L	20	128		70	130		
		acetone		24	ug/L	20	122		70	130		
		1,1-dichloroethene		22	ug/L	20	112		70	130		
		methylene chloride		24	ug/L	20	121		70	130		
		carbon disulfide		18	ug/L	20	91		70	130		
		methyl t-butyl ether (MTBE)		20	ug/L	20	99		70	130		
		trans-1,2-dichloroethene		22	ug/L	20	110		70	130		
		isopropyl ether (DIPE)		20	ug/L	20	98		70	130		
		ethyl t-butyl ether (ETBE)		20	ug/L	20	102		70	130		
		1,1-dichloroethane		23	ug/L	20	113		70	130		
		t-butanol (TBA)		130	ug/L	100	131	*	70	130		
		2-butanone (MEK)		24	ug/L	20	120		70	130		
		2,2-dichloropropane		20	ug/L	20	101		70	130		
		cis-1,2-dichloroethene		22	ug/L	20	108		70	130		
		chloroform		22	ug/L	20	109		70	130		
		bromochloromethane		21	ug/L	20	105		70	130		
		tetrahydrofuran (THF)		26	ug/L	20	130		70	130		
		1,1,1-trichloroethane		20	ug/L	20	102		70	130		
		1,1-dichloropropene		21	ug/L	20	107		70	130		
		t-amyl-methyl ether (TAME)		21	ug/L	20	104		70	130		
		carbon tetrachloride		21	ug/L	20	103		70	130		
		1,2-dichloroethane		21	ug/L	20	106		70	130		
		benzene		21	ug/L	20	106		70	130		
		trichloroethene		22	ug/L	20	108		70	130		
		1,2-dichloropropane		24	ug/L	20	119		70	130		
		bromodichloromethane		21	ug/L	20	106		70	130		
		1,4-dioxane		< 50	ug/L	40	104		70	130		
		dibromomethane		22	ug/L	20	112		70	130		
		4-methyl-2-pentanone (MIBK)		22	ug/L	20	110		70	130		
		cis-1,3-dichloropropene		22	ug/L	20	110		70	130		
		toluene		23	ug/L	20	113		70	130		
		trans-1,3-dichloropropene		22	ug/L	20	110		70	130		
		2-hexanone		24	ug/L	20	119		70	130		
		1,1,2-trichloroethane		22	ug/L	20	109		70	130		
		1,3-dichloropropane		21	ug/L	20	106		70	130		
		tetrachloroethene		20	ug/L	20	101		70	130		
		dibromochloromethane		19	ug/L	20	96		70	130		
		1,2-dibromoethane (EDB)		21	ug/L	20	106		70	130		
		chlorobenzene		19	ug/L	20	97		70	130		
		1,1,1,2-tetrachloroethane		22	ug/L	20	111		70	130		
		ethylbenzene		22	ug/L	20	109		70	130		
		m&p-xylenes		45	ug/L	40	113		70	130		
		o-xylene		19	ug/L	20	96		70	130		
		styrene		22	ug/L	20	108		70	130		
		bromoform		20	ug/L	20	99		70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803204	isopropylbenzene		22	ug/L	20	110	70	130		
		1,1,2,2-tetrachloroethane		22	ug/L	20	110	70	130		
		1,2,3-trichloropropane		22	ug/L	20	108	70	130		
		n-propylbenzene		21	ug/L	20	103	70	130		
		bromobenzene		20	ug/L	20	102	70	130		
		1,3,5-trimethylbenzene		21	ug/L	20	104	70	130		
		2-chlorotoluene		20	ug/L	20	99	70	130		
		4-chlorotoluene		21	ug/L	20	105	70	130		
		tert-butylbenzene		20	ug/L	20	102	70	130		
		1,2,4-trimethylbenzene		20	ug/L	20	102	70	130		
		sec-butylbenzene		20	ug/L	20	99	70	130		
		1,3-dichlorobenzene		19	ug/L	20	94	70	130		
		4-isopropyltoluene		21	ug/L	20	106	70	130		
		1,4-dichlorobenzene		19	ug/L	20	96	70	130		
		1,2-dichlorobenzene		20	ug/L	20	98	70	130		
		n-butylbenzene		20	ug/L	20	98	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		24	ug/L	20	120	70	130		
		1,2,4-trichlorobenzene		21	ug/L	20	104	70	130		
		1,3,5-trichlorobenzene		19	ug/L	20	97	70	130		
		hexachlorobutadiene		21	ug/L	20	106	70	130		
		naphthalene		25	ug/L	20	123	70	130		
		1,2,3-trichlorobenzene		23	ug/L	20	113	70	130		
		dibromofluoromethane SUR		102	%			78	114		
		toluene-D8 SUR		102	%			88	110		
		4-bromofluorobenzene SUR		106	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803204	dichlorodifluoromethane		19	ug/L	20	95		70	130	6	20
		chloromethane		23	ug/L	20	117		70	130	3	20
		vinyl chloride		30	ug/L	20	151	*	70	130	0	20
		bromomethane		15	ug/L	20	73		70	130	3	20
		chloroethane		26	ug/L	20	129		70	130	1	20
		trichlorofluoromethane		23	ug/L	20	116		70	130	1	20
		diethyl ether		26	ug/L	20	129		70	130	1	20
		acetone		30	ug/L	20	148	*	70	130	19	20
		1,1-dichloroethene		24	ug/L	20	119		70	130	6	20
		methylene chloride		25	ug/L	20	125		70	130	3	20
		carbon disulfide		20	ug/L	20	100		70	130	9	20
		methyl t-butyl ether (MTBE)		21	ug/L	20	104		70	130	5	20
		trans-1,2-dichloroethene		23	ug/L	20	114		70	130	4	20
		isopropyl ether (DIPE)		21	ug/L	20	106		70	130	8	20
		ethyl t-butyl ether (ETBE)		21	ug/L	20	104		70	130	2	20
		1,1-dichloroethane		23	ug/L	20	117		70	130	3	20
		t-butanol (TBA)		130	ug/L	100	127		70	130	3	20
		2-butanone (MEK)		26	ug/L	20	128		70	130	7	20
		2,2-dichloropropane		21	ug/L	20	105		70	130	4	20
		cis-1,2-dichloroethene		22	ug/L	20	112		70	130	4	20
		chloroform		24	ug/L	20	119		70	130	8	20
		bromochloromethane		22	ug/L	20	109		70	130	4	20
		tetrahydrofuran (THF)		28	ug/L	20	140	*	70	130	8	20
		1,1,1-trichloroethane		21	ug/L	20	107		70	130	5	20
		1,1-dichloropropene		22	ug/L	20	111		70	130	4	20
		t-amyl-methyl ether (TAME)		22	ug/L	20	108		70	130	4	20
		carbon tetrachloride		21	ug/L	20	106		70	130	3	20
		1,2-dichloroethane		22	ug/L	20	111		70	130	5	20
		benzene		22	ug/L	20	110		70	130	3	20
		trichloroethene		23	ug/L	20	114		70	130	6	20
		1,2-dichloropropane		25	ug/L	20	123		70	130	4	20
		bromodichloromethane		22	ug/L	20	112		70	130	5	20
		1,4-dioxane		< 50	ug/L	40	105		70	130	1	20
		dibromomethane		24	ug/L	20	119		70	130	6	20
		4-methyl-2-pentanone (MIBK)		24	ug/L	20	119		70	130	8	20
		cis-1,3-dichloropropene		23	ug/L	20	114		70	130	4	20
		toluene		23	ug/L	20	117		70	130	3	20
		trans-1,3-dichloropropene		23	ug/L	20	116		70	130	5	20
		2-hexanone		26	ug/L	20	130		70	130	9	20
		1,1,2-trichloroethane		22	ug/L	20	112		70	130	2	20
		1,3-dichloropropane		21	ug/L	20	104		70	130	2	20
		tetrachloroethene		20	ug/L	20	99		70	130	2	20
		dibromochloromethane		19	ug/L	20	96		70	130	0	20
		1,2-dibromoethane (EDB)		21	ug/L	20	105		70	130	1	20
		chlorobenzene		19	ug/L	20	94		70	130	3	20
		1,1,1,2-tetrachloroethane		21	ug/L	20	103		70	130	7	20
		ethylbenzene		21	ug/L	20	105		70	130	4	20
		m&p-xylenes		43	ug/L	40	108		70	130	5	20
		o-xylene		18	ug/L	20	92		70	130	4	20
		styrene		21	ug/L	20	104		70	130	4	20
		bromoform		19	ug/L	20	95		70	130	5	20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803204	isopropylbenzene		21	ug/L	20	106	70	130	4	20
		1,1,2,2-tetrachloroethane		22	ug/L	20	112	70	130	2	20
		1,2,3-trichloropropane		23	ug/L	20	113	70	130	5	20
		n-propylbenzene		21	ug/L	20	106	70	130	2	20
		bromobenzene		20	ug/L	20	101	70	130	1	20
		1,3,5-trimethylbenzene		21	ug/L	20	107	70	130	2	20
		2-chlorotoluene		21	ug/L	20	103	70	130	4	20
		4-chlorotoluene		22	ug/L	20	109	70	130	4	20
		tert-butylbenzene		20	ug/L	20	102	70	130	0	20
		1,2,4-trimethylbenzene		21	ug/L	20	104	70	130	1	20
		sec-butylbenzene		20	ug/L	20	102	70	130	2	20
		1,3-dichlorobenzene		19	ug/L	20	96	70	130	2	20
		4-isopropyltoluene		22	ug/L	20	108	70	130	3	20
		1,4-dichlorobenzene		20	ug/L	20	98	70	130	1	20
		1,2-dichlorobenzene		19	ug/L	20	97	70	130	1	20
		n-butylbenzene		20	ug/L	20	101	70	130	3	20
		1,2-dibromo-3-chloropropane (DBCP)		25	ug/L	20	126	70	130	5	20
		1,2,4-trichlorobenzene		21	ug/L	20	103	70	130	2	20
		1,3,5-trichlorobenzene		20	ug/L	20	98	70	130	1	20
		hexachlorobutadiene		22	ug/L	20	112	70	130	5	20
		naphthalene		26	ug/L	20	130	70	130	5	20
		1,2,3-trichlorobenzene		23	ug/L	20	117	70	130	3	20
		dibromofluoromethane SUR		101	%			78	114		
		toluene-D8 SUR		102	%			88	110		
		4-bromofluorobenzene SUR		102	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803230	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					
		bromoform		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803230	isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			92	%			78	114		
		toluene-D8 SUR			100	%			88	110		
		4-bromofluorobenzene SUR			96	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCS1803230	dichlorodifluoromethane		17	ug/L	20	83		70	130		
		chloromethane		20	ug/L	20	98		70	130		
		vinyl chloride		24	ug/L	20	122		70	130		
		bromomethane		13	ug/L	20	67	*	70	130		
		chloroethane		23	ug/L	20	115		70	130		
		trichlorofluoromethane		21	ug/L	20	105		70	130		
		diethyl ether		24	ug/L	20	120		70	130		
		acetone		21	ug/L	20	107		70	130		
		1,1-dichloroethene		20	ug/L	20	102		70	130		
		methylene chloride		23	ug/L	20	113		70	130		
		carbon disulfide		16	ug/L	20	78		70	130		
		methyl t-butyl ether (MTBE)		19	ug/L	20	94		70	130		
		trans-1,2-dichloroethene		21	ug/L	20	105		70	130		
		isopropyl ether (DIPE)		19	ug/L	20	93		70	130		
		ethyl t-butyl ether (ETBE)		19	ug/L	20	96		70	130		
		1,1-dichloroethane		22	ug/L	20	111		70	130		
		t-butanol (TBA)		100	ug/L	100	101		70	130		
		2-butanone (MEK)		21	ug/L	20	107		70	130		
		2,2-dichloropropane		19	ug/L	20	94		70	130		
		cis-1,2-dichloroethene		21	ug/L	20	106		70	130		
		chloroform		21	ug/L	20	107		70	130		
		bromochloromethane		21	ug/L	20	104		70	130		
		tetrahydrofuran (THF)		24	ug/L	20	119		70	130		
		1,1,1-trichloroethane		19	ug/L	20	96		70	130		
		1,1-dichloropropene		21	ug/L	20	105		70	130		
		t-amyl-methyl ether (TAME)		20	ug/L	20	99		70	130		
		carbon tetrachloride		19	ug/L	20	94		70	130		
		1,2-dichloroethane		20	ug/L	20	100		70	130		
		benzene		20	ug/L	20	101		70	130		
		trichloroethene		21	ug/L	20	106		70	130		
		1,2-dichloropropane		23	ug/L	20	113		70	130		
		bromodichloromethane		19	ug/L	20	94		70	130		
		1,4-dioxane		< 50	ug/L	40	105		70	130		
		dibromomethane		20	ug/L	20	99		70	130		
		4-methyl-2-pentanone (MIBK)		19	ug/L	20	96		70	130		
		cis-1,3-dichloropropene		20	ug/L	20	102		70	130		
		toluene		21	ug/L	20	107		70	130		
		trans-1,3-dichloropropene		20	ug/L	20	100		70	130		
		2-hexanone		21	ug/L	20	105		70	130		
		1,1,2-trichloroethane		20	ug/L	20	101		70	130		
		1,3-dichloropropane		20	ug/L	20	101		70	130		
		tetrachloroethene		19	ug/L	20	94		70	130		
		dibromochloromethane		17	ug/L	20	84		70	130		
		1,2-dibromoethane (EDB)		20	ug/L	20	100		70	130		
		chlorobenzene		18	ug/L	20	91		70	130		
		1,1,1,2-tetrachloroethane		19	ug/L	20	94		70	130		
		ethylbenzene		21	ug/L	20	103		70	130		
		m&p-xylenes		41	ug/L	40	103		70	130		
		o-xylene		18	ug/L	20	89		70	130		
		styrene		20	ug/L	20	98		70	130		
		bromoform		16	ug/L	20	80		70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803230	isopropylbenzene		20	ug/L	20	102	70	130		
		1,1,2,2-tetrachloroethane		20	ug/L	20	102	70	130		
		1,2,3-trichloropropane		21	ug/L	20	107	70	130		
		n-propylbenzene		20	ug/L	20	102	70	130		
		bromobenzene		19	ug/L	20	97	70	130		
		1,3,5-trimethylbenzene		20	ug/L	20	102	70	130		
		2-chlorotoluene		20	ug/L	20	99	70	130		
		4-chlorotoluene		21	ug/L	20	104	70	130		
		tert-butylbenzene		20	ug/L	20	99	70	130		
		1,2,4-trimethylbenzene		20	ug/L	20	98	70	130		
		sec-butylbenzene		19	ug/L	20	97	70	130		
		1,3-dichlorobenzene		18	ug/L	20	91	70	130		
		4-isopropyltoluene		20	ug/L	20	101	70	130		
		1,4-dichlorobenzene		18	ug/L	20	92	70	130		
		1,2-dichlorobenzene		19	ug/L	20	94	70	130		
		n-butylbenzene		19	ug/L	20	93	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		19	ug/L	20	95	70	130		
		1,2,4-trichlorobenzene		19	ug/L	20	93	70	130		
		1,3,5-trichlorobenzene		18	ug/L	20	92	70	130		
		hexachlorobutadiene		20	ug/L	20	101	70	130		
		naphthalene		21	ug/L	20	105	70	130		
		1,2,3-trichlorobenzene		18	ug/L	20	92	70	130		
		dibromofluoromethane SUR		97	%			78	114		
		toluene-D8 SUR		101	%			88	110		
		4-bromofluorobenzene SUR		104	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803230	dichlorodifluoromethane		14	ug/L	20	71		70	130	15	20
		chloromethane		17	ug/L	20	83		70	130	16	20
		vinyl chloride		21	ug/L	20	104		70	130	16	20
		bromomethane		12	ug/L	20	58	*	70	130	15	20
		chloroethane		20	ug/L	20	99		70	130	16	20
		trichlorofluoromethane		18	ug/L	20	91		70	130	14	20
		diethyl ether		23	ug/L	20	115		70	130	4	20
		acetone		22	ug/L	20	108		70	130	1	20
		1,1-dichloroethene		19	ug/L	20	97		70	130	5	20
		methylene chloride		22	ug/L	20	110		70	130	4	20
		carbon disulfide		16	ug/L	20	80		70	130	3	20
		methyl t-butyl ether (MTBE)		18	ug/L	20	92		70	130	3	20
		trans-1,2-dichloroethene		20	ug/L	20	99		70	130	6	20
		isopropyl ether (DIPE)		19	ug/L	20	93		70	130	0	20
		ethyl t-butyl ether (ETBE)		19	ug/L	20	94		70	130	3	20
		1,1-dichloroethane		21	ug/L	20	105		70	130	6	20
		t-butanol (TBA)		100	ug/L	100	100		70	130	1	20
		2-butanone (MEK)		21	ug/L	20	106		70	130	1	20
		2,2-dichloropropane		17	ug/L	20	87		70	130	7	20
		cis-1,2-dichloroethene		19	ug/L	20	97		70	130	9	20
		chloroform		20	ug/L	20	100		70	130	7	20
		bromochloromethane		19	ug/L	20	93		70	130	12	20
		tetrahydrofuran (THF)		23	ug/L	20	117		70	130	2	20
		1,1,1-trichloroethane		18	ug/L	20	91		70	130	5	20
		1,1-dichloropropene		20	ug/L	20	98		70	130	7	20
		t-amyl-methyl ether (TAME)		19	ug/L	20	96		70	130	3	20
		carbon tetrachloride		18	ug/L	20	88		70	130	6	20
		1,2-dichloroethane		19	ug/L	20	97		70	130	3	20
		benzene		19	ug/L	20	95		70	130	6	20
		trichloroethene		19	ug/L	20	95		70	130	11	20
		1,2-dichloropropane		21	ug/L	20	104		70	130	8	20
		bromodichloromethane		18	ug/L	20	90		70	130	4	20
		1,4-dioxane		< 50	ug/L	40	95		70	130	10	20
		dibromomethane		19	ug/L	20	97		70	130	1	20
		4-methyl-2-pentanone (MIBK)		18	ug/L	20	91		70	130	5	20
		cis-1,3-dichloropropene		19	ug/L	20	97		70	130	5	20
		toluene		20	ug/L	20	99		70	130	8	20
		trans-1,3-dichloropropene		19	ug/L	20	97		70	130	3	20
		2-hexanone		20	ug/L	20	101		70	130	4	20
		1,1,2-trichloroethane		20	ug/L	20	98		70	130	3	20
		1,3-dichloropropane		19	ug/L	20	93		70	130	9	20
		tetrachloroethene		16	ug/L	20	82		70	130	14	20
		dibromochloromethane		15	ug/L	20	77		70	130	9	20
		1,2-dibromoethane (EDB)		18	ug/L	20	91		70	130	9	20
		chlorobenzene		16	ug/L	20	81		70	130	11	20
		1,1,1,2-tetrachloroethane		17	ug/L	20	87		70	130	8	20
		ethylbenzene		18	ug/L	20	90		70	130	13	20
		m&p-xylenes		37	ug/L	40	92		70	130	12	20
		o-xylene		16	ug/L	20	79		70	130	13	20
		styrene		18	ug/L	20	88		70	130	11	20
		bromoform		15	ug/L	20	75		70	130	6	20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803230	isopropylbenzene		18	ug/L	20	89	70	130	14	20
		1,1,2,2-tetrachloroethane		20	ug/L	20	98	70	130	3	20
		1,2,3-trichloropropane		20	ug/L	20	100	70	130	8	20
		n-propylbenzene		19	ug/L	20	95	70	130	7	20
		bromobenzene		18	ug/L	20	92	70	130	6	20
		1,3,5-trimethylbenzene		19	ug/L	20	97	70	130	6	20
		2-chlorotoluene		19	ug/L	20	96	70	130	3	20
		4-chlorotoluene		18	ug/L	20	92	70	130	12	20
		tert-butylbenzene		19	ug/L	20	93	70	130	7	20
		1,2,4-trimethylbenzene		19	ug/L	20	93	70	130	6	20
		sec-butylbenzene		18	ug/L	20	90	70	130	7	20
		1,3-dichlorobenzene		17	ug/L	20	83	70	130	9	20
		4-isopropyltoluene		19	ug/L	20	96	70	130	5	20
		1,4-dichlorobenzene		17	ug/L	20	87	70	130	5	20
		1,2-dichlorobenzene		18	ug/L	20	89	70	130	6	20
		n-butylbenzene		18	ug/L	20	88	70	130	5	20
		1,2-dibromo-3-chloropropane (DBCP)		18	ug/L	20	90	70	130	5	20
		1,2,4-trichlorobenzene		18	ug/L	20	92	70	130	1	20
		1,3,5-trichlorobenzene		18	ug/L	20	89	70	130	3	20
		hexachlorobutadiene		20	ug/L	20	100	70	130	0	20
		naphthalene		21	ug/L	20	106	70	130	0	20
		1,2,3-trichlorobenzene		19	ug/L	20	94	70	130	2	20
		dibromofluoromethane SUR		99	%			78	114		
		toluene-D8 SUR		103	%			88	110		
		4-bromofluorobenzene SUR		101	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW3510C8270D	BLK11178	pyridine		<	2	ug/L					
		N-nitrosodimethylamine		<	2	ug/L					
		aniline		<	2	ug/L					
		phenol		<	2	ug/L					
		2-chlorophenol		<	5	ug/L					
		bis(2-chloroethyl)ether		<	2	ug/L					
		1,3-dichlorobenzene		<	2	ug/L					
		1,4-dichlorobenzene		<	2	ug/L					
		1,2-dichlorobenzene		<	2	ug/L					
		benzyl alcohol		<	2	ug/L					
		2-methylphenol		<	5	ug/L					
		2,2'-oxybis(1-chloropropane)		<	2	ug/L					
		hexachloroethane		<	2	ug/L					
		N-nitroso-di-N-propylamine		<	2	ug/L					
		4-methylphenol		<	2	ug/L					
		nitrobenzene		<	2	ug/L					
		isophorone		<	5	ug/L					
		2-nitrophenol		<	2	ug/L					
		2,4-dimethylphenol		<	5	ug/L					
		bis(2-chloroethoxy)methane		<	5	ug/L					
		2,4-dichlorophenol		<	5	ug/L					
		1,2,4-trichlorobenzene		<	5	ug/L					
		naphthalene		<	0.5	ug/L					
		benzoic acid		<	50	ug/L					
		4-chloroaniline		<	2	ug/L					
		hexachlorobutadiene		<	2	ug/L					
		4-chloro-3-methylphenol		<	2	ug/L					
		2-methylnaphthalene		<	0.5	ug/L					
		hexachlorocyclopentadiene		<	10	ug/L					
		2,4,6-trichlorophenol		<	2	ug/L					
		2,4,5-trichlorophenol		<	2	ug/L					
		2-chloronaphthalene		<	5	ug/L					
		2-nitroaniline		<	2	ug/L					
		acenaphthylene		<	0.5	ug/L					
		dimethylphthalate		<	5	ug/L					
		2,6-dinitrotoluene		<	5	ug/L					
		2,4-dinitrotoluene		<	5	ug/L					
		acenaphthene		<	0.5	ug/L					
		3-nitroaniline		<	2	ug/L					
		2,4-dinitrophenol		<	50	ug/L					
		dibenzofuran		<	0.5	ug/L					
		4-nitrophenol		<	10	ug/L					
		fluorene		<	0.5	ug/L					
		diethyl phthalate		<	5	ug/L					
		4-chlorophenyl phenyl ether		<	5	ug/L					
		4-nitroaniline		<	5	ug/L					
		4,6-dinitro-2-methylphenol		<	20	ug/L					
		azobenzene		<	2	ug/L					
		N-nitrosodiphenylamine		<	2	ug/L					
		4-bromophenyl phenyl ether		<	2	ug/L					
		hexachlorobenzene		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	BLK11178	pentachlorophenol		<	10	ug/L						
		phenanthrene		<	0.5	ug/L						
		anthracene		<	0.5	ug/L						
		carbazole		<	2	ug/L						
		di-n-butylphthalate		<	5	ug/L						
		fluoranthene		<	0.5	ug/L						
		benzidine		<	30	ug/L						
		pyrene		<	0.5	ug/L						
		butyl benzyl phthalate		<	5	ug/L						
		benzo(a)anthracene		<	0.5	ug/L						
		chrysene		<	0.5	ug/L						
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate		<	5	ug/L						
		di-n-octyl phthalate		<	5	ug/L						
		benzo(b)fluoranthene		<	0.5	ug/L						
		benzo(k)fluoranthene		<	0.5	ug/L						
		benzo(a)pyrene		<	0.2	ug/L						
		indeno(1,2,3-cd)pyrene		<	0.5	ug/L						
		dibenzo(a,h)anthracene		<	0.5	ug/L						
		benzo(g,h,i)perylene		<	0.5	ug/L						
		2-fluorophenol SUR			29	%			21	100		
		phenol-D5 SUR			15	%			10	102		
		2,4,6-tribromophenol SUR			72	%			10	123		
		nitrobenzene-D5 SUR			50	%			35	114		
		2-fluorobiphenyl SUR			65	%			43	116		
		p-terphenyl-D14 SUR			69	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCS11178	pyridine		11	ug/L	40	26	*	30	130		
		N-nitrosodimethylamine		11	ug/L	40	27	*	40	140		
		aniline		20	ug/L	40	50		40	140		
		phenol		7	ug/L	40	19	*	30	130		
		2-chlorophenol		28	ug/L	40	71		30	130		
		bis(2-chloroethyl)ether		25	ug/L	40	62		40	140		
		1,3-dichlorobenzene		24	ug/L	40	60		40	140		
		1,4-dichlorobenzene		24	ug/L	40	59		40	140		
		1,2-dichlorobenzene		25	ug/L	40	62		40	140		
		benzyl alcohol		20	ug/L	40	49		30	130		
		2-methylphenol		21	ug/L	40	53		30	130		
		2,2'-oxybis(1-chloropropane)		37	ug/L	40	91		40	140		
		hexachloroethane		18	ug/L	40	45		40	140		
		N-nitroso-di-N-propylamine		24	ug/L	40	60		40	140		
		4-methylphenol		19	ug/L	40	47		30	130		
		nitrobenzene		23	ug/L	40	57		40	140		
		isophorone		25	ug/L	40	63		40	140		
		2-nitrophenol		29	ug/L	40	71		30	130		
		2,4-dimethylphenol		27	ug/L	40	67		30	130		
		bis(2-chloroethoxy)methane		26	ug/L	40	66		40	140		
		2,4-dichlorophenol		29	ug/L	40	72		30	130		
		1,2,4-trichlorobenzene		25	ug/L	40	63		40	140		
		naphthalene		29	ug/L	40	73		40	140		
		benzoic acid		< 50	ug/L							
		4-chloroaniline		34	ug/L	40	85		40	140		
		hexachlorobutadiene		21	ug/L	40	52		40	140		
		4-chloro-3-methylphenol		24	ug/L	40	60		30	130		
		2-methylnaphthalene		32	ug/L	40	80		40	140		
		hexachlorocyclopentadiene		18	ug/L	40	45		40	140		
		2,4,6-trichlorophenol		30	ug/L	40	76		30	130		
		2,4,5-trichlorophenol		30	ug/L	40	74		30	130		
		2-chloronaphthalene		31	ug/L	40	78		40	140		
		2-nitroaniline		33	ug/L	40	81		40	140		
		acenaphthylene		32	ug/L	40	80		40	140		
		dimethylphthalate		18	ug/L	40	46		40	140		
		2,6-dinitrotoluene		34	ug/L	40	86		40	140		
		2,4-dinitrotoluene		31	ug/L	40	77		40	140		
		acenaphthene		32	ug/L	40	79		40	140		
		3-nitroaniline		33	ug/L	40	82		40	140		
		2,4-dinitrophenol		< 50	ug/L							
		dibenzofuran		32	ug/L	40	81		40	140		
		4-nitrophenol		< 10	ug/L	40	14	*	30	130		
		fluorene		32	ug/L	40	80		40	140		
		diethyl phthalate		26	ug/L	40	66		40	140		
		4-chlorophenyl phenyl ether		32	ug/L	40	80		40	140		
		4-nitroaniline		28	ug/L	40	71		40	140		
		4,6-dinitro-2-methylphenol		30	ug/L	40	76		30	130		
		azobenzene		30	ug/L	40	75		40	140		
		N-nitrosodiphenylamine		41	ug/L	40	103		40	140		
		4-bromophenyl phenyl ether		34	ug/L	40	85		40	140		
		hexachlorobenzene		34	ug/L	40	85		40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCS11178	pentachlorophenol			30	ug/L	40	74	30	130		
		phenanthrene			35	ug/L	40	88	40	140		
		anthracene			35	ug/L	40	87	40	140		
		carbazole			34	ug/L	40	84	40	140		
		di-n-butylphthalate			34	ug/L	40	84	40	140		
		fluoranthene			33	ug/L	40	81	40	140		
		benzidine		<	30	ug/L						
		pyrene			33	ug/L	40	83	40	140		
		butyl benzyl phthalate			32	ug/L	40	80	40	140		
		benzo(a)anthracene			34	ug/L	40	86	40	140		
		chrysene			28	ug/L	40	70	40	140		
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate			33	ug/L	40	82	40	140		
		di-n-octyl phthalate			34	ug/L	40	85	40	140		
		benzo(b)fluoranthene			35	ug/L	40	87	40	140		
		benzo(k)fluoranthene			34	ug/L	40	85	40	140		
		benzo(a)pyrene			35	ug/L	40	88	40	140		
		indeno(1,2,3-cd)pyrene			33	ug/L	40	82	40	140		
		dibenzo(a,h)anthracene			22	ug/L	40	54	40	140		
		benzo(g,h,i)perylene			34	ug/L	40	86	40	140		
		2-fluorophenol SUR			30	%			21	100		
		phenol-D5 SUR			17	%			10	102		
		2,4,6-tribromophenol SUR			84	%			10	123		
		nitrobenzene-D5 SUR			54	%			35	114		
		2-fluorobiphenyl SUR			76	%			43	116		
		p-terphenyl-D14 SUR			75	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD		RPD Limit
SW3510C8270D	LCSD11178	pyridine		11	ug/L	40	27	*	30	130	2		20
		N-nitrosodimethylamine		11	ug/L	40	28	*	40	140	1		20
		aniline		21	ug/L	40	53		40	140	6		20
		phenol		7	ug/L	40	18	*	30	130	3		20
		2-chlorophenol		28	ug/L	40	70		30	130	1		20
		bis(2-chloroethyl)ether		25	ug/L	40	62		40	140	0		20
		1,3-dichlorobenzene		24	ug/L	40	59		40	140	1		20
		1,4-dichlorobenzene		24	ug/L	40	61		40	140	2		20
		1,2-dichlorobenzene		25	ug/L	40	63		40	140	2		20
		benzyl alcohol		20	ug/L	40	50		30	130	1		20
		2-methylphenol		20	ug/L	40	51		30	130	4		20
		2,2'-oxybis(1-chloropropane)		37	ug/L	40	93		40	140	1		20
		hexachloroethane		19	ug/L	40	47		40	140	4		20
		N-nitroso-di-N-propylamine		25	ug/L	40	62		40	140	3		20
		4-methylphenol		18	ug/L	40	46		30	130	3		20
		nitrobenzene		24	ug/L	40	60		40	140	5		20
		isophorone		26	ug/L	40	64		40	140	2		20
		2-nitrophenol		29	ug/L	40	72		30	130	0		20
		2,4-dimethylphenol		26	ug/L	40	64		30	130	4		20
		bis(2-chloroethoxy)methane		27	ug/L	40	69		40	140	4		20
		2,4-dichlorophenol		28	ug/L	40	70		30	130	3		20
		1,2,4-trichlorobenzene		26	ug/L	40	64		40	140	2		20
		naphthalene		30	ug/L	40	74		40	140	1		20
		benzoic acid		< 50	ug/L								20
		4-chloroaniline		34	ug/L	40	85		40	140	0		20
		hexachlorobutadiene		21	ug/L	40	52		40	140	0		20
		4-chloro-3-methylphenol		23	ug/L	40	58		30	130	3		20
		2-methylnaphthalene		33	ug/L	40	82		40	140	2		20
		hexachlorocyclopentadiene		18	ug/L	40	44		40	140	2		20
		2,4,6-trichlorophenol		29	ug/L	40	72		30	130	6		20
		2,4,5-trichlorophenol		28	ug/L	40	69		30	130	7		20
		2-chloronaphthalene		31	ug/L	40	78		40	140	1		20
		2-nitroaniline		33	ug/L	40	82		40	140	1		20
		acenaphthylene		32	ug/L	40	81		40	140	1		20
		dimethylphthalate		17	ug/L	40	42		40	140	8		20
		2,6-dinitrotoluene		34	ug/L	40	85		40	140	0		20
		2,4-dinitrotoluene		32	ug/L	40	80		40	140	4		20
		acenaphthene		32	ug/L	40	79		40	140	0		20
		3-nitroaniline		33	ug/L	40	83		40	140	1		20
		2,4-dinitrophenol		< 50	ug/L								20
		dibenzofuran		33	ug/L	40	81		40	140	1		20
		4-nitrophenol		< 10	ug/L	40	21	*	30	130	41	*	20
		fluorene		31	ug/L	40	79		40	140	2		20
		diethyl phthalate		26	ug/L	40	66		40	140	1		20
		4-chlorophenyl phenyl ether		31	ug/L	40	79		40	140	2		20
		4-nitroaniline		29	ug/L	40	73		40	140	3		20
		4,6-dinitro-2-methylphenol		29	ug/L	40	73		30	130	4		20
		azobenzene		29	ug/L	40	73		40	140	2		20
		N-nitrosodiphenylamine		40	ug/L	40	99		40	140	4		20
		4-bromophenyl phenyl ether		33	ug/L	40	83		40	140	3		20
		hexachlorobenzene		34	ug/L	40	84		40	140	1		20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCSD11178	pentachlorophenol			32	ug/L	40	79	30	130	7	20
		phenanthrene			35	ug/L	40	87	40	140	0	20
		anthracene			35	ug/L	40	87	40	140	0	20
		carbazole			35	ug/L	40	87	40	140	3	20
		di-n-butylphthalate			35	ug/L	40	86	40	140	3	20
		fluoranthene			34	ug/L	40	85	40	140	4	20
		benzidine		<	30	ug/L						20
		pyrene			31	ug/L	40	77	40	140	7	20
		butyl benzyl phthalate			31	ug/L	40	77	40	140	3	20
		benzo(a)anthracene			34	ug/L	40	85	40	140	1	20
		chrysene			28	ug/L	40	70	40	140	1	20
		3,3'-dichlorobenzidine		<	30	ug/L						20
		bis(2-ethylhexyl)phthalate			31	ug/L	40	79	40	140	4	20
		di-n-octyl phthalate			31	ug/L	40	78	40	140	9	20
		benzo(b)fluoranthene			32	ug/L	40	81	40	140	7	20
		benzo(k)fluoranthene			33	ug/L	40	82	40	140	3	20
		benzo(a)pyrene			34	ug/L	40	86	40	140	3	20
		indeno(1,2,3-cd)pyrene			31	ug/L	40	77	40	140	6	20
		dibenzo(a,h)anthracene			21	ug/L	40	52	40	140	4	20
		benzo(g,h,i)perylene			32	ug/L	40	80	40	140	7	20
		2-fluorophenol SUR			29	%			21	100		
		phenol-D5 SUR			16	%			10	102		
		2,4,6-tribromophenol SUR			80	%			10	123		
		nitrobenzene-D5 SUR			56	%			35	114		
		2-fluorobiphenyl SUR			75	%			43	116		
		p-terphenyl-D14 SUR			71	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3005A6020A	BLK11184	Arsenic		<	0.005	mg/L						
		Manganese		<	0.01	mg/L						
SW3005A6020A	LCS11184	Arsenic			0.47	mg/L	0.5	94	80	120		
		Manganese			0.46	mg/L	0.5	92	80	120		
SW3005A6020A	LCSD11184	Arsenic			0.48	mg/L	0.5	96	80	120	3	20
		Manganese			0.48	mg/L	0.5	96	80	120	5	20

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

46557

Company Name: Dept. of Environmental Services, State of New Hampshire	Project Name: Troy Mills Landfill Superfund Site
Company Address: 29 Hazen Drive, P.O. Box 95	Project #: DES #198405082
Report To: Michael Summerlin, P.E.	Project Location: **NH** MA ME VT NY ____ Other
Phone #: (603) 271-3649	Protocol: RCRA SDWA NPDES MCP **NHDES** OTHER
Invoice to Email: michael.summerlinjr@des.nh.gov	Reporting Limits: QAPP GW-1 S-1 EPA DW Other **SAP**
☐ Hard Copy Invoice Required	Quote # ____ ☐ NH Reimbursement Pricing
	PO # Contract No. 1051314 (2589-00 T)

ANALYSIS REQUEST

Analysis columns:
1. ☐ VOC 8260 ☒ VOC 8260 NHDES ☐ VOC 8260 MADEP
2. ☐ VOC 624 ☐ VOC BTEX ☐ MtBE, only ☐ VOC 8021VT
3. ☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☒ 1,4-Dioxane 8260 SIM
4. ☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List
5. ☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint
6. ☐ 8270PAH ☒ 8270ABN ☐ 625 ☐ EDB
7. ☐ 8082 PCB ☐ 8081 Pesticides ☐
8. ☐ O&G 1664 ☐ Mineral O&G SM5520F
9. ☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity
10. ☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity
11. ☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☒ Hardness
12. ☒ Total Metals-list: As, ~~Cd, Cr, Pb~~, Mn, ~~Ni~~
13. ☐ Dissolved Metals-list:
14. ☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☒ TOC
15. ☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN
16. ☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P
17. ☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride
18. ☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP
19. ☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide
20. Subcontract: ☒ Grain Size ☐ Herbicides ☐ Formaldehyde
21. (blank)
22. (blank)
23. (blank)
24. Grab (G) or Composite (C)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	Matrix: SOLID	Matrix: OTHER	Pres.: HCl	Pres.: HNO_3	Pres.: H_2SO_4	Pres.: NaOH	Pres.: MeOH	DATE	TIME	SAMPLER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
46557-01	TRIP BLANK	1	X			X					10-31-18	0800	MB	X																							
-02	TRIP BLANK	2	X								10-31-18	0800	MB			X																					
-03	TRY_M-7	6	X			X	X				10-31-18	1340	MB	X		X			X						X												
-04	TRY_M-7D	6	X			X	X				10-31-18	1155	MB	X		X			X						X												
-05	TRY_MW-701	6	X			X	X				10-31-18	1110	MM	X		X			X						X												
-06	TRY_MW-508X	6	X			X	X				10-31-18	1315	MM	X		X			X						X												
-07	TRY_M-7 DUP	2	X								10-31-18	1340	MB			X																					

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ☒
*Date Needed ____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Please contact Tanya Justham at (603) 493-1548 for sample questions and Michael Summerlin for all others.

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) and Excel; Please send results to michael.summerlinjr@des.nh.gov and tanya.justham@gza.com
☐ HARD COPY REQUIRED ☐ FAX (FAX#)____

RECEIVED ON ICE ☒ YES ☐ NO
TEMPERATURE 0 °C

CUSTODY RECORD

Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Sampler: [signature]	11-1-18	1915	Received by: Amy Summerlin	11/2/18	14:15
Relinquished by: Amy Summerlin	11/2/18	14:15	Received by: [signature]	11/2/18	14:15
Relinquished by: [signature]	11/2/18	1530	Received by Laboratory: [signature]	11/2/18	15:30

QSD-01 Revision 10/14/15

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Michael Summerlin
NHDES-Superfund
29 Hazen Drive
Concord, NH 03301

PO Number: Contrct#1061488(2589-
Job ID: 46558
Date Received: 11/2/18

Project: Troy Mills Landfill Superfund Site DES #198405082

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

Jennifer Lowe
Laboratory Manager

Date of Approval: 11/21/2018
Total number of pages: 52

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Troy Mills Landfill Superfund Site DES #198405082

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
TRIP BLANK	Water	11/1/2018 8:00	46558-001	VOCs in water by 8260 Petro & Haz Waste
TRIP BLANK	Water	11/1/2018 8:00	46558-002	Low level 1,4-dioxane in water by 8260 SIM
TRY_MW-105S	Water	11/1/2018 12:55	46558-003	Acid & Base/Neutral Extractables in water by 8270 Arsenic in water by 6020 Low level 1,4-dioxane in water by 8260 SIM Manganese in water by 6020 VOCs in water by 8260 Petro & Haz Waste Water Digestion for ICPMS Analysis
TRY_MW-105D	Water	11/1/2018 11:30	46558-004	Acid & Base/Neutral Extractables in water by 8270 Arsenic in water by 6020 Low level 1,4-dioxane in water by 8260 SIM Manganese in water by 6020 VOCs in water by 8260 Petro & Haz Waste Water Digestion for ICPMS Analysis
TRY_MW-601S	Water	11/1/2018 12:00	46558-005	Acid & Base/Neutral Extractables in water by 8270 Arsenic in water by 6020 Low level 1,4-dioxane in water by 8260 SIM Manganese in water by 6020 VOCs in water by 8260 Petro & Haz Waste Water Digestion for ICPMS Analysis
TRY_MW-601D	Water	11/1/2018 11:00	46558-006	Acid & Base/Neutral Extractables in water by 8270 Arsenic in water by 6020 Low level 1,4-dioxane in water by 8260 SIM Manganese in water by 6020 VOCs in water by 8260 Petro & Haz Waste Water Digestion for ICPMS Analysis

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/1/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/1/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**93**	78-114	%	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
toluene-D8 SUR	**98**	88-110	%	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
4-bromofluorobenzene SUR	**88**	86-115	%	1	LMM		1803204	11/8/18	5:43	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-003
Sample ID: TRY_MW-105S
Matrix: Water
Sampled: 11/1/18 12:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-003
Sample ID: TRY_MW-105S
Matrix: Water
Sampled: 11/1/18 12:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**93**	78-114	%	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
toluene-D8 SUR	**98**	88-110	%	1	LMM		1803204	11/8/18	5:43	SW5030C8260C
4-bromofluorobenzene SUR	**88**	86-115	%	1	LMM		1803204	11/8/18	5:43	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-004
Sample ID: TRY_MW-105D
Matrix: Water
Sampled: 11/1/18 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-004
Sample ID: TRY_MW-105D
Matrix: Water
Sampled: 11/1/18 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**98**	78-114	%	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
toluene-D8 SUR	**97**	88-110	%	1	LMM		1803219	11/8/18	14:42	SW5030C8260C
4-bromofluorobenzene SUR	**94**	86-115	%	1	LMM		1803219	11/8/18	14:42	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-005
Sample ID: TRY_MW-601S
Matrix: Water
Sampled: 11/1/18 12:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-005
Sample ID: TRY_MW-601S
Matrix: Water
Sampled: 11/1/18 12:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
sec-butylbenzene	**5**	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**100**	78-114	%	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	LMM		1803219	11/8/18	15:13	SW5030C8260C
4-bromofluorobenzene SUR	**97**	86-115	%	1	LMM		1803219	11/8/18	15:13	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-006
Sample ID: TRY_MW-601D
Matrix: Water
Sampled: 11/1/18 11:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
cis-1,2-dichloroethene	**14**	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-006
Sample ID: TRY_MW-601D
Matrix: Water
Sampled: 11/1/18 11:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
ethylbenzene	**2**	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
isopropylbenzene	**29**	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
tert-butylbenzene	**3**	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
sec-butylbenzene	**10**	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**101**	78-114	%	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
toluene-D8 SUR	**100**	88-110	%	1	LMM		1803219	11/8/18	15:44	SW5030C8260C
4-bromofluorobenzene SUR	**95**	86-115	%	1	LMM		1803219	11/8/18	15:44	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558

Sample#: 46558-002
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/1/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803165	11/5/18	15:34	modSW8260C

Sample#: 46558-003
Sample ID: TRY_MW-105S
Matrix: Water
Sampled: 11/1/18 12:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803165	11/5/18	22:49	modSW8260C

Sample#: 46558-004
Sample ID: TRY_MW-105D
Matrix: Water
Sampled: 11/1/18 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803165	11/5/18	23:20	modSW8260C

Sample#: 46558-005
Sample ID: TRY_MW-601S
Matrix: Water
Sampled: 11/1/18 12:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803165	11/5/18	23:51	modSW8260C

Sample#: 46558-006
Sample ID: TRY_MW-601D
Matrix: Water
Sampled: 11/1/18 11:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803165	11/6/18	0:22	modSW8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-003
Sample ID: TRY_MW-105S
Matrix: Water
Sampled: 11/1/18 12:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-003
Sample ID: TRY_MW-105S
Matrix: Water
Sampled: 11/1/18 12:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**21**	21-100	%	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
phenol-D5 SUR	**13**	10-102	%	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
2,4,6-tribromophenol SUR	**54**	10-123	%	1	CL	11/7/18	11178	11/8/18	11:58	SW3510C8270D
nitrobenzene-D5 SUR	**45**	35-114	%	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
2-fluorobiphenyl SUR	**59**	43-116	%	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D
p-terphenyl-D14 SUR	**59**	33-141	%	1	CL	11/7/18	11178	11/8/18	12:28	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-004
Sample ID: TRY_MW-105D
Matrix: Water
Sampled: 11/1/18 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-004
Sample ID: TRY_MW-105D
Matrix: Water
Sampled: 11/1/18 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**28**	21-100	%	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
phenol-D5 SUR	**14**	10-102	%	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
2,4,6-tribromophenol SUR	**68**	10-123	%	1	CL	11/8/18	11188	11/9/18	1:31	SW3510C8270D
nitrobenzene-D5 SUR	**48**	35-114	%	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
2-fluorobiphenyl SUR	**66**	43-116	%	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D
p-terphenyl-D14 SUR	**73**	33-141	%	1	CL	11/8/18	11188	11/8/18	18:33	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-005
Sample ID: TRY_MW-601S
Matrix: Water
Sampled: 11/1/18 12:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-005
Sample ID: TRY_MW-601S
Matrix: Water
Sampled: 11/1/18 12:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**11** *	21-100	%	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
phenol-D5 SUR	**6** *	10-102	%	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
2,4,6-tribromophenol SUR	**7** *	10-123	%	1	CL	11/8/18	11188	11/9/18	2:01	SW3510C8270D
nitrobenzene-D5 SUR	**40**	35-114	%	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
2-fluorobiphenyl SUR	**51**	43-116	%	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D
p-terphenyl-D14 SUR	**53**	33-141	%	1	CL	11/8/18	11188	11/8/18	19:03	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-006
Sample ID: TRY_MW-601D
Matrix: Water
Sampled: 11/1/18 11:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46558
Sample#: 46558-006
Sample ID: TRY_MW-601D
Matrix: Water
Sampled: 11/1/18 11:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**12** *	21-100	%	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
phenol-D5 SUR	**7** *	10-102	%	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
2,4,6-tribromophenol SUR	**59**	10-123	%	1	CL	11/8/18	11188	11/9/18	2:30	SW3510C8270D
nitrobenzene-D5 SUR	**47**	35-114	%	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
2-fluorobiphenyl SUR	**63**	43-116	%	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D
p-terphenyl-D14 SUR	**66**	33-141	%	1	CL	11/8/18	11188	11/8/18	19:32	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES #198405082

Job ID: 46558

Sample#: 46558-003
Sample ID: TRY_MW-105S
Matrix: Water
Sampled: 11/1/18 12:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.025	0.025	mg/L	5	AGN	11/7/18	11184	11/16/18	0:13	SW3005A6020A
Note: Dilution was required due to matrix interference, causing internal standard suppression.										
Manganese	**2.4**	0.05	mg/L	5	AGN	11/7/18	11184	11/16/18	0:13	SW3005A6020A

Sample#: 46558-004
Sample ID: TRY_MW-105D
Matrix: Water
Sampled: 11/1/18 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/7/18	11184	11/8/18	23:52	SW3005A6020A
Manganese	**0.19**	0.05	mg/L	5	AGN	11/7/18	11184	11/16/18	0:19	SW3005A6020A

Sample#: 46558-005
Sample ID: TRY_MW-601S
Matrix: Water
Sampled: 11/1/18 12:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.025	0.025	mg/L	5	AGN	11/7/18	11184	11/16/18	0:26	SW3005A6020A
Note: Dilution was required due to matrix interference, causing internal standard suppression.										
Manganese	**11**	0.05	mg/L	5	AGN	11/7/18	11184	11/16/18	0:26	SW3005A6020A

Sample#: 46558-006
Sample ID: TRY_MW-601D
Matrix: Water
Sampled: 11/1/18 11:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/7/18	11184	11/9/18	0:05	SW3005A6020A
Manganese	**1.5**	0.01	mg/L	1	AGN	11/7/18	11184	11/16/18	0:32	SW3005A6020A

Quality Control Report

124 Heritage Avenue Unit 16
Portsmouth, NH 03801
www.absoluteresourceassociates.com

Absolute Resource associates

Case Narrative
Lab # 46558

Sample Receiving and Chain of Custody Discrepancies

Samples were received in acceptable condition, at 0 degrees C, on ice, and in accordance with sample handling, preservation and integrity guidelines.

Calibration

No exceptions noted.

Method Blank

No exceptions noted.

Surrogate Recoveries

SVOC: Several surrogates for samples 46558-005 and -006 showed recovery below the acceptance limits. Matrix interference suspected. No additional sample remained for re-analysis.

Laboratory Control Sample Results

VOC: The LCS1803204 did not meet the acceptance criteria for vinyl chloride and t-butanol (TBA). The LCSD1803204 did not meet the acceptance criteria for vinyl chloride, acetone, and tetrahydrofuran (THF). These compounds showed high recovery. There is no impact to the data as these analytes were not detected in the associated samples.

SVOC: The LCS/D11178 did not meet the acceptance criteria for pyridine, N-nitrosodimethylamine, phenol, and 4-nitrophenol. The relative percent difference between the LCS and LCSD11178 was outside the acceptance criteria for 4-nitrophenol. Since <20% of the compounds were outside of the acceptance criteria, reanalysis is not required.

SVOC: The LCS11188 did not meet the acceptance criteria for N-nitrosodimethylamine, phenol, hexachloroethane, and 4-nitrophenol. The LCSD11188 did not meet the acceptance criteria for N-nitrosodimethylamine, phenol, and 4-nitrophenol. Since <20% of the compounds were outside of the acceptance criteria, reanalysis is not required.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

Not requested for this project.

Other

Metals: Sample dilution was required for several samples due to matrix interferences, causing internal standard suppression, as noted on the result pages.

The reported results have undergone the standard process of review for data quality. The final report meets the reporting and documentation requirements of the contract.

Jennifer Guerette QA Officer

Reporting Limits: Dilutions performed during the analysis are noted on the result pages.

No other exceptions noted.

GLOSSARY

%R	Percent Recovery
BLK	Blank (Method Blank, Preparation Blank)
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
Dil'n	Dilution
DL	Detection Limit
DUP	Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MB	Methanol Blank (associated with solid VOC samples)
MLCS	Methanol Laboratory Control Sample (associated with solid VOC samples)
MLCSD	Methanol Laboratory Control Sample Duplicate (associated with solid VOC samples)
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PB	Preparation Blank
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SUR	Surrogate

- QC Report -

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
modSW8260C	BLK1803165	1,4-dioxane		<	0.25	ug/L						
modSW8260C	LCS1803165	1,4-dioxane			7.8	ug/L	8	98	70	130		
modSW8260C	LCSD1803165	1,4-dioxane			7.8	ug/L	8	97	70	130	1	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803204	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					
		bromoform		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803204	isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			97	%			78	114		
		toluene-D8 SUR			99	%			88	110		
		4-bromofluorobenzene SUR			100	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCS1803204	dichlorodifluoromethane		18	ug/L	20	89		70	130		
		chloromethane		24	ug/L	20	121		70	130		
		vinyl chloride		30	ug/L	20	151	*	70	130		
		bromomethane		14	ug/L	20	71		70	130		
		chloroethane		26	ug/L	20	128		70	130		
		trichlorofluoromethane		23	ug/L	20	115		70	130		
		diethyl ether		26	ug/L	20	128		70	130		
		acetone		24	ug/L	20	122		70	130		
		1,1-dichloroethene		22	ug/L	20	112		70	130		
		methylene chloride		24	ug/L	20	121		70	130		
		carbon disulfide		18	ug/L	20	91		70	130		
		methyl t-butyl ether (MTBE)		20	ug/L	20	99		70	130		
		trans-1,2-dichloroethene		22	ug/L	20	110		70	130		
		isopropyl ether (DIPE)		20	ug/L	20	98		70	130		
		ethyl t-butyl ether (ETBE)		20	ug/L	20	102		70	130		
		1,1-dichloroethane		23	ug/L	20	113		70	130		
		t-butanol (TBA)		130	ug/L	100	131	*	70	130		
		2-butanone (MEK)		24	ug/L	20	120		70	130		
		2,2-dichloropropane		20	ug/L	20	101		70	130		
		cis-1,2-dichloroethene		22	ug/L	20	108		70	130		
		chloroform		22	ug/L	20	109		70	130		
		bromochloromethane		21	ug/L	20	105		70	130		
		tetrahydrofuran (THF)		26	ug/L	20	130		70	130		
		1,1,1-trichloroethane		20	ug/L	20	102		70	130		
		1,1-dichloropropene		21	ug/L	20	107		70	130		
		t-amyl-methyl ether (TAME)		21	ug/L	20	104		70	130		
		carbon tetrachloride		21	ug/L	20	103		70	130		
		1,2-dichloroethane		21	ug/L	20	106		70	130		
		benzene		21	ug/L	20	106		70	130		
		trichloroethene		22	ug/L	20	108		70	130		
		1,2-dichloropropane		24	ug/L	20	119		70	130		
		bromodichloromethane		21	ug/L	20	106		70	130		
		1,4-dioxane		< 50	ug/L	40	104		70	130		
		dibromomethane		22	ug/L	20	112		70	130		
		4-methyl-2-pentanone (MIBK)		22	ug/L	20	110		70	130		
		cis-1,3-dichloropropene		22	ug/L	20	110		70	130		
		toluene		23	ug/L	20	113		70	130		
		trans-1,3-dichloropropene		22	ug/L	20	110		70	130		
		2-hexanone		24	ug/L	20	119		70	130		
		1,1,2-trichloroethane		22	ug/L	20	109		70	130		
		1,3-dichloropropane		21	ug/L	20	106		70	130		
		tetrachloroethene		20	ug/L	20	101		70	130		
		dibromochloromethane		19	ug/L	20	96		70	130		
		1,2-dibromoethane (EDB)		21	ug/L	20	106		70	130		
		chlorobenzene		19	ug/L	20	97		70	130		
		1,1,1,2-tetrachloroethane		22	ug/L	20	111		70	130		
		ethylbenzene		22	ug/L	20	109		70	130		
		m&p-xylenes		45	ug/L	40	113		70	130		
		o-xylene		19	ug/L	20	96		70	130		
		styrene		22	ug/L	20	108		70	130		
		bromoform		20	ug/L	20	99		70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803204	isopropylbenzene		22	ug/L	20	110	70	130		
		1,1,2,2-tetrachloroethane		22	ug/L	20	110	70	130		
		1,2,3-trichloropropane		22	ug/L	20	108	70	130		
		n-propylbenzene		21	ug/L	20	103	70	130		
		bromobenzene		20	ug/L	20	102	70	130		
		1,3,5-trimethylbenzene		21	ug/L	20	104	70	130		
		2-chlorotoluene		20	ug/L	20	99	70	130		
		4-chlorotoluene		21	ug/L	20	105	70	130		
		tert-butylbenzene		20	ug/L	20	102	70	130		
		1,2,4-trimethylbenzene		20	ug/L	20	102	70	130		
		sec-butylbenzene		20	ug/L	20	99	70	130		
		1,3-dichlorobenzene		19	ug/L	20	94	70	130		
		4-isopropyltoluene		21	ug/L	20	106	70	130		
		1,4-dichlorobenzene		19	ug/L	20	96	70	130		
		1,2-dichlorobenzene		20	ug/L	20	98	70	130		
		n-butylbenzene		20	ug/L	20	98	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		24	ug/L	20	120	70	130		
		1,2,4-trichlorobenzene		21	ug/L	20	104	70	130		
		1,3,5-trichlorobenzene		19	ug/L	20	97	70	130		
		hexachlorobutadiene		21	ug/L	20	106	70	130		
		naphthalene		25	ug/L	20	123	70	130		
		1,2,3-trichlorobenzene		23	ug/L	20	113	70	130		
		dibromofluoromethane SUR		102	%			78	114		
		toluene-D8 SUR		102	%			88	110		
		4-bromofluorobenzene SUR		106	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result		Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803204	dichlorodifluoromethane		19		ug/L	20	95		70	130	6	20
		chloromethane		23		ug/L	20	117		70	130	3	20
		vinyl chloride		30		ug/L	20	151	*	70	130	0	20
		bromomethane		15		ug/L	20	73		70	130	3	20
		chloroethane		26		ug/L	20	129		70	130	1	20
		trichlorofluoromethane		23		ug/L	20	116		70	130	1	20
		diethyl ether		26		ug/L	20	129		70	130	1	20
		acetone		30		ug/L	20	148	*	70	130	19	20
		1,1-dichloroethene		24		ug/L	20	119		70	130	6	20
		methylene chloride		25		ug/L	20	125		70	130	3	20
		carbon disulfide		20		ug/L	20	100		70	130	9	20
		methyl t-butyl ether (MTBE)		21		ug/L	20	104		70	130	5	20
		trans-1,2-dichloroethene		23		ug/L	20	114		70	130	4	20
		isopropyl ether (DIPE)		21		ug/L	20	106		70	130	8	20
		ethyl t-butyl ether (ETBE)		21		ug/L	20	104		70	130	2	20
		1,1-dichloroethane		23		ug/L	20	117		70	130	3	20
		t-butanol (TBA)		130		ug/L	100	127		70	130	3	20
		2-butanone (MEK)		26		ug/L	20	128		70	130	7	20
		2,2-dichloropropane		21		ug/L	20	105		70	130	4	20
		cis-1,2-dichloroethene		22		ug/L	20	112		70	130	4	20
		chloroform		24		ug/L	20	119		70	130	8	20
		bromochloromethane		22		ug/L	20	109		70	130	4	20
		tetrahydrofuran (THF)		28		ug/L	20	140	*	70	130	8	20
		1,1,1-trichloroethane		21		ug/L	20	107		70	130	5	20
		1,1-dichloropropene		22		ug/L	20	111		70	130	4	20
		t-amyl-methyl ether (TAME)		22		ug/L	20	108		70	130	4	20
		carbon tetrachloride		21		ug/L	20	106		70	130	3	20
		1,2-dichloroethane		22		ug/L	20	111		70	130	5	20
		benzene		22		ug/L	20	110		70	130	3	20
		trichloroethene		23		ug/L	20	114		70	130	6	20
		1,2-dichloropropane		25		ug/L	20	123		70	130	4	20
		bromodichloromethane		22		ug/L	20	112		70	130	5	20
		1,4-dioxane		50	<	ug/L	40	105		70	130	1	20
		dibromomethane		24		ug/L	20	119		70	130	6	20
		4-methyl-2-pentanone (MIBK)		24		ug/L	20	119		70	130	8	20
		cis-1,3-dichloropropene		23		ug/L	20	114		70	130	4	20
		toluene		23		ug/L	20	117		70	130	3	20
		trans-1,3-dichloropropene		23		ug/L	20	116		70	130	5	20
		2-hexanone		26		ug/L	20	130		70	130	9	20
		1,1,2-trichloroethane		22		ug/L	20	112		70	130	2	20
		1,3-dichloropropane		21		ug/L	20	104		70	130	2	20
		tetrachloroethene		20		ug/L	20	99		70	130	2	20
		dibromochloromethane		19		ug/L	20	96		70	130	0	20
		1,2-dibromoethane (EDB)		21		ug/L	20	105		70	130	1	20
		chlorobenzene		19		ug/L	20	94		70	130	3	20
		1,1,1,2-tetrachloroethane		21		ug/L	20	103		70	130	7	20
		ethylbenzene		21		ug/L	20	105		70	130	4	20
		m&p-xylenes		43		ug/L	40	108		70	130	5	20
		o-xylene		18		ug/L	20	92		70	130	4	20
		styrene		21		ug/L	20	104		70	130	4	20
		bromoform		19		ug/L	20	95		70	130	5	20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803204	isopropylbenzene		21	ug/L	20	106	70	130	4	20
		1,1,2,2-tetrachloroethane		22	ug/L	20	112	70	130	2	20
		1,2,3-trichloropropane		23	ug/L	20	113	70	130	5	20
		n-propylbenzene		21	ug/L	20	106	70	130	2	20
		bromobenzene		20	ug/L	20	101	70	130	1	20
		1,3,5-trimethylbenzene		21	ug/L	20	107	70	130	2	20
		2-chlorotoluene		21	ug/L	20	103	70	130	4	20
		4-chlorotoluene		22	ug/L	20	109	70	130	4	20
		tert-butylbenzene		20	ug/L	20	102	70	130	0	20
		1,2,4-trimethylbenzene		21	ug/L	20	104	70	130	1	20
		sec-butylbenzene		20	ug/L	20	102	70	130	2	20
		1,3-dichlorobenzene		19	ug/L	20	96	70	130	2	20
		4-isopropyltoluene		22	ug/L	20	108	70	130	3	20
		1,4-dichlorobenzene		20	ug/L	20	98	70	130	1	20
		1,2-dichlorobenzene		19	ug/L	20	97	70	130	1	20
		n-butylbenzene		20	ug/L	20	101	70	130	3	20
		1,2-dibromo-3-chloropropane (DBCP)		25	ug/L	20	126	70	130	5	20
		1,2,4-trichlorobenzene		21	ug/L	20	103	70	130	2	20
		1,3,5-trichlorobenzene		20	ug/L	20	98	70	130	1	20
		hexachlorobutadiene		22	ug/L	20	112	70	130	5	20
		naphthalene		26	ug/L	20	130	70	130	5	20
		1,2,3-trichlorobenzene		23	ug/L	20	117	70	130	3	20
		dibromofluoromethane SUR		101	%			78	114		
		toluene-D8 SUR		102	%			88	110		
		4-bromofluorobenzene SUR		102	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803219	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					
		bromoform		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803219	isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			100	%			78	114		
		toluene-D8 SUR			98	%			88	110		
		4-bromofluorobenzene SUR			94	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803219	dichlorodifluoromethane		18	ug/L	20	92	70	130		
		chloromethane		18	ug/L	20	92	70	130		
		vinyl chloride		18	ug/L	20	89	70	130		
		bromomethane		16	ug/L	20	82	70	130		
		chloroethane		19	ug/L	20	93	70	130		
		trichlorofluoromethane		18	ug/L	20	89	70	130		
		diethyl ether		20	ug/L	20	98	70	130		
		acetone		19	ug/L	20	96	70	130		
		1,1-dichloroethene		19	ug/L	20	94	70	130		
		methylene chloride		19	ug/L	20	95	70	130		
		carbon disulfide		17	ug/L	20	87	70	130		
		methyl t-butyl ether (MTBE)		18	ug/L	20	91	70	130		
		trans-1,2-dichloroethene		19	ug/L	20	95	70	130		
		isopropyl ether (DIPE)		18	ug/L	20	92	70	130		
		ethyl t-butyl ether (ETBE)		18	ug/L	20	89	70	130		
		1,1-dichloroethane		20	ug/L	20	99	70	130		
		t-butanol (TBA)		99	ug/L	100	99	70	130		
		2-butanone (MEK)		20	ug/L	20	99	70	130		
		2,2-dichloropropane		17	ug/L	20	83	70	130		
		cis-1,2-dichloroethene		18	ug/L	20	92	70	130		
		chloroform		20	ug/L	20	99	70	130		
		bromochloromethane		18	ug/L	20	88	70	130		
		tetrahydrofuran (THF)		21	ug/L	20	107	70	130		
		1,1,1-trichloroethane		18	ug/L	20	91	70	130		
		1,1-dichloropropene		19	ug/L	20	95	70	130		
		t-amyl-methyl ether (TAME)		18	ug/L	20	92	70	130		
		carbon tetrachloride		18	ug/L	20	91	70	130		
		1,2-dichloroethane		19	ug/L	20	96	70	130		
		benzene		20	ug/L	20	100	70	130		
		trichloroethene		20	ug/L	20	98	70	130		
		1,2-dichloropropane		20	ug/L	20	99	70	130		
		bromodichloromethane		18	ug/L	20	90	70	130		
		1,4-dioxane		< 50	ug/L	40	103	70	130		
		dibromomethane		19	ug/L	20	96	70	130		
		4-methyl-2-pentanone (MIBK)		19	ug/L	20	97	70	130		
		cis-1,3-dichloropropene		19	ug/L	20	94	70	130		
		toluene		19	ug/L	20	95	70	130		
		trans-1,3-dichloropropene		20	ug/L	20	98	70	130		
		2-hexanone		20	ug/L	20	99	70	130		
		1,1,2-trichloroethane		20	ug/L	20	100	70	130		
		1,3-dichloropropane		20	ug/L	20	100	70	130		
		tetrachloroethene		18	ug/L	20	90	70	130		
		dibromochloromethane		18	ug/L	20	89	70	130		
		1,2-dibromoethane (EDB)		19	ug/L	20	95	70	130		
		chlorobenzene		19	ug/L	20	95	70	130		
		1,1,1,2-tetrachloroethane		19	ug/L	20	94	70	130		
		ethylbenzene		19	ug/L	20	97	70	130		
		m&p-xylenes		38	ug/L	40	96	70	130		
		o-xylene		19	ug/L	20	97	70	130		
		styrene		19	ug/L	20	97	70	130		
		bromoform		18	ug/L	20	92	70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803219	isopropylbenzene		19	ug/L	20	97	70	130		
		1,1,2,2-tetrachloroethane		21	ug/L	20	107	70	130		
		1,2,3-trichloropropane		19	ug/L	20	96	70	130		
		n-propylbenzene		21	ug/L	20	103	70	130		
		bromobenzene		20	ug/L	20	100	70	130		
		1,3,5-trimethylbenzene		21	ug/L	20	104	70	130		
		2-chlorotoluene		22	ug/L	20	111	70	130		
		4-chlorotoluene		20	ug/L	20	98	70	130		
		tert-butylbenzene		19	ug/L	20	96	70	130		
		1,2,4-trimethylbenzene		20	ug/L	20	102	70	130		
		sec-butylbenzene		18	ug/L	20	92	70	130		
		1,3-dichlorobenzene		20	ug/L	20	100	70	130		
		4-isopropyltoluene		20	ug/L	20	101	70	130		
		1,4-dichlorobenzene		20	ug/L	20	99	70	130		
		1,2-dichlorobenzene		20	ug/L	20	101	70	130		
		n-butylbenzene		19	ug/L	20	95	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		20	ug/L	20	99	70	130		
		1,2,4-trichlorobenzene		20	ug/L	20	99	70	130		
		1,3,5-trichlorobenzene		18	ug/L	20	90	70	130		
		hexachlorobutadiene		18	ug/L	20	90	70	130		
		naphthalene		21	ug/L	20	103	70	130		
		1,2,3-trichlorobenzene		19	ug/L	20	95	70	130		
		dibromofluoromethane SUR		99	%			78	114		
		toluene-D8 SUR		100	%			88	110		
		4-bromofluorobenzene SUR		98	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803219	dichlorodifluoromethane		19	ug/L	20	93	70	130	1	20
		chloromethane		19	ug/L	20	93	70	130	1	20
		vinyl chloride		18	ug/L	20	91	70	130	2	20
		bromomethane		17	ug/L	20	87	70	130	6	20
		chloroethane		19	ug/L	20	94	70	130	1	20
		trichlorofluoromethane		18	ug/L	20	89	70	130	0	20
		diethyl ether		20	ug/L	20	100	70	130	2	20
		acetone		21	ug/L	20	104	70	130	8	20
		1,1-dichloroethene		19	ug/L	20	96	70	130	2	20
		methylene chloride		19	ug/L	20	96	70	130	2	20
		carbon disulfide		18	ug/L	20	88	70	130	2	20
		methyl t-butyl ether (MTBE)		19	ug/L	20	93	70	130	2	20
		trans-1,2-dichloroethene		19	ug/L	20	95	70	130	0	20
		isopropyl ether (DIPE)		19	ug/L	20	94	70	130	2	20
		ethyl t-butyl ether (ETBE)		18	ug/L	20	92	70	130	3	20
		1,1-dichloroethane		20	ug/L	20	100	70	130	1	20
		t-butanol (TBA)		99	ug/L	100	99	70	130	1	20
		2-butanone (MEK)		20	ug/L	20	100	70	130	1	20
		2,2-dichloropropane		17	ug/L	20	83	70	130	0	20
		cis-1,2-dichloroethene		19	ug/L	20	94	70	130	2	20
		chloroform		20	ug/L	20	100	70	130	1	20
		bromochloromethane		18	ug/L	20	89	70	130	1	20
		tetrahydrofuran (THF)		22	ug/L	20	111	70	130	3	20
		1,1,1-trichloroethane		19	ug/L	20	94	70	130	3	20
		1,1-dichloropropene		19	ug/L	20	97	70	130	1	20
		t-amyl-methyl ether (TAME)		19	ug/L	20	93	70	130	0	20
		carbon tetrachloride		19	ug/L	20	93	70	130	2	20
		1,2-dichloroethane		19	ug/L	20	97	70	130	1	20
		benzene		20	ug/L	20	101	70	130	1	20
		trichloroethene		20	ug/L	20	99	70	130	1	20
		1,2-dichloropropane		20	ug/L	20	100	70	130	1	20
		bromodichloromethane		19	ug/L	20	93	70	130	3	20
		1,4-dioxane		< 50	ug/L	40	107	70	130	4	20
		dibromomethane		20	ug/L	20	98	70	130	3	20
		4-methyl-2-pentanone (MIBK)		20	ug/L	20	100	70	130	3	20
		cis-1,3-dichloropropene		19	ug/L	20	95	70	130	1	20
		toluene		19	ug/L	20	96	70	130	1	20
		trans-1,3-dichloropropene		20	ug/L	20	98	70	130	0	20
		2-hexanone		20	ug/L	20	101	70	130	2	20
		1,1,2-trichloroethane		20	ug/L	20	102	70	130	1	20
		1,3-dichloropropane		20	ug/L	20	102	70	130	2	20
		tetrachloroethene		19	ug/L	20	94	70	130	4	20
		dibromochloromethane		18	ug/L	20	92	70	130	3	20
		1,2-dibromoethane (EDB)		20	ug/L	20	98	70	130	3	20
		chlorobenzene		19	ug/L	20	96	70	130	1	20
		1,1,1,2-tetrachloroethane		20	ug/L	20	98	70	130	3	20
		ethylbenzene		20	ug/L	20	98	70	130	1	20
		m&p-xylenes		39	ug/L	40	98	70	130	2	20
		o-xylene		20	ug/L	20	99	70	130	2	20
		styrene		19	ug/L	20	97	70	130	1	20
		bromoform		20	ug/L	20	98	70	130	6	20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803219	isopropylbenzene		20	ug/L	20	99	70	130	3	20
		1,1,2,2-tetrachloroethane		21	ug/L	20	106	70	130	1	20
		1,2,3-trichloropropane		20	ug/L	20	100	70	130	4	20
		n-propylbenzene		21	ug/L	20	106	70	130	3	20
		bromobenzene		20	ug/L	20	101	70	130	0	20
		1,3,5-trimethylbenzene		21	ug/L	20	106	70	130	2	20
		2-chlorotoluene		20	ug/L	20	100	70	130	11	20
		4-chlorotoluene		22	ug/L	20	111	70	130	13	20
		tert-butylbenzene		20	ug/L	20	98	70	130	2	20
		1,2,4-trimethylbenzene		21	ug/L	20	103	70	130	1	20
		sec-butylbenzene		19	ug/L	20	94	70	130	2	20
		1,3-dichlorobenzene		20	ug/L	20	100	70	130	0	20
		4-isopropyltoluene		20	ug/L	20	102	70	130	1	20
		1,4-dichlorobenzene		20	ug/L	20	102	70	130	3	20
		1,2-dichlorobenzene		21	ug/L	20	103	70	130	2	20
		n-butylbenzene		19	ug/L	20	96	70	130	2	20
		1,2-dibromo-3-chloropropane (DBCP)		20	ug/L	20	102	70	130	2	20
		1,2,4-trichlorobenzene		20	ug/L	20	102	70	130	2	20
		1,3,5-trichlorobenzene		18	ug/L	20	91	70	130	1	20
		hexachlorobutadiene		18	ug/L	20	91	70	130	2	20
		naphthalene		21	ug/L	20	104	70	130	2	20
		1,2,3-trichlorobenzene		20	ug/L	20	98	70	130	3	20
		dibromofluoromethane SUR		100	%			78	114		
		toluene-D8 SUR		100	%			88	110		
		4-bromofluorobenzene SUR		99	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW3510C8270D	BLK11178	pyridine		<	2	ug/L					
		N-nitrosodimethylamine		<	2	ug/L					
		aniline		<	2	ug/L					
		phenol		<	2	ug/L					
		2-chlorophenol		<	5	ug/L					
		bis(2-chloroethyl)ether		<	2	ug/L					
		1,3-dichlorobenzene		<	2	ug/L					
		1,4-dichlorobenzene		<	2	ug/L					
		1,2-dichlorobenzene		<	2	ug/L					
		benzyl alcohol		<	2	ug/L					
		2-methylphenol		<	5	ug/L					
		2,2'-oxybis(1-chloropropane)		<	2	ug/L					
		hexachloroethane		<	2	ug/L					
		N-nitroso-di-N-propylamine		<	2	ug/L					
		4-methylphenol		<	2	ug/L					
		nitrobenzene		<	2	ug/L					
		isophorone		<	5	ug/L					
		2-nitrophenol		<	2	ug/L					
		2,4-dimethylphenol		<	5	ug/L					
		bis(2-chloroethoxy)methane		<	5	ug/L					
		2,4-dichlorophenol		<	5	ug/L					
		1,2,4-trichlorobenzene		<	5	ug/L					
		naphthalene		<	0.5	ug/L					
		benzoic acid		<	50	ug/L					
		4-chloroaniline		<	2	ug/L					
		hexachlorobutadiene		<	2	ug/L					
		4-chloro-3-methylphenol		<	2	ug/L					
		2-methylnaphthalene		<	0.5	ug/L					
		hexachlorocyclopentadiene		<	10	ug/L					
		2,4,6-trichlorophenol		<	2	ug/L					
		2,4,5-trichlorophenol		<	2	ug/L					
		2-chloronaphthalene		<	5	ug/L					
		2-nitroaniline		<	2	ug/L					
		acenaphthylene		<	0.5	ug/L					
		dimethylphthalate		<	5	ug/L					
		2,6-dinitrotoluene		<	5	ug/L					
		2,4-dinitrotoluene		<	5	ug/L					
		acenaphthene		<	0.5	ug/L					
		3-nitroaniline		<	2	ug/L					
		2,4-dinitrophenol		<	50	ug/L					
		dibenzofuran		<	0.5	ug/L					
		4-nitrophenol		<	10	ug/L					
		fluorene		<	0.5	ug/L					
		diethyl phthalate		<	5	ug/L					
		4-chlorophenyl phenyl ether		<	5	ug/L					
		4-nitroaniline		<	5	ug/L					
		4,6-dinitro-2-methylphenol		<	20	ug/L					
		azobenzene		<	2	ug/L					
		N-nitrosodiphenylamine		<	2	ug/L					
		4-bromophenyl phenyl ether		<	2	ug/L					
		hexachlorobenzene		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	BLK11178	pentachlorophenol		<	10	ug/L						
		phenanthrene		<	0.5	ug/L						
		anthracene		<	0.5	ug/L						
		carbazole		<	2	ug/L						
		di-n-butylphthalate		<	5	ug/L						
		fluoranthene		<	0.5	ug/L						
		benzidine		<	30	ug/L						
		pyrene		<	0.5	ug/L						
		butyl benzyl phthalate		<	5	ug/L						
		benzo(a)anthracene		<	0.5	ug/L						
		chrysene		<	0.5	ug/L						
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate		<	5	ug/L						
		di-n-octyl phthalate		<	5	ug/L						
		benzo(b)fluoranthene		<	0.5	ug/L						
		benzo(k)fluoranthene		<	0.5	ug/L						
		benzo(a)pyrene		<	0.2	ug/L						
		indeno(1,2,3-cd)pyrene		<	0.5	ug/L						
		dibenzo(a,h)anthracene		<	0.5	ug/L						
		benzo(g,h,i)perylene		<	0.5	ug/L						
		2-fluorophenol SUR			29	%			21	100		
		phenol-D5 SUR			15	%			10	102		
		2,4,6-tribromophenol SUR			72	%			10	123		
		nitrobenzene-D5 SUR			50	%			35	114		
		2-fluorobiphenyl SUR			65	%			43	116		
		p-terphenyl-D14 SUR			69	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCS11178	pyridine		11	ug/L	40	26	*	30	130		
		N-nitrosodimethylamine		11	ug/L	40	27	*	40	140		
		aniline		20	ug/L	40	50		40	140		
		phenol		7	ug/L	40	19	*	30	130		
		2-chlorophenol		28	ug/L	40	71		30	130		
		bis(2-chloroethyl)ether		25	ug/L	40	62		40	140		
		1,3-dichlorobenzene		24	ug/L	40	60		40	140		
		1,4-dichlorobenzene		24	ug/L	40	59		40	140		
		1,2-dichlorobenzene		25	ug/L	40	62		40	140		
		benzyl alcohol		20	ug/L	40	49		30	130		
		2-methylphenol		21	ug/L	40	53		30	130		
		2,2'-oxybis(1-chloropropane)		37	ug/L	40	91		40	140		
		hexachloroethane		18	ug/L	40	45		40	140		
		N-nitroso-di-N-propylamine		24	ug/L	40	60		40	140		
		4-methylphenol		19	ug/L	40	47		30	130		
		nitrobenzene		23	ug/L	40	57		40	140		
		isophorone		25	ug/L	40	63		40	140		
		2-nitrophenol		29	ug/L	40	71		30	130		
		2,4-dimethylphenol		27	ug/L	40	67		30	130		
		bis(2-chloroethoxy)methane		26	ug/L	40	66		40	140		
		2,4-dichlorophenol		29	ug/L	40	72		30	130		
		1,2,4-trichlorobenzene		25	ug/L	40	63		40	140		
		naphthalene		29	ug/L	40	73		40	140		
		benzoic acid		< 50	ug/L							
		4-chloroaniline		34	ug/L	40	85		40	140		
		hexachlorobutadiene		21	ug/L	40	52		40	140		
		4-chloro-3-methylphenol		24	ug/L	40	60		30	130		
		2-methylnaphthalene		32	ug/L	40	80		40	140		
		hexachlorocyclopentadiene		18	ug/L	40	45		40	140		
		2,4,6-trichlorophenol		30	ug/L	40	76		30	130		
		2,4,5-trichlorophenol		30	ug/L	40	74		30	130		
		2-chloronaphthalene		31	ug/L	40	78		40	140		
		2-nitroaniline		33	ug/L	40	81		40	140		
		acenaphthylene		32	ug/L	40	80		40	140		
		dimethylphthalate		18	ug/L	40	46		40	140		
		2,6-dinitrotoluene		34	ug/L	40	86		40	140		
		2,4-dinitrotoluene		31	ug/L	40	77		40	140		
		acenaphthene		32	ug/L	40	79		40	140		
		3-nitroaniline		33	ug/L	40	82		40	140		
		2,4-dinitrophenol		< 50	ug/L							
		dibenzofuran		32	ug/L	40	81		40	140		
		4-nitrophenol		< 10	ug/L	40	14	*	30	130		
		fluorene		32	ug/L	40	80		40	140		
		diethyl phthalate		26	ug/L	40	66		40	140		
		4-chlorophenyl phenyl ether		32	ug/L	40	80		40	140		
		4-nitroaniline		28	ug/L	40	71		40	140		
		4,6-dinitro-2-methylphenol		30	ug/L	40	76		30	130		
		azobenzene		30	ug/L	40	75		40	140		
		N-nitrosodiphenylamine		41	ug/L	40	103		40	140		
		4-bromophenyl phenyl ether		34	ug/L	40	85		40	140		
		hexachlorobenzene		34	ug/L	40	85		40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCS11178	pentachlorophenol			30	ug/L	40	74	30	130		
		phenanthrene			35	ug/L	40	88	40	140		
		anthracene			35	ug/L	40	87	40	140		
		carbazole			34	ug/L	40	84	40	140		
		di-n-butylphthalate			34	ug/L	40	84	40	140		
		fluoranthene			33	ug/L	40	81	40	140		
		benzidine		<	30	ug/L						
		pyrene			33	ug/L	40	83	40	140		
		butyl benzyl phthalate			32	ug/L	40	80	40	140		
		benzo(a)anthracene			34	ug/L	40	86	40	140		
		chrysene			28	ug/L	40	70	40	140		
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate			33	ug/L	40	82	40	140		
		di-n-octyl phthalate			34	ug/L	40	85	40	140		
		benzo(b)fluoranthene			35	ug/L	40	87	40	140		
		benzo(k)fluoranthene			34	ug/L	40	85	40	140		
		benzo(a)pyrene			35	ug/L	40	88	40	140		
		indeno(1,2,3-cd)pyrene			33	ug/L	40	82	40	140		
		dibenzo(a,h)anthracene			22	ug/L	40	54	40	140		
		benzo(g,h,i)perylene			34	ug/L	40	86	40	140		
		2-fluorophenol SUR			30	%			21	100		
		phenol-D5 SUR			17	%			10	102		
		2,4,6-tribromophenol SUR			84	%			10	123		
		nitrobenzene-D5 SUR			54	%			35	114		
		2-fluorobiphenyl SUR			76	%			43	116		
		p-terphenyl-D14 SUR			75	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD		RPD Limit
SW3510C8270D	LCSD11178	pyridine		11	ug/L	40	27	*	30	130	2		20
		N-nitrosodimethylamine		11	ug/L	40	28	*	40	140	1		20
		aniline		21	ug/L	40	53		40	140	6		20
		phenol		7	ug/L	40	18	*	30	130	3		20
		2-chlorophenol		28	ug/L	40	70		30	130	1		20
		bis(2-chloroethyl)ether		25	ug/L	40	62		40	140	0		20
		1,3-dichlorobenzene		24	ug/L	40	59		40	140	1		20
		1,4-dichlorobenzene		24	ug/L	40	61		40	140	2		20
		1,2-dichlorobenzene		25	ug/L	40	63		40	140	2		20
		benzyl alcohol		20	ug/L	40	50		30	130	1		20
		2-methylphenol		20	ug/L	40	51		30	130	4		20
		2,2'-oxybis(1-chloropropane)		37	ug/L	40	93		40	140	1		20
		hexachloroethane		19	ug/L	40	47		40	140	4		20
		N-nitroso-di-N-propylamine		25	ug/L	40	62		40	140	3		20
		4-methylphenol		18	ug/L	40	46		30	130	3		20
		nitrobenzene		24	ug/L	40	60		40	140	5		20
		isophorone		26	ug/L	40	64		40	140	2		20
		2-nitrophenol		29	ug/L	40	72		30	130	0		20
		2,4-dimethylphenol		26	ug/L	40	64		30	130	4		20
		bis(2-chloroethoxy)methane		27	ug/L	40	69		40	140	4		20
		2,4-dichlorophenol		28	ug/L	40	70		30	130	3		20
		1,2,4-trichlorobenzene		26	ug/L	40	64		40	140	2		20
		naphthalene		30	ug/L	40	74		40	140	1		20
		benzoic acid		< 50	ug/L								20
		4-chloroaniline		34	ug/L	40	85		40	140	0		20
		hexachlorobutadiene		21	ug/L	40	52		40	140	0		20
		4-chloro-3-methylphenol		23	ug/L	40	58		30	130	3		20
		2-methylnaphthalene		33	ug/L	40	82		40	140	2		20
		hexachlorocyclopentadiene		18	ug/L	40	44		40	140	2		20
		2,4,6-trichlorophenol		29	ug/L	40	72		30	130	6		20
		2,4,5-trichlorophenol		28	ug/L	40	69		30	130	7		20
		2-chloronaphthalene		31	ug/L	40	78		40	140	1		20
		2-nitroaniline		33	ug/L	40	82		40	140	1		20
		acenaphthylene		32	ug/L	40	81		40	140	1		20
		dimethylphthalate		17	ug/L	40	42		40	140	8		20
		2,6-dinitrotoluene		34	ug/L	40	85		40	140	0		20
		2,4-dinitrotoluene		32	ug/L	40	80		40	140	4		20
		acenaphthene		32	ug/L	40	79		40	140	0		20
		3-nitroaniline		33	ug/L	40	83		40	140	1		20
		2,4-dinitrophenol		< 50	ug/L								20
		dibenzofuran		33	ug/L	40	81		40	140	1		20
		4-nitrophenol		< 10	ug/L	40	21	*	30	130	41	*	20
		fluorene		31	ug/L	40	79		40	140	2		20
		diethyl phthalate		26	ug/L	40	66		40	140	1		20
		4-chlorophenyl phenyl ether		31	ug/L	40	79		40	140	2		20
		4-nitroaniline		29	ug/L	40	73		40	140	3		20
		4,6-dinitro-2-methylphenol		29	ug/L	40	73		30	130	4		20
		azobenzene		29	ug/L	40	73		40	140	2		20
		N-nitrosodiphenylamine		40	ug/L	40	99		40	140	4		20
		4-bromophenyl phenyl ether		33	ug/L	40	83		40	140	3		20
		hexachlorobenzene		34	ug/L	40	84		40	140	1		20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCSD11178	pentachlorophenol			32	ug/L	40	79	30	130	7	20
		phenanthrene			35	ug/L	40	87	40	140	0	20
		anthracene			35	ug/L	40	87	40	140	0	20
		carbazole			35	ug/L	40	87	40	140	3	20
		di-n-butylphthalate			35	ug/L	40	86	40	140	3	20
		fluoranthene			34	ug/L	40	85	40	140	4	20
		benzidine		<	30	ug/L						20
		pyrene			31	ug/L	40	77	40	140	7	20
		butyl benzyl phthalate			31	ug/L	40	77	40	140	3	20
		benzo(a)anthracene			34	ug/L	40	85	40	140	1	20
		chrysene			28	ug/L	40	70	40	140	1	20
		3,3'-dichlorobenzidine		<	30	ug/L						20
		bis(2-ethylhexyl)phthalate			31	ug/L	40	79	40	140	4	20
		di-n-octyl phthalate			31	ug/L	40	78	40	140	9	20
		benzo(b)fluoranthene			32	ug/L	40	81	40	140	7	20
		benzo(k)fluoranthene			33	ug/L	40	82	40	140	3	20
		benzo(a)pyrene			34	ug/L	40	86	40	140	3	20
		indeno(1,2,3-cd)pyrene			31	ug/L	40	77	40	140	6	20
		dibenzo(a,h)anthracene			21	ug/L	40	52	40	140	4	20
		benzo(g,h,i)perylene			32	ug/L	40	80	40	140	7	20
		2-fluorophenol SUR			29	%			21	100		
		phenol-D5 SUR			16	%			10	102		
		2,4,6-tribromophenol SUR			80	%			10	123		
		nitrobenzene-D5 SUR			56	%			35	114		
		2-fluorobiphenyl SUR			75	%			43	116		
		p-terphenyl-D14 SUR			71	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW3510C8270D	BLK11188	pyridine		<	2	ug/L					
		N-nitrosodimethylamine		<	2	ug/L					
		aniline		<	2	ug/L					
		phenol		<	2	ug/L					
		2-chlorophenol		<	5	ug/L					
		bis(2-chloroethyl)ether		<	2	ug/L					
		1,3-dichlorobenzene		<	2	ug/L					
		1,4-dichlorobenzene		<	2	ug/L					
		1,2-dichlorobenzene		<	2	ug/L					
		benzyl alcohol		<	2	ug/L					
		2-methylphenol		<	5	ug/L					
		2,2'-oxybis(1-chloropropane)		<	2	ug/L					
		hexachloroethane		<	2	ug/L					
		N-nitroso-di-N-propylamine		<	2	ug/L					
		4-methylphenol		<	2	ug/L					
		nitrobenzene		<	2	ug/L					
		isophorone		<	5	ug/L					
		2-nitrophenol		<	2	ug/L					
		2,4-dimethylphenol		<	5	ug/L					
		bis(2-chloroethoxy)methane		<	5	ug/L					
		2,4-dichlorophenol		<	5	ug/L					
		1,2,4-trichlorobenzene		<	5	ug/L					
		naphthalene		<	0.5	ug/L					
		benzoic acid		<	50	ug/L					
		4-chloroaniline		<	2	ug/L					
		hexachlorobutadiene		<	2	ug/L					
		4-chloro-3-methylphenol		<	2	ug/L					
		2-methylnaphthalene		<	0.5	ug/L					
		hexachlorocyclopentadiene		<	10	ug/L					
		2,4,6-trichlorophenol		<	2	ug/L					
		2,4,5-trichlorophenol		<	2	ug/L					
		2-chloronaphthalene		<	5	ug/L					
		2-nitroaniline		<	2	ug/L					
		acenaphthylene		<	0.5	ug/L					
		dimethylphthalate		<	5	ug/L					
		2,6-dinitrotoluene		<	5	ug/L					
		2,4-dinitrotoluene		<	5	ug/L					
		acenaphthene		<	0.5	ug/L					
		3-nitroaniline		<	2	ug/L					
		2,4-dinitrophenol		<	50	ug/L					
		dibenzofuran		<	0.5	ug/L					
		4-nitrophenol		<	10	ug/L					
		fluorene		<	0.5	ug/L					
		diethyl phthalate		<	5	ug/L					
		4-chlorophenyl phenyl ether		<	5	ug/L					
		4-nitroaniline		<	5	ug/L					
		4,6-dinitro-2-methylphenol		<	20	ug/L					
		azobenzene		<	2	ug/L					
		N-nitrosodiphenylamine		<	2	ug/L					
		4-bromophenyl phenyl ether		<	2	ug/L					
		hexachlorobenzene		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	BLK11188	pentachlorophenol		<	10	ug/L						
		phenanthrene		<	0.5	ug/L						
		anthracene		<	0.5	ug/L						
		carbazole		<	2	ug/L						
		di-n-butylphthalate		<	5	ug/L						
		fluoranthene		<	0.5	ug/L						
		benzidine		<	30	ug/L						
		pyrene		<	0.5	ug/L						
		butyl benzyl phthalate		<	5	ug/L						
		benzo(a)anthracene		<	0.5	ug/L						
		chrysene		<	0.5	ug/L						
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate		<	5	ug/L						
		di-n-octyl phthalate		<	5	ug/L						
		benzo(b)fluoranthene		<	0.5	ug/L						
		benzo(k)fluoranthene		<	0.5	ug/L						
		benzo(a)pyrene		<	0.2	ug/L						
		indeno(1,2,3-cd)pyrene		<	0.5	ug/L						
		dibenzo(a,h)anthracene		<	0.5	ug/L						
		benzo(g,h,i)perylene		<	0.5	ug/L						
		2-fluorophenol SUR			30	%			21	100		
		phenol-D5 SUR			18	%			10	102		
		2,4,6-tribromophenol SUR			68	%			10	123		
		nitrobenzene-D5 SUR			46	%			35	114		
		2-fluorobiphenyl SUR			64	%			43	116		
		p-terphenyl-D14 SUR			70	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCS11188	pyridine		13	ug/L	40	32		30	130		
		N-nitrosodimethylamine		14	ug/L	40	36	*	40	140		
		aniline		20	ug/L	40	49		40	140		
		phenol		10	ug/L	40	26	*	30	130		
		2-chlorophenol		27	ug/L	40	66		30	130		
		bis(2-chloroethyl)ether		21	ug/L	40	51		40	140		
		1,3-dichlorobenzene		18	ug/L	40	46		40	140		
		1,4-dichlorobenzene		19	ug/L	40	47		40	140		
		1,2-dichlorobenzene		20	ug/L	40	50		40	140		
		benzyl alcohol		22	ug/L	40	55		30	130		
		2-methylphenol		20	ug/L	40	49		30	130		
		2,2'-oxybis(1-chloropropane)		30	ug/L	40	74		40	140		
		hexachloroethane		14	ug/L	40	35	*	40	140		
		N-nitroso-di-N-propylamine		19	ug/L	40	48		40	140		
		4-methylphenol		20	ug/L	40	50		30	130		
		nitrobenzene		19	ug/L	40	47		40	140		
		isophorone		21	ug/L	40	52		40	140		
		2-nitrophenol		27	ug/L	40	66		30	130		
		2,4-dimethylphenol		24	ug/L	40	60		30	130		
		bis(2-chloroethoxy)methane		22	ug/L	40	55		40	140		
		2,4-dichlorophenol		27	ug/L	40	68		30	130		
		1,2,4-trichlorobenzene		20	ug/L	40	51		40	140		
		naphthalene		24	ug/L	40	59		40	140		
		benzoic acid		< 50	ug/L							
		4-chloroaniline		28	ug/L	40	70		40	140		
		hexachlorobutadiene		17	ug/L	40	42		40	140		
		4-chloro-3-methylphenol		23	ug/L	40	58		30	130		
		2-methylnaphthalene		27	ug/L	40	67		40	140		
		hexachlorocyclopentadiene		17	ug/L	40	43		40	140		
		2,4,6-trichlorophenol		28	ug/L	40	71		30	130		
		2,4,5-trichlorophenol		27	ug/L	40	68		30	130		
		2-chloronaphthalene		26	ug/L	40	65		40	140		
		2-nitroaniline		28	ug/L	40	71		40	140		
		acenaphthylene		27	ug/L	40	68		40	140		
		dimethylphthalate		19	ug/L	40	47		40	140		
		2,6-dinitrotoluene		29	ug/L	40	71		40	140		
		2,4-dinitrotoluene		26	ug/L	40	66		40	140		
		acenaphthene		27	ug/L	40	67		40	140		
		3-nitroaniline		29	ug/L	40	72		40	140		
		2,4-dinitrophenol		< 50	ug/L							
		dibenzofuran		27	ug/L	40	68		40	140		
		4-nitrophenol		< 10	ug/L	40	23	*	30	130		
		fluorene		27	ug/L	40	68		40	140		
		diethyl phthalate		24	ug/L	40	60		40	140		
		4-chlorophenyl phenyl ether		27	ug/L	40	68		40	140		
		4-nitroaniline		27	ug/L	40	67		40	140		
		4,6-dinitro-2-methylphenol		26	ug/L	40	66		30	130		
		azobenzene		26	ug/L	40	64		40	140		
		N-nitrosodiphenylamine		36	ug/L	40	90		40	140		
		4-bromophenyl phenyl ether		29	ug/L	40	74		40	140		
		hexachlorobenzene		29	ug/L	40	73		40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCS11188	pentachlorophenol			30	ug/L	40	76	30	130		
		phenanthrene			30	ug/L	40	76	40	140		
		anthracene			30	ug/L	40	76	40	140		
		carbazole			29	ug/L	40	72	40	140		
		di-n-butylphthalate			30	ug/L	40	74	40	140		
		fluoranthene			27	ug/L	40	68	40	140		
		benzidine		<	30	ug/L						
		pyrene			31	ug/L	40	77	40	140		
		butyl benzyl phthalate			30	ug/L	40	76	40	140		
		benzo(a)anthracene			31	ug/L	40	78	40	140		
		chrysene			25	ug/L	40	63	40	140		
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate			31	ug/L	40	77	40	140		
		di-n-octyl phthalate			31	ug/L	40	78	40	140		
		benzo(b)fluoranthene			30	ug/L	40	74	40	140		
		benzo(k)fluoranthene			30	ug/L	40	76	40	140		
		benzo(a)pyrene			31	ug/L	40	78	40	140		
		indeno(1,2,3-cd)pyrene			28	ug/L	40	71	40	140		
		dibenzo(a,h)anthracene			19	ug/L	40	48	40	140		
		benzo(g,h,i)perylene			30	ug/L	40	75	40	140		
		2-fluorophenol SUR			38	%			21	100		
		phenol-D5 SUR			25	%			10	102		
		2,4,6-tribromophenol SUR			81	%			10	123		
		nitrobenzene-D5 SUR			45	%			35	114		
		2-fluorobiphenyl SUR			66	%			43	116		
		p-terphenyl-D14 SUR			73	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCSD11188	pyridine		13	ug/L	40	33		30	130	3	20
		N-nitrosodimethylamine		14	ug/L	40	35	*	40	140	1	20
		aniline		20	ug/L	40	50		40	140	2	20
		phenol		11	ug/L	40	27	*	30	130	6	20
		2-chlorophenol		28	ug/L	40	69		30	130	4	20
		bis(2-chloroethyl)ether		21	ug/L	40	52		40	140	2	20
		1,3-dichlorobenzene		20	ug/L	40	50		40	140	9	20
		1,4-dichlorobenzene		20	ug/L	40	51		40	140	9	20
		1,2-dichlorobenzene		22	ug/L	40	54		40	140	8	20
		benzyl alcohol		23	ug/L	40	58		30	130	6	20
		2-methylphenol		21	ug/L	40	52		30	130	6	20
		2,2'-oxybis(1-chloropropane)		31	ug/L	40	79		40	140	6	20
		hexachloroethane		16	ug/L	40	40		40	140	12	20
		N-nitroso-di-N-propylamine		20	ug/L	40	50		40	140	4	20
		4-methylphenol		21	ug/L	40	52		30	130	5	20
		nitrobenzene		20	ug/L	40	50		40	140	8	20
		isophorone		21	ug/L	40	53		40	140	2	20
		2-nitrophenol		27	ug/L	40	68		30	130	3	20
		2,4-dimethylphenol		26	ug/L	40	65		30	130	10	20
		bis(2-chloroethoxy)methane		23	ug/L	40	57		40	140	4	20
		2,4-dichlorophenol		27	ug/L	40	66		30	130	2	20
		1,2,4-trichlorobenzene		22	ug/L	40	54		40	140	7	20
		naphthalene		25	ug/L	40	63		40	140	7	20
		benzoic acid		< 50	ug/L							20
		4-chloroaniline		28	ug/L	40	70		40	140	1	20
		hexachlorobutadiene		18	ug/L	40	44		40	140	4	20
		4-chloro-3-methylphenol		23	ug/L	40	58		30	130	1	20
		2-methylnaphthalene		28	ug/L	40	69		40	140	3	20
		hexachlorocyclopentadiene		17	ug/L	40	42		40	140	2	20
		2,4,6-trichlorophenol		28	ug/L	40	70		30	130	1	20
		2,4,5-trichlorophenol		29	ug/L	40	72		30	130	5	20
		2-chloronaphthalene		27	ug/L	40	67		40	140	2	20
		2-nitroaniline		29	ug/L	40	72		40	140	2	20
		acenaphthylene		28	ug/L	40	69		40	140	0	20
		dimethylphthalate		17	ug/L	40	43		40	140	7	20
		2,6-dinitrotoluene		29	ug/L	40	73		40	140	2	20
		2,4-dinitrotoluene		27	ug/L	40	67		40	140	1	20
		acenaphthene		27	ug/L	40	69		40	140	3	20
		3-nitroaniline		29	ug/L	40	73		40	140	1	20
		2,4-dinitrophenol		< 50	ug/L							20
		dibenzofuran		28	ug/L	40	69		40	140	2	20
		4-nitrophenol		< 10	ug/L	40	22	*	30	130	3	20
		fluorene		27	ug/L	40	67		40	140	0	20
		diethyl phthalate		24	ug/L	40	60		40	140	1	20
		4-chlorophenyl phenyl ether		28	ug/L	40	69		40	140	2	20
		4-nitroaniline		28	ug/L	40	69		40	140	3	20
		4,6-dinitro-2-methylphenol		26	ug/L	40	66		30	130	1	20
		azobenzene		27	ug/L	40	67		40	140	3	20
		N-nitrosodiphenylamine		37	ug/L	40	92		40	140	2	20
		4-bromophenyl phenyl ether		31	ug/L	40	77		40	140	5	20
		hexachlorobenzene		30	ug/L	40	76		40	140	3	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCSD11188	pentachlorophenol			30	ug/L	40	75	30	130	1	20
		phenanthrene			31	ug/L	40	78	40	140	3	20
		anthracene			31	ug/L	40	78	40	140	2	20
		carbazole			30	ug/L	40	75	40	140	5	20
		di-n-butylphthalate			31	ug/L	40	78	40	140	5	20
		fluoranthene			29	ug/L	40	72	40	140	7	20
		benzidine		<	30	ug/L						20
		pyrene			30	ug/L	40	76	40	140	2	20
		butyl benzyl phthalate			30	ug/L	40	75	40	140	1	20
		benzo(a)anthracene			31	ug/L	40	77	40	140	1	20
		chrysene			26	ug/L	40	64	40	140	2	20
		3,3'-dichlorobenzidine		<	30	ug/L						20
		bis(2-ethylhexyl)phthalate			30	ug/L	40	74	40	140	4	20
		di-n-octyl phthalate			30	ug/L	40	76	40	140	3	20
		benzo(b)fluoranthene			30	ug/L	40	75	40	140	2	20
		benzo(k)fluoranthene			31	ug/L	40	77	40	140	1	20
		benzo(a)pyrene			31	ug/L	40	79	40	140	1	20
		indeno(1,2,3-cd)pyrene			29	ug/L	40	71	40	140	1	20
		dibenzo(a,h)anthracene			19	ug/L	40	48	40	140	1	20
		benzo(g,h,i)perylene			30	ug/L	40	76	40	140	1	20
		2-fluorophenol SUR			38	%			21	100		
		phenol-D5 SUR			25	%			10	102		
		2,4,6-tribromophenol SUR			81	%			10	123		
		nitrobenzene-D5 SUR			47	%			35	114		
		2-fluorobiphenyl SUR			65	%			43	116		
		p-terphenyl-D14 SUR			72	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3005A6020A	BLK11184	Arsenic		<	0.005	mg/L						
		Manganese		<	0.01	mg/L						
SW3005A6020A	LCS11184	Arsenic			0.47	mg/L	0.5	94	80	120		
		Manganese			0.46	mg/L	0.5	92	80	120		
SW3005A6020A	LCSD11184	Arsenic			0.48	mg/L	0.5	96	80	120	3	20
		Manganese			0.48	mg/L	0.5	96	80	120	5	20

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

46558

Company Name: Dept. of Environmental Services, State of New Hampshire

Company Address: 29 Hazen Drive, P.O. Box 95

Report To: Michael Summerlin, P.E.

Phone #: (603) 271-3649

Invoice to Email: michael.summerlinjr@des.nh.gov

☐ Hard Copy Invoice Required

Project Name: Troy Mills Landfill Superfund Site

Project #: DES #198405082

Project Location: NH MA ME VT NY Other

Protocol: RCRA SDWA NPDES MCP NHDES OTHER

Reporting Limits: QAPP GW-1 S-1 EPA DW Other SAP

Quote # ☐ NH Reimbursement Pricing

PO # Contract No. 1051314 (2589-00 T)

ANALYSIS REQUEST

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER	☐ VOC 8260 ☒ VOC 8260 NHDES ☐ VOC 8260 MADEP	☐ VOC 624 ☐ VOC BTEX ☐ MBE, only ☐ VOC 8021VT	☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☒ 1,4-Dioxane 8260 SIM	☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:	☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint	☐ 8270PAH ☒ 8270ABN ☐ 625 ☐ EDB	☐ 8082 PCB ☐ 8081 Pesticides ☐	☐ O&G 1664 ☐ Mineral O&G SM5520F	☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity	☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity	☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☒ Hardness	☒ Total Metals-list: As, ~~Cd~~, ~~Cr~~, ~~Pb~~, Mn, ~~Ni~~	☐ Dissolved Metals-list:	☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☒ TOC	☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN	☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P	☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride	☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP	☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide	Subcontract: ☒ Grain Size ☐ Herbicides ☐ Formaldehyde	Grab (G) or Composite (C)
01 655801	TRIP BLANK	1	X			X					11/1/18	800	MB	X																					
02	TRIP BLANK	MM 2	X								11/1/18	800	MB			X																			
03	TRY_MW-105S	6	X			X	X				11/1/18	1255	MM	X		X			X						X										
04	TRY_MW-105D	6	X			X	X				11/1/18	1130	MM	X		X			X						X										
05	TRY_MW-601S	6	X			X	X				11/1/18	1200	ED	X		X			X						X										
06	TRY_MW-601D	6	X			X	X				11/1/18	1100	ED	X		X			X						X										

TAT REQUESTED

Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ☒
*Date Needed _____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Please contact Tanya Justham at (603) 493-1548 for sample questions and Michael Summerlin for all others.

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) and Excel; Please send results to michael.summerlinjr@des.nh.gov and tanya.justham@gza.com

☐ HARD COPY REQUIRED ☐ FAX (FAX#) _____

RECEIVED ON ICE ☑ YES ☐ NO

TEMPERATURE 0 °C

CUSTODY RECORD

QSD-01 Revision 10/14/15

	Relinquished by Sampler:	Date	Time	Received by:	Date	Time
1		11-1-18	1945	Amy Samson	11/2/18	14:15
2	Relinquished by: Amy Samson	11/2/18	14:15	Received by: Jan Lewis	11/2/18	14:15
3	Relinquished by: Jan Lewis	11/2/18	1530	Received by Laboratory:	11/2/18	15:30

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Michael Summerlin
NHDES-Superfund
29 Hazen Drive
Concord, NH 03301

PO Number: Contrct#1061488(2589-
Job ID: 46560
Date Received: 11/2/18

Project: Troy Mills Landfill Superfund Site DES #198405082

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

Jennifer Lowe
Laboratory Manager

Date of Approval: 11/21/2018
Total number of pages: 36

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Troy Mills Landfill Superfund Site DES #198405082

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
TRIP BLANK	Water	11/1/2018 8:00	46560-001	
				VOCs in water by 8260 Petro & Haz Waste
TRIP BLANK	Water	11/1/2018 8:00	46560-002	
				Low level 1,4-dioxane in water by 8260 SIM
TRY_MW-501X	Water	11/1/2018 12:25	46560-003	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_MW-501D	Water	11/1/2018 10:55	46560-004	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_MW-204	Water	11/1/2018 14:30	46560-005	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46560

Sample#: 46560-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/1/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46560

Sample#: 46560-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/1/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**99**	78-114	%	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	LMM		1803219	11/8/18	13:07	SW5030C8260C
4-bromofluorobenzene SUR	**96**	86-115	%	1	LMM		1803219	11/8/18	13:07	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46560
Sample#: 46560-003
Sample ID: TRY_MW-501X
Matrix: Water
Sampled: 11/1/18 12:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46560
Sample#: 46560-003
Sample ID: TRY_MW-501X
Matrix: Water
Sampled: 11/1/18 12:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**99**	78-114	%	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	LMM		1803219	11/8/18	16:46	SW5030C8260C
4-bromofluorobenzene SUR	**96**	86-115	%	1	LMM		1803219	11/8/18	16:46	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46560
Sample#: 46560-004
Sample ID: TRY_MW-501D
Matrix: Water
Sampled: 11/1/18 10:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46560
Sample#: 46560-004
Sample ID: TRY_MW-501D
Matrix: Water
Sampled: 11/1/18 10:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**101**	78-114	%	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
toluene-D8 SUR	**98**	88-110	%	1	LMM		1803219	11/8/18	17:17	SW5030C8260C
4-bromofluorobenzene SUR	**96**	86-115	%	1	LMM		1803219	11/8/18	17:17	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46560
Sample#: 46560-005
Sample ID: TRY_MW-204
Matrix: Water
Sampled: 11/1/18 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46560
Sample#: 46560-005
Sample ID: TRY_MW-204
Matrix: Water
Sampled: 11/1/18 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
sec-butylbenzene	**5**	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**100**	78-114	%	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
toluene-D8 SUR	**100**	88-110	%	1	LMM		1803219	11/8/18	17:48	SW5030C8260C
4-bromofluorobenzene SUR	**95**	86-115	%	1	LMM		1803219	11/8/18	17:48	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46560

Sample#: 46560-002
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/1/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803177	11/6/18	5:03	modSW8260C

Sample#: 46560-003
Sample ID: TRY_MW-501X
Matrix: Water
Sampled: 11/1/18 12:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803177	11/6/18	9:11	modSW8260C

Sample#: 46560-004
Sample ID: TRY_MW-501D
Matrix: Water
Sampled: 11/1/18 10:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,4-dioxane	**0.33**	0.25	ug/L	1	LMM		1803177	11/6/18	6:05	modSW8260C

Sample#: 46560-005
Sample ID: TRY_MW-204
Matrix: Water
Sampled: 11/1/18 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803177	11/6/18	6:36	modSW8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46560
Sample#: 46560-003
Sample ID: TRY_MW-501X
Matrix: Water
Sampled: 11/1/18 12:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46560
Sample#: 46560-003
Sample ID: TRY_MW-501X
Matrix: Water
Sampled: 11/1/18 12:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**18** *	21-100	%	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
phenol-D5 SUR	**11**	10-102	%	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
2,4,6-tribromophenol SUR	**62**	10-123	%	1	CL	11/8/18	11188	11/9/18	3:00	SW3510C8270D
nitrobenzene-D5 SUR	**15** *	35-114	%	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
2-fluorobiphenyl SUR	**47**	43-116	%	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D
p-terphenyl-D14 SUR	**47**	33-141	%	1	CL	11/8/18	11188	11/8/18	20:02	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46560
Sample#: 46560-004
Sample ID: TRY_MW-501D
Matrix: Water
Sampled: 11/1/18 10:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46560
Sample#: 46560-004
Sample ID: TRY_MW-501D
Matrix: Water
Sampled: 11/1/18 10:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**21**	21-100	%	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
phenol-D5 SUR	**12**	10-102	%	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
2,4,6-tribromophenol SUR	**74**	10-123	%	1	CL	11/8/18	11188	11/9/18	3:30	SW3510C8270D
nitrobenzene-D5 SUR	**46**	35-114	%	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
2-fluorobiphenyl SUR	**66**	43-116	%	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D
p-terphenyl-D14 SUR	**64**	33-141	%	1	CL	11/8/18	11188	11/8/18	20:32	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46560
Sample#: 46560-005
Sample ID: TRY_MW-204
Matrix: Water
Sampled: 11/1/18 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46560
Sample#: 46560-005
Sample ID: TRY_MW-204
Matrix: Water
Sampled: 11/1/18 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**3** *	21-100	%	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
phenol-D5 SUR	**2** *	10-102	%	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
2,4,6-tribromophenol SUR	**3** *	10-123	%	1	CL	11/8/18	11188	11/9/18	3:59	SW3510C8270D
nitrobenzene-D5 SUR	**48**	35-114	%	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
2-fluorobiphenyl SUR	**64**	43-116	%	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D
p-terphenyl-D14 SUR	**63**	33-141	%	1	CL	11/8/18	11188	11/8/18	22:02	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES #198405082

Job ID: 46560

Sample#: 46560-003
Sample ID: TRY_MW-501X
Matrix: Water
Sampled: 11/1/18 12:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/7/18	11184	11/9/18	0:18	SW3005A6020A
Manganese	**4.0**	0.01	mg/L	1	AGN	11/7/18	11184	11/16/18	1:05	SW3005A6020A

Sample#: 46560-004
Sample ID: TRY_MW-501D
Matrix: Water
Sampled: 11/1/18 10:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/7/18	11184	11/9/18	0:25	SW3005A6020A
Manganese	**0.10**	0.01	mg/L	1	AGN	11/7/18	11184	11/16/18	1:11	SW3005A6020A

Sample#: 46560-005
Sample ID: TRY_MW-204
Matrix: Water
Sampled: 11/1/18 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/7/18	11184	11/9/18	0:31	SW3005A6020A
Manganese	**7.7**	0.01	mg/L	1	AGN	11/7/18	11184	11/16/18	1:18	SW3005A6020A

Quality Control Report



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Portsmouth, NH 03801
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Absolute Resource
associates

Case Narrative
Lab # 46560

Sample Receiving and Chain of Custody Discrepancies

Samples were received in acceptable condition, at 0 degrees C, on ice, and in accordance with sample handling, preservation and integrity guidelines.

Calibration

No exceptions noted.

Method Blank

No exceptions noted.

Surrogate Recoveries

SVOC: Several surrogates for samples 46560-003 and -005 showed recovery below the acceptance limits. Matrix interference suspected. No additional sample remained for re-analysis.

Laboratory Control Sample Results

SVOC: The LCS11188 did not meet the acceptance criteria for N-nitrosodimethylamine, phenol, hexachloroethane, and 4-nitrophenol. The LCSD11188 did not meet the acceptance criteria for N-nitrosodimethylamine, phenol, and 4-nitrophenol. Since <20% of the compounds were outside of the acceptance criteria, reanalysis is not required.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

Not requested for this project.

Other

The reported results have undergone the standard process of review for data quality. The final report meets the reporting and documentation requirements of the contract.

Jennifer Guerette QA Officer

Reporting Limits: Dilutions performed during the analysis are noted on the result pages.

No other exceptions noted.

GLOSSARY

%R	Percent Recovery
BLK	Blank (Method Blank, Preparation Blank)
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
Dil'n	Dilution
DL	Detection Limit
DUP	Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MB	Methanol Blank (associated with solid VOC samples)
MLCS	Methanol Laboratory Control Sample (associated with solid VOC samples)
MLCSD	Methanol Laboratory Control Sample Duplicate (associated with solid VOC samples)
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PB	Preparation Blank
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SUR	Surrogate

- QC Report -

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
modSW8260C	BLK1803177	1,4-dioxane		<	0.25	ug/L						
modSW8260C	LCS1803177	1,4-dioxane			8.0	ug/L	8	100	70	130		
modSW8260C	LCSD1803177	1,4-dioxane			7.7	ug/L	8	96	70	130	4	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803219	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					
		bromoform		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803219	isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			100	%			78	114		
		toluene-D8 SUR			98	%			88	110		
		4-bromofluorobenzene SUR			94	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803219	dichlorodifluoromethane		18	ug/L	20	92	70	130		
		chloromethane		18	ug/L	20	92	70	130		
		vinyl chloride		18	ug/L	20	89	70	130		
		bromomethane		16	ug/L	20	82	70	130		
		chloroethane		19	ug/L	20	93	70	130		
		trichlorofluoromethane		18	ug/L	20	89	70	130		
		diethyl ether		20	ug/L	20	98	70	130		
		acetone		19	ug/L	20	96	70	130		
		1,1-dichloroethene		19	ug/L	20	94	70	130		
		methylene chloride		19	ug/L	20	95	70	130		
		carbon disulfide		17	ug/L	20	87	70	130		
		methyl t-butyl ether (MTBE)		18	ug/L	20	91	70	130		
		trans-1,2-dichloroethene		19	ug/L	20	95	70	130		
		isopropyl ether (DIPE)		18	ug/L	20	92	70	130		
		ethyl t-butyl ether (ETBE)		18	ug/L	20	89	70	130		
		1,1-dichloroethane		20	ug/L	20	99	70	130		
		t-butanol (TBA)		99	ug/L	100	99	70	130		
		2-butanone (MEK)		20	ug/L	20	99	70	130		
		2,2-dichloropropane		17	ug/L	20	83	70	130		
		cis-1,2-dichloroethene		18	ug/L	20	92	70	130		
		chloroform		20	ug/L	20	99	70	130		
		bromochloromethane		18	ug/L	20	88	70	130		
		tetrahydrofuran (THF)		21	ug/L	20	107	70	130		
		1,1,1-trichloroethane		18	ug/L	20	91	70	130		
		1,1-dichloropropene		19	ug/L	20	95	70	130		
		t-amyl-methyl ether (TAME)		18	ug/L	20	92	70	130		
		carbon tetrachloride		18	ug/L	20	91	70	130		
		1,2-dichloroethane		19	ug/L	20	96	70	130		
		benzene		20	ug/L	20	100	70	130		
		trichloroethene		20	ug/L	20	98	70	130		
		1,2-dichloropropane		20	ug/L	20	99	70	130		
		bromodichloromethane		18	ug/L	20	90	70	130		
		1,4-dioxane		< 50	ug/L	40	103	70	130		
		dibromomethane		19	ug/L	20	96	70	130		
		4-methyl-2-pentanone (MIBK)		19	ug/L	20	97	70	130		
		cis-1,3-dichloropropene		19	ug/L	20	94	70	130		
		toluene		19	ug/L	20	95	70	130		
		trans-1,3-dichloropropene		20	ug/L	20	98	70	130		
		2-hexanone		20	ug/L	20	99	70	130		
		1,1,2-trichloroethane		20	ug/L	20	100	70	130		
		1,3-dichloropropane		20	ug/L	20	100	70	130		
		tetrachloroethene		18	ug/L	20	90	70	130		
		dibromochloromethane		18	ug/L	20	89	70	130		
		1,2-dibromoethane (EDB)		19	ug/L	20	95	70	130		
		chlorobenzene		19	ug/L	20	95	70	130		
		1,1,1,2-tetrachloroethane		19	ug/L	20	94	70	130		
		ethylbenzene		19	ug/L	20	97	70	130		
		m&p-xylenes		38	ug/L	40	96	70	130		
		o-xylene		19	ug/L	20	97	70	130		
		styrene		19	ug/L	20	97	70	130		
		bromoform		18	ug/L	20	92	70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803219	isopropylbenzene		19	ug/L	20	97	70	130		
		1,1,2,2-tetrachloroethane		21	ug/L	20	107	70	130		
		1,2,3-trichloropropane		19	ug/L	20	96	70	130		
		n-propylbenzene		21	ug/L	20	103	70	130		
		bromobenzene		20	ug/L	20	100	70	130		
		1,3,5-trimethylbenzene		21	ug/L	20	104	70	130		
		2-chlorotoluene		22	ug/L	20	111	70	130		
		4-chlorotoluene		20	ug/L	20	98	70	130		
		tert-butylbenzene		19	ug/L	20	96	70	130		
		1,2,4-trimethylbenzene		20	ug/L	20	102	70	130		
		sec-butylbenzene		18	ug/L	20	92	70	130		
		1,3-dichlorobenzene		20	ug/L	20	100	70	130		
		4-isopropyltoluene		20	ug/L	20	101	70	130		
		1,4-dichlorobenzene		20	ug/L	20	99	70	130		
		1,2-dichlorobenzene		20	ug/L	20	101	70	130		
		n-butylbenzene		19	ug/L	20	95	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		20	ug/L	20	99	70	130		
		1,2,4-trichlorobenzene		20	ug/L	20	99	70	130		
		1,3,5-trichlorobenzene		18	ug/L	20	90	70	130		
		hexachlorobutadiene		18	ug/L	20	90	70	130		
		naphthalene		21	ug/L	20	103	70	130		
		1,2,3-trichlorobenzene		19	ug/L	20	95	70	130		
		dibromofluoromethane SUR		99	%			78	114		
		toluene-D8 SUR		100	%			88	110		
		4-bromofluorobenzene SUR		98	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803219	dichlorodifluoromethane		19	ug/L	20	93	70	130	1	20
		chloromethane		19	ug/L	20	93	70	130	1	20
		vinyl chloride		18	ug/L	20	91	70	130	2	20
		bromomethane		17	ug/L	20	87	70	130	6	20
		chloroethane		19	ug/L	20	94	70	130	1	20
		trichlorofluoromethane		18	ug/L	20	89	70	130	0	20
		diethyl ether		20	ug/L	20	100	70	130	2	20
		acetone		21	ug/L	20	104	70	130	8	20
		1,1-dichloroethene		19	ug/L	20	96	70	130	2	20
		methylene chloride		19	ug/L	20	96	70	130	2	20
		carbon disulfide		18	ug/L	20	88	70	130	2	20
		methyl t-butyl ether (MTBE)		19	ug/L	20	93	70	130	2	20
		trans-1,2-dichloroethene		19	ug/L	20	95	70	130	0	20
		isopropyl ether (DIPE)		19	ug/L	20	94	70	130	2	20
		ethyl t-butyl ether (ETBE)		18	ug/L	20	92	70	130	3	20
		1,1-dichloroethane		20	ug/L	20	100	70	130	1	20
		t-butanol (TBA)		99	ug/L	100	99	70	130	1	20
		2-butanone (MEK)		20	ug/L	20	100	70	130	1	20
		2,2-dichloropropane		17	ug/L	20	83	70	130	0	20
		cis-1,2-dichloroethene		19	ug/L	20	94	70	130	2	20
		chloroform		20	ug/L	20	100	70	130	1	20
		bromochloromethane		18	ug/L	20	89	70	130	1	20
		tetrahydrofuran (THF)		22	ug/L	20	111	70	130	3	20
		1,1,1-trichloroethane		19	ug/L	20	94	70	130	3	20
		1,1-dichloropropene		19	ug/L	20	97	70	130	1	20
		t-amyl-methyl ether (TAME)		19	ug/L	20	93	70	130	0	20
		carbon tetrachloride		19	ug/L	20	93	70	130	2	20
		1,2-dichloroethane		19	ug/L	20	97	70	130	1	20
		benzene		20	ug/L	20	101	70	130	1	20
		trichloroethene		20	ug/L	20	99	70	130	1	20
		1,2-dichloropropane		20	ug/L	20	100	70	130	1	20
		bromodichloromethane		19	ug/L	20	93	70	130	3	20
		1,4-dioxane		< 50	ug/L	40	107	70	130	4	20
		dibromomethane		20	ug/L	20	98	70	130	3	20
		4-methyl-2-pentanone (MIBK)		20	ug/L	20	100	70	130	3	20
		cis-1,3-dichloropropene		19	ug/L	20	95	70	130	1	20
		toluene		19	ug/L	20	96	70	130	1	20
		trans-1,3-dichloropropene		20	ug/L	20	98	70	130	0	20
		2-hexanone		20	ug/L	20	101	70	130	2	20
		1,1,2-trichloroethane		20	ug/L	20	102	70	130	1	20
		1,3-dichloropropane		20	ug/L	20	102	70	130	2	20
		tetrachloroethene		19	ug/L	20	94	70	130	4	20
		dibromochloromethane		18	ug/L	20	92	70	130	3	20
		1,2-dibromoethane (EDB)		20	ug/L	20	98	70	130	3	20
		chlorobenzene		19	ug/L	20	96	70	130	1	20
		1,1,1,2-tetrachloroethane		20	ug/L	20	98	70	130	3	20
		ethylbenzene		20	ug/L	20	98	70	130	1	20
		m&p-xylenes		39	ug/L	40	98	70	130	2	20
		o-xylene		20	ug/L	20	99	70	130	2	20
		styrene		19	ug/L	20	97	70	130	1	20
		bromoform		20	ug/L	20	98	70	130	6	20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803219	isopropylbenzene		20	ug/L	20	99	70	130	3	20
		1,1,2,2-tetrachloroethane		21	ug/L	20	106	70	130	1	20
		1,2,3-trichloropropane		20	ug/L	20	100	70	130	4	20
		n-propylbenzene		21	ug/L	20	106	70	130	3	20
		bromobenzene		20	ug/L	20	101	70	130	0	20
		1,3,5-trimethylbenzene		21	ug/L	20	106	70	130	2	20
		2-chlorotoluene		20	ug/L	20	100	70	130	11	20
		4-chlorotoluene		22	ug/L	20	111	70	130	13	20
		tert-butylbenzene		20	ug/L	20	98	70	130	2	20
		1,2,4-trimethylbenzene		21	ug/L	20	103	70	130	1	20
		sec-butylbenzene		19	ug/L	20	94	70	130	2	20
		1,3-dichlorobenzene		20	ug/L	20	100	70	130	0	20
		4-isopropyltoluene		20	ug/L	20	102	70	130	1	20
		1,4-dichlorobenzene		20	ug/L	20	102	70	130	3	20
		1,2-dichlorobenzene		21	ug/L	20	103	70	130	2	20
		n-butylbenzene		19	ug/L	20	96	70	130	2	20
		1,2-dibromo-3-chloropropane (DBCP)		20	ug/L	20	102	70	130	2	20
		1,2,4-trichlorobenzene		20	ug/L	20	102	70	130	2	20
		1,3,5-trichlorobenzene		18	ug/L	20	91	70	130	1	20
		hexachlorobutadiene		18	ug/L	20	91	70	130	2	20
		naphthalene		21	ug/L	20	104	70	130	2	20
		1,2,3-trichlorobenzene		20	ug/L	20	98	70	130	3	20
		dibromofluoromethane SUR		100	%			78	114		
		toluene-D8 SUR		100	%			88	110		
		4-bromofluorobenzene SUR		99	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW3510C8270D	BLK11188	pyridine		<	2	ug/L					
		N-nitrosodimethylamine		<	2	ug/L					
		aniline		<	2	ug/L					
		phenol		<	2	ug/L					
		2-chlorophenol		<	5	ug/L					
		bis(2-chloroethyl)ether		<	2	ug/L					
		1,3-dichlorobenzene		<	2	ug/L					
		1,4-dichlorobenzene		<	2	ug/L					
		1,2-dichlorobenzene		<	2	ug/L					
		benzyl alcohol		<	2	ug/L					
		2-methylphenol		<	5	ug/L					
		2,2'-oxybis(1-chloropropane)		<	2	ug/L					
		hexachloroethane		<	2	ug/L					
		N-nitroso-di-N-propylamine		<	2	ug/L					
		4-methylphenol		<	2	ug/L					
		nitrobenzene		<	2	ug/L					
		isophorone		<	5	ug/L					
		2-nitrophenol		<	2	ug/L					
		2,4-dimethylphenol		<	5	ug/L					
		bis(2-chloroethoxy)methane		<	5	ug/L					
		2,4-dichlorophenol		<	5	ug/L					
		1,2,4-trichlorobenzene		<	5	ug/L					
		naphthalene		<	0.5	ug/L					
		benzoic acid		<	50	ug/L					
		4-chloroaniline		<	2	ug/L					
		hexachlorobutadiene		<	2	ug/L					
		4-chloro-3-methylphenol		<	2	ug/L					
		2-methylnaphthalene		<	0.5	ug/L					
		hexachlorocyclopentadiene		<	10	ug/L					
		2,4,6-trichlorophenol		<	2	ug/L					
		2,4,5-trichlorophenol		<	2	ug/L					
		2-chloronaphthalene		<	5	ug/L					
		2-nitroaniline		<	2	ug/L					
		acenaphthylene		<	0.5	ug/L					
		dimethylphthalate		<	5	ug/L					
		2,6-dinitrotoluene		<	5	ug/L					
		2,4-dinitrotoluene		<	5	ug/L					
		acenaphthene		<	0.5	ug/L					
		3-nitroaniline		<	2	ug/L					
		2,4-dinitrophenol		<	50	ug/L					
		dibenzofuran		<	0.5	ug/L					
		4-nitrophenol		<	10	ug/L					
		fluorene		<	0.5	ug/L					
		diethyl phthalate		<	5	ug/L					
		4-chlorophenyl phenyl ether		<	5	ug/L					
		4-nitroaniline		<	5	ug/L					
		4,6-dinitro-2-methylphenol		<	20	ug/L					
		azobenzene		<	2	ug/L					
		N-nitrosodiphenylamine		<	2	ug/L					
		4-bromophenyl phenyl ether		<	2	ug/L					
		hexachlorobenzene		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	BLK11188	pentachlorophenol		<	10	ug/L						
		phenanthrene		<	0.5	ug/L						
		anthracene		<	0.5	ug/L						
		carbazole		<	2	ug/L						
		di-n-butylphthalate		<	5	ug/L						
		fluoranthene		<	0.5	ug/L						
		benzidine		<	30	ug/L						
		pyrene		<	0.5	ug/L						
		butyl benzyl phthalate		<	5	ug/L						
		benzo(a)anthracene		<	0.5	ug/L						
		chrysene		<	0.5	ug/L						
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate		<	5	ug/L						
		di-n-octyl phthalate		<	5	ug/L						
		benzo(b)fluoranthene		<	0.5	ug/L						
		benzo(k)fluoranthene		<	0.5	ug/L						
		benzo(a)pyrene		<	0.2	ug/L						
		indeno(1,2,3-cd)pyrene		<	0.5	ug/L						
		dibenzo(a,h)anthracene		<	0.5	ug/L						
		benzo(g,h,i)perylene		<	0.5	ug/L						
		2-fluorophenol SUR			30	%			21	100		
		phenol-D5 SUR			18	%			10	102		
		2,4,6-tribromophenol SUR			68	%			10	123		
		nitrobenzene-D5 SUR			46	%			35	114		
		2-fluorobiphenyl SUR			64	%			43	116		
		p-terphenyl-D14 SUR			70	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCS11188	pyridine			13	ug/L	40	32		30	130		
		N-nitrosodimethylamine			14	ug/L	40	36	*	40	140		
		aniline			20	ug/L	40	49		40	140		
		phenol			10	ug/L	40	26	*	30	130		
		2-chlorophenol			27	ug/L	40	66		30	130		
		bis(2-chloroethyl)ether			21	ug/L	40	51		40	140		
		1,3-dichlorobenzene			18	ug/L	40	46		40	140		
		1,4-dichlorobenzene			19	ug/L	40	47		40	140		
		1,2-dichlorobenzene			20	ug/L	40	50		40	140		
		benzyl alcohol			22	ug/L	40	55		30	130		
		2-methylphenol			20	ug/L	40	49		30	130		
		2,2'-oxybis(1-chloropropane)			30	ug/L	40	74		40	140		
		hexachloroethane			14	ug/L	40	35	*	40	140		
		N-nitroso-di-N-propylamine			19	ug/L	40	48		40	140		
		4-methylphenol			20	ug/L	40	50		30	130		
		nitrobenzene			19	ug/L	40	47		40	140		
		isophorone			21	ug/L	40	52		40	140		
		2-nitrophenol			27	ug/L	40	66		30	130		
		2,4-dimethylphenol			24	ug/L	40	60		30	130		
		bis(2-chloroethoxy)methane			22	ug/L	40	55		40	140		
		2,4-dichlorophenol			27	ug/L	40	68		30	130		
		1,2,4-trichlorobenzene			20	ug/L	40	51		40	140		
		naphthalene			24	ug/L	40	59		40	140		
		benzoic acid		<	50	ug/L							
		4-chloroaniline			28	ug/L	40	70		40	140		
		hexachlorobutadiene			17	ug/L	40	42		40	140		
		4-chloro-3-methylphenol			23	ug/L	40	58		30	130		
		2-methylnaphthalene			27	ug/L	40	67		40	140		
		hexachlorocyclopentadiene			17	ug/L	40	43		40	140		
		2,4,6-trichlorophenol			28	ug/L	40	71		30	130		
		2,4,5-trichlorophenol			27	ug/L	40	68		30	130		
		2-chloronaphthalene			26	ug/L	40	65		40	140		
		2-nitroaniline			28	ug/L	40	71		40	140		
		acenaphthylene			27	ug/L	40	68		40	140		
		dimethylphthalate			19	ug/L	40	47		40	140		
		2,6-dinitrotoluene			29	ug/L	40	71		40	140		
		2,4-dinitrotoluene			26	ug/L	40	66		40	140		
		acenaphthene			27	ug/L	40	67		40	140		
		3-nitroaniline			29	ug/L	40	72		40	140		
		2,4-dinitrophenol		<	50	ug/L							
		dibenzofuran			27	ug/L	40	68		40	140		
		4-nitrophenol		<	10	ug/L	40	23	*	30	130		
		fluorene			27	ug/L	40	68		40	140		
		diethyl phthalate			24	ug/L	40	60		40	140		
		4-chlorophenyl phenyl ether			27	ug/L	40	68		40	140		
		4-nitroaniline			27	ug/L	40	67		40	140		
		4,6-dinitro-2-methylphenol			26	ug/L	40	66		30	130		
		azobenzene			26	ug/L	40	64		40	140		
		N-nitrosodiphenylamine			36	ug/L	40	90		40	140		
		4-bromophenyl phenyl ether			29	ug/L	40	74		40	140		
		hexachlorobenzene			29	ug/L	40	73		40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCS11188	pentachlorophenol			30	ug/L	40	76	30	130		
		phenanthrene			30	ug/L	40	76	40	140		
		anthracene			30	ug/L	40	76	40	140		
		carbazole			29	ug/L	40	72	40	140		
		di-n-butylphthalate			30	ug/L	40	74	40	140		
		fluoranthene			27	ug/L	40	68	40	140		
		benzidine		<	30	ug/L						
		pyrene			31	ug/L	40	77	40	140		
		butyl benzyl phthalate			30	ug/L	40	76	40	140		
		benzo(a)anthracene			31	ug/L	40	78	40	140		
		chrysene			25	ug/L	40	63	40	140		
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate			31	ug/L	40	77	40	140		
		di-n-octyl phthalate			31	ug/L	40	78	40	140		
		benzo(b)fluoranthene			30	ug/L	40	74	40	140		
		benzo(k)fluoranthene			30	ug/L	40	76	40	140		
		benzo(a)pyrene			31	ug/L	40	78	40	140		
		indeno(1,2,3-cd)pyrene			28	ug/L	40	71	40	140		
		dibenzo(a,h)anthracene			19	ug/L	40	48	40	140		
		benzo(g,h,i)perylene			30	ug/L	40	75	40	140		
		2-fluorophenol SUR			38	%			21	100		
		phenol-D5 SUR			25	%			10	102		
		2,4,6-tribromophenol SUR			81	%			10	123		
		nitrobenzene-D5 SUR			45	%			35	114		
		2-fluorobiphenyl SUR			66	%			43	116		
		p-terphenyl-D14 SUR			73	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCSD11188	pyridine			13	ug/L	40	33		30	130	3	20
		N-nitrosodimethylamine			14	ug/L	40	35	*	40	140	1	20
		aniline			20	ug/L	40	50		40	140	2	20
		phenol			11	ug/L	40	27	*	30	130	6	20
		2-chlorophenol			28	ug/L	40	69		30	130	4	20
		bis(2-chloroethyl)ether			21	ug/L	40	52		40	140	2	20
		1,3-dichlorobenzene			20	ug/L	40	50		40	140	9	20
		1,4-dichlorobenzene			20	ug/L	40	51		40	140	9	20
		1,2-dichlorobenzene			22	ug/L	40	54		40	140	8	20
		benzyl alcohol			23	ug/L	40	58		30	130	6	20
		2-methylphenol			21	ug/L	40	52		30	130	6	20
		2,2'-oxybis(1-chloropropane)			31	ug/L	40	79		40	140	6	20
		hexachloroethane			16	ug/L	40	40		40	140	12	20
		N-nitroso-di-N-propylamine			20	ug/L	40	50		40	140	4	20
		4-methylphenol			21	ug/L	40	52		30	130	5	20
		nitrobenzene			20	ug/L	40	50		40	140	8	20
		isophorone			21	ug/L	40	53		40	140	2	20
		2-nitrophenol			27	ug/L	40	68		30	130	3	20
		2,4-dimethylphenol			26	ug/L	40	65		30	130	10	20
		bis(2-chloroethoxy)methane			23	ug/L	40	57		40	140	4	20
		2,4-dichlorophenol			27	ug/L	40	66		30	130	2	20
		1,2,4-trichlorobenzene			22	ug/L	40	54		40	140	7	20
		naphthalene			25	ug/L	40	63		40	140	7	20
		benzoic acid		<	50	ug/L							20
		4-chloroaniline			28	ug/L	40	70		40	140	1	20
		hexachlorobutadiene			18	ug/L	40	44		40	140	4	20
		4-chloro-3-methylphenol			23	ug/L	40	58		30	130	1	20
		2-methylnaphthalene			28	ug/L	40	69		40	140	3	20
		hexachlorocyclopentadiene			17	ug/L	40	42		40	140	2	20
		2,4,6-trichlorophenol			28	ug/L	40	70		30	130	1	20
		2,4,5-trichlorophenol			29	ug/L	40	72		30	130	5	20
		2-chloronaphthalene			27	ug/L	40	67		40	140	2	20
		2-nitroaniline			29	ug/L	40	72		40	140	2	20
		acenaphthylene			28	ug/L	40	69		40	140	0	20
		dimethylphthalate			17	ug/L	40	43		40	140	7	20
		2,6-dinitrotoluene			29	ug/L	40	73		40	140	2	20
		2,4-dinitrotoluene			27	ug/L	40	67		40	140	1	20
		acenaphthene			27	ug/L	40	69		40	140	3	20
		3-nitroaniline			29	ug/L	40	73		40	140	1	20
		2,4-dinitrophenol		<	50	ug/L							20
		dibenzofuran			28	ug/L	40	69		40	140	2	20
		4-nitrophenol		<	10	ug/L	40	22	*	30	130	3	20
		fluorene			27	ug/L	40	67		40	140	0	20
		diethyl phthalate			24	ug/L	40	60		40	140	1	20
		4-chlorophenyl phenyl ether			28	ug/L	40	69		40	140	2	20
		4-nitroaniline			28	ug/L	40	69		40	140	3	20
		4,6-dinitro-2-methylphenol			26	ug/L	40	66		30	130	1	20
		azobenzene			27	ug/L	40	67		40	140	3	20
		N-nitrosodiphenylamine			37	ug/L	40	92		40	140	2	20
		4-bromophenyl phenyl ether			31	ug/L	40	77		40	140	5	20
		hexachlorobenzene			30	ug/L	40	76		40	140	3	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCSD11188	pentachlorophenol			30	ug/L	40	75	30	130	1	20
		phenanthrene			31	ug/L	40	78	40	140	3	20
		anthracene			31	ug/L	40	78	40	140	2	20
		carbazole			30	ug/L	40	75	40	140	5	20
		di-n-butylphthalate			31	ug/L	40	78	40	140	5	20
		fluoranthene			29	ug/L	40	72	40	140	7	20
		benzidine		<	30	ug/L						20
		pyrene			30	ug/L	40	76	40	140	2	20
		butyl benzyl phthalate			30	ug/L	40	75	40	140	1	20
		benzo(a)anthracene			31	ug/L	40	77	40	140	1	20
		chrysene			26	ug/L	40	64	40	140	2	20
		3,3'-dichlorobenzidine		<	30	ug/L						20
		bis(2-ethylhexyl)phthalate			30	ug/L	40	74	40	140	4	20
		di-n-octyl phthalate			30	ug/L	40	76	40	140	3	20
		benzo(b)fluoranthene			30	ug/L	40	75	40	140	2	20
		benzo(k)fluoranthene			31	ug/L	40	77	40	140	1	20
		benzo(a)pyrene			31	ug/L	40	79	40	140	1	20
		indeno(1,2,3-cd)pyrene			29	ug/L	40	71	40	140	1	20
		dibenzo(a,h)anthracene			19	ug/L	40	48	40	140	1	20
		benzo(g,h,i)perylene			30	ug/L	40	76	40	140	1	20
		2-fluorophenol SUR			38	%			21	100		
		phenol-D5 SUR			25	%			10	102		
		2,4,6-tribromophenol SUR			81	%			10	123		
		nitrobenzene-D5 SUR			47	%			35	114		
		2-fluorobiphenyl SUR			65	%			43	116		
		p-terphenyl-D14 SUR			72	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3005A6020A	BLK11184	Arsenic		<	0.005	mg/L						
		Manganese		<	0.01	mg/L						
SW3005A6020A	LCS11184	Arsenic			0.47	mg/L	0.5	94	80	120		
		Manganese			0.46	mg/L	0.5	92	80	120		
SW3005A6020A	LCSD11184	Arsenic			0.48	mg/L	0.5	96	80	120	3	20
		Manganese			0.48	mg/L	0.5	96	80	120	5	20

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

46560

Company Name: Dept. of Environmental Services, State of New Hampshire

Company Address: 29 Hazen Drive, P.O. Box 95

Report To: Michael Summerlin, P.E.

Phone #: (603) 271-3649

Invoice to Email: michael.summerlinjr@des.nh.gov

☐ Hard Copy Invoice Required

Project Name: Troy Mills Landfill Superfund Site

Project #: DES #198405082

Project Location: NH MA ME VT NY Other

Protocol: RCRA SDWA NPDES MCP NHDES OTHER

Reporting Limits: QAPP GW-1 S-1 EPA DW Other SAP

Quote # ☐ NH Reimbursement Pricing

PO # Contract No. 1051314 (2589-00 T)

ANALYSIS REQUEST

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER
46560-01	TRIP BLANK	1	X			X					11/1/18	0800	MB
-02	TRIP BLANK	2	X								11/1/18	0800	MB
-03	TRY_MW-501X	6	X			X	X				11/1/18	1225	MB
-04	TRY_MW-501D	6	X			X	X				11/1/18	1055	MB
-05	TRY_MW-204	6	X			X	X				11/1/18	1430	ED

☒ VOC 8260 NHDES ☐ VOC 8260 MADEP
☐ VOC 8260: ☐ VOC 624 ☐ VOC BTEX ☐ MtBE, only ☐ VOC 8021VT
☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☒ 1,4-Dioxane 8260 SIM
☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:
☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint
☐ 8270PAH ☒ 8270ABN ☐ 625 ☐ EDB
☐ 8082 PCB ☐ 8081 Pesticides ☐
☐ O&G 1664 ☐ Mineral O&G SM5520F
☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity
☐ TSS ☐ TDS ☐ TVS ☐ Alkalinity
☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☒ Hardness
☒ Total Metals-list: As, ~~Cd~~, ~~Cr~~, Pb, Mn, ~~Ni~~
☐ Dissolved Metals-list:
☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☒ TOC
☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN
☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P
☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride
☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitability/FP
☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide
Subcontract: ☒ Grain Size ☐ Herbicides ☐ Formaldehyde
Grab (G) or Composite (C)

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ☒
*Date Needed

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Please contact Tanya Justham at (603) 493-1548 for sample questions and Michael Summerlin for all others.

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) and Excel; Please send results to michael.summerlinjr@des.nh.gov and tanya.justham@gza.com
☐ HARD COPY REQUIRED ☐ FAX (FAX#)

RECEIVED ON ICE ☒ YES ☐ NO
TEMPERATURE 0 °C

CUSTODY RECORD
QSD-01 Revision 10/14/15

	Relinquished by	Date	Time	Received by	Date	Time
Sampler		11/1/18	1915			
1					11/2/18	14:15
2		11/2/18	14:15		11/2/18	14:15
3		11/2/18	1530		11/2/18	15:30

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Michael Summerlin
NHDES-Superfund
29 Hazen Drive
Concord, NH 03301

PO Number: Contrct#1061488(2589-
Job ID: 46561
Date Received: 11/2/18

Project: Troy Mills Landfill Superfund Site DES #198405082

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

Jennifer Lowe
Laboratory Manager

Date of Approval: 11/21/2018
Total number of pages: 38

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Troy Mills Landfill Superfund Site DES #198405082

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
TRIP BLANK	Water	10/31/2018 8:00	46561-001	
				VOCs in water by 8260 Petro & Haz Waste
TRIP BLANK	Water	10/31/2018 8:00	46561-002	
				Low level 1,4-dioxane in water by 8260 SIM
TRY_MW-C6D	Water	10/31/2018 10:30	46561-003	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_MW-C6S	Water	10/31/2018 15:00	46561-004	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_MW-C6S DUP	Water	10/31/2018 15:00	46561-005	
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_M-1	Water	10/31/2018 13:20	46561-006	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561
Sample#: 46561-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 10/31/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561

Sample#: 46561-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 10/31/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**98**	78-114	%	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
toluene-D8 SUR	**98**	88-110	%	1	LMM		1803219	11/8/18	13:39	SW5030C8260C
4-bromofluorobenzene SUR	**97**	86-115	%	1	LMM		1803219	11/8/18	13:39	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561
Sample#: 46561-003
Sample ID: TRY_MW-C6D
Matrix: Water
Sampled: 10/31/18 10:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
cis-1,2-dichloroethene	**19**	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561
Sample#: 46561-003
Sample ID: TRY_MW-C6D
Matrix: Water
Sampled: 10/31/18 10:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**99**	78-114	%	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	LMM		1803219	11/8/18	18:20	SW5030C8260C
4-bromofluorobenzene SUR	**96**	86-115	%	1	LMM		1803219	11/8/18	18:20	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561
Sample#: 46561-004
Sample ID: TRY_MW-C6S
Matrix: Water
Sampled: 10/31/18 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
cis-1,2-dichloroethene	**11**	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561
Sample#: 46561-004
Sample ID: TRY_MW-C6S
Matrix: Water
Sampled: 10/31/18 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
tert-butylbenzene	**4**	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
sec-butylbenzene	**11**	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**98**	78-114	%	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	LMM		1803219	11/8/18	18:51	SW5030C8260C
4-bromofluorobenzene SUR	**98**	86-115	%	1	LMM		1803219	11/8/18	18:51	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561
Sample#: 46561-005
Sample ID: TRY_MW-C6S DUP
Matrix: Water
Sampled: 10/31/18 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
cis-1,2-dichloroethene	**12**	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561
Sample#: 46561-005
Sample ID: TRY_MW-C6S DUP
Matrix: Water
Sampled: 10/31/18 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
tert-butylbenzene	**4**	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
sec-butylbenzene	**11**	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**100**	78-114	%	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
toluene-D8 SUR	**100**	88-110	%	1	LMM		1803219	11/8/18	19:22	SW5030C8260C
4-bromofluorobenzene SUR	**95**	86-115	%	1	LMM		1803219	11/8/18	19:22	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561
Sample#: 46561-006
Sample ID: TRY_M-1
Matrix: Water
Sampled: 10/31/18 13:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561
Sample#: 46561-006
Sample ID: TRY_M-1
Matrix: Water
Sampled: 10/31/18 13:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
sec-butylbenzene	**6**	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**101**	78-114	%	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	LMM		1803219	11/8/18	19:54	SW5030C8260C
4-bromofluorobenzene SUR	**95**	86-115	%	1	LMM		1803219	11/8/18	19:54	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561

Sample#: 46561-002
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 10/31/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803177	11/6/18	5:34	modSW8260C

Sample#: 46561-003
Sample ID: TRY_MW-C6D
Matrix: Water
Sampled: 10/31/18 10:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,4-dioxane	**0.49**	0.25	ug/L	1	LMM		1803177	11/6/18	7:07	modSW8260C

Sample#: 46561-004
Sample ID: TRY_MW-C6S
Matrix: Water
Sampled: 10/31/18 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803177	11/6/18	7:38	modSW8260C

Sample#: 46561-005
Sample ID: TRY_MW-C6S DUP
Matrix: Water
Sampled: 10/31/18 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803177	11/6/18	8:09	modSW8260C

Sample#: 46561-006
Sample ID: TRY_M-1
Matrix: Water
Sampled: 10/31/18 13:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803177	11/6/18	8:40	modSW8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561
Sample#: 46561-003
Sample ID: TRY_MW-C6D
Matrix: Water
Sampled: 10/31/18 10:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561
Sample#: 46561-003
Sample ID: TRY_MW-C6D
Matrix: Water
Sampled: 10/31/18 10:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**28**	21-100	%	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
phenol-D5 SUR	**15**	10-102	%	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
2,4,6-tribromophenol SUR	**72**	10-123	%	1	CL	11/7/18	11178	11/8/18	13:59	SW3510C8270D
nitrobenzene-D5 SUR	**40**	35-114	%	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
2-fluorobiphenyl SUR	**53**	43-116	%	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D
p-terphenyl-D14 SUR	**55**	33-141	%	1	CL	11/7/18	11178	11/8/18	14:29	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561
Sample#: 46561-004
Sample ID: TRY_MW-C6S
Matrix: Water
Sampled: 10/31/18 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561
Sample#: 46561-004
Sample ID: TRY_MW-C6S
Matrix: Water
Sampled: 10/31/18 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**3** *	21-100	%	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
phenol-D5 SUR	**6** *	10-102	%	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
2,4,6-tribromophenol SUR	**4** *	10-123	%	1	CL	11/7/18	11178	11/8/18	14:59	SW3510C8270D
nitrobenzene-D5 SUR	**44**	35-114	%	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
2-fluorobiphenyl SUR	**56**	43-116	%	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D
p-terphenyl-D14 SUR	**60**	33-141	%	1	CL	11/7/18	11178	11/8/18	15:32	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561
Sample#: 46561-006
Sample ID: TRY_M-1
Matrix: Water
Sampled: 10/31/18 13:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46561
Sample#: 46561-006
Sample ID: TRY_M-1
Matrix: Water
Sampled: 10/31/18 13:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**28**	21-100	%	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
phenol-D5 SUR	**13**	10-102	%	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
2,4,6-tribromophenol SUR	**74**	10-123	%	1	CL	11/7/18	11178	11/8/18	16:03	SW3510C8270D
nitrobenzene-D5 SUR	**37**	35-114	%	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
2-fluorobiphenyl SUR	**49**	43-116	%	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D
p-terphenyl-D14 SUR	**56**	33-141	%	1	CL	11/7/18	11178	11/8/18	16:33	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082

Job ID: 46561

Sample#: 46561-003
Sample ID: TRY_MW-C6D
Matrix: Water
Sampled: 10/31/18 10:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/7/18	11184	11/9/18	0:38	SW3005A6020A
Manganese	**0.27**	0.01	mg/L	1	AGN	11/7/18	11184	11/16/18	1:24	SW3005A6020A

Sample#: 46561-004
Sample ID: TRY_MW-C6S
Matrix: Water
Sampled: 10/31/18 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/7/18	11184	11/9/18	1:04	SW3005A6020A
Manganese	**11**	0.05	mg/L	5	AGN	11/7/18	11184	11/16/18	1:31	SW3005A6020A

Sample#: 46561-005
Sample ID: TRY_MW-C6S DUP
Matrix: Water
Sampled: 10/31/18 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/7/18	11184	11/9/18	1:11	SW3005A6020A
Manganese	**11**	0.05	mg/L	5	AGN	11/7/18	11184	11/16/18	1:38	SW3005A6020A

Sample#: 46561-006
Sample ID: TRY_M-1
Matrix: Water
Sampled: 10/31/18 13:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/7/18	11184	11/9/18	1:17	SW3005A6020A
Manganese	**0.10**	0.01	mg/L	1	AGN	11/7/18	11184	11/16/18	1:44	SW3005A6020A

Quality Control Report



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Portsmouth, NH 03801
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Absolute Resource
associates

Case Narrative
Lab # 46561

Sample Receiving and Chain of Custody Discrepancies

Samples were received in acceptable condition, at 0 degrees C, on ice, and in accordance with sample handling, preservation and integrity guidelines.

Calibration

No exceptions noted.

Method Blank

No exceptions noted.

Surrogate Recoveries

SVOC: Several surrogates for sample 46561-004 showed recovery below the acceptance limits. Matrix interference suspected. No additional sample remained for re-analysis.

Laboratory Control Sample Results

SVOC: The LCS/D11178 did not meet the acceptance criteria for pyridine, N-nitrosodimethylamine, phenol, and 4-nitrophenol. The relative percent difference between the LCS and LCSD11178 was outside the acceptance criteria for 4-nitrophenol. Since <20% of the compounds were outside of the acceptance criteria, reanalysis is not required.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

Not requested for this project.

Other

The reported results have undergone the standard process of review for data quality. The final report meets the reporting and documentation requirements of the contract. Jennifer Guerette

Jennifer Guerette QA Officer

Reporting Limits: Dilutions performed during the analysis are noted on the result pages.

No other exceptions noted.

GLOSSARY

%R	Percent Recovery
BLK	Blank (Method Blank, Preparation Blank)
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
Dil'n	Dilution
DL	Detection Limit
DUP	Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MB	Methanol Blank (associated with solid VOC samples)
MLCS	Methanol Laboratory Control Sample (associated with solid VOC samples)
MLCSD	Methanol Laboratory Control Sample Duplicate (associated with solid VOC samples)
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PB	Preparation Blank
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SUR	Surrogate

- QC Report -

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
modSW8260C	BLK1803177	1,4-dioxane		<	0.25	ug/L						
modSW8260C	LCS1803177	1,4-dioxane			8.0	ug/L	8	100	70	130		
modSW8260C	LCSD1803177	1,4-dioxane			7.7	ug/L	8	96	70	130	4	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803219	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					
		bromoform		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803219	isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			100	%			78	114		
		toluene-D8 SUR			98	%			88	110		
		4-bromofluorobenzene SUR			94	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803219	dichlorodifluoromethane		18	ug/L	20	92	70	130		
		chloromethane		18	ug/L	20	92	70	130		
		vinyl chloride		18	ug/L	20	89	70	130		
		bromomethane		16	ug/L	20	82	70	130		
		chloroethane		19	ug/L	20	93	70	130		
		trichlorofluoromethane		18	ug/L	20	89	70	130		
		diethyl ether		20	ug/L	20	98	70	130		
		acetone		19	ug/L	20	96	70	130		
		1,1-dichloroethene		19	ug/L	20	94	70	130		
		methylene chloride		19	ug/L	20	95	70	130		
		carbon disulfide		17	ug/L	20	87	70	130		
		methyl t-butyl ether (MTBE)		18	ug/L	20	91	70	130		
		trans-1,2-dichloroethene		19	ug/L	20	95	70	130		
		isopropyl ether (DIPE)		18	ug/L	20	92	70	130		
		ethyl t-butyl ether (ETBE)		18	ug/L	20	89	70	130		
		1,1-dichloroethane		20	ug/L	20	99	70	130		
		t-butanol (TBA)		99	ug/L	100	99	70	130		
		2-butanone (MEK)		20	ug/L	20	99	70	130		
		2,2-dichloropropane		17	ug/L	20	83	70	130		
		cis-1,2-dichloroethene		18	ug/L	20	92	70	130		
		chloroform		20	ug/L	20	99	70	130		
		bromochloromethane		18	ug/L	20	88	70	130		
		tetrahydrofuran (THF)		21	ug/L	20	107	70	130		
		1,1,1-trichloroethane		18	ug/L	20	91	70	130		
		1,1-dichloropropene		19	ug/L	20	95	70	130		
		t-amyl-methyl ether (TAME)		18	ug/L	20	92	70	130		
		carbon tetrachloride		18	ug/L	20	91	70	130		
		1,2-dichloroethane		19	ug/L	20	96	70	130		
		benzene		20	ug/L	20	100	70	130		
		trichloroethene		20	ug/L	20	98	70	130		
		1,2-dichloropropane		20	ug/L	20	99	70	130		
		bromodichloromethane		18	ug/L	20	90	70	130		
		1,4-dioxane		< 50	ug/L	40	103	70	130		
		dibromomethane		19	ug/L	20	96	70	130		
		4-methyl-2-pentanone (MIBK)		19	ug/L	20	97	70	130		
		cis-1,3-dichloropropene		19	ug/L	20	94	70	130		
		toluene		19	ug/L	20	95	70	130		
		trans-1,3-dichloropropene		20	ug/L	20	98	70	130		
		2-hexanone		20	ug/L	20	99	70	130		
		1,1,2-trichloroethane		20	ug/L	20	100	70	130		
		1,3-dichloropropane		20	ug/L	20	100	70	130		
		tetrachloroethene		18	ug/L	20	90	70	130		
		dibromochloromethane		18	ug/L	20	89	70	130		
		1,2-dibromoethane (EDB)		19	ug/L	20	95	70	130		
		chlorobenzene		19	ug/L	20	95	70	130		
		1,1,1,2-tetrachloroethane		19	ug/L	20	94	70	130		
		ethylbenzene		19	ug/L	20	97	70	130		
		m&p-xylenes		38	ug/L	40	96	70	130		
		o-xylene		19	ug/L	20	97	70	130		
		styrene		19	ug/L	20	97	70	130		
		bromoform		18	ug/L	20	92	70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803219	isopropylbenzene		19	ug/L	20	97	70	130		
		1,1,2,2-tetrachloroethane		21	ug/L	20	107	70	130		
		1,2,3-trichloropropane		19	ug/L	20	96	70	130		
		n-propylbenzene		21	ug/L	20	103	70	130		
		bromobenzene		20	ug/L	20	100	70	130		
		1,3,5-trimethylbenzene		21	ug/L	20	104	70	130		
		2-chlorotoluene		22	ug/L	20	111	70	130		
		4-chlorotoluene		20	ug/L	20	98	70	130		
		tert-butylbenzene		19	ug/L	20	96	70	130		
		1,2,4-trimethylbenzene		20	ug/L	20	102	70	130		
		sec-butylbenzene		18	ug/L	20	92	70	130		
		1,3-dichlorobenzene		20	ug/L	20	100	70	130		
		4-isopropyltoluene		20	ug/L	20	101	70	130		
		1,4-dichlorobenzene		20	ug/L	20	99	70	130		
		1,2-dichlorobenzene		20	ug/L	20	101	70	130		
		n-butylbenzene		19	ug/L	20	95	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		20	ug/L	20	99	70	130		
		1,2,4-trichlorobenzene		20	ug/L	20	99	70	130		
		1,3,5-trichlorobenzene		18	ug/L	20	90	70	130		
		hexachlorobutadiene		18	ug/L	20	90	70	130		
		naphthalene		21	ug/L	20	103	70	130		
		1,2,3-trichlorobenzene		19	ug/L	20	95	70	130		
		dibromofluoromethane SUR		99	%			78	114		
		toluene-D8 SUR		100	%			88	110		
		4-bromofluorobenzene SUR		98	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803219	dichlorodifluoromethane		19	ug/L	20	93	70	130	1	20
		chloromethane		19	ug/L	20	93	70	130	1	20
		vinyl chloride		18	ug/L	20	91	70	130	2	20
		bromomethane		17	ug/L	20	87	70	130	6	20
		chloroethane		19	ug/L	20	94	70	130	1	20
		trichlorofluoromethane		18	ug/L	20	89	70	130	0	20
		diethyl ether		20	ug/L	20	100	70	130	2	20
		acetone		21	ug/L	20	104	70	130	8	20
		1,1-dichloroethene		19	ug/L	20	96	70	130	2	20
		methylene chloride		19	ug/L	20	96	70	130	2	20
		carbon disulfide		18	ug/L	20	88	70	130	2	20
		methyl t-butyl ether (MTBE)		19	ug/L	20	93	70	130	2	20
		trans-1,2-dichloroethene		19	ug/L	20	95	70	130	0	20
		isopropyl ether (DIPE)		19	ug/L	20	94	70	130	2	20
		ethyl t-butyl ether (ETBE)		18	ug/L	20	92	70	130	3	20
		1,1-dichloroethane		20	ug/L	20	100	70	130	1	20
		t-butanol (TBA)		99	ug/L	100	99	70	130	1	20
		2-butanone (MEK)		20	ug/L	20	100	70	130	1	20
		2,2-dichloropropane		17	ug/L	20	83	70	130	0	20
		cis-1,2-dichloroethene		19	ug/L	20	94	70	130	2	20
		chloroform		20	ug/L	20	100	70	130	1	20
		bromochloromethane		18	ug/L	20	89	70	130	1	20
		tetrahydrofuran (THF)		22	ug/L	20	111	70	130	3	20
		1,1,1-trichloroethane		19	ug/L	20	94	70	130	3	20
		1,1-dichloropropene		19	ug/L	20	97	70	130	1	20
		t-amyl-methyl ether (TAME)		19	ug/L	20	93	70	130	0	20
		carbon tetrachloride		19	ug/L	20	93	70	130	2	20
		1,2-dichloroethane		19	ug/L	20	97	70	130	1	20
		benzene		20	ug/L	20	101	70	130	1	20
		trichloroethene		20	ug/L	20	99	70	130	1	20
		1,2-dichloropropane		20	ug/L	20	100	70	130	1	20
		bromodichloromethane		19	ug/L	20	93	70	130	3	20
		1,4-dioxane		< 50	ug/L	40	107	70	130	4	20
		dibromomethane		20	ug/L	20	98	70	130	3	20
		4-methyl-2-pentanone (MIBK)		20	ug/L	20	100	70	130	3	20
		cis-1,3-dichloropropene		19	ug/L	20	95	70	130	1	20
		toluene		19	ug/L	20	96	70	130	1	20
		trans-1,3-dichloropropene		20	ug/L	20	98	70	130	0	20
		2-hexanone		20	ug/L	20	101	70	130	2	20
		1,1,2-trichloroethane		20	ug/L	20	102	70	130	1	20
		1,3-dichloropropane		20	ug/L	20	102	70	130	2	20
		tetrachloroethene		19	ug/L	20	94	70	130	4	20
		dibromochloromethane		18	ug/L	20	92	70	130	3	20
		1,2-dibromoethane (EDB)		20	ug/L	20	98	70	130	3	20
		chlorobenzene		19	ug/L	20	96	70	130	1	20
		1,1,1,2-tetrachloroethane		20	ug/L	20	98	70	130	3	20
		ethylbenzene		20	ug/L	20	98	70	130	1	20
		m&p-xylenes		39	ug/L	40	98	70	130	2	20
		o-xylene		20	ug/L	20	99	70	130	2	20
		styrene		19	ug/L	20	97	70	130	1	20
		bromoform		20	ug/L	20	98	70	130	6	20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803219	isopropylbenzene		20	ug/L	20	99	70	130	3	20
		1,1,2,2-tetrachloroethane		21	ug/L	20	106	70	130	1	20
		1,2,3-trichloropropane		20	ug/L	20	100	70	130	4	20
		n-propylbenzene		21	ug/L	20	106	70	130	3	20
		bromobenzene		20	ug/L	20	101	70	130	0	20
		1,3,5-trimethylbenzene		21	ug/L	20	106	70	130	2	20
		2-chlorotoluene		20	ug/L	20	100	70	130	11	20
		4-chlorotoluene		22	ug/L	20	111	70	130	13	20
		tert-butylbenzene		20	ug/L	20	98	70	130	2	20
		1,2,4-trimethylbenzene		21	ug/L	20	103	70	130	1	20
		sec-butylbenzene		19	ug/L	20	94	70	130	2	20
		1,3-dichlorobenzene		20	ug/L	20	100	70	130	0	20
		4-isopropyltoluene		20	ug/L	20	102	70	130	1	20
		1,4-dichlorobenzene		20	ug/L	20	102	70	130	3	20
		1,2-dichlorobenzene		21	ug/L	20	103	70	130	2	20
		n-butylbenzene		19	ug/L	20	96	70	130	2	20
		1,2-dibromo-3-chloropropane (DBCP)		20	ug/L	20	102	70	130	2	20
		1,2,4-trichlorobenzene		20	ug/L	20	102	70	130	2	20
		1,3,5-trichlorobenzene		18	ug/L	20	91	70	130	1	20
		hexachlorobutadiene		18	ug/L	20	91	70	130	2	20
		naphthalene		21	ug/L	20	104	70	130	2	20
		1,2,3-trichlorobenzene		20	ug/L	20	98	70	130	3	20
		dibromofluoromethane SUR		100	%			78	114		
		toluene-D8 SUR		100	%			88	110		
		4-bromofluorobenzene SUR		99	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW3510C8270D	BLK11178	pyridine		<	2	ug/L					
		N-nitrosodimethylamine		<	2	ug/L					
		aniline		<	2	ug/L					
		phenol		<	2	ug/L					
		2-chlorophenol		<	5	ug/L					
		bis(2-chloroethyl)ether		<	2	ug/L					
		1,3-dichlorobenzene		<	2	ug/L					
		1,4-dichlorobenzene		<	2	ug/L					
		1,2-dichlorobenzene		<	2	ug/L					
		benzyl alcohol		<	2	ug/L					
		2-methylphenol		<	5	ug/L					
		2,2'-oxybis(1-chloropropane)		<	2	ug/L					
		hexachloroethane		<	2	ug/L					
		N-nitroso-di-N-propylamine		<	2	ug/L					
		4-methylphenol		<	2	ug/L					
		nitrobenzene		<	2	ug/L					
		isophorone		<	5	ug/L					
		2-nitrophenol		<	2	ug/L					
		2,4-dimethylphenol		<	5	ug/L					
		bis(2-chloroethoxy)methane		<	5	ug/L					
		2,4-dichlorophenol		<	5	ug/L					
		1,2,4-trichlorobenzene		<	5	ug/L					
		naphthalene		<	0.5	ug/L					
		benzoic acid		<	50	ug/L					
		4-chloroaniline		<	2	ug/L					
		hexachlorobutadiene		<	2	ug/L					
		4-chloro-3-methylphenol		<	2	ug/L					
		2-methylnaphthalene		<	0.5	ug/L					
		hexachlorocyclopentadiene		<	10	ug/L					
		2,4,6-trichlorophenol		<	2	ug/L					
		2,4,5-trichlorophenol		<	2	ug/L					
		2-chloronaphthalene		<	5	ug/L					
		2-nitroaniline		<	2	ug/L					
		acenaphthylene		<	0.5	ug/L					
		dimethylphthalate		<	5	ug/L					
		2,6-dinitrotoluene		<	5	ug/L					
		2,4-dinitrotoluene		<	5	ug/L					
		acenaphthene		<	0.5	ug/L					
		3-nitroaniline		<	2	ug/L					
		2,4-dinitrophenol		<	50	ug/L					
		dibenzofuran		<	0.5	ug/L					
		4-nitrophenol		<	10	ug/L					
		fluorene		<	0.5	ug/L					
		diethyl phthalate		<	5	ug/L					
		4-chlorophenyl phenyl ether		<	5	ug/L					
		4-nitroaniline		<	5	ug/L					
		4,6-dinitro-2-methylphenol		<	20	ug/L					
		azobenzene		<	2	ug/L					
		N-nitrosodiphenylamine		<	2	ug/L					
		4-bromophenyl phenyl ether		<	2	ug/L					
		hexachlorobenzene		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	BLK11178	pentachlorophenol		<	10	ug/L						
		phenanthrene		<	0.5	ug/L						
		anthracene		<	0.5	ug/L						
		carbazole		<	2	ug/L						
		di-n-butylphthalate		<	5	ug/L						
		fluoranthene		<	0.5	ug/L						
		benzidine		<	30	ug/L						
		pyrene		<	0.5	ug/L						
		butyl benzyl phthalate		<	5	ug/L						
		benzo(a)anthracene		<	0.5	ug/L						
		chrysene		<	0.5	ug/L						
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate		<	5	ug/L						
		di-n-octyl phthalate		<	5	ug/L						
		benzo(b)fluoranthene		<	0.5	ug/L						
		benzo(k)fluoranthene		<	0.5	ug/L						
		benzo(a)pyrene		<	0.2	ug/L						
		indeno(1,2,3-cd)pyrene		<	0.5	ug/L						
		dibenzo(a,h)anthracene		<	0.5	ug/L						
		benzo(g,h,i)perylene		<	0.5	ug/L						
		2-fluorophenol SUR			29	%			21	100		
		phenol-D5 SUR			15	%			10	102		
		2,4,6-tribromophenol SUR			72	%			10	123		
		nitrobenzene-D5 SUR			50	%			35	114		
		2-fluorobiphenyl SUR			65	%			43	116		
		p-terphenyl-D14 SUR			69	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCS11178	pyridine		11	ug/L	40	26	*	30	130		
		N-nitrosodimethylamine		11	ug/L	40	27	*	40	140		
		aniline		20	ug/L	40	50		40	140		
		phenol		7	ug/L	40	19	*	30	130		
		2-chlorophenol		28	ug/L	40	71		30	130		
		bis(2-chloroethyl)ether		25	ug/L	40	62		40	140		
		1,3-dichlorobenzene		24	ug/L	40	60		40	140		
		1,4-dichlorobenzene		24	ug/L	40	59		40	140		
		1,2-dichlorobenzene		25	ug/L	40	62		40	140		
		benzyl alcohol		20	ug/L	40	49		30	130		
		2-methylphenol		21	ug/L	40	53		30	130		
		2,2'-oxybis(1-chloropropane)		37	ug/L	40	91		40	140		
		hexachloroethane		18	ug/L	40	45		40	140		
		N-nitroso-di-N-propylamine		24	ug/L	40	60		40	140		
		4-methylphenol		19	ug/L	40	47		30	130		
		nitrobenzene		23	ug/L	40	57		40	140		
		isophorone		25	ug/L	40	63		40	140		
		2-nitrophenol		29	ug/L	40	71		30	130		
		2,4-dimethylphenol		27	ug/L	40	67		30	130		
		bis(2-chloroethoxy)methane		26	ug/L	40	66		40	140		
		2,4-dichlorophenol		29	ug/L	40	72		30	130		
		1,2,4-trichlorobenzene		25	ug/L	40	63		40	140		
		naphthalene		29	ug/L	40	73		40	140		
		benzoic acid		< 50	ug/L							
		4-chloroaniline		34	ug/L	40	85		40	140		
		hexachlorobutadiene		21	ug/L	40	52		40	140		
		4-chloro-3-methylphenol		24	ug/L	40	60		30	130		
		2-methylnaphthalene		32	ug/L	40	80		40	140		
		hexachlorocyclopentadiene		18	ug/L	40	45		40	140		
		2,4,6-trichlorophenol		30	ug/L	40	76		30	130		
		2,4,5-trichlorophenol		30	ug/L	40	74		30	130		
		2-chloronaphthalene		31	ug/L	40	78		40	140		
		2-nitroaniline		33	ug/L	40	81		40	140		
		acenaphthylene		32	ug/L	40	80		40	140		
		dimethylphthalate		18	ug/L	40	46		40	140		
		2,6-dinitrotoluene		34	ug/L	40	86		40	140		
		2,4-dinitrotoluene		31	ug/L	40	77		40	140		
		acenaphthene		32	ug/L	40	79		40	140		
		3-nitroaniline		33	ug/L	40	82		40	140		
		2,4-dinitrophenol		< 50	ug/L							
		dibenzofuran		32	ug/L	40	81		40	140		
		4-nitrophenol		< 10	ug/L	40	14	*	30	130		
		fluorene		32	ug/L	40	80		40	140		
		diethyl phthalate		26	ug/L	40	66		40	140		
		4-chlorophenyl phenyl ether		32	ug/L	40	80		40	140		
		4-nitroaniline		28	ug/L	40	71		40	140		
		4,6-dinitro-2-methylphenol		30	ug/L	40	76		30	130		
		azobenzene		30	ug/L	40	75		40	140		
		N-nitrosodiphenylamine		41	ug/L	40	103		40	140		
		4-bromophenyl phenyl ether		34	ug/L	40	85		40	140		
		hexachlorobenzene		34	ug/L	40	85		40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCS11178	pentachlorophenol			30	ug/L	40	74	30	130		
		phenanthrene			35	ug/L	40	88	40	140		
		anthracene			35	ug/L	40	87	40	140		
		carbazole			34	ug/L	40	84	40	140		
		di-n-butylphthalate			34	ug/L	40	84	40	140		
		fluoranthene			33	ug/L	40	81	40	140		
		benzidine		<	30	ug/L						
		pyrene			33	ug/L	40	83	40	140		
		butyl benzyl phthalate			32	ug/L	40	80	40	140		
		benzo(a)anthracene			34	ug/L	40	86	40	140		
		chrysene			28	ug/L	40	70	40	140		
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate			33	ug/L	40	82	40	140		
		di-n-octyl phthalate			34	ug/L	40	85	40	140		
		benzo(b)fluoranthene			35	ug/L	40	87	40	140		
		benzo(k)fluoranthene			34	ug/L	40	85	40	140		
		benzo(a)pyrene			35	ug/L	40	88	40	140		
		indeno(1,2,3-cd)pyrene			33	ug/L	40	82	40	140		
		dibenzo(a,h)anthracene			22	ug/L	40	54	40	140		
		benzo(g,h,i)perylene			34	ug/L	40	86	40	140		
		2-fluorophenol SUR			30	%			21	100		
		phenol-D5 SUR			17	%			10	102		
		2,4,6-tribromophenol SUR			84	%			10	123		
		nitrobenzene-D5 SUR			54	%			35	114		
		2-fluorobiphenyl SUR			76	%			43	116		
		p-terphenyl-D14 SUR			75	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD		RPD Limit
SW3510C8270D	LCSD11178	pyridine		11	ug/L	40	27	*	30	130	2		20
		N-nitrosodimethylamine		11	ug/L	40	28	*	40	140	1		20
		aniline		21	ug/L	40	53		40	140	6		20
		phenol		7	ug/L	40	18	*	30	130	3		20
		2-chlorophenol		28	ug/L	40	70		30	130	1		20
		bis(2-chloroethyl)ether		25	ug/L	40	62		40	140	0		20
		1,3-dichlorobenzene		24	ug/L	40	59		40	140	1		20
		1,4-dichlorobenzene		24	ug/L	40	61		40	140	2		20
		1,2-dichlorobenzene		25	ug/L	40	63		40	140	2		20
		benzyl alcohol		20	ug/L	40	50		30	130	1		20
		2-methylphenol		20	ug/L	40	51		30	130	4		20
		2,2'-oxybis(1-chloropropane)		37	ug/L	40	93		40	140	1		20
		hexachloroethane		19	ug/L	40	47		40	140	4		20
		N-nitroso-di-N-propylamine		25	ug/L	40	62		40	140	3		20
		4-methylphenol		18	ug/L	40	46		30	130	3		20
		nitrobenzene		24	ug/L	40	60		40	140	5		20
		isophorone		26	ug/L	40	64		40	140	2		20
		2-nitrophenol		29	ug/L	40	72		30	130	0		20
		2,4-dimethylphenol		26	ug/L	40	64		30	130	4		20
		bis(2-chloroethoxy)methane		27	ug/L	40	69		40	140	4		20
		2,4-dichlorophenol		28	ug/L	40	70		30	130	3		20
		1,2,4-trichlorobenzene		26	ug/L	40	64		40	140	2		20
		naphthalene		30	ug/L	40	74		40	140	1		20
		benzoic acid		< 50	ug/L								20
		4-chloroaniline		34	ug/L	40	85		40	140	0		20
		hexachlorobutadiene		21	ug/L	40	52		40	140	0		20
		4-chloro-3-methylphenol		23	ug/L	40	58		30	130	3		20
		2-methylnaphthalene		33	ug/L	40	82		40	140	2		20
		hexachlorocyclopentadiene		18	ug/L	40	44		40	140	2		20
		2,4,6-trichlorophenol		29	ug/L	40	72		30	130	6		20
		2,4,5-trichlorophenol		28	ug/L	40	69		30	130	7		20
		2-chloronaphthalene		31	ug/L	40	78		40	140	1		20
		2-nitroaniline		33	ug/L	40	82		40	140	1		20
		acenaphthylene		32	ug/L	40	81		40	140	1		20
		dimethylphthalate		17	ug/L	40	42		40	140	8		20
		2,6-dinitrotoluene		34	ug/L	40	85		40	140	0		20
		2,4-dinitrotoluene		32	ug/L	40	80		40	140	4		20
		acenaphthene		32	ug/L	40	79		40	140	0		20
		3-nitroaniline		33	ug/L	40	83		40	140	1		20
		2,4-dinitrophenol		< 50	ug/L								20
		dibenzofuran		33	ug/L	40	81		40	140	1		20
		4-nitrophenol		< 10	ug/L	40	21	*	30	130	41	*	20
		fluorene		31	ug/L	40	79		40	140	2		20
		diethyl phthalate		26	ug/L	40	66		40	140	1		20
		4-chlorophenyl phenyl ether		31	ug/L	40	79		40	140	2		20
		4-nitroaniline		29	ug/L	40	73		40	140	3		20
		4,6-dinitro-2-methylphenol		29	ug/L	40	73		30	130	4		20
		azobenzene		29	ug/L	40	73		40	140	2		20
		N-nitrosodiphenylamine		40	ug/L	40	99		40	140	4		20
		4-bromophenyl phenyl ether		33	ug/L	40	83		40	140	3		20
		hexachlorobenzene		34	ug/L	40	84		40	140	1		20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCSD11178	pentachlorophenol			32	ug/L	40	79	30	130	7	20
		phenanthrene			35	ug/L	40	87	40	140	0	20
		anthracene			35	ug/L	40	87	40	140	0	20
		carbazole			35	ug/L	40	87	40	140	3	20
		di-n-butylphthalate			35	ug/L	40	86	40	140	3	20
		fluoranthene			34	ug/L	40	85	40	140	4	20
		benzidine		<	30	ug/L						20
		pyrene			31	ug/L	40	77	40	140	7	20
		butyl benzyl phthalate			31	ug/L	40	77	40	140	3	20
		benzo(a)anthracene			34	ug/L	40	85	40	140	1	20
		chrysene			28	ug/L	40	70	40	140	1	20
		3,3'-dichlorobenzidine		<	30	ug/L						20
		bis(2-ethylhexyl)phthalate			31	ug/L	40	79	40	140	4	20
		di-n-octyl phthalate			31	ug/L	40	78	40	140	9	20
		benzo(b)fluoranthene			32	ug/L	40	81	40	140	7	20
		benzo(k)fluoranthene			33	ug/L	40	82	40	140	3	20
		benzo(a)pyrene			34	ug/L	40	86	40	140	3	20
		indeno(1,2,3-cd)pyrene			31	ug/L	40	77	40	140	6	20
		dibenzo(a,h)anthracene			21	ug/L	40	52	40	140	4	20
		benzo(g,h,i)perylene			32	ug/L	40	80	40	140	7	20
		2-fluorophenol SUR			29	%			21	100		
		phenol-D5 SUR			16	%			10	102		
		2,4,6-tribromophenol SUR			80	%			10	123		
		nitrobenzene-D5 SUR			56	%			35	114		
		2-fluorobiphenyl SUR			75	%			43	116		
		p-terphenyl-D14 SUR			71	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3005A6020A	BLK11184	Arsenic		<	0.005	mg/L						
		Manganese		<	0.01	mg/L						
SW3005A6020A	LCS11184	Arsenic			0.47	mg/L	0.5	94	80	120		
		Manganese			0.46	mg/L	0.5	92	80	120		
SW3005A6020A	LCSD11184	Arsenic			0.48	mg/L	0.5	96	80	120	3	20
		Manganese			0.48	mg/L	0.5	96	80	120	5	20

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

46561

Company Name: Dept. of Environmental Services, State of New Hampshire

Company Address: 29 Hazen Drive, P.O. Box 95

Report To: Michael Summerlin, P.E.

Phone #: (603) 271-3649

Invoice to Email: michael.summerlinjr@des.nh.gov

☐ Hard Copy Invoice Required

Project Name: Troy Mills Landfill Superfund Site

Project #: DES #198405082

Project Location: NH (highlighted) MA ME VT NY Other

Protocol: RCRA SDWA NPDES MCP NHDES (highlighted) OTHER

Reporting Limits: QAPP GW-1 S-1 EPA DW Other SAP (highlighted)

Quote # ____ ☐ NH Reimbursement Pricing

PO # Contract No. 1051314 (2589-00 T)

ANALYSIS REQUEST

Analysis columns:

1. ☐ VOC 8260 ☒ VOC 8260 NHDES ☐ VOC 8260 MADEP
2. ☐ VOC 624 ☐ VOC BTEX ☐ MtBE, only ☐ VOC 8021VT
3. ☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☒ 1,4-Dioxane 8260 SIM
4. ☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:
5. ☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint
6. ☐ 8270PAH ☒ 8270ABN ☐ 625 ☐ EDB
7. ☐ 8082 PCB ☐ 8081 Pesticides ☐
8. ☐ O&G 1664 ☐ Mineral O&G SM5520F
9. ☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity
10. ☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity
11. ☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☒ Hardness
12. ☒ Total Metals-list: As, ~~Cd, Cr, Pb~~, Mn, ~~Ni~~
13. ☐ Dissolved Metals-list:
14. ☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☒ TOC
15. ☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN
16. ☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P
17. ☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride
18. ☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP
19. ☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide
20. Subcontract: ☒ Grain Size ☐ Herbicides ☐ Formaldehyde
21.
22.
23.
24. Grab (G) or Composite (C)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	Matrix: SOLID	Matrix: OTHER	Pres.: HCl	Pres.: HNO_3	Pres.: H_2SO_4	Pres.: NaOH	Pres.: MeOH	Sampling: DATE	Sampling: TIME	Sampling: SAMPLER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
46861-01	TRIP BLANK	1	X			X					10-31-18	0800	MB	X																							
-02	TRIP BLANK	2	X								10-31-18	0800	MB			X																					
-03	TRY_MW-C6D	6	X			X	X				10-31-18	1030	ED	X		X			X						X												
-04	TRY_MW-C6S	6	X			X	X				10-31-18	1500	ED	X		X			X						X												
-05	TRY_MW-C6S DUP	5	X			X	X				10-31-18	1500	ED	X		X									X												
-06	TRY_M-1	6	X			X	X				10-31-18	1320	ED	X		X			X						X												

TAT REQUESTED

- Priority (24 hr)* ☐
- Expedited (48 hr)* ☐
- Standard (10 Business Days) ☒
- *Date Needed ____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Please contact Tanya Justham at (603) 493-1548 for sample questions and Michael Summerlin for all others.

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) and Excel; Please send results to michael.summerlinjr@des.nh.gov and tanya.justham@gza.com

☐ HARD COPY REQUIRED ☐ FAX (FAX#)____

RECEIVED ON ICE ☒ YES ☐ NO

TEMPERATURE 0 °C

CUSTODY RECORD

Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Sampler: [signature]	11-1-18	1905	Received by: [signature]	11/2/18	14:15
Relinquished by: [signature]	11/2/18	14:15	Received by: [signature]	11/2/18	1415
Relinquished by: [signature]	11/2/18	15:30	Received by Laboratory: [signature]	11/2/18	15:30

QSD-01 Revision 10/14/15

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Michael Summerlin
NHDES-Superfund
29 Hazen Drive
Concord, NH 03301

PO Number: Contrct#1061488(2589-
Job ID: 46577
Date Received: 11/5/18

Project: Troy Mills Landfill Superfund Site DES #198405082

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

Jennifer Lowe
Laboratory Manager

Date of Approval: 12/3/2018
Total number of pages: 38

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Troy Mills Landfill Superfund Site DES #198405082

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
TRIP BLANK	Water	11/2/2018 8:00	46577-001	
				VOCs in water by 8260 Petro & Haz Waste
TRIP BLANK	Water	11/2/2018 8:00	46577-002	
				Low level 1,4-dioxane in water by 8260 SIM
TRY_MW-801	Water	11/2/2018 14:40	46577-003	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_MW-802	Water	11/2/2018 10:35	46577-004	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_MW-805	Water	11/2/2018 10:45	46577-005	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
EQUIP BLANK	Water	11/2/2018 15:10	46577-006	
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577

Sample#: 46577-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/2/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577

Sample#: 46577-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/2/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**101**	78-114	%	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
toluene-D8 SUR	**100**	88-110	%	1	LMM		1803218	11/8/18	15:30	SW5030C8260C
4-bromofluorobenzene SUR	**90**	86-115	%	1	LMM		1803218	11/8/18	15:30	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577
Sample#: 46577-003
Sample ID: TRY_MW-801
Matrix: Water
Sampled: 11/2/18 14:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577
Sample#: 46577-003
Sample ID: TRY_MW-801
Matrix: Water
Sampled: 11/2/18 14:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
sec-butylbenzene	**5**	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**97**	78-114	%	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	LMM		1803218	11/8/18	17:39	SW5030C8260C
4-bromofluorobenzene SUR	**94**	86-115	%	1	LMM		1803218	11/8/18	17:39	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577
Sample#: 46577-004
Sample ID: TRY_MW-802
Matrix: Water
Sampled: 11/2/18 10:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577
Sample#: 46577-004
Sample ID: TRY_MW-802
Matrix: Water
Sampled: 11/2/18 10:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**96**	78-114	%	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
toluene-D8 SUR	**101**	88-110	%	1	LMM		1803218	11/8/18	18:05	SW5030C8260C
4-bromofluorobenzene SUR	**92**	86-115	%	1	LMM		1803218	11/8/18	18:05	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577
Sample#: 46577-005
Sample ID: TRY_MW-805
Matrix: Water
Sampled: 11/2/18 10:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577
Sample#: 46577-005
Sample ID: TRY_MW-805
Matrix: Water
Sampled: 11/2/18 10:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
ethylbenzene	**63**	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
m&p-xylenes	**83**	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
isopropylbenzene	**37**	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
n-propylbenzene	**38**	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,3,5-trimethylbenzene	**130**	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,2,4-trimethylbenzene	**370**	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
sec-butylbenzene	**28**	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
4-isopropyltoluene	**27**	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
naphthalene	**20**	5	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**97**	78-114	%	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
toluene-D8 SUR	**103**	88-110	%	1	LMM		1803218	11/8/18	18:31	SW5030C8260C
4-bromofluorobenzene SUR	**109**	86-115	%	1	LMM		1803218	11/8/18	18:31	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577
Sample#: 46577-006
Sample ID: EQUIP BLANK
Matrix: Water
Sampled: 11/2/18 15:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577
Sample#: 46577-006
Sample ID: EQUIP BLANK
Matrix: Water
Sampled: 11/2/18 15:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**103**	78-114	%	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
toluene-D8 SUR	**101**	88-110	%	1	LMM		1803218	11/8/18	15:56	SW5030C8260C
4-bromofluorobenzene SUR	**92**	86-115	%	1	LMM		1803218	11/8/18	15:56	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577

Sample#: 46577-002
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/2/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803177	11/6/18	9:43	modSW8260C

Sample#: 46577-003
Sample ID: TRY_MW-801
Matrix: Water
Sampled: 11/2/18 14:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803177	11/6/18	10:14	modSW8260C

Sample#: 46577-004
Sample ID: TRY_MW-802
Matrix: Water
Sampled: 11/2/18 10:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803177	11/6/18	10:45	modSW8260C

Sample#: 46577-005
Sample ID: TRY_MW-805
Matrix: Water
Sampled: 11/2/18 10:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803177	11/6/18	11:16	modSW8260C

Sample#: 46577-006
Sample ID: EQUIP BLANK
Matrix: Water
Sampled: 11/2/18 15:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803177	11/6/18	11:48	modSW8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577
Sample#: 46577-003
Sample ID: TRY_MW-801
Matrix: Water
Sampled: 11/2/18 14:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577
Sample#: 46577-003
Sample ID: TRY_MW-801
Matrix: Water
Sampled: 11/2/18 14:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**17** *	21-100	%	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
phenol-D5 SUR	**17**	10-102	%	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
2,4,6-tribromophenol SUR	**56**	10-123	%	1	CL	11/8/18	11188	11/9/18	4:29	SW3510C8270D
nitrobenzene-D5 SUR	**41**	35-114	%	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
2-fluorobiphenyl SUR	**64**	43-116	%	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D
p-terphenyl-D14 SUR	**65**	33-141	%	1	CL	11/8/18	11188	11/8/18	22:32	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577
Sample#: 46577-004
Sample ID: TRY_MW-802
Matrix: Water
Sampled: 11/2/18 10:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577
Sample#: 46577-004
Sample ID: TRY_MW-802
Matrix: Water
Sampled: 11/2/18 10:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**18** *	21-100	%	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
phenol-D5 SUR	**16**	10-102	%	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
2,4,6-tribromophenol SUR	**59**	10-123	%	1	CL	11/8/18	11188	11/9/18	4:59	SW3510C8270D
nitrobenzene-D5 SUR	**8** *	35-114	%	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
2-fluorobiphenyl SUR	**50**	43-116	%	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D
p-terphenyl-D14 SUR	**51**	33-141	%	1	CL	11/8/18	11188	11/8/18	23:02	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577
Sample#: 46577-005
Sample ID: TRY_MW-805
Matrix: Water
Sampled: 11/2/18 10:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
naphthalene	**8.3**	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46577
Sample#: 46577-005
Sample ID: TRY_MW-805
Matrix: Water
Sampled: 11/2/18 10:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**20** *	21-100	%	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
phenol-D5 SUR	**18**	10-102	%	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
2,4,6-tribromophenol SUR	**64**	10-123	%	1	CL	11/8/18	11188	11/9/18	5:28	SW3510C8270D
nitrobenzene-D5 SUR	**45**	35-114	%	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
2-fluorobiphenyl SUR	**59**	43-116	%	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D
p-terphenyl-D14 SUR	**56**	33-141	%	1	CL	11/8/18	11188	11/8/18	23:32	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES #198405082

Job ID: 46577

Sample#: 46577-003
Sample ID: TRY_MW-801
Matrix: Water
Sampled: 11/2/18 14:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/9/18	11193	11/20/18	2:14	SW3005A6020A
Manganese	**7.9**	0.10	mg/L	10	AGN	11/9/18	11193	11/21/18	0:44	SW3005A6020A

Sample#: 46577-004
Sample ID: TRY_MW-802
Matrix: Water
Sampled: 11/2/18 10:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/9/18	11193	11/20/18	2:40	SW3005A6020A
Manganese	**4.1**	0.05	mg/L	5	AGN	11/9/18	11193	11/21/18	0:51	SW3005A6020A

Sample#: 46577-005
Sample ID: TRY_MW-805
Matrix: Water
Sampled: 11/2/18 10:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/9/18	11193	11/20/18	2:47	SW3005A6020A
Manganese	**1.8**	0.01	mg/L	1	AGN	11/9/18	11193	11/21/18	0:58	SW3005A6020A

Sample#: 46577-006
Sample ID: EQUIP BLANK
Matrix: Water
Sampled: 11/2/18 15:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/9/18	11193	11/20/18	2:53	SW3005A6020A
Manganese	< 0.01	0.01	mg/L	1	AGN	11/9/18	11193	11/20/18	2:53	SW3005A6020A

Quality Control Report



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Portsmouth, NH 03801
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Absolute Resource
associates

Case Narrative
Lab # 46577

Sample Receiving and Chain of Custody Discrepancies

Samples were received in acceptable condition, at 0 degrees C, on ice, and in accordance with sample handling, preservation and integrity guidelines.

Calibration

No exceptions noted.

Method Blank

No exceptions noted.

Surrogate Recoveries

SVOC: Samples 46577-003, -004, and -005 had several surrogates below the acceptance criteria. Matrix interference is suspected. No additional sample remained for re-analysis.

Laboratory Control Sample Results

VOC: The LCS1803218 did not meet the acceptance criteria for vinyl chloride and bromomethane. The LCSD1803218 did not meet the acceptance criteria for bromomethane. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.

SVOC: The LCS11188 did not meet the acceptance criteria for N-nitrosodimethylamine, phenol, hexachloroethane, and 4-nitrophenol. The LCSD11188 did not meet the acceptance criteria for N-nitrosodimethylamine, phenol, and 4-nitrophenol. Since <20% of the compounds were outside of the acceptance criteria, reanalysis is not required.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

Not requested for this project.

Other

The reported results have undergone the standard process of review for data quality. The final report meets the reporting and documentation requirements of the contract.

Jennifer Guerette QA Officer

Reporting Limits: Dilutions performed during the analysis are noted on the result pages.

No other exceptions noted.

GLOSSARY

%R	Percent Recovery
BLK	Blank (Method Blank, Preparation Blank)
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
Dil'n	Dilution
DL	Detection Limit
DUP	Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MB	Methanol Blank (associated with solid VOC samples)
MLCS	Methanol Laboratory Control Sample (associated with solid VOC samples)
MLCSD	Methanol Laboratory Control Sample Duplicate (associated with solid VOC samples)
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PB	Preparation Blank
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SUR	Surrogate

- QC Report -

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
modSW8260C	BLK1803177	1,4-dioxane		<	0.25	ug/L						
modSW8260C	LCS1803177	1,4-dioxane			8.0	ug/L	8	100	70	130		
modSW8260C	LCSD1803177	1,4-dioxane			7.7	ug/L	8	96	70	130	4	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803218	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					
		bromoform		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803218	isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			99	%			78	114		
		toluene-D8 SUR			96	%			88	110		
		4-bromofluorobenzene SUR			94	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCS1803218	dichlorodifluoromethane		16	ug/L	20	80		70	130		
		chloromethane		21	ug/L	20	104		70	130		
		vinyl chloride		26	ug/L	20	131	*	70	130		
		bromomethane		12	ug/L	20	60	*	70	130		
		chloroethane		23	ug/L	20	114		70	130		
		trichlorofluoromethane		21	ug/L	20	104		70	130		
		diethyl ether		24	ug/L	20	119		70	130		
		acetone		23	ug/L	20	116		70	130		
		1,1-dichloroethene		21	ug/L	20	104		70	130		
		methylene chloride		22	ug/L	20	112		70	130		
		carbon disulfide		16	ug/L	20	79		70	130		
		methyl t-butyl ether (MTBE)		19	ug/L	20	93		70	130		
		trans-1,2-dichloroethene		21	ug/L	20	103		70	130		
		isopropyl ether (DIPE)		19	ug/L	20	96		70	130		
		ethyl t-butyl ether (ETBE)		19	ug/L	20	95		70	130		
		1,1-dichloroethane		21	ug/L	20	106		70	130		
		t-butanol (TBA)		99	ug/L	100	99		70	130		
		2-butanone (MEK)		21	ug/L	20	105		70	130		
		2,2-dichloropropane		19	ug/L	20	94		70	130		
		cis-1,2-dichloroethene		20	ug/L	20	101		70	130		
		chloroform		21	ug/L	20	105		70	130		
		bromochloromethane		21	ug/L	20	105		70	130		
		tetrahydrofuran (THF)		23	ug/L	20	117		70	130		
		1,1,1-trichloroethane		19	ug/L	20	96		70	130		
		1,1-dichloropropene		20	ug/L	20	101		70	130		
		t-amyl-methyl ether (TAME)		20	ug/L	20	99		70	130		
		carbon tetrachloride		19	ug/L	20	94		70	130		
		1,2-dichloroethane		20	ug/L	20	100		70	130		
		benzene		20	ug/L	20	100		70	130		
		trichloroethene		20	ug/L	20	100		70	130		
		1,2-dichloropropane		22	ug/L	20	112		70	130		
		bromodichloromethane		19	ug/L	20	93		70	130		
		1,4-dioxane		< 50	ug/L	40	82		70	130		
		dibromomethane		21	ug/L	20	106		70	130		
		4-methyl-2-pentanone (MIBK)		20	ug/L	20	100		70	130		
		cis-1,3-dichloropropene		20	ug/L	20	102		70	130		
		toluene		21	ug/L	20	106		70	130		
		trans-1,3-dichloropropene		21	ug/L	20	105		70	130		
		2-hexanone		21	ug/L	20	103		70	130		
		1,1,2-trichloroethane		20	ug/L	20	101		70	130		
		1,3-dichloropropane		19	ug/L	20	97		70	130		
		tetrachloroethene		18	ug/L	20	88		70	130		
		dibromochloromethane		16	ug/L	20	81		70	130		
		1,2-dibromoethane (EDB)		19	ug/L	20	94		70	130		
		chlorobenzene		17	ug/L	20	85		70	130		
		1,1,1,2-tetrachloroethane		18	ug/L	20	91		70	130		
		ethylbenzene		19	ug/L	20	96		70	130		
		m&p-xylenes		39	ug/L	40	97		70	130		
		o-xylene		17	ug/L	20	85		70	130		
		styrene		19	ug/L	20	94		70	130		
		bromoform		16	ug/L	20	78		70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803218	isopropylbenzene		19	ug/L	20	95	70	130		
		1,1,2,2-tetrachloroethane		20	ug/L	20	101	70	130		
		1,2,3-trichloropropane		20	ug/L	20	101	70	130		
		n-propylbenzene		20	ug/L	20	100	70	130		
		bromobenzene		19	ug/L	20	93	70	130		
		1,3,5-trimethylbenzene		20	ug/L	20	98	70	130		
		2-chlorotoluene		19	ug/L	20	95	70	130		
		4-chlorotoluene		19	ug/L	20	97	70	130		
		tert-butylbenzene		19	ug/L	20	95	70	130		
		1,2,4-trimethylbenzene		19	ug/L	20	95	70	130		
		sec-butylbenzene		19	ug/L	20	93	70	130		
		1,3-dichlorobenzene		17	ug/L	20	87	70	130		
		4-isopropyltoluene		20	ug/L	20	100	70	130		
		1,4-dichlorobenzene		18	ug/L	20	90	70	130		
		1,2-dichlorobenzene		18	ug/L	20	89	70	130		
		n-butylbenzene		18	ug/L	20	90	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		19	ug/L	20	93	70	130		
		1,2,4-trichlorobenzene		18	ug/L	20	92	70	130		
		1,3,5-trichlorobenzene		18	ug/L	20	88	70	130		
		hexachlorobutadiene		20	ug/L	20	100	70	130		
		naphthalene		20	ug/L	20	102	70	130		
		1,2,3-trichlorobenzene		18	ug/L	20	91	70	130		
		dibromofluoromethane SUR		101	%			78	114		
		toluene-D8 SUR		103	%			88	110		
		4-bromofluorobenzene SUR		101	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803218	dichlorodifluoromethane		16	ug/L	20	81		70	130	2	20
		chloromethane		19	ug/L	20	95		70	130	9	20
		vinyl chloride		25	ug/L	20	125		70	130	5	20
		bromomethane		13	ug/L	20	65	*	70	130	9	20
		chloroethane		22	ug/L	20	109		70	130	4	20
		trichlorofluoromethane		20	ug/L	20	102		70	130	2	20
		diethyl ether		24	ug/L	20	121		70	130	2	20
		acetone		24	ug/L	20	120		70	130	4	20
		1,1-dichloroethene		20	ug/L	20	100		70	130	4	20
		methylene chloride		22	ug/L	20	109		70	130	3	20
		carbon disulfide		17	ug/L	20	84		70	130	6	20
		methyl t-butyl ether (MTBE)		19	ug/L	20	93		70	130	0	20
		trans-1,2-dichloroethene		21	ug/L	20	103		70	130	0	20
		isopropyl ether (DIPE)		19	ug/L	20	95		70	130	2	20
		ethyl t-butyl ether (ETBE)		19	ug/L	20	96		70	130	2	20
		1,1-dichloroethane		21	ug/L	20	106		70	130	1	20
		t-butanol (TBA)		100	ug/L	100	103		70	130	4	20
		2-butanone (MEK)		21	ug/L	20	107		70	130	2	20
		2,2-dichloropropane		19	ug/L	20	93		70	130	1	20
		cis-1,2-dichloroethene		20	ug/L	20	100		70	130	1	20
		chloroform		21	ug/L	20	105		70	130	0	20
		bromochloromethane		20	ug/L	20	99		70	130	6	20
		tetrahydrofuran (THF)		23	ug/L	20	114		70	130	2	20
		1,1,1-trichloroethane		19	ug/L	20	95		70	130	1	20
		1,1-dichloropropene		20	ug/L	20	100		70	130	1	20
		t-amyl-methyl ether (TAME)		19	ug/L	20	96		70	130	3	20
		carbon tetrachloride		19	ug/L	20	94		70	130	1	20
		1,2-dichloroethane		20	ug/L	20	99		70	130	1	20
		benzene		20	ug/L	20	99		70	130	1	20
		trichloroethene		20	ug/L	20	100		70	130	0	20
		1,2-dichloropropane		22	ug/L	20	111		70	130	1	20
		bromodichloromethane		19	ug/L	20	97		70	130	4	20
		1,4-dioxane		< 50	ug/L	40	94		70	130	14	20
		dibromomethane		20	ug/L	20	99		70	130	7	20
		4-methyl-2-pentanone (MIBK)		20	ug/L	20	99		70	130	1	20
		cis-1,3-dichloropropene		20	ug/L	20	102		70	130	0	20
		toluene		21	ug/L	20	104		70	130	3	20
		trans-1,3-dichloropropene		21	ug/L	20	104		70	130	1	20
		2-hexanone		21	ug/L	20	106		70	130	3	20
		1,1,2-trichloroethane		20	ug/L	20	100		70	130	0	20
		1,3-dichloropropane		19	ug/L	20	96		70	130	1	20
		tetrachloroethene		17	ug/L	20	86		70	130	2	20
		dibromochloromethane		17	ug/L	20	84		70	130	3	20
		1,2-dibromoethane (EDB)		19	ug/L	20	95		70	130	1	20
		chlorobenzene		17	ug/L	20	85		70	130	0	20
		1,1,1,2-tetrachloroethane		18	ug/L	20	91		70	130	1	20
		ethylbenzene		19	ug/L	20	94		70	130	2	20
		m&p-xylenes		39	ug/L	40	96		70	130	1	20
		o-xylene		17	ug/L	20	83		70	130	2	20
		styrene		18	ug/L	20	90		70	130	4	20
		bromoform		16	ug/L	20	79		70	130	0	20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803218	isopropylbenzene		19	ug/L	20	94	70	130	2	20
		1,1,2,2-tetrachloroethane		20	ug/L	20	99	70	130	3	20
		1,2,3-trichloropropane		21	ug/L	20	106	70	130	5	20
		n-propylbenzene		19	ug/L	20	96	70	130	4	20
		bromobenzene		18	ug/L	20	92	70	130	1	20
		1,3,5-trimethylbenzene		19	ug/L	20	96	70	130	3	20
		2-chlorotoluene		18	ug/L	20	92	70	130	3	20
		4-chlorotoluene		19	ug/L	20	97	70	130	0	20
		tert-butylbenzene		19	ug/L	20	94	70	130	1	20
		1,2,4-trimethylbenzene		18	ug/L	20	92	70	130	4	20
		sec-butylbenzene		18	ug/L	20	92	70	130	1	20
		1,3-dichlorobenzene		17	ug/L	20	87	70	130	0	20
		4-isopropyltoluene		19	ug/L	20	97	70	130	3	20
		1,4-dichlorobenzene		17	ug/L	20	87	70	130	3	20
		1,2-dichlorobenzene		18	ug/L	20	89	70	130	0	20
		n-butylbenzene		18	ug/L	20	88	70	130	3	20
		1,2-dibromo-3-chloropropane (DBCP)		20	ug/L	20	102	70	130	10	20
		1,2,4-trichlorobenzene		19	ug/L	20	94	70	130	2	20
		1,3,5-trichlorobenzene		18	ug/L	20	89	70	130	1	20
		hexachlorobutadiene		21	ug/L	20	107	70	130	7	20
		naphthalene		21	ug/L	20	104	70	130	2	20
		1,2,3-trichlorobenzene		19	ug/L	20	95	70	130	4	20
		dibromofluoromethane SUR		103	%			78	114		
		toluene-D8 SUR		103	%			88	110		
		4-bromofluorobenzene SUR		98	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW3510C8270D	BLK11188	pyridine		<	2	ug/L					
		N-nitrosodimethylamine		<	2	ug/L					
		aniline		<	2	ug/L					
		phenol		<	2	ug/L					
		2-chlorophenol		<	5	ug/L					
		bis(2-chloroethyl)ether		<	2	ug/L					
		1,3-dichlorobenzene		<	2	ug/L					
		1,4-dichlorobenzene		<	2	ug/L					
		1,2-dichlorobenzene		<	2	ug/L					
		benzyl alcohol		<	2	ug/L					
		2-methylphenol		<	5	ug/L					
		2,2'-oxybis(1-chloropropane)		<	2	ug/L					
		hexachloroethane		<	2	ug/L					
		N-nitroso-di-N-propylamine		<	2	ug/L					
		4-methylphenol		<	2	ug/L					
		nitrobenzene		<	2	ug/L					
		isophorone		<	5	ug/L					
		2-nitrophenol		<	2	ug/L					
		2,4-dimethylphenol		<	5	ug/L					
		bis(2-chloroethoxy)methane		<	5	ug/L					
		2,4-dichlorophenol		<	5	ug/L					
		1,2,4-trichlorobenzene		<	5	ug/L					
		naphthalene		<	0.5	ug/L					
		benzoic acid		<	50	ug/L					
		4-chloroaniline		<	2	ug/L					
		hexachlorobutadiene		<	2	ug/L					
		4-chloro-3-methylphenol		<	2	ug/L					
		2-methylnaphthalene		<	0.5	ug/L					
		hexachlorocyclopentadiene		<	10	ug/L					
		2,4,6-trichlorophenol		<	2	ug/L					
		2,4,5-trichlorophenol		<	2	ug/L					
		2-chloronaphthalene		<	5	ug/L					
		2-nitroaniline		<	2	ug/L					
		acenaphthylene		<	0.5	ug/L					
		dimethylphthalate		<	5	ug/L					
		2,6-dinitrotoluene		<	5	ug/L					
		2,4-dinitrotoluene		<	5	ug/L					
		acenaphthene		<	0.5	ug/L					
		3-nitroaniline		<	2	ug/L					
		2,4-dinitrophenol		<	50	ug/L					
		dibenzofuran		<	0.5	ug/L					
		4-nitrophenol		<	10	ug/L					
		fluorene		<	0.5	ug/L					
		diethyl phthalate		<	5	ug/L					
		4-chlorophenyl phenyl ether		<	5	ug/L					
		4-nitroaniline		<	5	ug/L					
		4,6-dinitro-2-methylphenol		<	20	ug/L					
		azobenzene		<	2	ug/L					
		N-nitrosodiphenylamine		<	2	ug/L					
		4-bromophenyl phenyl ether		<	2	ug/L					
		hexachlorobenzene		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	BLK11188	pentachlorophenol		<	10	ug/L						
		phenanthrene		<	0.5	ug/L						
		anthracene		<	0.5	ug/L						
		carbazole		<	2	ug/L						
		di-n-butylphthalate		<	5	ug/L						
		fluoranthene		<	0.5	ug/L						
		benzidine		<	30	ug/L						
		pyrene		<	0.5	ug/L						
		butyl benzyl phthalate		<	5	ug/L						
		benzo(a)anthracene		<	0.5	ug/L						
		chrysene		<	0.5	ug/L						
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate		<	5	ug/L						
		di-n-octyl phthalate		<	5	ug/L						
		benzo(b)fluoranthene		<	0.5	ug/L						
		benzo(k)fluoranthene		<	0.5	ug/L						
		benzo(a)pyrene		<	0.2	ug/L						
		indeno(1,2,3-cd)pyrene		<	0.5	ug/L						
		dibenzo(a,h)anthracene		<	0.5	ug/L						
		benzo(g,h,i)perylene		<	0.5	ug/L						
		2-fluorophenol SUR			30	%			21	100		
		phenol-D5 SUR			18	%			10	102		
		2,4,6-tribromophenol SUR			68	%			10	123		
		nitrobenzene-D5 SUR			46	%			35	114		
		2-fluorobiphenyl SUR			64	%			43	116		
		p-terphenyl-D14 SUR			70	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCS11188	pyridine		13	ug/L	40	32		30	130		
		N-nitrosodimethylamine		14	ug/L	40	36	*	40	140		
		aniline		20	ug/L	40	49		40	140		
		phenol		10	ug/L	40	26	*	30	130		
		2-chlorophenol		27	ug/L	40	66		30	130		
		bis(2-chloroethyl)ether		21	ug/L	40	51		40	140		
		1,3-dichlorobenzene		18	ug/L	40	46		40	140		
		1,4-dichlorobenzene		19	ug/L	40	47		40	140		
		1,2-dichlorobenzene		20	ug/L	40	50		40	140		
		benzyl alcohol		22	ug/L	40	55		30	130		
		2-methylphenol		20	ug/L	40	49		30	130		
		2,2'-oxybis(1-chloropropane)		30	ug/L	40	74		40	140		
		hexachloroethane		14	ug/L	40	35	*	40	140		
		N-nitroso-di-N-propylamine		19	ug/L	40	48		40	140		
		4-methylphenol		20	ug/L	40	50		30	130		
		nitrobenzene		19	ug/L	40	47		40	140		
		isophorone		21	ug/L	40	52		40	140		
		2-nitrophenol		27	ug/L	40	66		30	130		
		2,4-dimethylphenol		24	ug/L	40	60		30	130		
		bis(2-chloroethoxy)methane		22	ug/L	40	55		40	140		
		2,4-dichlorophenol		27	ug/L	40	68		30	130		
		1,2,4-trichlorobenzene		20	ug/L	40	51		40	140		
		naphthalene		24	ug/L	40	59		40	140		
		benzoic acid		< 50	ug/L							
		4-chloroaniline		28	ug/L	40	70		40	140		
		hexachlorobutadiene		17	ug/L	40	42		40	140		
		4-chloro-3-methylphenol		23	ug/L	40	58		30	130		
		2-methylnaphthalene		27	ug/L	40	67		40	140		
		hexachlorocyclopentadiene		17	ug/L	40	43		40	140		
		2,4,6-trichlorophenol		28	ug/L	40	71		30	130		
		2,4,5-trichlorophenol		27	ug/L	40	68		30	130		
		2-chloronaphthalene		26	ug/L	40	65		40	140		
		2-nitroaniline		28	ug/L	40	71		40	140		
		acenaphthylene		27	ug/L	40	68		40	140		
		dimethylphthalate		19	ug/L	40	47		40	140		
		2,6-dinitrotoluene		29	ug/L	40	71		40	140		
		2,4-dinitrotoluene		26	ug/L	40	66		40	140		
		acenaphthene		27	ug/L	40	67		40	140		
		3-nitroaniline		29	ug/L	40	72		40	140		
		2,4-dinitrophenol		< 50	ug/L							
		dibenzofuran		27	ug/L	40	68		40	140		
		4-nitrophenol		< 10	ug/L	40	23	*	30	130		
		fluorene		27	ug/L	40	68		40	140		
		diethyl phthalate		24	ug/L	40	60		40	140		
		4-chlorophenyl phenyl ether		27	ug/L	40	68		40	140		
		4-nitroaniline		27	ug/L	40	67		40	140		
		4,6-dinitro-2-methylphenol		26	ug/L	40	66		30	130		
		azobenzene		26	ug/L	40	64		40	140		
		N-nitrosodiphenylamine		36	ug/L	40	90		40	140		
		4-bromophenyl phenyl ether		29	ug/L	40	74		40	140		
		hexachlorobenzene		29	ug/L	40	73		40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCS11188	pentachlorophenol			30	ug/L	40	76	30	130		
		phenanthrene			30	ug/L	40	76	40	140		
		anthracene			30	ug/L	40	76	40	140		
		carbazole			29	ug/L	40	72	40	140		
		di-n-butylphthalate			30	ug/L	40	74	40	140		
		fluoranthene			27	ug/L	40	68	40	140		
		benzidine		<	30	ug/L						
		pyrene			31	ug/L	40	77	40	140		
		butyl benzyl phthalate			30	ug/L	40	76	40	140		
		benzo(a)anthracene			31	ug/L	40	78	40	140		
		chrysene			25	ug/L	40	63	40	140		
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate			31	ug/L	40	77	40	140		
		di-n-octyl phthalate			31	ug/L	40	78	40	140		
		benzo(b)fluoranthene			30	ug/L	40	74	40	140		
		benzo(k)fluoranthene			30	ug/L	40	76	40	140		
		benzo(a)pyrene			31	ug/L	40	78	40	140		
		indeno(1,2,3-cd)pyrene			28	ug/L	40	71	40	140		
		dibenzo(a,h)anthracene			19	ug/L	40	48	40	140		
		benzo(g,h,i)perylene			30	ug/L	40	75	40	140		
		2-fluorophenol SUR			38	%			21	100		
		phenol-D5 SUR			25	%			10	102		
		2,4,6-tribromophenol SUR			81	%			10	123		
		nitrobenzene-D5 SUR			45	%			35	114		
		2-fluorobiphenyl SUR			66	%			43	116		
		p-terphenyl-D14 SUR			73	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCSD11188	pyridine		13	ug/L	40	33		30	130	3	20
		N-nitrosodimethylamine		14	ug/L	40	35	*	40	140	1	20
		aniline		20	ug/L	40	50		40	140	2	20
		phenol		11	ug/L	40	27	*	30	130	6	20
		2-chlorophenol		28	ug/L	40	69		30	130	4	20
		bis(2-chloroethyl)ether		21	ug/L	40	52		40	140	2	20
		1,3-dichlorobenzene		20	ug/L	40	50		40	140	9	20
		1,4-dichlorobenzene		20	ug/L	40	51		40	140	9	20
		1,2-dichlorobenzene		22	ug/L	40	54		40	140	8	20
		benzyl alcohol		23	ug/L	40	58		30	130	6	20
		2-methylphenol		21	ug/L	40	52		30	130	6	20
		2,2'-oxybis(1-chloropropane)		31	ug/L	40	79		40	140	6	20
		hexachloroethane		16	ug/L	40	40		40	140	12	20
		N-nitroso-di-N-propylamine		20	ug/L	40	50		40	140	4	20
		4-methylphenol		21	ug/L	40	52		30	130	5	20
		nitrobenzene		20	ug/L	40	50		40	140	8	20
		isophorone		21	ug/L	40	53		40	140	2	20
		2-nitrophenol		27	ug/L	40	68		30	130	3	20
		2,4-dimethylphenol		26	ug/L	40	65		30	130	10	20
		bis(2-chloroethoxy)methane		23	ug/L	40	57		40	140	4	20
		2,4-dichlorophenol		27	ug/L	40	66		30	130	2	20
		1,2,4-trichlorobenzene		22	ug/L	40	54		40	140	7	20
		naphthalene		25	ug/L	40	63		40	140	7	20
		benzoic acid		< 50	ug/L							20
		4-chloroaniline		28	ug/L	40	70		40	140	1	20
		hexachlorobutadiene		18	ug/L	40	44		40	140	4	20
		4-chloro-3-methylphenol		23	ug/L	40	58		30	130	1	20
		2-methylnaphthalene		28	ug/L	40	69		40	140	3	20
		hexachlorocyclopentadiene		17	ug/L	40	42		40	140	2	20
		2,4,6-trichlorophenol		28	ug/L	40	70		30	130	1	20
		2,4,5-trichlorophenol		29	ug/L	40	72		30	130	5	20
		2-chloronaphthalene		27	ug/L	40	67		40	140	2	20
		2-nitroaniline		29	ug/L	40	72		40	140	2	20
		acenaphthylene		28	ug/L	40	69		40	140	0	20
		dimethylphthalate		17	ug/L	40	43		40	140	7	20
		2,6-dinitrotoluene		29	ug/L	40	73		40	140	2	20
		2,4-dinitrotoluene		27	ug/L	40	67		40	140	1	20
		acenaphthene		27	ug/L	40	69		40	140	3	20
		3-nitroaniline		29	ug/L	40	73		40	140	1	20
		2,4-dinitrophenol		< 50	ug/L							20
		dibenzofuran		28	ug/L	40	69		40	140	2	20
		4-nitrophenol		< 10	ug/L	40	22	*	30	130	3	20
		fluorene		27	ug/L	40	67		40	140	0	20
		diethyl phthalate		24	ug/L	40	60		40	140	1	20
		4-chlorophenyl phenyl ether		28	ug/L	40	69		40	140	2	20
		4-nitroaniline		28	ug/L	40	69		40	140	3	20
		4,6-dinitro-2-methylphenol		26	ug/L	40	66		30	130	1	20
		azobenzene		27	ug/L	40	67		40	140	3	20
		N-nitrosodiphenylamine		37	ug/L	40	92		40	140	2	20
		4-bromophenyl phenyl ether		31	ug/L	40	77		40	140	5	20
		hexachlorobenzene		30	ug/L	40	76		40	140	3	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCSD11188	pentachlorophenol			30	ug/L	40	75	30	130	1	20
		phenanthrene			31	ug/L	40	78	40	140	3	20
		anthracene			31	ug/L	40	78	40	140	2	20
		carbazole			30	ug/L	40	75	40	140	5	20
		di-n-butylphthalate			31	ug/L	40	78	40	140	5	20
		fluoranthene			29	ug/L	40	72	40	140	7	20
		benzidine		<	30	ug/L						20
		pyrene			30	ug/L	40	76	40	140	2	20
		butyl benzyl phthalate			30	ug/L	40	75	40	140	1	20
		benzo(a)anthracene			31	ug/L	40	77	40	140	1	20
		chrysene			26	ug/L	40	64	40	140	2	20
		3,3'-dichlorobenzidine		<	30	ug/L						20
		bis(2-ethylhexyl)phthalate			30	ug/L	40	74	40	140	4	20
		di-n-octyl phthalate			30	ug/L	40	76	40	140	3	20
		benzo(b)fluoranthene			30	ug/L	40	75	40	140	2	20
		benzo(k)fluoranthene			31	ug/L	40	77	40	140	1	20
		benzo(a)pyrene			31	ug/L	40	79	40	140	1	20
		indeno(1,2,3-cd)pyrene			29	ug/L	40	71	40	140	1	20
		dibenzo(a,h)anthracene			19	ug/L	40	48	40	140	1	20
		benzo(g,h,i)perylene			30	ug/L	40	76	40	140	1	20
		2-fluorophenol SUR			38	%			21	100		
		phenol-D5 SUR			25	%			10	102		
		2,4,6-tribromophenol SUR			81	%			10	123		
		nitrobenzene-D5 SUR			47	%			35	114		
		2-fluorobiphenyl SUR			65	%			43	116		
		p-terphenyl-D14 SUR			72	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3005A6020A	BLK11193	Arsenic		<	0.005	mg/L						
		Manganese		<	0.01	mg/L						
SW3005A6020A	DUP11193	Arsenic	46569-001		0.087	mg/L					1	20
SW3005A6020A	LCS11193	Arsenic			0.49	mg/L	0.5	98	80	120		
		Manganese			0.54	mg/L	0.5	107	80	120		
SW3005A6020A	LCSD11193	Arsenic			0.50	mg/L	0.5	100	80	120	2	20
		Manganese			0.51	mg/L	0.5	101	80	120	5	20
SW3005A6020A	MS11193	Arsenic	46569-001		0.57	mg/L	0.5	97	75	125		

Absolute Resource associates

124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

PAGE 1 OF 1

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

46577

Company Name: Dept. of Environmental Services, State of New Hampshire

Company Address: 29 Hazen Drive, P.O. Box 95

Report To: Michael Summerlin, P.E.

Phone #: (603) 271-3649

Invoice to Email: michael.summerlinjr@des.nh.gov

☐ Hard Copy Invoice Required

Project Name: Troy Mills Landfill Superfund Site

Project #: DES #198405082

Project Location: NH MA ME VT NY ____ Other

Protocol: RCRA SDWA NPDES MCP NHDES OTHER

Reporting Limits: QAPP GW-1 S-1 EPA DW Other SAP

Quote #________ ☐ NH Reimbursement Pricing

PO # Contract No. 1051314 (2589-00 T)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	WATER	SOLID	OTHER	HCl	HNO_3	H_2SO_4	NaOH	MeOH	DATE	TIME	SAMPLER
46577-01	TRIP BLANK	1	X			X					11-02-18	0800	MM
-02	TRIP BLANK	2	X								11-02-18	0800	MM
-03	TRY_MW-801	6	X			X	X				11-02-18	1440	MM
-04	TRY_MW-802	6	X			X	X				11-02-18	1035	MM
-05	TRY_MW-805	6	X			X	X				11-02-18	1045	ED
-06	EQUIP BLANK	5	X			X	X				11-02-18	1510	TJ

ANALYSIS REQUEST

Field ID	☐ VOC 8260 ☒ VOC 8260 NHDES ☐ VOC 8260 MADEP	☐ VOC 624 ☐ VOC BTEX ☐ MtBE, only ☐ VOC 8021VT	☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☒ 1,4-Dioxane 8260 SIM	☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:	☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint	☐ 8270PAH ☒ 8270ABN ☐ 625 ☐ EDB	☐ 8082 PCB ☐ 8081 Pesticides ☐	☐ O&G 1664 ☐ Mineral O&G SM5520F	☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity	☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity	☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☒ Hardness	☒ Total Metals-list: As, ~~Cd, Cr, Pb~~, Mn, ~~Ni~~	☐ Dissolved Metals-list:	☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☒ TOC	☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN	☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P	☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride	☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP	☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide	Subcontract: ☒ Grain Size ☐ Herbicides ☐ Formaldehyde	Grab (G) or Composite (C)
TRIP BLANK	X																				
TRIP BLANK			X																		
TRY_MW-801	X		X			X						X									
TRY_MW-802	X		X			X						X									
TRY_MW-805	X		X			X						X									
EQUIP BLANK	X		X									X									

TAT REQUESTED
- Priority (24 hr)* ☐
- Expedited (48 hr)* ☐
- Standard (10 Business Days) ☒
- *Date Needed ________

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Please contact Tanya Justham at (603) 493-1548 for sample questions and Michael Summerlin for all others. EQUIP BLANK for Samplepro/805.

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) and Excel; Please send results to michael.summerlinjr@des.nh.gov and tanya.justham@gza.com

☐ HARD COPY REQUIRED ☐ FAX (FAX#)________

RECEIVED ON ICE ☒ YES ☐ NO

TEMPERATURE ______ °C

CUSTODY RECORD

Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Sampler: Erik Dy[illegible]	11/05/18	0600	Received by: [signature]	11/5/18	1250
Relinquished by: [signature]	11/5/18	1550	Received by:		
Relinquished by:			Received by Laboratory: [signature]	11/5/18	15:50

QSD-01 Revision 10/14/15

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Michael Summerlin
NHDES-Superfund
29 Hazen Drive
Concord, NH 03301

PO Number: Contct#1061488(2589-
Job ID: 46637
Date Received: 11/8/18

Project: Troy Mills Landfill Superfund Site DES #198405082

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

Jennifer Lowe
Laboratory Manager

Date of Approval: 11/29/2018
Total number of pages: 48

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Troy Mills Superfund Site DES #198405082

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
TRIP BLANK	Water	11/5/2018 8:00	46637-001	
				VOCs in water by 8260 Petro & Haz Waste
TRIP BLANK	Water	11/5/2018 8:00	46637-002	
				Low level 1,4-dioxane in water by 8260 SIM
TRY_MW-202P	Water	11/5/2018 10:10	46637-003	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_MW-A28	Water	11/5/2018 12:15	46637-004	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_MW-A28 DUP	Water	11/5/2018 12:15	46637-005	
				Acid & Base/Neutral Extractables in water by 8270
TRY_MW-301X	Water	11/5/2018 11:05	46637-006	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_MW-102	Water	11/5/2018 14:55	46637-007	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/5/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637

Sample#: 46637-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/5/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**95**	78-114	%	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
toluene-D8 SUR	**93**	88-110	%	1	LMM		1803229	11/10/18	8:51	SW5030C8260C
4-bromofluorobenzene SUR	**89**	86-115	%	1	LMM		1803229	11/10/18	8:51	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-003
Sample ID: TRY_MW-202P
Matrix: Water
Sampled: 11/5/18 10:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-003
Sample ID: TRY_MW-202P
Matrix: Water
Sampled: 11/5/18 10:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
isopropylbenzene	**8**	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
tert-butylbenzene	**3**	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
sec-butylbenzene	**15**	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**96**	78-114	%	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
toluene-D8 SUR	**95**	88-110	%	1	LMM		1803229	11/10/18	12:30	SW5030C8260C
4-bromofluorobenzene SUR	**90**	86-115	%	1	LMM		1803229	11/10/18	12:30	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-004
Sample ID: TRY_MW-A28
Matrix: Water
Sampled: 11/5/18 12:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-004
Sample ID: TRY_MW-A28
Matrix: Water
Sampled: 11/5/18 12:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**96**	78-114	%	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
toluene-D8 SUR	**93**	88-110	%	1	LMM		1803229	11/10/18	13:01	SW5030C8260C
4-bromofluorobenzene SUR	**91**	86-115	%	1	LMM		1803229	11/10/18	13:01	SW5030C8260C

Note: The sample pH was greater than 2, indicating inadequate preservation.

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-006
Sample ID: TRY_MW-301X
Matrix: Water
Sampled: 11/5/18 11:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-006
Sample ID: TRY_MW-301X
Matrix: Water
Sampled: 11/5/18 11:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**95**	78-114	%	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
toluene-D8 SUR	**93**	88-110	%	1	LMM		1803229	11/10/18	13:32	SW5030C8260C
4-bromofluorobenzene SUR	**90**	86-115	%	1	LMM		1803229	11/10/18	13:32	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-007
Sample ID: TRY_MW-102
Matrix: Water
Sampled: 11/5/18 14:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-007
Sample ID: TRY_MW-102
Matrix: Water
Sampled: 11/5/18 14:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**97**	78-114	%	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	LMM		1803231	11/10/18	8:16	SW5030C8260C
4-bromofluorobenzene SUR	**96**	86-115	%	1	LMM		1803231	11/10/18	8:16	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637

Sample#: 46637-002
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/5/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803282	11/13/18	13:14	modSW8260C

Sample#: 46637-003
Sample ID: TRY_MW-202P
Matrix: Water
Sampled: 11/5/18 10:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803282	11/13/18	20:02	modSW8260C

Sample#: 46637-004
Sample ID: TRY_MW-A28
Matrix: Water
Sampled: 11/5/18 12:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803283	11/14/18	5:23	modSW8260C

Sample#: 46637-006
Sample ID: TRY_MW-301X
Matrix: Water
Sampled: 11/5/18 11:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803283	11/14/18	5:54	modSW8260C

Sample#: 46637-007
Sample ID: TRY_MW-102
Matrix: Water
Sampled: 11/5/18 14:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Analysis Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803283	11/14/18	6:25	modSW8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-003
Sample ID: TRY_MW-202P
Matrix: Water
Sampled: 11/5/18 10:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-003
Sample ID: TRY_MW-202P
Matrix: Water
Sampled: 11/5/18 10:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**27**	21-100	%	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
phenol-D5 SUR	**14**	10-102	%	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
2,4,6-tribromophenol SUR	**74**	10-123	%	1	CL	11/9/18	11188	11/12/18	16:51	SW3510C8270D
nitrobenzene-D5 SUR	**50**	35-114	%	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
2-fluorobiphenyl SUR	**61**	43-116	%	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D
p-terphenyl-D14 SUR	**59**	33-141	%	1	CL	11/9/18	11188	11/13/18	11:19	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-004
Sample ID: TRY_MW-A28
Matrix: Water
Sampled: 11/5/18 12:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-004
Sample ID: TRY_MW-A28
Matrix: Water
Sampled: 11/5/18 12:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
bis(2-ethylhexyl)phthalate	**45**	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**29**	21-100	%	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
phenol-D5 SUR	**15**	10-102	%	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
2,4,6-tribromophenol SUR	**76**	10-123	%	1	CL	11/9/18	11188	11/12/18	17:50	SW3510C8270D
nitrobenzene-D5 SUR	**46**	35-114	%	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
2-fluorobiphenyl SUR	**57**	43-116	%	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D
p-terphenyl-D14 SUR	**55**	33-141	%	1	CL	11/9/18	11188	11/12/18	18:20	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-005
Sample ID: TRY_MW-A28 DUP
Matrix: Water
Sampled: 11/5/18 12:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-005
Sample ID: TRY_MW-A28 DUP
Matrix: Water
Sampled: 11/5/18 12:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
bis(2-ethylhexyl)phthalate	**42**	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**26**	21-100	%	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
phenol-D5 SUR	**14**	10-102	%	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
2,4,6-tribromophenol SUR	**75**	10-123	%	1	CL	11/9/18	11188	11/12/18	18:50	SW3510C8270D
nitrobenzene-D5 SUR	**49**	35-114	%	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
2-fluorobiphenyl SUR	**65**	43-116	%	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D
p-terphenyl-D14 SUR	**58**	33-141	%	1	CL	11/9/18	11188	11/12/18	19:19	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-006
Sample ID: TRY_MW-301X
Matrix: Water
Sampled: 11/5/18 11:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-006
Sample ID: TRY_MW-301X
Matrix: Water
Sampled: 11/5/18 11:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**22**	21-100	%	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
phenol-D5 SUR	**19**	10-102	%	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
2,4,6-tribromophenol SUR	**48**	10-123	%	1	CL	11/9/18	11188	11/12/18	19:49	SW3510C8270D
nitrobenzene-D5 SUR	**43**	35-114	%	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
2-fluorobiphenyl SUR	**63**	43-116	%	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D
p-terphenyl-D14 SUR	**60**	33-141	%	1	CL	11/9/18	11188	11/12/18	20:18	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-007
Sample ID: TRY_MW-102
Matrix: Water
Sampled: 11/5/18 14:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637
Sample#: 46637-007
Sample ID: TRY_MW-102
Matrix: Water
Sampled: 11/5/18 14:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**33**	21-100	%	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
phenol-D5 SUR	**26**	10-102	%	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
2,4,6-tribromophenol SUR	**76**	10-123	%	1	CL	11/9/18	11188	11/12/18	20:48	SW3510C8270D
nitrobenzene-D5 SUR	**41**	35-114	%	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
2-fluorobiphenyl SUR	**59**	43-116	%	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D
p-terphenyl-D14 SUR	**59**	33-141	%	1	CL	11/9/18	11188	11/12/18	21:17	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46637

Sample#: 46637-003
Sample ID: TRY_MW-202P
Matrix: Water
Sampled: 11/5/18 10:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/13/18	11207	11/21/18	23:20	SW3005A6020A
Manganese	**0.23**	0.01	mg/L	1	AGN	11/13/18	11207	11/21/18	23:20	SW3005A6020A

Sample#: 46637-004
Sample ID: TRY_MW-A28
Matrix: Water
Sampled: 11/5/18 12:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/13/18	11207	11/21/18	23:27	SW3005A6020A
Manganese	**0.38**	0.01	mg/L	1	AGN	11/13/18	11207	11/21/18	23:27	SW3005A6020A

Sample#: 46637-006
Sample ID: TRY_MW-301X
Matrix: Water
Sampled: 11/5/18 11:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/13/18	11207	11/21/18	23:33	SW3005A6020A
Manganese	**1.8**	0.01	mg/L	1	AGN	11/13/18	11207	11/21/18	23:33	SW3005A6020A

Sample#: 46637-007
Sample ID: TRY_MW-102
Matrix: Water
Sampled: 11/5/18 14:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/13/18	11207	11/21/18	23:40	SW3005A6020A
Manganese	**3.3**	0.01	mg/L	1	AGN	11/13/18	11207	11/21/18	23:40	SW3005A6020A

Quality Control Report

124 Heritage Avenue Unit 16
Portsmouth, NH 03801
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Absolute Resource associates

Case Narrative
Lab # 46637

Sample Receiving and Chain of Custody Discrepancies

Samples were received in acceptable condition, at 0 degrees C, on ice, and in accordance with sample handling, preservation and integrity guidelines.
VOC: Sample 46637-004 had a pH greater than 2, indicating inadequate preservation, as noted on the results page.

Calibration

No exceptions noted.

Method Blank

No exceptions noted.

Surrogate Recoveries

No exceptions noted.

Laboratory Control Sample Results

VOC: The LCSD1803229 did not meet the acceptance criteria for tetrahydrofuran (THF). This compound showed high recovery. The relative percent difference between the LCS and LCSD1803229 was outside the acceptance criteria for tetrahydrofuran (THF). There is no impact to the data as this analyte was not detected in the associated samples.
VOC: The LCS1803231 did not meet the acceptance criteria for bromomethane, diethyl ether, acetone, t-butanol (TBA), 2-butanone (MEK), and tetrahydrofuran (THF). The LCSD1803231 did not meet the acceptance criteria for bromomethane, diethyl ether, and tetrahydrofuran (THF). The relative percent difference between the LCS and LCSD1803231 was outside the acceptance criteria for acetone. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.
SVOC: The LCS11188 did not meet the acceptance criteria for N-nitrosodimethylamine, phenol, hexachloroethane, and 4-nitrophenol. The LCSD11188 did not meet the acceptance criteria for N-nitrosodimethylamine, phenol, and 4-nitrophenol. Since <20% of the compounds were outside of the acceptance criteria, reanalysis is not required.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

Not requested for this project.

Other

The reported results have undergone the standard process of review for data quality. The final report meets the reporting and documentation requirements of the contract. Jennifer Guerette

Jennifer Guerette QA Officer

Reporting Limits: Dilutions performed during the analysis are noted on the result pages.

No other exceptions noted.

GLOSSARY

%R	Percent Recovery
BLK	Blank (Method Blank, Preparation Blank)
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
Dil'n	Dilution
DL	Detection Limit
DUP	Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MB	Methanol Blank (associated with solid VOC samples)
MLCS	Methanol Laboratory Control Sample (associated with solid VOC samples)
MLCSD	Methanol Laboratory Control Sample Duplicate (associated with solid VOC samples)
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PB	Preparation Blank
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SUR	Surrogate

- QC Report -

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
modSW8260C	BLK1803282	1,4-dioxane		<	0.25	ug/L						
modSW8260C	LCS1803282	1,4-dioxane			7.8	ug/L	8	97	70	130		
modSW8260C	LCSD1803282	1,4-dioxane			7.9	ug/L	8	99	70	130	2	20
modSW8260C	BLK1803283	1,4-dioxane		<	0.25	ug/L						
modSW8260C	LCS1803283	1,4-dioxane			8.2	ug/L	8	103	70	130		
modSW8260C	LCSD1803283	1,4-dioxane			8.3	ug/L	8	103	70	130	0	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803229	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					
		bromoform		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803229	isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			96	%			78	114		
		toluene-D8 SUR			94	%			88	110		
		4-bromofluorobenzene SUR			91	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803229	dichlorodifluoromethane		17	ug/L	20	86	70	130		
		chloromethane		18	ug/L	20	88	70	130		
		vinyl chloride		17	ug/L	20	84	70	130		
		bromomethane		14	ug/L	20	71	70	130		
		chloroethane		18	ug/L	20	89	70	130		
		trichlorofluoromethane		17	ug/L	20	84	70	130		
		diethyl ether		18	ug/L	20	91	70	130		
		acetone		17	ug/L	20	85	70	130		
		1,1-dichloroethene		17	ug/L	20	86	70	130		
		methylene chloride		18	ug/L	20	89	70	130		
		carbon disulfide		16	ug/L	20	79	70	130		
		methyl t-butyl ether (MTBE)		17	ug/L	20	84	70	130		
		trans-1,2-dichloroethene		18	ug/L	20	89	70	130		
		isopropyl ether (DIPE)		17	ug/L	20	85	70	130		
		ethyl t-butyl ether (ETBE)		16	ug/L	20	82	70	130		
		1,1-dichloroethane		18	ug/L	20	92	70	130		
		t-butanol (TBA)		83	ug/L	100	83	70	130		
		2-butanone (MEK)		18	ug/L	20	91	70	130		
		2,2-dichloropropane		15	ug/L	20	73	70	130		
		cis-1,2-dichloroethene		18	ug/L	20	90	70	130		
		chloroform		19	ug/L	20	93	70	130		
		bromochloromethane		16	ug/L	20	80	70	130		
		tetrahydrofuran (THF)		20	ug/L	20	98	70	130		
		1,1,1-trichloroethane		17	ug/L	20	87	70	130		
		1,1-dichloropropene		18	ug/L	20	89	70	130		
		t-amyl-methyl ether (TAME)		17	ug/L	20	84	70	130		
		carbon tetrachloride		17	ug/L	20	86	70	130		
		1,2-dichloroethane		18	ug/L	20	90	70	130		
		benzene		19	ug/L	20	93	70	130		
		trichloroethene		21	ug/L	20	107	70	130		
		1,2-dichloropropane		19	ug/L	20	95	70	130		
		bromodichloromethane		17	ug/L	20	86	70	130		
		1,4-dioxane		< 50	ug/L	40	92	70	130		
		dibromomethane		18	ug/L	20	90	70	130		
		4-methyl-2-pentanone (MIBK)		18	ug/L	20	91	70	130		
		cis-1,3-dichloropropene		17	ug/L	20	85	70	130		
		toluene		18	ug/L	20	89	70	130		
		trans-1,3-dichloropropene		18	ug/L	20	89	70	130		
		2-hexanone		18	ug/L	20	88	70	130		
		1,1,2-trichloroethane		19	ug/L	20	95	70	130		
		1,3-dichloropropane		21	ug/L	20	104	70	130		
		tetrachloroethene		19	ug/L	20	95	70	130		
		dibromochloromethane		19	ug/L	20	94	70	130		
		1,2-dibromoethane (EDB)		21	ug/L	20	103	70	130		
		chlorobenzene		20	ug/L	20	102	70	130		
		1,1,1,2-tetrachloroethane		20	ug/L	20	100	70	130		
		ethylbenzene		21	ug/L	20	103	70	130		
		m&p-xylenes		41	ug/L	40	103	70	130		
		o-xylene		20	ug/L	20	102	70	130		
		styrene		21	ug/L	20	103	70	130		
		bromoform		20	ug/L	20	100	70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803229	isopropylbenzene		21	ug/L	20	103	70	130		
		1,1,2,2-tetrachloroethane		23	ug/L	20	114	70	130		
		1,2,3-trichloropropane		20	ug/L	20	100	70	130		
		n-propylbenzene		22	ug/L	20	109	70	130		
		bromobenzene		21	ug/L	20	106	70	130		
		1,3,5-trimethylbenzene		22	ug/L	20	111	70	130		
		2-chlorotoluene		24	ug/L	20	120	70	130		
		4-chlorotoluene		21	ug/L	20	105	70	130		
		tert-butylbenzene		21	ug/L	20	103	70	130		
		1,2,4-trimethylbenzene		22	ug/L	20	110	70	130		
		sec-butylbenzene		20	ug/L	20	98	70	130		
		1,3-dichlorobenzene		21	ug/L	20	106	70	130		
		4-isopropyltoluene		21	ug/L	20	106	70	130		
		1,4-dichlorobenzene		21	ug/L	20	105	70	130		
		1,2-dichlorobenzene		21	ug/L	20	107	70	130		
		n-butylbenzene		19	ug/L	20	97	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		20	ug/L	20	102	70	130		
		1,2,4-trichlorobenzene		20	ug/L	20	99	70	130		
		1,3,5-trichlorobenzene		18	ug/L	20	92	70	130		
		hexachlorobutadiene		18	ug/L	20	90	70	130		
		naphthalene		21	ug/L	20	103	70	130		
		1,2,3-trichlorobenzene		20	ug/L	20	100	70	130		
		dibromofluoromethane SUR		98	%			78	114		
		toluene-D8 SUR		95	%			88	110		
		4-bromofluorobenzene SUR		98	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD		RPD Limit
SW5030C8260C	LCSD1803229	dichlorodifluoromethane		16	ug/L	20	80		70	130	6		20
		chloromethane		15	ug/L	20	75		70	130	15		20
		vinyl chloride		15	ug/L	20	74		70	130	12		20
		bromomethane		15	ug/L	20	77		70	130	8		20
		chloroethane		15	ug/L	20	77		70	130	15		20
		trichlorofluoromethane		15	ug/L	20	75		70	130	12		20
		diethyl ether		16	ug/L	20	79		70	130	15		20
		acetone		18	ug/L	20	88		70	130	4		20
		1,1-dichloroethene		16	ug/L	20	80		70	130	6		20
		methylene chloride		16	ug/L	20	81		70	130	10		20
		carbon disulfide		15	ug/L	20	74		70	130	6		20
		methyl t-butyl ether (MTBE)		15	ug/L	20	76		70	130	11		20
		trans-1,2-dichloroethene		16	ug/L	20	79		70	130	12		20
		isopropyl ether (DIPE)		15	ug/L	20	75		70	130	13		20
		ethyl t-butyl ether (ETBE)		15	ug/L	20	75		70	130	10		20
		1,1-dichloroethane		17	ug/L	20	83		70	130	10		20
		t-butanol (TBA)		78	ug/L	100	78		70	130	7		20
		2-butanone (MEK)		16	ug/L	20	79		70	130	14		20
		2,2-dichloropropane		16	ug/L	20	79		70	130	8		20
		cis-1,2-dichloroethene		16	ug/L	20	80		70	130	12		20
		chloroform		16	ug/L	20	81		70	130	13		20
		bromochloromethane		15	ug/L	20	74		70	130	8		20
		tetrahydrofuran (THF)		29	ug/L	20	147	*	70	130	40	*	20
		1,1,1-trichloroethane		16	ug/L	20	78		70	130	10		20
		1,1-dichloropropene		16	ug/L	20	80		70	130	10		20
		t-amyl-methyl ether (TAME)		15	ug/L	20	76		70	130	11		20
		carbon tetrachloride		16	ug/L	20	79		70	130	9		20
		1,2-dichloroethane		16	ug/L	20	79		70	130	14		20
		benzene		17	ug/L	20	83		70	130	12		20
		trichloroethene		19	ug/L	20	94		70	130	14		20
		1,2-dichloropropane		16	ug/L	20	82		70	130	14		20
		bromodichloromethane		15	ug/L	20	77		70	130	11		20
		1,4-dioxane		< 50	ug/L	40	91		70	130	1		20
		dibromomethane		16	ug/L	20	80		70	130	13		20
		4-methyl-2-pentanone (MIBK)		16	ug/L	20	78		70	130	15		20
		cis-1,3-dichloropropene		16	ug/L	20	80		70	130	6		20
		toluene		16	ug/L	20	78		70	130	13		20
		trans-1,3-dichloropropene		17	ug/L	20	84		70	130	6		20
		2-hexanone		16	ug/L	20	78		70	130	12		20
		1,1,2-trichloroethane		17	ug/L	20	84		70	130	12		20
		1,3-dichloropropane		19	ug/L	20	95		70	130	10		20
		tetrachloroethene		17	ug/L	20	87		70	130	8		20
		dibromochloromethane		17	ug/L	20	87		70	130	8		20
		1,2-dibromoethane (EDB)		18	ug/L	20	92		70	130	11		20
		chlorobenzene		18	ug/L	20	91		70	130	11		20
		1,1,1,2-tetrachloroethane		18	ug/L	20	92		70	130	8		20
		ethylbenzene		19	ug/L	20	94		70	130	9		20
		m&p-xylenes		37	ug/L	40	93		70	130	10		20
		o-xylene		18	ug/L	20	91		70	130	11		20
		styrene		18	ug/L	20	92		70	130	11		20
		bromoform		19	ug/L	20	93		70	130	8		20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803229	isopropylbenzene		19	ug/L	20	93	70	130	10	20
		1,1,2,2-tetrachloroethane		21	ug/L	20	103	70	130	10	20
		1,2,3-trichloropropane		19	ug/L	20	93	70	130	7	20
		n-propylbenzene		20	ug/L	20	101	70	130	7	20
		bromobenzene		19	ug/L	20	97	70	130	9	20
		1,3,5-trimethylbenzene		20	ug/L	20	102	70	130	8	20
		2-chlorotoluene		22	ug/L	20	110	70	130	9	20
		4-chlorotoluene		19	ug/L	20	93	70	130	12	20
		tert-butylbenzene		19	ug/L	20	95	70	130	8	20
		1,2,4-trimethylbenzene		20	ug/L	20	99	70	130	10	20
		sec-butylbenzene		18	ug/L	20	91	70	130	8	20
		1,3-dichlorobenzene		19	ug/L	20	97	70	130	9	20
		4-isopropyltoluene		20	ug/L	20	100	70	130	6	20
		1,4-dichlorobenzene		19	ug/L	20	97	70	130	8	20
		1,2-dichlorobenzene		20	ug/L	20	98	70	130	9	20
		n-butylbenzene		19	ug/L	20	94	70	130	3	20
		1,2-dibromo-3-chloropropane (DBCP)		19	ug/L	20	95	70	130	8	20
		1,2,4-trichlorobenzene		19	ug/L	20	97	70	130	3	20
		1,3,5-trichlorobenzene		18	ug/L	20	89	70	130	4	20
		hexachlorobutadiene		17	ug/L	20	85	70	130	6	20
		naphthalene		19	ug/L	20	95	70	130	8	20
		1,2,3-trichlorobenzene		18	ug/L	20	89	70	130	12	20
		dibromofluoromethane SUR		97	%			78	114		
		toluene-D8 SUR		95	%			88	110		
		4-bromofluorobenzene SUR		97	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803231	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					
		bromoform		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803231	isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			101	%			78	114		
		toluene-D8 SUR			100	%			88	110		
		4-bromofluorobenzene SUR			91	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCS1803231	dichlorodifluoromethane		20	ug/L	20	98		70	130		
		chloromethane		17	ug/L	20	86		70	130		
		vinyl chloride		20	ug/L	20	100		70	130		
		bromomethane		11	ug/L	20	53	*	70	130		
		chloroethane		24	ug/L	20	122		70	130		
		trichlorofluoromethane		24	ug/L	20	121		70	130		
		diethyl ether		29	ug/L	20	147	*	70	130		
		acetone		33	ug/L	20	163	*	70	130		
		1,1-dichloroethene		24	ug/L	20	121		70	130		
		methylene chloride		26	ug/L	20	129		70	130		
		carbon disulfide		19	ug/L	20	94		70	130		
		methyl t-butyl ether (MTBE)		22	ug/L	20	110		70	130		
		trans-1,2-dichloroethene		23	ug/L	20	115		70	130		
		isopropyl ether (DIPE)		22	ug/L	20	108		70	130		
		ethyl t-butyl ether (ETBE)		22	ug/L	20	109		70	130		
		1,1-dichloroethane		24	ug/L	20	119		70	130		
		t-butanol (TBA)		160	ug/L	100	156	*	70	130		
		2-butanone (MEK)		27	ug/L	20	133	*	70	130		
		2,2-dichloropropane		21	ug/L	20	106		70	130		
		cis-1,2-dichloroethene		23	ug/L	20	113		70	130		
		chloroform		23	ug/L	20	116		70	130		
		bromochloromethane		21	ug/L	20	106		70	130		
		tetrahydrofuran (THF)		29	ug/L	20	145	*	70	130		
		1,1,1-trichloroethane		21	ug/L	20	105		70	130		
		1,1-dichloropropene		22	ug/L	20	111		70	130		
		t-amyl-methyl ether (TAME)		22	ug/L	20	110		70	130		
		carbon tetrachloride		20	ug/L	20	101		70	130		
		1,2-dichloroethane		21	ug/L	20	106		70	130		
		benzene		21	ug/L	20	106		70	130		
		trichloroethene		22	ug/L	20	110		70	130		
		1,2-dichloropropane		24	ug/L	20	120		70	130		
		bromodichloromethane		21	ug/L	20	103		70	130		
		1,4-dioxane		< 50	ug/L	40	122		70	130		
		dibromomethane		21	ug/L	20	106		70	130		
		4-methyl-2-pentanone (MIBK)		24	ug/L	20	119		70	130		
		cis-1,3-dichloropropene		22	ug/L	20	112		70	130		
		toluene		22	ug/L	20	110		70	130		
		trans-1,3-dichloropropene		22	ug/L	20	112		70	130		
		2-hexanone		26	ug/L	20	129		70	130		
		1,1,2-trichloroethane		21	ug/L	20	107		70	130		
		1,3-dichloropropane		21	ug/L	20	107		70	130		
		tetrachloroethene		19	ug/L	20	95		70	130		
		dibromochloromethane		18	ug/L	20	90		70	130		
		1,2-dibromoethane (EDB)		21	ug/L	20	104		70	130		
		chlorobenzene		19	ug/L	20	94		70	130		
		1,1,1,2-tetrachloroethane		20	ug/L	20	100		70	130		
		ethylbenzene		21	ug/L	20	106		70	130		
		m&p-xylenes		42	ug/L	40	105		70	130		
		o-xylene		18	ug/L	20	91		70	130		
		styrene		20	ug/L	20	100		70	130		
		bromoform		17	ug/L	20	87		70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803231	isopropylbenzene		20	ug/L	20	102	70	130		
		1,1,2,2-tetrachloroethane		21	ug/L	20	107	70	130		
		1,2,3-trichloropropane		23	ug/L	20	114	70	130		
		n-propylbenzene		21	ug/L	20	103	70	130		
		bromobenzene		20	ug/L	20	99	70	130		
		1,3,5-trimethylbenzene		21	ug/L	20	104	70	130		
		2-chlorotoluene		20	ug/L	20	99	70	130		
		4-chlorotoluene		21	ug/L	20	104	70	130		
		tert-butylbenzene		20	ug/L	20	99	70	130		
		1,2,4-trimethylbenzene		20	ug/L	20	102	70	130		
		sec-butylbenzene		19	ug/L	20	97	70	130		
		1,3-dichlorobenzene		18	ug/L	20	92	70	130		
		4-isopropyltoluene		20	ug/L	20	102	70	130		
		1,4-dichlorobenzene		18	ug/L	20	92	70	130		
		1,2-dichlorobenzene		19	ug/L	20	94	70	130		
		n-butylbenzene		19	ug/L	20	95	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		24	ug/L	20	120	70	130		
		1,2,4-trichlorobenzene		20	ug/L	20	100	70	130		
		1,3,5-trichlorobenzene		19	ug/L	20	93	70	130		
		hexachlorobutadiene		21	ug/L	20	103	70	130		
		naphthalene		26	ug/L	20	128	70	130		
		1,2,3-trichlorobenzene		21	ug/L	20	105	70	130		
		dibromofluoromethane SUR		98	%			78	114		
		toluene-D8 SUR		102	%			88	110		
		4-bromofluorobenzene SUR		102	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD		RPD Limit
SW5030C8260C	LCSD1803231	dichlorodifluoromethane		18	ug/L	20	89		70	130	9		20
		chloromethane		16	ug/L	20	79		70	130	8		20
		vinyl chloride		19	ug/L	20	93		70	130	7		20
		bromomethane		11	ug/L	20	55	*	70	130	3		20
		chloroethane		23	ug/L	20	113		70	130	7		20
		trichlorofluoromethane		23	ug/L	20	113		70	130	7		20
		diethyl ether		27	ug/L	20	137	*	70	130	7		20
		acetone		25	ug/L	20	125		70	130	26	*	20
		1,1-dichloroethene		22	ug/L	20	110		70	130	10		20
		methylene chloride		24	ug/L	20	122		70	130	6		20
		carbon disulfide		18	ug/L	20	91		70	130	4		20
		methyl t-butyl ether (MTBE)		21	ug/L	20	105		70	130	5		20
		trans-1,2-dichloroethene		22	ug/L	20	109		70	130	6		20
		isopropyl ether (DIPE)		20	ug/L	20	100		70	130	9		20
		ethyl t-butyl ether (ETBE)		20	ug/L	20	101		70	130	8		20
		1,1-dichloroethane		23	ug/L	20	115		70	130	3		20
		t-butanol (TBA)		130	ug/L	100	129		70	130	19		20
		2-butanone (MEK)		24	ug/L	20	119		70	130	12		20
		2,2-dichloropropane		20	ug/L	20	99		70	130	7		20
		cis-1,2-dichloroethene		21	ug/L	20	106		70	130	6		20
		chloroform		22	ug/L	20	110		70	130	6		20
		bromochloromethane		20	ug/L	20	102		70	130	4		20
		tetrahydrofuran (THF)		27	ug/L	20	136	*	70	130	7		20
		1,1,1-trichloroethane		20	ug/L	20	99		70	130	6		20
		1,1-dichloropropene		21	ug/L	20	104		70	130	7		20
		t-amyl-methyl ether (TAME)		21	ug/L	20	106		70	130	3		20
		carbon tetrachloride		19	ug/L	20	95		70	130	6		20
		1,2-dichloroethane		20	ug/L	20	102		70	130	4		20
		benzene		20	ug/L	20	101		70	130	6		20
		trichloroethene		21	ug/L	20	103		70	130	7		20
		1,2-dichloropropane		23	ug/L	20	113		70	130	6		20
		bromodichloromethane		20	ug/L	20	100		70	130	3		20
		1,4-dioxane		< 50	ug/L	40	103		70	130	17		20
		dibromomethane		20	ug/L	20	101		70	130	4		20
		4-methyl-2-pentanone (MIBK)		21	ug/L	20	107		70	130	10		20
		cis-1,3-dichloropropene		21	ug/L	20	106		70	130	5		20
		toluene		21	ug/L	20	103		70	130	7		20
		trans-1,3-dichloropropene		21	ug/L	20	105		70	130	6		20
		2-hexanone		23	ug/L	20	114		70	130	12		20
		1,1,2-trichloroethane		20	ug/L	20	100		70	130	6		20
		1,3-dichloropropane		20	ug/L	20	102		70	130	5		20
		tetrachloroethene		17	ug/L	20	86		70	130	9		20
		dibromochloromethane		17	ug/L	20	87		70	130	4		20
		1,2-dibromoethane (EDB)		20	ug/L	20	100		70	130	5		20
		chlorobenzene		17	ug/L	20	87		70	130	7		20
		1,1,1,2-tetrachloroethane		19	ug/L	20	93		70	130	7		20
		ethylbenzene		20	ug/L	20	98		70	130	8		20
		m&p-xylenes		39	ug/L	40	98		70	130	7		20
		o-xylene		17	ug/L	20	85		70	130	7		20
		styrene		19	ug/L	20	93		70	130	8		20
		bromoform		17	ug/L	20	83		70	130	4		20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803231	isopropylbenzene		19	ug/L	20	95	70	130	7	20
		1,1,2,2-tetrachloroethane		22	ug/L	20	108	70	130	0	20
		1,2,3-trichloropropane		22	ug/L	20	112	70	130	2	20
		n-propylbenzene		20	ug/L	20	100	70	130	4	20
		bromobenzene		19	ug/L	20	94	70	130	5	20
		1,3,5-trimethylbenzene		20	ug/L	20	99	70	130	5	20
		2-chlorotoluene		19	ug/L	20	94	70	130	4	20
		4-chlorotoluene		20	ug/L	20	100	70	130	4	20
		tert-butylbenzene		19	ug/L	20	97	70	130	3	20
		1,2,4-trimethylbenzene		20	ug/L	20	98	70	130	4	20
		sec-butylbenzene		19	ug/L	20	93	70	130	4	20
		1,3-dichlorobenzene		18	ug/L	20	88	70	130	4	20
		4-isopropyltoluene		20	ug/L	20	98	70	130	4	20
		1,4-dichlorobenzene		18	ug/L	20	89	70	130	4	20
		1,2-dichlorobenzene		18	ug/L	20	91	70	130	4	20
		n-butylbenzene		18	ug/L	20	92	70	130	3	20
		1,2-dibromo-3-chloropropane (DBCP)		23	ug/L	20	114	70	130	5	20
		1,2,4-trichlorobenzene		20	ug/L	20	98	70	130	2	20
		1,3,5-trichlorobenzene		18	ug/L	20	91	70	130	2	20
		hexachlorobutadiene		21	ug/L	20	103	70	130	0	20
		naphthalene		25	ug/L	20	124	70	130	3	20
		1,2,3-trichlorobenzene		21	ug/L	20	105	70	130	1	20
		dibromofluoromethane SUR		97	%			78	114		
		toluene-D8 SUR		103	%			88	110		
		4-bromofluorobenzene SUR		101	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW3510C8270D	BLK11188	pyridine		<	2	ug/L					
		N-nitrosodimethylamine		<	2	ug/L					
		aniline		<	2	ug/L					
		phenol		<	2	ug/L					
		2-chlorophenol		<	5	ug/L					
		bis(2-chloroethyl)ether		<	2	ug/L					
		1,3-dichlorobenzene		<	2	ug/L					
		1,4-dichlorobenzene		<	2	ug/L					
		1,2-dichlorobenzene		<	2	ug/L					
		benzyl alcohol		<	2	ug/L					
		2-methylphenol		<	5	ug/L					
		2,2'-oxybis(1-chloropropane)		<	2	ug/L					
		hexachloroethane		<	2	ug/L					
		N-nitroso-di-N-propylamine		<	2	ug/L					
		4-methylphenol		<	2	ug/L					
		nitrobenzene		<	2	ug/L					
		isophorone		<	5	ug/L					
		2-nitrophenol		<	2	ug/L					
		2,4-dimethylphenol		<	5	ug/L					
		bis(2-chloroethoxy)methane		<	5	ug/L					
		2,4-dichlorophenol		<	5	ug/L					
		1,2,4-trichlorobenzene		<	5	ug/L					
		naphthalene		<	0.5	ug/L					
		benzoic acid		<	50	ug/L					
		4-chloroaniline		<	2	ug/L					
		hexachlorobutadiene		<	2	ug/L					
		4-chloro-3-methylphenol		<	2	ug/L					
		2-methylnaphthalene		<	0.5	ug/L					
		hexachlorocyclopentadiene		<	10	ug/L					
		2,4,6-trichlorophenol		<	2	ug/L					
		2,4,5-trichlorophenol		<	2	ug/L					
		2-chloronaphthalene		<	5	ug/L					
		2-nitroaniline		<	2	ug/L					
		acenaphthylene		<	0.5	ug/L					
		dimethylphthalate		<	5	ug/L					
		2,6-dinitrotoluene		<	5	ug/L					
		2,4-dinitrotoluene		<	5	ug/L					
		acenaphthene		<	0.5	ug/L					
		3-nitroaniline		<	2	ug/L					
		2,4-dinitrophenol		<	50	ug/L					
		dibenzofuran		<	0.5	ug/L					
		4-nitrophenol		<	10	ug/L					
		fluorene		<	0.5	ug/L					
		diethyl phthalate		<	5	ug/L					
		4-chlorophenyl phenyl ether		<	5	ug/L					
		4-nitroaniline		<	5	ug/L					
		4,6-dinitro-2-methylphenol		<	20	ug/L					
		azobenzene		<	2	ug/L					
		N-nitrosodiphenylamine		<	2	ug/L					
		4-bromophenyl phenyl ether		<	2	ug/L					
		hexachlorobenzene		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	BLK11188	pentachlorophenol		<	10	ug/L						
		phenanthrene		<	0.5	ug/L						
		anthracene		<	0.5	ug/L						
		carbazole		<	2	ug/L						
		di-n-butylphthalate		<	5	ug/L						
		fluoranthene		<	0.5	ug/L						
		benzidine		<	30	ug/L						
		pyrene		<	0.5	ug/L						
		butyl benzyl phthalate		<	5	ug/L						
		benzo(a)anthracene		<	0.5	ug/L						
		chrysene		<	0.5	ug/L						
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate		<	5	ug/L						
		di-n-octyl phthalate		<	5	ug/L						
		benzo(b)fluoranthene		<	0.5	ug/L						
		benzo(k)fluoranthene		<	0.5	ug/L						
		benzo(a)pyrene		<	0.2	ug/L						
		indeno(1,2,3-cd)pyrene		<	0.5	ug/L						
		dibenzo(a,h)anthracene		<	0.5	ug/L						
		benzo(g,h,i)perylene		<	0.5	ug/L						
		2-fluorophenol SUR			30	%			21	100		
		phenol-D5 SUR			18	%			10	102		
		2,4,6-tribromophenol SUR			68	%			10	123		
		nitrobenzene-D5 SUR			46	%			35	114		
		2-fluorobiphenyl SUR			64	%			43	116		
		p-terphenyl-D14 SUR			70	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCS11188	pyridine		13	ug/L	40	32		30	130		
		N-nitrosodimethylamine		14	ug/L	40	36	*	40	140		
		aniline		20	ug/L	40	49		40	140		
		phenol		10	ug/L	40	26	*	30	130		
		2-chlorophenol		27	ug/L	40	66		30	130		
		bis(2-chloroethyl)ether		21	ug/L	40	51		40	140		
		1,3-dichlorobenzene		18	ug/L	40	46		40	140		
		1,4-dichlorobenzene		19	ug/L	40	47		40	140		
		1,2-dichlorobenzene		20	ug/L	40	50		40	140		
		benzyl alcohol		22	ug/L	40	55		30	130		
		2-methylphenol		20	ug/L	40	49		30	130		
		2,2'-oxybis(1-chloropropane)		30	ug/L	40	74		40	140		
		hexachloroethane		14	ug/L	40	35	*	40	140		
		N-nitroso-di-N-propylamine		19	ug/L	40	48		40	140		
		4-methylphenol		20	ug/L	40	50		30	130		
		nitrobenzene		19	ug/L	40	47		40	140		
		isophorone		21	ug/L	40	52		40	140		
		2-nitrophenol		27	ug/L	40	66		30	130		
		2,4-dimethylphenol		24	ug/L	40	60		30	130		
		bis(2-chloroethoxy)methane		22	ug/L	40	55		40	140		
		2,4-dichlorophenol		27	ug/L	40	68		30	130		
		1,2,4-trichlorobenzene		20	ug/L	40	51		40	140		
		naphthalene		24	ug/L	40	59		40	140		
		benzoic acid		< 50	ug/L							
		4-chloroaniline		28	ug/L	40	70		40	140		
		hexachlorobutadiene		17	ug/L	40	42		40	140		
		4-chloro-3-methylphenol		23	ug/L	40	58		30	130		
		2-methylnaphthalene		27	ug/L	40	67		40	140		
		hexachlorocyclopentadiene		17	ug/L	40	43		40	140		
		2,4,6-trichlorophenol		28	ug/L	40	71		30	130		
		2,4,5-trichlorophenol		27	ug/L	40	68		30	130		
		2-chloronaphthalene		26	ug/L	40	65		40	140		
		2-nitroaniline		28	ug/L	40	71		40	140		
		acenaphthylene		27	ug/L	40	68		40	140		
		dimethylphthalate		19	ug/L	40	47		40	140		
		2,6-dinitrotoluene		29	ug/L	40	71		40	140		
		2,4-dinitrotoluene		26	ug/L	40	66		40	140		
		acenaphthene		27	ug/L	40	67		40	140		
		3-nitroaniline		29	ug/L	40	72		40	140		
		2,4-dinitrophenol		< 50	ug/L							
		dibenzofuran		27	ug/L	40	68		40	140		
		4-nitrophenol		< 10	ug/L	40	23	*	30	130		
		fluorene		27	ug/L	40	68		40	140		
		diethyl phthalate		24	ug/L	40	60		40	140		
		4-chlorophenyl phenyl ether		27	ug/L	40	68		40	140		
		4-nitroaniline		27	ug/L	40	67		40	140		
		4,6-dinitro-2-methylphenol		26	ug/L	40	66		30	130		
		azobenzene		26	ug/L	40	64		40	140		
		N-nitrosodiphenylamine		36	ug/L	40	90		40	140		
		4-bromophenyl phenyl ether		29	ug/L	40	74		40	140		
		hexachlorobenzene		29	ug/L	40	73		40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCS11188	pentachlorophenol			30	ug/L	40	76	30	130		
		phenanthrene			30	ug/L	40	76	40	140		
		anthracene			30	ug/L	40	76	40	140		
		carbazole			29	ug/L	40	72	40	140		
		di-n-butylphthalate			30	ug/L	40	74	40	140		
		fluoranthene			27	ug/L	40	68	40	140		
		benzidine		<	30	ug/L						
		pyrene			31	ug/L	40	77	40	140		
		butyl benzyl phthalate			30	ug/L	40	76	40	140		
		benzo(a)anthracene			31	ug/L	40	78	40	140		
		chrysene			25	ug/L	40	63	40	140		
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate			31	ug/L	40	77	40	140		
		di-n-octyl phthalate			31	ug/L	40	78	40	140		
		benzo(b)fluoranthene			30	ug/L	40	74	40	140		
		benzo(k)fluoranthene			30	ug/L	40	76	40	140		
		benzo(a)pyrene			31	ug/L	40	78	40	140		
		indeno(1,2,3-cd)pyrene			28	ug/L	40	71	40	140		
		dibenzo(a,h)anthracene			19	ug/L	40	48	40	140		
		benzo(g,h,i)perylene			30	ug/L	40	75	40	140		
		2-fluorophenol SUR			38	%			21	100		
		phenol-D5 SUR			25	%			10	102		
		2,4,6-tribromophenol SUR			81	%			10	123		
		nitrobenzene-D5 SUR			45	%			35	114		
		2-fluorobiphenyl SUR			66	%			43	116		
		p-terphenyl-D14 SUR			73	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCSD11188	pyridine			13	ug/L	40	33		30	130	3	20
		N-nitrosodimethylamine			14	ug/L	40	35	*	40	140	1	20
		aniline			20	ug/L	40	50		40	140	2	20
		phenol			11	ug/L	40	27	*	30	130	6	20
		2-chlorophenol			28	ug/L	40	69		30	130	4	20
		bis(2-chloroethyl)ether			21	ug/L	40	52		40	140	2	20
		1,3-dichlorobenzene			20	ug/L	40	50		40	140	9	20
		1,4-dichlorobenzene			20	ug/L	40	51		40	140	9	20
		1,2-dichlorobenzene			22	ug/L	40	54		40	140	8	20
		benzyl alcohol			23	ug/L	40	58		30	130	6	20
		2-methylphenol			21	ug/L	40	52		30	130	6	20
		2,2'-oxybis(1-chloropropane)			31	ug/L	40	79		40	140	6	20
		hexachloroethane			16	ug/L	40	40		40	140	12	20
		N-nitroso-di-N-propylamine			20	ug/L	40	50		40	140	4	20
		4-methylphenol			21	ug/L	40	52		30	130	5	20
		nitrobenzene			20	ug/L	40	50		40	140	8	20
		isophorone			21	ug/L	40	53		40	140	2	20
		2-nitrophenol			27	ug/L	40	68		30	130	3	20
		2,4-dimethylphenol			26	ug/L	40	65		30	130	10	20
		bis(2-chloroethoxy)methane			23	ug/L	40	57		40	140	4	20
		2,4-dichlorophenol			27	ug/L	40	66		30	130	2	20
		1,2,4-trichlorobenzene			22	ug/L	40	54		40	140	7	20
		naphthalene			25	ug/L	40	63		40	140	7	20
		benzoic acid		<	50	ug/L							20
		4-chloroaniline			28	ug/L	40	70		40	140	1	20
		hexachlorobutadiene			18	ug/L	40	44		40	140	4	20
		4-chloro-3-methylphenol			23	ug/L	40	58		30	130	1	20
		2-methylnaphthalene			28	ug/L	40	69		40	140	3	20
		hexachlorocyclopentadiene			17	ug/L	40	42		40	140	2	20
		2,4,6-trichlorophenol			28	ug/L	40	70		30	130	1	20
		2,4,5-trichlorophenol			29	ug/L	40	72		30	130	5	20
		2-chloronaphthalene			27	ug/L	40	67		40	140	2	20
		2-nitroaniline			29	ug/L	40	72		40	140	2	20
		acenaphthylene			28	ug/L	40	69		40	140	0	20
		dimethylphthalate			17	ug/L	40	43		40	140	7	20
		2,6-dinitrotoluene			29	ug/L	40	73		40	140	2	20
		2,4-dinitrotoluene			27	ug/L	40	67		40	140	1	20
		acenaphthene			27	ug/L	40	69		40	140	3	20
		3-nitroaniline			29	ug/L	40	73		40	140	1	20
		2,4-dinitrophenol		<	50	ug/L							20
		dibenzofuran			28	ug/L	40	69		40	140	2	20
		4-nitrophenol		<	10	ug/L	40	22	*	30	130	3	20
		fluorene			27	ug/L	40	67		40	140	0	20
		diethyl phthalate			24	ug/L	40	60		40	140	1	20
		4-chlorophenyl phenyl ether			28	ug/L	40	69		40	140	2	20
		4-nitroaniline			28	ug/L	40	69		40	140	3	20
		4,6-dinitro-2-methylphenol			26	ug/L	40	66		30	130	1	20
		azobenzene			27	ug/L	40	67		40	140	3	20
		N-nitrosodiphenylamine			37	ug/L	40	92		40	140	2	20
		4-bromophenyl phenyl ether			31	ug/L	40	77		40	140	5	20
		hexachlorobenzene			30	ug/L	40	76		40	140	3	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCSD11188	pentachlorophenol			30	ug/L	40	75	30	130	1	20
		phenanthrene			31	ug/L	40	78	40	140	3	20
		anthracene			31	ug/L	40	78	40	140	2	20
		carbazole			30	ug/L	40	75	40	140	5	20
		di-n-butylphthalate			31	ug/L	40	78	40	140	5	20
		fluoranthene			29	ug/L	40	72	40	140	7	20
		benzidine		<	30	ug/L						20
		pyrene			30	ug/L	40	76	40	140	2	20
		butyl benzyl phthalate			30	ug/L	40	75	40	140	1	20
		benzo(a)anthracene			31	ug/L	40	77	40	140	1	20
		chrysene			26	ug/L	40	64	40	140	2	20
		3,3'-dichlorobenzidine		<	30	ug/L						20
		bis(2-ethylhexyl)phthalate			30	ug/L	40	74	40	140	4	20
		di-n-octyl phthalate			30	ug/L	40	76	40	140	3	20
		benzo(b)fluoranthene			30	ug/L	40	75	40	140	2	20
		benzo(k)fluoranthene			31	ug/L	40	77	40	140	1	20
		benzo(a)pyrene			31	ug/L	40	79	40	140	1	20
		indeno(1,2,3-cd)pyrene			29	ug/L	40	71	40	140	1	20
		dibenzo(a,h)anthracene			19	ug/L	40	48	40	140	1	20
		benzo(g,h,i)perylene			30	ug/L	40	76	40	140	1	20
		2-fluorophenol SUR			38	%			21	100		
		phenol-D5 SUR			25	%			10	102		
		2,4,6-tribromophenol SUR			81	%			10	123		
		nitrobenzene-D5 SUR			47	%			35	114		
		2-fluorobiphenyl SUR			65	%			43	116		
		p-terphenyl-D14 SUR			72	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3005A6020A	BLK11207	Arsenic		<	0.005	mg/L						
		Manganese		<	0.01	mg/L						
SW3005A6020A	LCS11207	Arsenic			0.47	mg/L	0.5	94	80	120		
		Manganese			0.57	mg/L	0.5	114	80	120		
SW3005A6020A	LCSD11207	Arsenic			0.47	mg/L	0.5	93	80	120	1	20
		Manganese			0.56	mg/L	0.5	112	80	120	1	20

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

46637

Company Name: Dept. of Environmental Services, State of New Hampshire
Company Address: 29 Hazen Drive, P.O. Box 95
Report To: Michael Summerlin, P.E.
Phone #: (603) 271-3649
Invoice to Email: michael.summerlinjr@des.nh.gov
☐ Hard Copy Invoice Required

Project Name: Troy Mills Landfill Superfund Site
Project #: DES #198405082
Project Location: NH MA ME VT NY Other
Protocol: RCRA SDWA NPDES MCP NHDES OTHER
Reporting Limits: QAPP GW-1 S-1 EPA DW Other SAP
Quote # ☐ NH Reimbursement Pricing
PO # Contract No. 1051314 (2589-00 T)

ANALYSIS REQUEST

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER
46637-01	TRIP BLANK	1	X			X					11-05-18	0800	MB
-02	TRIP BLANK	2	X								11-05-18	0800	MB
-03	TRY_MW-202P	6	X			X	X				11-05-18	1010	ED
-04	TRY_MW-A28	6	X			X	X				11-05-18	1215	ED
-05	TRY_MW-A28 DUP	1	X								11-05-18	1215	ED
-06	TRY_MW-301X	6	X			X	X				11-05-18	1105	MB
-07	TRY_MW-102	6	X			X	X				11-05-18	1455	MB

Lab Sample ID	VOC 8260	VOC 624	VPH MADEP	VOC 524.2	TPH	8270PAH	8082 PCB	O&G 1664	pH	TSS	RCRA Metals	Total Metals-list: As, ~~Cd~~, ~~Cr~~, ~~Pb~~, Mn, ~~Ni~~	Dissolved Metals-list:	Ammonia	T-Phosphorus	Cyanide	Nitrate	Corrosivity	TCLP Metals	Subcontract: Grain Size	Lab (G) or Composite (C)
46637-01	X																				
-02			X																		
-03	X		X			X						X									
-04	X		X			X						X									
-05						X															
-06	X		X			X						X									
-07	X		X			X						X									

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) X
*Date Needed _____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Please contact Tanya Justham at (603) 493-1548 for sample questions and Michael Summerlin for all others.

REPORTING INSTRUCTIONS X PDF (e-mail address) and Excel; Please send results to michael.summerlinjr@des.nh.gov and tanya.justham@gza.com
☐ HARD COPY REQUIRED ☐ FAX (FAX#)

RECEIVED ON ICE ☐ YES ☐ NO
TEMPERATURE 0 °C

CUSTODY RECORD
QSD-01 Revision 10/14/15

	Date	Time		Date	Time
Relinquished by Sampler:	11-8-18	1030 0930	Received by:		
Relinquished by:			Received by:	11/8/18	1515 10
Relinquished by:	11/8/18	1705	Received by Laboratory:	11/8/18	1705

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Michael Summerlin
NHDES-Superfund
29 Hazen Drive
Concord, NH 03301

PO Number: Contct#1061488(2589-
Job ID: 46638
Date Received: 11/8/18

Project: Troy Mills Landfill Superfund Site DES #198405082

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

Jennifer Lowe
Laboratory Manager

Date of Approval: 11/29/2018
Total number of pages: 38

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Troy Mills Superfund Site DES #198405082

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
TRIP BLANK	Water	11/6/2018 8:00	46638-001	
				VOCs in water by 8260 Petro & Haz Waste
TRIP BLANK	Water	11/6/2018 8:00	46638-002	
				Low level 1,4-dioxane in water by 8260 SIM
TRY_MW-803	Water	11/6/2018 9:30	46638-003	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_MW-804	Water	11/6/2018 13:30	46638-004	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Low level 1,4-dioxane in water by 8260 SIM
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_MW-804 DUP	Water	11/6/2018 13:30	46638-005	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Manganese in water by 6020
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
EQUIP BLANK	Water	11/7/2018 14:30	46638-006	
				Acid & Base/Neutral Extractables in water by 8270

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638
Sample#: 46638-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/6/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638

Sample#: 46638-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/6/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**93**	78-114	%	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	LMM		1803231	11/10/18	6:57	SW5030C8260C
4-bromofluorobenzene SUR	**92**	86-115	%	1	LMM		1803231	11/10/18	6:57	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638
Sample#: 46638-003
Sample ID: TRY_MW-803
Matrix: Water
Sampled: 11/6/18 9:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638
Sample#: 46638-003
Sample ID: TRY_MW-803
Matrix: Water
Sampled: 11/6/18 9:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**97**	78-114	%	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
toluene-D8 SUR	**102**	88-110	%	1	LMM		1803231	11/10/18	8:42	SW5030C8260C
4-bromofluorobenzene SUR	**97**	86-115	%	1	LMM		1803231	11/10/18	8:42	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638
Sample#: 46638-004
Sample ID: TRY_MW-804
Matrix: Water
Sampled: 11/6/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
2-butanone (MEK)	**15** J	10	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638
Sample#: 46638-004
Sample ID: TRY_MW-804
Matrix: Water
Sampled: 11/6/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
ethylbenzene	**22**	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
m&p-xylenes	**15**	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
o-xylene	**9**	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
isopropylbenzene	**28**	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
n-propylbenzene	**39**	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,3,5-trimethylbenzene	**120**	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,2,4-trimethylbenzene	**360**	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
sec-butylbenzene	**42**	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
4-isopropyltoluene	**44**	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
naphthalene	**15**	5	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**99**	78-114	%	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
toluene-D8 SUR	**106**	88-110	%	1	LMM		1803231	11/10/18	9:08	SW5030C8260C
4-bromofluorobenzene SUR	**98**	86-115	%	1	LMM		1803231	11/10/18	9:08	SW5030C8260C

J = The percent recovery for this compound was above the acceptance criteria in the LCS. The LCSD showed acceptable recovery. The reported concentration is an estimate.

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638
Sample#: 46638-005
Sample ID: TRY_MW-804 DUP
Matrix: Water
Sampled: 11/6/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
2-butanone (MEK)	**16** J	10	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638
Sample#: 46638-005
Sample ID: TRY_MW-804 DUP
Matrix: Water
Sampled: 11/6/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
ethylbenzene	**25**	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
m&p-xylenes	**16**	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
o-xylene	**9**	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
isopropylbenzene	**30**	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
n-propylbenzene	**48**	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,3,5-trimethylbenzene	**130**	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,2,4-trimethylbenzene	**400**	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
sec-butylbenzene	**45**	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
4-isopropyltoluene	**45**	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
naphthalene	**17**	5	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**97**	78-114	%	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
toluene-D8 SUR	**100**	88-110	%	1	LMM		1803231	11/10/18	9:34	SW5030C8260C
4-bromofluorobenzene SUR	**101**	86-115	%	1	LMM		1803231	11/10/18	9:34	SW5030C8260C

J = The percent recovery for this compound was above the acceptance criteria in the LCS. The LCSD showed acceptable recovery. The reported concentration is an estimate.

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638

Sample#: 46638-002
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/6/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803283	11/14/18	3:50	modSW8260C

Sample#: 46638-003
Sample ID: TRY_MW-803
Matrix: Water
Sampled: 11/6/18 9:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803283	11/14/18	6:56	modSW8260C

Sample#: 46638-004
Sample ID: TRY_MW-804
Matrix: Water
Sampled: 11/6/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
1,4-dioxane	< 0.25	0.25	ug/L	1	LMM		1803283	11/14/18	7:27	modSW8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638
Sample#: 46638-003
Sample ID: TRY_MW-803
Matrix: Water
Sampled: 11/6/18 9:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
4-chloro-3-methylphenol	**4**	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638
Sample#: 46638-003
Sample ID: TRY_MW-803
Matrix: Water
Sampled: 11/6/18 9:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
bis(2-ethylhexyl)phthalate	**7**	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**28**	21-100	%	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
phenol-D5 SUR	**21**	10-102	%	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
2,4,6-tribromophenol SUR	**63**	10-123	%	1	CL	11/9/18	11188	11/12/18	21:47	SW3510C8270D
nitrobenzene-D5 SUR	**11** *	35-114	%	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
2-fluorobiphenyl SUR	**44**	43-116	%	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D
p-terphenyl-D14 SUR	**34**	33-141	%	1	CL	11/9/18	11188	11/13/18	11:49	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638
Sample#: 46638-004
Sample ID: TRY_MW-804
Matrix: Water
Sampled: 11/6/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
benzyl alcohol	**4**	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
naphthalene	**5.4**	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638
Sample#: 46638-004
Sample ID: TRY_MW-804
Matrix: Water
Sampled: 11/6/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
butyl benzyl phthalate	**11**	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
bis(2-ethylhexyl)phthalate	**55**	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**30**	21-100	%	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
phenol-D5 SUR	**23**	10-102	%	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
2,4,6-tribromophenol SUR	**72**	10-123	%	1	CL	11/9/18	11188	11/13/18	12:19	SW3510C8270D
nitrobenzene-D5 SUR	**32** *	35-114	%	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
2-fluorobiphenyl SUR	**45**	43-116	%	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D
p-terphenyl-D14 SUR	**36**	33-141	%	1	CL	11/9/18	11188	11/13/18	12:49	SW3510C8270D

**** This surrogate showed recovery outside the acceptance limits. Matrix interference suspected. No additional sample remains for re-analysis.***

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638
Sample#: 46638-005
Sample ID: TRY_MW-804 DUP
Matrix: Water
Sampled: 11/6/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
benzyl alcohol	**6**	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
naphthalene	**7.0**	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638
Sample#: 46638-005
Sample ID: TRY_MW-804 DUP
Matrix: Water
Sampled: 11/6/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
butyl benzyl phthalate	**13**	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
bis(2-ethylhexyl)phthalate	**18**	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**27**	21-100	%	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
phenol-D5 SUR	**22**	10-102	%	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
2,4,6-tribromophenol SUR	**74**	10-123	%	1	CL	11/9/18	11188	11/13/18	13:18	SW3510C8270D
nitrobenzene-D5 SUR	**43**	35-114	%	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
2-fluorobiphenyl SUR	**58**	43-116	%	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D
p-terphenyl-D14 SUR	**40**	33-141	%	1	CL	11/9/18	11188	11/13/18	13:48	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638
Sample#: 46638-006
Sample ID: EQUIP BLANK
Matrix: Water
Sampled: 11/7/18 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46638
Sample#: 46638-006
Sample ID: EQUIP BLANK
Matrix: Water
Sampled: 11/7/18 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**27**	21-100	%	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
phenol-D5 SUR	**15**	10-102	%	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
2,4,6-tribromophenol SUR	**75**	10-123	%	1	CL	11/9/18	11188	11/13/18	14:18	SW3510C8270D
nitrobenzene-D5 SUR	**40**	35-114	%	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
2-fluorobiphenyl SUR	**59**	43-116	%	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D
p-terphenyl-D14 SUR	**67**	33-141	%	1	CL	11/9/18	11188	11/13/18	14:48	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082

Job ID: 46638

Sample#: 46638-003

Sample ID: TRY_MW-803

Matrix: Water

Sampled: 11/6/18 9:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/13/18	11207	11/21/18	23:46	SW3005A6020A
Manganese	**2.0**	0.01	mg/L	1	AGN	11/13/18	11207	11/21/18	23:46	SW3005A6020A

Sample#: 46638-004

Sample ID: TRY_MW-804

Matrix: Water

Sampled: 11/6/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/13/18	11207	11/21/18	23:53	SW3005A6020A
Manganese	**4.8**	0.01	mg/L	1	AGN	11/13/18	11207	11/21/18	23:53	SW3005A6020A

Sample#: 46638-005

Sample ID: TRY_MW-804 DUP

Matrix: Water

Sampled: 11/6/18 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/13/18	11207	11/22/18	0:19	SW3005A6020A
Manganese	**4.5**	0.01	mg/L	1	AGN	11/13/18	11207	11/22/18	0:19	SW3005A6020A

Quality Control Report



124 Heritage Avenue Unit 16
Portsmouth, NH 03801
www.absoluteresourceassociates.com

Absolute Resource
associates

Case Narrative
Lab # 46638

Sample Receiving and Chain of Custody Discrepancies

Samples were received in acceptable condition, at 0 degrees C, on ice, and in accordance with sample handling, preservation and integrity guidelines.

Calibration

No exceptions noted.

Method Blank

No exceptions noted.

Surrogate Recoveries

SVOC: The surrogate nitrobenzene-D5 for samples 46638-003 and -004 was outside the acceptance limits. Matrix interference suspected. No additional sample remained for reanalysis.

Laboratory Control Sample Results

VOC: The LCS1803231 did not meet the acceptance criteria for bromomethane, diethyl ether, acetone, t-butanol (TBA), 2-butanone (MEK), and tetrahydrofuran (THF). The results for samples 46638-004 and -005 have been qualified accordingly. The LCSD1803231 did not meet the acceptance criteria for bromomethane, diethyl ether, and tetrahydrofuran (THF). The relative percent difference between the LCS and LCSD1803231 was outside the acceptance criteria for acetone. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.

SVOC: The LCS11188 did not meet the acceptance criteria for N-nitrosodimethylamine, phenol, hexachloroethane, and 4-nitrophenol. The LCSD11188 did not meet the acceptance criteria for N-nitrosodimethylamine, phenol, and 4-nitrophenol. Since <20% of the compounds were outside of the acceptance criteria, reanalysis is not required.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

Not requested for this project.

Other

The reported results have undergone the standard process of review for data quality. The final report meets the reporting and documentation requirements of the contract.

Jennifer Guerette QA Officer

Reporting Limits: Dilutions performed during the analysis are noted on the result pages.

No other exceptions noted.

GLOSSARY

%R	Percent Recovery
BLK	Blank (Method Blank, Preparation Blank)
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
Dil'n	Dilution
DL	Detection Limit
DUP	Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MB	Methanol Blank (associated with solid VOC samples)
MLCS	Methanol Laboratory Control Sample (associated with solid VOC samples)
MLCSD	Methanol Laboratory Control Sample Duplicate (associated with solid VOC samples)
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PB	Preparation Blank
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SUR	Surrogate

- QC Report -

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
modSW8260C	BLK1803283	1,4-dioxane		<	0.25	ug/L						
modSW8260C	LCS1803283	1,4-dioxane			8.2	ug/L	8	103	70	130		
modSW8260C	LCSD1803283	1,4-dioxane			8.3	ug/L	8	103	70	130	0	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803231	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					
		bromoform		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803231	isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			101	%			78	114		
		toluene-D8 SUR			100	%			88	110		
		4-bromofluorobenzene SUR			91	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCS1803231	dichlorodifluoromethane		20	ug/L	20	98		70	130		
		chloromethane		17	ug/L	20	86		70	130		
		vinyl chloride		20	ug/L	20	100		70	130		
		bromomethane		11	ug/L	20	53	*	70	130		
		chloroethane		24	ug/L	20	122		70	130		
		trichlorofluoromethane		24	ug/L	20	121		70	130		
		diethyl ether		29	ug/L	20	147	*	70	130		
		acetone		33	ug/L	20	163	*	70	130		
		1,1-dichloroethene		24	ug/L	20	121		70	130		
		methylene chloride		26	ug/L	20	129		70	130		
		carbon disulfide		19	ug/L	20	94		70	130		
		methyl t-butyl ether (MTBE)		22	ug/L	20	110		70	130		
		trans-1,2-dichloroethene		23	ug/L	20	115		70	130		
		isopropyl ether (DIPE)		22	ug/L	20	108		70	130		
		ethyl t-butyl ether (ETBE)		22	ug/L	20	109		70	130		
		1,1-dichloroethane		24	ug/L	20	119		70	130		
		t-butanol (TBA)		160	ug/L	100	156	*	70	130		
		2-butanone (MEK)		27	ug/L	20	133	*	70	130		
		2,2-dichloropropane		21	ug/L	20	106		70	130		
		cis-1,2-dichloroethene		23	ug/L	20	113		70	130		
		chloroform		23	ug/L	20	116		70	130		
		bromochloromethane		21	ug/L	20	106		70	130		
		tetrahydrofuran (THF)		29	ug/L	20	145	*	70	130		
		1,1,1-trichloroethane		21	ug/L	20	105		70	130		
		1,1-dichloropropene		22	ug/L	20	111		70	130		
		t-amyl-methyl ether (TAME)		22	ug/L	20	110		70	130		
		carbon tetrachloride		20	ug/L	20	101		70	130		
		1,2-dichloroethane		21	ug/L	20	106		70	130		
		benzene		21	ug/L	20	106		70	130		
		trichloroethene		22	ug/L	20	110		70	130		
		1,2-dichloropropane		24	ug/L	20	120		70	130		
		bromodichloromethane		21	ug/L	20	103		70	130		
		1,4-dioxane		< 50	ug/L	40	122		70	130		
		dibromomethane		21	ug/L	20	106		70	130		
		4-methyl-2-pentanone (MIBK)		24	ug/L	20	119		70	130		
		cis-1,3-dichloropropene		22	ug/L	20	112		70	130		
		toluene		22	ug/L	20	110		70	130		
		trans-1,3-dichloropropene		22	ug/L	20	112		70	130		
		2-hexanone		26	ug/L	20	129		70	130		
		1,1,2-trichloroethane		21	ug/L	20	107		70	130		
		1,3-dichloropropane		21	ug/L	20	107		70	130		
		tetrachloroethene		19	ug/L	20	95		70	130		
		dibromochloromethane		18	ug/L	20	90		70	130		
		1,2-dibromoethane (EDB)		21	ug/L	20	104		70	130		
		chlorobenzene		19	ug/L	20	94		70	130		
		1,1,1,2-tetrachloroethane		20	ug/L	20	100		70	130		
		ethylbenzene		21	ug/L	20	106		70	130		
		m&p-xylenes		42	ug/L	40	105		70	130		
		o-xylene		18	ug/L	20	91		70	130		
		styrene		20	ug/L	20	100		70	130		
		bromoform		17	ug/L	20	87		70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803231	isopropylbenzene		20	ug/L	20	102	70	130		
		1,1,2,2-tetrachloroethane		21	ug/L	20	107	70	130		
		1,2,3-trichloropropane		23	ug/L	20	114	70	130		
		n-propylbenzene		21	ug/L	20	103	70	130		
		bromobenzene		20	ug/L	20	99	70	130		
		1,3,5-trimethylbenzene		21	ug/L	20	104	70	130		
		2-chlorotoluene		20	ug/L	20	99	70	130		
		4-chlorotoluene		21	ug/L	20	104	70	130		
		tert-butylbenzene		20	ug/L	20	99	70	130		
		1,2,4-trimethylbenzene		20	ug/L	20	102	70	130		
		sec-butylbenzene		19	ug/L	20	97	70	130		
		1,3-dichlorobenzene		18	ug/L	20	92	70	130		
		4-isopropyltoluene		20	ug/L	20	102	70	130		
		1,4-dichlorobenzene		18	ug/L	20	92	70	130		
		1,2-dichlorobenzene		19	ug/L	20	94	70	130		
		n-butylbenzene		19	ug/L	20	95	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		24	ug/L	20	120	70	130		
		1,2,4-trichlorobenzene		20	ug/L	20	100	70	130		
		1,3,5-trichlorobenzene		19	ug/L	20	93	70	130		
		hexachlorobutadiene		21	ug/L	20	103	70	130		
		naphthalene		26	ug/L	20	128	70	130		
		1,2,3-trichlorobenzene		21	ug/L	20	105	70	130		
		dibromofluoromethane SUR		98	%			78	114		
		toluene-D8 SUR		102	%			88	110		
		4-bromofluorobenzene SUR		102	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803231	dichlorodifluoromethane		18	ug/L	20	89	70	130	9	20
		chloromethane		16	ug/L	20	79	70	130	8	20
		vinyl chloride		19	ug/L	20	93	70	130	7	20
		bromomethane		11	ug/L	20	55 *	70	130	3	20
		chloroethane		23	ug/L	20	113	70	130	7	20
		trichlorofluoromethane		23	ug/L	20	113	70	130	7	20
		diethyl ether		27	ug/L	20	137 *	70	130	7	20
		acetone		25	ug/L	20	125	70	130	26 *	20
		1,1-dichloroethene		22	ug/L	20	110	70	130	10	20
		methylene chloride		24	ug/L	20	122	70	130	6	20
		carbon disulfide		18	ug/L	20	91	70	130	4	20
		methyl t-butyl ether (MTBE)		21	ug/L	20	105	70	130	5	20
		trans-1,2-dichloroethene		22	ug/L	20	109	70	130	6	20
		isopropyl ether (DIPE)		20	ug/L	20	100	70	130	9	20
		ethyl t-butyl ether (ETBE)		20	ug/L	20	101	70	130	8	20
		1,1-dichloroethane		23	ug/L	20	115	70	130	3	20
		t-butanol (TBA)		130	ug/L	100	129	70	130	19	20
		2-butanone (MEK)		24	ug/L	20	119	70	130	12	20
		2,2-dichloropropane		20	ug/L	20	99	70	130	7	20
		cis-1,2-dichloroethene		21	ug/L	20	106	70	130	6	20
		chloroform		22	ug/L	20	110	70	130	6	20
		bromochloromethane		20	ug/L	20	102	70	130	4	20
		tetrahydrofuran (THF)		27	ug/L	20	136 *	70	130	7	20
		1,1,1-trichloroethane		20	ug/L	20	99	70	130	6	20
		1,1-dichloropropene		21	ug/L	20	104	70	130	7	20
		t-amyl-methyl ether (TAME)		21	ug/L	20	106	70	130	3	20
		carbon tetrachloride		19	ug/L	20	95	70	130	6	20
		1,2-dichloroethane		20	ug/L	20	102	70	130	4	20
		benzene		20	ug/L	20	101	70	130	6	20
		trichloroethene		21	ug/L	20	103	70	130	7	20
		1,2-dichloropropane		23	ug/L	20	113	70	130	6	20
		bromodichloromethane		20	ug/L	20	100	70	130	3	20
		1,4-dioxane		< 50	ug/L	40	103	70	130	17	20
		dibromomethane		20	ug/L	20	101	70	130	4	20
		4-methyl-2-pentanone (MIBK)		21	ug/L	20	107	70	130	10	20
		cis-1,3-dichloropropene		21	ug/L	20	106	70	130	5	20
		toluene		21	ug/L	20	103	70	130	7	20
		trans-1,3-dichloropropene		21	ug/L	20	105	70	130	6	20
		2-hexanone		23	ug/L	20	114	70	130	12	20
		1,1,2-trichloroethane		20	ug/L	20	100	70	130	6	20
		1,3-dichloropropane		20	ug/L	20	102	70	130	5	20
		tetrachloroethene		17	ug/L	20	86	70	130	9	20
		dibromochloromethane		17	ug/L	20	87	70	130	4	20
		1,2-dibromoethane (EDB)		20	ug/L	20	100	70	130	5	20
		chlorobenzene		17	ug/L	20	87	70	130	7	20
		1,1,1,2-tetrachloroethane		19	ug/L	20	93	70	130	7	20
		ethylbenzene		20	ug/L	20	98	70	130	8	20
		m&p-xylenes		39	ug/L	40	98	70	130	7	20
		o-xylene		17	ug/L	20	85	70	130	7	20
		styrene		19	ug/L	20	93	70	130	8	20
		bromoform		17	ug/L	20	83	70	130	4	20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803231	isopropylbenzene		19	ug/L	20	95	70	130	7	20
		1,1,2,2-tetrachloroethane		22	ug/L	20	108	70	130	0	20
		1,2,3-trichloropropane		22	ug/L	20	112	70	130	2	20
		n-propylbenzene		20	ug/L	20	100	70	130	4	20
		bromobenzene		19	ug/L	20	94	70	130	5	20
		1,3,5-trimethylbenzene		20	ug/L	20	99	70	130	5	20
		2-chlorotoluene		19	ug/L	20	94	70	130	4	20
		4-chlorotoluene		20	ug/L	20	100	70	130	4	20
		tert-butylbenzene		19	ug/L	20	97	70	130	3	20
		1,2,4-trimethylbenzene		20	ug/L	20	98	70	130	4	20
		sec-butylbenzene		19	ug/L	20	93	70	130	4	20
		1,3-dichlorobenzene		18	ug/L	20	88	70	130	4	20
		4-isopropyltoluene		20	ug/L	20	98	70	130	4	20
		1,4-dichlorobenzene		18	ug/L	20	89	70	130	4	20
		1,2-dichlorobenzene		18	ug/L	20	91	70	130	4	20
		n-butylbenzene		18	ug/L	20	92	70	130	3	20
		1,2-dibromo-3-chloropropane (DBCP)		23	ug/L	20	114	70	130	5	20
		1,2,4-trichlorobenzene		20	ug/L	20	98	70	130	2	20
		1,3,5-trichlorobenzene		18	ug/L	20	91	70	130	2	20
		hexachlorobutadiene		21	ug/L	20	103	70	130	0	20
		naphthalene		25	ug/L	20	124	70	130	3	20
		1,2,3-trichlorobenzene		21	ug/L	20	105	70	130	1	20
		dibromofluoromethane SUR		97	%			78	114		
		toluene-D8 SUR		103	%			88	110		
		4-bromofluorobenzene SUR		101	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW3510C8270D	BLK11188	pyridine		<	2	ug/L					
		N-nitrosodimethylamine		<	2	ug/L					
		aniline		<	2	ug/L					
		phenol		<	2	ug/L					
		2-chlorophenol		<	5	ug/L					
		bis(2-chloroethyl)ether		<	2	ug/L					
		1,3-dichlorobenzene		<	2	ug/L					
		1,4-dichlorobenzene		<	2	ug/L					
		1,2-dichlorobenzene		<	2	ug/L					
		benzyl alcohol		<	2	ug/L					
		2-methylphenol		<	5	ug/L					
		2,2'-oxybis(1-chloropropane)		<	2	ug/L					
		hexachloroethane		<	2	ug/L					
		N-nitroso-di-N-propylamine		<	2	ug/L					
		4-methylphenol		<	2	ug/L					
		nitrobenzene		<	2	ug/L					
		isophorone		<	5	ug/L					
		2-nitrophenol		<	2	ug/L					
		2,4-dimethylphenol		<	5	ug/L					
		bis(2-chloroethoxy)methane		<	5	ug/L					
		2,4-dichlorophenol		<	5	ug/L					
		1,2,4-trichlorobenzene		<	5	ug/L					
		naphthalene		<	0.5	ug/L					
		benzoic acid		<	50	ug/L					
		4-chloroaniline		<	2	ug/L					
		hexachlorobutadiene		<	2	ug/L					
		4-chloro-3-methylphenol		<	2	ug/L					
		2-methylnaphthalene		<	0.5	ug/L					
		hexachlorocyclopentadiene		<	10	ug/L					
		2,4,6-trichlorophenol		<	2	ug/L					
		2,4,5-trichlorophenol		<	2	ug/L					
		2-chloronaphthalene		<	5	ug/L					
		2-nitroaniline		<	2	ug/L					
		acenaphthylene		<	0.5	ug/L					
		dimethylphthalate		<	5	ug/L					
		2,6-dinitrotoluene		<	5	ug/L					
		2,4-dinitrotoluene		<	5	ug/L					
		acenaphthene		<	0.5	ug/L					
		3-nitroaniline		<	2	ug/L					
		2,4-dinitrophenol		<	50	ug/L					
		dibenzofuran		<	0.5	ug/L					
		4-nitrophenol		<	10	ug/L					
		fluorene		<	0.5	ug/L					
		diethyl phthalate		<	5	ug/L					
		4-chlorophenyl phenyl ether		<	5	ug/L					
		4-nitroaniline		<	5	ug/L					
		4,6-dinitro-2-methylphenol		<	20	ug/L					
		azobenzene		<	2	ug/L					
		N-nitrosodiphenylamine		<	2	ug/L					
		4-bromophenyl phenyl ether		<	2	ug/L					
		hexachlorobenzene		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	BLK11188	pentachlorophenol		<	10	ug/L						
		phenanthrene		<	0.5	ug/L						
		anthracene		<	0.5	ug/L						
		carbazole		<	2	ug/L						
		di-n-butylphthalate		<	5	ug/L						
		fluoranthene		<	0.5	ug/L						
		benzidine		<	30	ug/L						
		pyrene		<	0.5	ug/L						
		butyl benzyl phthalate		<	5	ug/L						
		benzo(a)anthracene		<	0.5	ug/L						
		chrysene		<	0.5	ug/L						
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate		<	5	ug/L						
		di-n-octyl phthalate		<	5	ug/L						
		benzo(b)fluoranthene		<	0.5	ug/L						
		benzo(k)fluoranthene		<	0.5	ug/L						
		benzo(a)pyrene		<	0.2	ug/L						
		indeno(1,2,3-cd)pyrene		<	0.5	ug/L						
		dibenzo(a,h)anthracene		<	0.5	ug/L						
		benzo(g,h,i)perylene		<	0.5	ug/L						
		2-fluorophenol SUR			30	%			21	100		
		phenol-D5 SUR			18	%			10	102		
		2,4,6-tribromophenol SUR			68	%			10	123		
		nitrobenzene-D5 SUR			46	%			35	114		
		2-fluorobiphenyl SUR			64	%			43	116		
		p-terphenyl-D14 SUR			70	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCS11188	pyridine		13	ug/L	40	32		30	130		
		N-nitrosodimethylamine		14	ug/L	40	36	*	40	140		
		aniline		20	ug/L	40	49		40	140		
		phenol		10	ug/L	40	26	*	30	130		
		2-chlorophenol		27	ug/L	40	66		30	130		
		bis(2-chloroethyl)ether		21	ug/L	40	51		40	140		
		1,3-dichlorobenzene		18	ug/L	40	46		40	140		
		1,4-dichlorobenzene		19	ug/L	40	47		40	140		
		1,2-dichlorobenzene		20	ug/L	40	50		40	140		
		benzyl alcohol		22	ug/L	40	55		30	130		
		2-methylphenol		20	ug/L	40	49		30	130		
		2,2'-oxybis(1-chloropropane)		30	ug/L	40	74		40	140		
		hexachloroethane		14	ug/L	40	35	*	40	140		
		N-nitroso-di-N-propylamine		19	ug/L	40	48		40	140		
		4-methylphenol		20	ug/L	40	50		30	130		
		nitrobenzene		19	ug/L	40	47		40	140		
		isophorone		21	ug/L	40	52		40	140		
		2-nitrophenol		27	ug/L	40	66		30	130		
		2,4-dimethylphenol		24	ug/L	40	60		30	130		
		bis(2-chloroethoxy)methane		22	ug/L	40	55		40	140		
		2,4-dichlorophenol		27	ug/L	40	68		30	130		
		1,2,4-trichlorobenzene		20	ug/L	40	51		40	140		
		naphthalene		24	ug/L	40	59		40	140		
		benzoic acid		< 50	ug/L							
		4-chloroaniline		28	ug/L	40	70		40	140		
		hexachlorobutadiene		17	ug/L	40	42		40	140		
		4-chloro-3-methylphenol		23	ug/L	40	58		30	130		
		2-methylnaphthalene		27	ug/L	40	67		40	140		
		hexachlorocyclopentadiene		17	ug/L	40	43		40	140		
		2,4,6-trichlorophenol		28	ug/L	40	71		30	130		
		2,4,5-trichlorophenol		27	ug/L	40	68		30	130		
		2-chloronaphthalene		26	ug/L	40	65		40	140		
		2-nitroaniline		28	ug/L	40	71		40	140		
		acenaphthylene		27	ug/L	40	68		40	140		
		dimethylphthalate		19	ug/L	40	47		40	140		
		2,6-dinitrotoluene		29	ug/L	40	71		40	140		
		2,4-dinitrotoluene		26	ug/L	40	66		40	140		
		acenaphthene		27	ug/L	40	67		40	140		
		3-nitroaniline		29	ug/L	40	72		40	140		
		2,4-dinitrophenol		< 50	ug/L							
		dibenzofuran		27	ug/L	40	68		40	140		
		4-nitrophenol		< 10	ug/L	40	23	*	30	130		
		fluorene		27	ug/L	40	68		40	140		
		diethyl phthalate		24	ug/L	40	60		40	140		
		4-chlorophenyl phenyl ether		27	ug/L	40	68		40	140		
		4-nitroaniline		27	ug/L	40	67		40	140		
		4,6-dinitro-2-methylphenol		26	ug/L	40	66		30	130		
		azobenzene		26	ug/L	40	64		40	140		
		N-nitrosodiphenylamine		36	ug/L	40	90		40	140		
		4-bromophenyl phenyl ether		29	ug/L	40	74		40	140		
		hexachlorobenzene		29	ug/L	40	73		40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCS11188	pentachlorophenol			30	ug/L	40	76	30	130		
		phenanthrene			30	ug/L	40	76	40	140		
		anthracene			30	ug/L	40	76	40	140		
		carbazole			29	ug/L	40	72	40	140		
		di-n-butylphthalate			30	ug/L	40	74	40	140		
		fluoranthene			27	ug/L	40	68	40	140		
		benzidine		<	30	ug/L						
		pyrene			31	ug/L	40	77	40	140		
		butyl benzyl phthalate			30	ug/L	40	76	40	140		
		benzo(a)anthracene			31	ug/L	40	78	40	140		
		chrysene			25	ug/L	40	63	40	140		
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate			31	ug/L	40	77	40	140		
		di-n-octyl phthalate			31	ug/L	40	78	40	140		
		benzo(b)fluoranthene			30	ug/L	40	74	40	140		
		benzo(k)fluoranthene			30	ug/L	40	76	40	140		
		benzo(a)pyrene			31	ug/L	40	78	40	140		
		indeno(1,2,3-cd)pyrene			28	ug/L	40	71	40	140		
		dibenzo(a,h)anthracene			19	ug/L	40	48	40	140		
		benzo(g,h,i)perylene			30	ug/L	40	75	40	140		
		2-fluorophenol SUR			38	%			21	100		
		phenol-D5 SUR			25	%			10	102		
		2,4,6-tribromophenol SUR			81	%			10	123		
		nitrobenzene-D5 SUR			45	%			35	114		
		2-fluorobiphenyl SUR			66	%			43	116		
		p-terphenyl-D14 SUR			73	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCSD11188	pyridine		13	ug/L	40	33		30	130	3	20
		N-nitrosodimethylamine		14	ug/L	40	35	*	40	140	1	20
		aniline		20	ug/L	40	50		40	140	2	20
		phenol		11	ug/L	40	27	*	30	130	6	20
		2-chlorophenol		28	ug/L	40	69		30	130	4	20
		bis(2-chloroethyl)ether		21	ug/L	40	52		40	140	2	20
		1,3-dichlorobenzene		20	ug/L	40	50		40	140	9	20
		1,4-dichlorobenzene		20	ug/L	40	51		40	140	9	20
		1,2-dichlorobenzene		22	ug/L	40	54		40	140	8	20
		benzyl alcohol		23	ug/L	40	58		30	130	6	20
		2-methylphenol		21	ug/L	40	52		30	130	6	20
		2,2'-oxybis(1-chloropropane)		31	ug/L	40	79		40	140	6	20
		hexachloroethane		16	ug/L	40	40		40	140	12	20
		N-nitroso-di-N-propylamine		20	ug/L	40	50		40	140	4	20
		4-methylphenol		21	ug/L	40	52		30	130	5	20
		nitrobenzene		20	ug/L	40	50		40	140	8	20
		isophorone		21	ug/L	40	53		40	140	2	20
		2-nitrophenol		27	ug/L	40	68		30	130	3	20
		2,4-dimethylphenol		26	ug/L	40	65		30	130	10	20
		bis(2-chloroethoxy)methane		23	ug/L	40	57		40	140	4	20
		2,4-dichlorophenol		27	ug/L	40	66		30	130	2	20
		1,2,4-trichlorobenzene		22	ug/L	40	54		40	140	7	20
		naphthalene		25	ug/L	40	63		40	140	7	20
		benzoic acid		< 50	ug/L							20
		4-chloroaniline		28	ug/L	40	70		40	140	1	20
		hexachlorobutadiene		18	ug/L	40	44		40	140	4	20
		4-chloro-3-methylphenol		23	ug/L	40	58		30	130	1	20
		2-methylnaphthalene		28	ug/L	40	69		40	140	3	20
		hexachlorocyclopentadiene		17	ug/L	40	42		40	140	2	20
		2,4,6-trichlorophenol		28	ug/L	40	70		30	130	1	20
		2,4,5-trichlorophenol		29	ug/L	40	72		30	130	5	20
		2-chloronaphthalene		27	ug/L	40	67		40	140	2	20
		2-nitroaniline		29	ug/L	40	72		40	140	2	20
		acenaphthylene		28	ug/L	40	69		40	140	0	20
		dimethylphthalate		17	ug/L	40	43		40	140	7	20
		2,6-dinitrotoluene		29	ug/L	40	73		40	140	2	20
		2,4-dinitrotoluene		27	ug/L	40	67		40	140	1	20
		acenaphthene		27	ug/L	40	69		40	140	3	20
		3-nitroaniline		29	ug/L	40	73		40	140	1	20
		2,4-dinitrophenol		< 50	ug/L							20
		dibenzofuran		28	ug/L	40	69		40	140	2	20
		4-nitrophenol		< 10	ug/L	40	22	*	30	130	3	20
		fluorene		27	ug/L	40	67		40	140	0	20
		diethyl phthalate		24	ug/L	40	60		40	140	1	20
		4-chlorophenyl phenyl ether		28	ug/L	40	69		40	140	2	20
		4-nitroaniline		28	ug/L	40	69		40	140	3	20
		4,6-dinitro-2-methylphenol		26	ug/L	40	66		30	130	1	20
		azobenzene		27	ug/L	40	67		40	140	3	20
		N-nitrosodiphenylamine		37	ug/L	40	92		40	140	2	20
		4-bromophenyl phenyl ether		31	ug/L	40	77		40	140	5	20
		hexachlorobenzene		30	ug/L	40	76		40	140	3	20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCSD11188	pentachlorophenol			30	ug/L	40	75	30	130	1	20
		phenanthrene			31	ug/L	40	78	40	140	3	20
		anthracene			31	ug/L	40	78	40	140	2	20
		carbazole			30	ug/L	40	75	40	140	5	20
		di-n-butylphthalate			31	ug/L	40	78	40	140	5	20
		fluoranthene			29	ug/L	40	72	40	140	7	20
		benzidine		<	30	ug/L						20
		pyrene			30	ug/L	40	76	40	140	2	20
		butyl benzyl phthalate			30	ug/L	40	75	40	140	1	20
		benzo(a)anthracene			31	ug/L	40	77	40	140	1	20
		chrysene			26	ug/L	40	64	40	140	2	20
		3,3'-dichlorobenzidine		<	30	ug/L						20
		bis(2-ethylhexyl)phthalate			30	ug/L	40	74	40	140	4	20
		di-n-octyl phthalate			30	ug/L	40	76	40	140	3	20
		benzo(b)fluoranthene			30	ug/L	40	75	40	140	2	20
		benzo(k)fluoranthene			31	ug/L	40	77	40	140	1	20
		benzo(a)pyrene			31	ug/L	40	79	40	140	1	20
		indeno(1,2,3-cd)pyrene			29	ug/L	40	71	40	140	1	20
		dibenzo(a,h)anthracene			19	ug/L	40	48	40	140	1	20
		benzo(g,h,i)perylene			30	ug/L	40	76	40	140	1	20
		2-fluorophenol SUR			38	%			21	100		
		phenol-D5 SUR			25	%			10	102		
		2,4,6-tribromophenol SUR			81	%			10	123		
		nitrobenzene-D5 SUR			47	%			35	114		
		2-fluorobiphenyl SUR			65	%			43	116		
		p-terphenyl-D14 SUR			72	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3005A6020A	BLK11207	Arsenic		<	0.005	mg/L						
		Manganese		<	0.01	mg/L						
SW3005A6020A	LCS11207	Arsenic			0.47	mg/L	0.5	94	80	120		
		Manganese			0.57	mg/L	0.5	114	80	120		
SW3005A6020A	LCSD11207	Arsenic			0.47	mg/L	0.5	93	80	120	1	20
		Manganese			0.56	mg/L	0.5	112	80	120	1	20

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

46638

Company Name: Dept. of Environmental Services, State of New Hampshire
Company Address: 29 Hazen Drive, P.O. Box 95
Report To: Michael Summerlin, P.E.
Phone #: (603) 271-3649
Invoice to Email: michael.summerlinjr@des.nh.gov
☐ Hard Copy Invoice Required

Project Name: Troy Mills Landfill Superfund Site
Project #: DES #198405082
Project Location: NH MA ME VT NY Other
Protocol: RCRA SDWA NPDES MCP NHDES OTHER
Reporting Limits: QAPP GW-1 S-1 EPA DW Other SAP
Quote # ☐ NH Reimbursement Pricing
PO # Contract No. 1051314 (2589-00 T)

ANALYSIS REQUEST

☒ VOC 8260 NHDES ☐ VOC 8260 MADEP ☐ VOC 8260 BTEX ☐ MtBE only ☐ VOC 8021VT ☐ VOC 624 ☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☒ 1,4-Dioxane 8260 SIM ☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List: ☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint ☐ 8270PAH ☒ 8270ABN ☐ 625 ☐ EDB ☐ 8082 PCB ☐ 8081 Pesticides ☐ ☐ O&G 1664 ☐ Mineral O&G SM5520F ☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity ☐ TSS ☐ TS ☐ TVS ☐ Alkalinity ☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☒ Hardness ☒ Total Metals-list: As, ~~Cd~~, ~~Cr~~, ~~Pb~~, Mn, ~~Ni~~ ☐ Dissolved Metals-list: ☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☒ TOC ☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN ☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P ☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride ☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP ☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide Subcontract: ☒ Grain Size ☐ Herbicides ☐ Formaldehyde Grab (G) or Composite (C)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER
46638-01	TRIP BLANK	1	X			X					11-06-18	0800	MB
-02	TRIP BLANK	2	X								11-06-18	0800	MB
-03	TRY_MW-803	6	X			X	X				11-06-18	0930	MB
-04	TRY_MW-804	6	X			X	X				11-06-18	1330	MB
-05	TRY_MW-804 DUP	4	X			X	X				11-06-18	1330	MB
-06	EQUIP BLANK	1	X								11-07-18	1430	MB

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ☒
*Date Needed _____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Please contact Tanya Justham at (603) 493-1548 for sample questions and Michael Summerlin for all others.
EQUIP BLANK for water level/804.

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) and Excel; Please send results to michael.summerlinjr@des.nh.gov and tanya.justham@gza.com
☐ HARD COPY REQUIRED ☐ FAX (FAX#) _____

RECEIVED ON ICE ☐ YES ☐ NO
TEMPERATURE 0 °C

CUSTODY RECORD
QSD-01 Revision 10/14/15

	Relinquished by Sampler:	Date	Time	Received by:	Date	Time
		11-8-18	1030 1510 0930		11/8/18	15:10
	Relinquished by:	Date	Time	Received by:	Date	Time
	Relinquished by:	Date	Time	Received by Laboratory:	Date	Time
		11/8/18	1705		11/8/18	17:05

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Michael Summerlin
NHDES-Superfund
29 Hazen Drive
Concord, NH 03301

PO Number: Contct#1061488(2589-
Job ID: 46654
Date Received: 11/9/18

Project: Troy Mills Landfill Superfund Site DES #198405082

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

Jennifer Lowe
Laboratory Manager

Date of Approval: 12/3/2018
Total number of pages: 44

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Troy Mills Landfill Superfund Site DES #198405082

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
TRIP BLANK	Water	11/7/2018 8:00	46654-001	
				VOCs in water by 8260 Petro & Haz Waste
TRY_SW-LEACHATE	Water	11/7/2018 11:25	46654-002	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Calcium in water by 6020
				Magnesium in water by 6020
				Manganese in water by 6020
				Total Hardness (includes Ca & Mg) by SM2340B
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_SW-LEACHATE DUP	Water	11/7/2018 11:25	46654-003	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Calcium in water by 6020
				Magnesium in water by 6020
				Manganese in water by 6020
				Total Hardness (includes Ca & Mg) by SM2340B
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_SW-LEACH-B	Water	11/7/2018 11:05	46654-004	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Calcium in water by 6020
				Magnesium in water by 6020
				Manganese in water by 6020
				Total Hardness (includes Ca & Mg) by SM2340B
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_SW-1	Water	11/7/2018 14:05	46654-005	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Calcium in water by 6020
				Magnesium in water by 6020
				Manganese in water by 6020
				Total Hardness (includes Ca & Mg) by SM2340B
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654

Sample#: 46654-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/7/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654

Sample#: 46654-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/7/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**95**	78-114	%	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
toluene-D8 SUR	**93**	88-110	%	1	LMM		1803287	11/13/18	13:40	SW5030C8260C
4-bromofluorobenzene SUR	**90**	86-115	%	1	LMM		1803287	11/13/18	13:40	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-002
Sample ID: TRY_SW-LEACHATE
Matrix: Water
Sampled: 11/7/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-002
Sample ID: TRY_SW-LEACHATE
Matrix: Water
Sampled: 11/7/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
isopropylbenzene	**7**	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
tert-butylbenzene	**2**	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
sec-butylbenzene	**8**	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
4-isopropyltoluene	**4**	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**97**	78-114	%	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
toluene-D8 SUR	**94**	88-110	%	1	LMM		1803287	11/13/18	15:25	SW5030C8260C
4-bromofluorobenzene SUR	**94**	86-115	%	1	LMM		1803287	11/13/18	15:25	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-003
Sample ID: TRY_SW-LEACHATE DUP
Matrix: Water
Sampled: 11/7/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-003
Sample ID: TRY_SW-LEACHATE DUP
Matrix: Water
Sampled: 11/7/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
isopropylbenzene	**8**	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
tert-butylbenzene	**2**	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
sec-butylbenzene	**9**	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
4-isopropyltoluene	**4**	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**93**	78-114	%	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
toluene-D8 SUR	**98**	88-110	%	1	LMM		1803278	11/14/18	4:52	SW5030C8260C
4-bromofluorobenzene SUR	**111**	86-115	%	1	LMM		1803278	11/14/18	4:52	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-004
Sample ID: TRY_SW-LEACH-B
Matrix: Water
Sampled: 11/7/18 11:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-004
Sample ID: TRY_SW-LEACH-B
Matrix: Water
Sampled: 11/7/18 11:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**92**	78-114	%	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
toluene-D8 SUR	**100**	88-110	%	1	LMM		1803278	11/14/18	5:17	SW5030C8260C
4-bromofluorobenzene SUR	**101**	86-115	%	1	LMM		1803278	11/14/18	5:17	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-005
Sample ID: TRY_SW-1
Matrix: Water
Sampled: 11/7/18 14:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-005
Sample ID: TRY_SW-1
Matrix: Water
Sampled: 11/7/18 14:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**96**	78-114	%	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
toluene-D8 SUR	**100**	88-110	%	1	LMM		1803278	11/14/18	5:43	SW5030C8260C
4-bromofluorobenzene SUR	**97**	86-115	%	1	LMM		1803278	11/14/18	5:43	SW5030C8260C

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-002
Sample ID: TRY_SW-LEACHATE
Matrix: Water
Sampled: 11/7/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-002
Sample ID: TRY_SW-LEACHATE
Matrix: Water
Sampled: 11/7/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**25**	21-100	%	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
phenol-D5 SUR	**19**	10-102	%	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
2,4,6-tribromophenol SUR	**65**	10-123	%	1	CL	11/12/18	11205	11/13/18	19:17	SW3510C8270D
nitrobenzene-D5 SUR	**48**	35-114	%	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
2-fluorobiphenyl SUR	**62**	43-116	%	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D
p-terphenyl-D14 SUR	**69**	33-141	%	1	CL	11/12/18	11205	11/13/18	19:47	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-003
Sample ID: TRY_SW-LEACHATE DUP
Matrix: Water
Sampled: 11/7/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-003
Sample ID: TRY_SW-LEACHATE DUP
Matrix: Water
Sampled: 11/7/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**23**	21-100	%	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
phenol-D5 SUR	**17**	10-102	%	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
2,4,6-tribromophenol SUR	**64**	10-123	%	1	CL	11/12/18	11205	11/13/18	20:17	SW3510C8270D
nitrobenzene-D5 SUR	**45**	35-114	%	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
2-fluorobiphenyl SUR	**62**	43-116	%	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D
p-terphenyl-D14 SUR	**64**	33-141	%	1	CL	11/12/18	11205	11/13/18	20:46	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-004
Sample ID: TRY_SW-LEACH-B
Matrix: Water
Sampled: 11/7/18 11:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-004
Sample ID: TRY_SW-LEACH-B
Matrix: Water
Sampled: 11/7/18 11:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**25**	21-100	%	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
phenol-D5 SUR	**13**	10-102	%	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
2,4,6-tribromophenol SUR	**72**	10-123	%	1	CL	11/12/18	11205	11/13/18	21:16	SW3510C8270D
nitrobenzene-D5 SUR	**47**	35-114	%	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
2-fluorobiphenyl SUR	**67**	43-116	%	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D
p-terphenyl-D14 SUR	**70**	33-141	%	1	CL	11/12/18	11205	11/13/18	21:46	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-005
Sample ID: TRY_SW-1
Matrix: Water
Sampled: 11/7/18 14:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082
Job ID: 46654
Sample#: 46654-005
Sample ID: TRY_SW-1
Matrix: Water
Sampled: 11/7/18 14:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**27**	21-100	%	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
phenol-D5 SUR	**14**	10-102	%	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
2,4,6-tribromophenol SUR	**71**	10-123	%	1	CL	11/12/18	11205	11/14/18	12:18	SW3510C8270D
nitrobenzene-D5 SUR	**48**	35-114	%	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
2-fluorobiphenyl SUR	**65**	43-116	%	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D
p-terphenyl-D14 SUR	**64**	33-141	%	1	CL	11/12/18	11205	11/14/18	12:48	SW3510C8270D

Project ID: Troy Mills Landfill Superfund Site DES #198405082

Job ID: 46654

Sample#: 46654-002

Sample ID: TRY_SW-LEACHATE

Matrix: Water

Sampled: 11/7/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/13/18	11207	11/22/18	1:11	SW3005A6020A
Calcium	**34**	0.5	mg/L	1	AGN	11/13/18	11207	11/22/18	1:11	SW3005A6020A
Magnesium	**4.8**	0.1	mg/L	1	AGN	11/13/18	11207	11/22/18	1:11	SW3005A6020A
Manganese	**3.3**	0.01	mg/L	1	AGN	11/13/18	11207	11/22/18	1:11	SW3005A6020A
Hardness (as CaCO3)	**110**	3	mg/L	1		11/13/18	11207			SM2340B

Sample#: 46654-003

Sample ID: TRY_SW-LEACHATE DUP

Matrix: Water

Sampled: 11/7/18 11:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/13/18	11207	11/22/18	1:18	SW3005A6020A
Calcium	**34**	0.5	mg/L	1	AGN	11/13/18	11207	11/22/18	1:18	SW3005A6020A
Magnesium	**4.8**	0.1	mg/L	1	AGN	11/13/18	11207	11/22/18	1:18	SW3005A6020A
Manganese	**3.4**	0.01	mg/L	1	AGN	11/13/18	11207	11/22/18	1:18	SW3005A6020A
Hardness (as CaCO3)	**110**	3	mg/L	1		11/13/18	11207			SM2340B

Sample#: 46654-004

Sample ID: TRY_SW-LEACH-B

Matrix: Water

Sampled: 11/7/18 11:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/13/18	11207	11/22/18	1:44	SW3005A6020A
Calcium	**6.7**	0.5	mg/L	1	AGN	11/13/18	11207	11/22/18	1:44	SW3005A6020A
Magnesium	**1.0**	0.1	mg/L	1	AGN	11/13/18	11207	11/22/18	1:44	SW3005A6020A
Manganese	**0.09**	0.01	mg/L	1	AGN	11/13/18	11207	11/22/18	1:44	SW3005A6020A
Hardness (as CaCO3)	**21**	3	mg/L	1		11/13/18	11207			SM2340B

Sample#: 46654-005

Sample ID: TRY_SW-1

Matrix: Water

Sampled: 11/7/18 14:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/13/18	11207	11/22/18	1:50	SW3005A6020A
Calcium	**1.1**	0.5	mg/L	1	AGN	11/13/18	11207	11/22/18	1:50	SW3005A6020A
Magnesium	**0.3**	0.1	mg/L	1	AGN	11/13/18	11207	11/22/18	1:50	SW3005A6020A
Manganese	**0.02**	0.01	mg/L	1	AGN	11/13/18	11207	11/22/18	1:50	SW3005A6020A
Hardness (as CaCO3)	**4**	3	mg/L	1		11/13/18	11207			SM2340B

Quality Control Report



124 Heritage Avenue Unit 16
Portsmouth, NH 03801
www.absoluteresourceassociates.com

Absolute Resource
associates

Case Narrative
Lab # 46654

Sample Receiving and Chain of Custody Discrepancies

Samples were received in acceptable condition, at 0 degrees C, on ice, and in accordance with sample handling, preservation and integrity guidelines.

Calibration

No exceptions noted.

Method Blank

No exceptions noted.

Surrogate Recoveries

No exceptions noted.

Laboratory Control Sample Results

VOC: The LCS/D1803278 did not meet the acceptance criteria for bromomethane. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.
VOC: The LCS/D1803287 did not meet the acceptance criteria for bromomethane. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.
SVOC: The LCS11205 did not meet the acceptance criteria for pyridine, N-nitrosodimethylamine, phenol, hexachlorocyclopentadiene, and 4-nitrophenol. The LCSD11205 did not meet the acceptance criteria for pyridine, N-nitrosodimethylamine, phenol, and 4-nitrophenol. The relative percent difference between the LCS and LCSD11205 was outside the acceptance criteria hexachlorocyclopentadiene, indeno(1,2,3-cd)pyrene, and benzo(g,h,i)perylene. Since <20% of the compounds were outside of the acceptance criteria, reanalysis is not required.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

Not requested for this project.

Other

The reported results have undergone the standard process of review for data quality. The final report meets the reporting and documentation requirements of the contract.

Jennifer Guerette QA Officer

Reporting Limits: Dilutions performed during the analysis are noted on the result pages.

No other exceptions noted.

GLOSSARY

%R	Percent Recovery
BLK	Blank (Method Blank, Preparation Blank)
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
Dil'n	Dilution
DL	Detection Limit
DUP	Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MB	Methanol Blank (associated with solid VOC samples)
MLCS	Methanol Laboratory Control Sample (associated with solid VOC samples)
MLCSD	Methanol Laboratory Control Sample Duplicate (associated with solid VOC samples)
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PB	Preparation Blank
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SUR	Surrogate

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803278	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803278	bromoform		<	2	ug/L						
		isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			92	%			78	114		
		toluene-D8 SUR			97	%			88	110		
		4-bromofluorobenzene SUR			98	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCS1803278	dichlorodifluoromethane		15	ug/L	20	75		70	130		
		chloromethane		17	ug/L	20	83		70	130		
		vinyl chloride		22	ug/L	20	110		70	130		
		bromomethane		11	ug/L	20	54	*	70	130		
		chloroethane		18	ug/L	20	90		70	130		
		trichlorofluoromethane		18	ug/L	20	92		70	130		
		diethyl ether		21	ug/L	20	105		70	130		
		acetone		20	ug/L	20	100		70	130		
		1,1-dichloroethene		18	ug/L	20	92		70	130		
		methylene chloride		20	ug/L	20	101		70	130		
		carbon disulfide		14	ug/L	20	72		70	130		
		methyl t-butyl ether (MTBE)		16	ug/L	20	82		70	130		
		trans-1,2-dichloroethene		19	ug/L	20	94		70	130		
		isopropyl ether (DIPE)		17	ug/L	20	84		70	130		
		ethyl t-butyl ether (ETBE)		17	ug/L	20	83		70	130		
		1,1-dichloroethane		19	ug/L	20	96		70	130		
		t-butanol (TBA)		88	ug/L	100	88		70	130		
		2-butanone (MEK)		17	ug/L	20	85		70	130		
		2,2-dichloropropane		17	ug/L	20	86		70	130		
		cis-1,2-dichloroethene		19	ug/L	20	94		70	130		
		chloroform		19	ug/L	20	97		70	130		
		bromochloromethane		18	ug/L	20	92		70	130		
		tetrahydrofuran (THF)		20	ug/L	20	101		70	130		
		1,1,1-trichloroethane		18	ug/L	20	90		70	130		
		1,1-dichloropropene		19	ug/L	20	94		70	130		
		t-amyl-methyl ether (TAME)		17	ug/L	20	87		70	130		
		carbon tetrachloride		17	ug/L	20	87		70	130		
		1,2-dichloroethane		18	ug/L	20	91		70	130		
		benzene		19	ug/L	20	93		70	130		
		trichloroethene		19	ug/L	20	96		70	130		
		1,2-dichloropropane		20	ug/L	20	99		70	130		
		bromodichloromethane		18	ug/L	20	88		70	130		
		1,4-dioxane		< 50	ug/L	40	77		70	130		
		dibromomethane		18	ug/L	20	91		70	130		
		4-methyl-2-pentanone (MIBK)		17	ug/L	20	87		70	130		
		cis-1,3-dichloropropene		19	ug/L	20	94		70	130		
		toluene		20	ug/L	20	99		70	130		
		trans-1,3-dichloropropene		19	ug/L	20	94		70	130		
		2-hexanone		18	ug/L	20	91		70	130		
		1,1,2-trichloroethane		19	ug/L	20	93		70	130		
		1,3-dichloropropane		19	ug/L	20	97		70	130		
		tetrachloroethene		18	ug/L	20	91		70	130		
		dibromochloromethane		16	ug/L	20	81		70	130		
		1,2-dibromoethane (EDB)		19	ug/L	20	94		70	130		
		chlorobenzene		17	ug/L	20	87		70	130		
		1,1,1,2-tetrachloroethane		19	ug/L	20	93		70	130		
		ethylbenzene		20	ug/L	20	99		70	130		
		m&p-xylenes		40	ug/L	40	101		70	130		
		o-xylene		17	ug/L	20	84		70	130		
		styrene		19	ug/L	20	93		70	130		
		bromoform		16	ug/L	20	78		70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803278	isopropylbenzene		20	ug/L	20	98	70	130		
		1,1,2,2-tetrachloroethane		21	ug/L	20	107	70	130		
		1,2,3-trichloropropane		23	ug/L	20	113	70	130		
		n-propylbenzene		22	ug/L	20	109	70	130		
		bromobenzene		20	ug/L	20	100	70	130		
		1,3,5-trimethylbenzene		22	ug/L	20	108	70	130		
		2-chlorotoluene		21	ug/L	20	104	70	130		
		4-chlorotoluene		22	ug/L	20	108	70	130		
		tert-butylbenzene		21	ug/L	20	107	70	130		
		1,2,4-trimethylbenzene		21	ug/L	20	105	70	130		
		sec-butylbenzene		21	ug/L	20	105	70	130		
		1,3-dichlorobenzene		19	ug/L	20	96	70	130		
		4-isopropyltoluene		22	ug/L	20	109	70	130		
		1,4-dichlorobenzene		19	ug/L	20	96	70	130		
		1,2-dichlorobenzene		20	ug/L	20	99	70	130		
		n-butylbenzene		20	ug/L	20	101	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		20	ug/L	20	101	70	130		
		1,2,4-trichlorobenzene		20	ug/L	20	102	70	130		
		1,3,5-trichlorobenzene		20	ug/L	20	102	70	130		
		hexachlorobutadiene		23	ug/L	20	116	70	130		
		naphthalene		22	ug/L	20	109	70	130		
		1,2,3-trichlorobenzene		20	ug/L	20	100	70	130		
		dibromofluoromethane SUR		96	%			78	114		
		toluene-D8 SUR		104	%			88	110		
		4-bromofluorobenzene SUR		105	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803278	dichlorodifluoromethane		14	ug/L	20	71		70	130	4	20
		chloromethane		17	ug/L	20	83		70	130	1	20
		vinyl chloride		21	ug/L	20	107		70	130	3	20
		bromomethane		11	ug/L	20	55	*	70	130	1	20
		chloroethane		18	ug/L	20	91		70	130	1	20
		trichlorofluoromethane		18	ug/L	20	92		70	130	0	20
		diethyl ether		21	ug/L	20	104		70	130	2	20
		acetone		22	ug/L	20	109		70	130	9	20
		1,1-dichloroethene		19	ug/L	20	93		70	130	2	20
		methylene chloride		20	ug/L	20	102		70	130	1	20
		carbon disulfide		15	ug/L	20	77		70	130	7	20
		methyl t-butyl ether (MTBE)		17	ug/L	20	86		70	130	6	20
		trans-1,2-dichloroethene		19	ug/L	20	94		70	130	1	20
		isopropyl ether (DIPE)		17	ug/L	20	87		70	130	4	20
		ethyl t-butyl ether (ETBE)		18	ug/L	20	88		70	130	6	20
		1,1-dichloroethane		20	ug/L	20	98		70	130	2	20
		t-butanol (TBA)		110	ug/L	100	106		70	130	18	20
		2-butanone (MEK)		21	ug/L	20	103		70	130	19	20
		2,2-dichloropropane		17	ug/L	20	87		70	130	0	20
		cis-1,2-dichloroethene		19	ug/L	20	96		70	130	2	20
		chloroform		20	ug/L	20	99		70	130	2	20
		bromochloromethane		18	ug/L	20	91		70	130	1	20
		tetrahydrofuran (THF)		21	ug/L	20	106		70	130	5	20
		1,1,1-trichloroethane		18	ug/L	20	89		70	130	1	20
		1,1-dichloropropene		19	ug/L	20	97		70	130	3	20
		t-amyl-methyl ether (TAME)		18	ug/L	20	92		70	130	5	20
		carbon tetrachloride		17	ug/L	20	87		70	130	0	20
		1,2-dichloroethane		18	ug/L	20	92		70	130	2	20
		benzene		19	ug/L	20	93		70	130	1	20
		trichloroethene		19	ug/L	20	95		70	130	1	20
		1,2-dichloropropane		21	ug/L	20	103		70	130	3	20
		bromodichloromethane		18	ug/L	20	91		70	130	4	20
		1,4-dioxane		< 50	ug/L	40	92		70	130	17	20
		dibromomethane		19	ug/L	20	95		70	130	5	20
		4-methyl-2-pentanone (MIBK)		18	ug/L	20	92		70	130	5	20
		cis-1,3-dichloropropene		19	ug/L	20	96		70	130	2	20
		toluene		20	ug/L	20	99		70	130	0	20
		trans-1,3-dichloropropene		20	ug/L	20	98		70	130	5	20
		2-hexanone		20	ug/L	20	99		70	130	8	20
		1,1,2-trichloroethane		19	ug/L	20	94		70	130	1	20
		1,3-dichloropropane		21	ug/L	20	107		70	130	10	20
		tetrachloroethene		19	ug/L	20	97		70	130	6	20
		dibromochloromethane		19	ug/L	20	94		70	130	15	20
		1,2-dibromoethane (EDB)		21	ug/L	20	106		70	130	12	20
		chlorobenzene		19	ug/L	20	95		70	130	8	20
		1,1,1,2-tetrachloroethane		21	ug/L	20	103		70	130	10	20
		ethylbenzene		22	ug/L	20	108		70	130	8	20
		m&p-xylenes		43	ug/L	40	109		70	130	7	20
		o-xylene		19	ug/L	20	93		70	130	11	20
		styrene		20	ug/L	20	102		70	130	9	20
		bromoform		18	ug/L	20	89		70	130	12	20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803278	isopropylbenzene		21	ug/L	20	105	70	130	6	20
		1,1,2,2-tetrachloroethane		23	ug/L	20	113	70	130	6	20
		1,2,3-trichloropropane		24	ug/L	20	121	70	130	7	20
		n-propylbenzene		22	ug/L	20	112	70	130	3	20
		bromobenzene		21	ug/L	20	103	70	130	4	20
		1,3,5-trimethylbenzene		22	ug/L	20	110	70	130	2	20
		2-chlorotoluene		22	ug/L	20	108	70	130	4	20
		4-chlorotoluene		23	ug/L	20	113	70	130	5	20
		tert-butylbenzene		22	ug/L	20	108	70	130	1	20
		1,2,4-trimethylbenzene		22	ug/L	20	108	70	130	3	20
		sec-butylbenzene		21	ug/L	20	106	70	130	1	20
		1,3-dichlorobenzene		20	ug/L	20	98	70	130	3	20
		4-isopropyltoluene		22	ug/L	20	111	70	130	2	20
		1,4-dichlorobenzene		20	ug/L	20	101	70	130	5	20
		1,2-dichlorobenzene		20	ug/L	20	101	70	130	2	20
		n-butylbenzene		20	ug/L	20	101	70	130	1	20
		1,2-dibromo-3-chloropropane (DBCP)		23	ug/L	20	113	70	130	11	20
		1,2,4-trichlorobenzene		22	ug/L	20	108	70	130	5	20
		1,3,5-trichlorobenzene		20	ug/L	20	99	70	130	3	20
		hexachlorobutadiene		23	ug/L	20	117	70	130	1	20
		naphthalene		25	ug/L	20	127	70	130	15	20
		1,2,3-trichlorobenzene		23	ug/L	20	115	70	130	13	20
		dibromofluoromethane SUR		97	%			78	114		
		toluene-D8 SUR		102	%			88	110		
		4-bromofluorobenzene SUR		112	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803287	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					
		bromoform		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803287	isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			91	%			78	114		
		toluene-D8 SUR			93	%			88	110		
		4-bromofluorobenzene SUR			90	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCS1803287	dichlorodifluoromethane		15	ug/L	20	76		70	130		
		chloromethane		17	ug/L	20	86		70	130		
		vinyl chloride		21	ug/L	20	106		70	130		
		bromomethane		10	ug/L	20	50	*	70	130		
		chloroethane		19	ug/L	20	95		70	130		
		trichlorofluoromethane		19	ug/L	20	94		70	130		
		diethyl ether		22	ug/L	20	112		70	130		
		acetone		22	ug/L	20	108		70	130		
		1,1-dichloroethene		19	ug/L	20	95		70	130		
		methylene chloride		21	ug/L	20	107		70	130		
		carbon disulfide		14	ug/L	20	72		70	130		
		methyl t-butyl ether (MTBE)		18	ug/L	20	88		70	130		
		trans-1,2-dichloroethene		19	ug/L	20	97		70	130		
		isopropyl ether (DIPE)		18	ug/L	20	90		70	130		
		ethyl t-butyl ether (ETBE)		18	ug/L	20	92		70	130		
		1,1-dichloroethane		20	ug/L	20	99		70	130		
		t-butanol (TBA)		93	ug/L	100	93		70	130		
		2-butanone (MEK)		19	ug/L	20	96		70	130		
		2,2-dichloropropane		16	ug/L	20	80		70	130		
		cis-1,2-dichloroethene		20	ug/L	20	98		70	130		
		chloroform		19	ug/L	20	97		70	130		
		bromochloromethane		20	ug/L	20	98		70	130		
		tetrahydrofuran (THF)		20	ug/L	20	102		70	130		
		1,1,1-trichloroethane		18	ug/L	20	90		70	130		
		1,1-dichloropropene		19	ug/L	20	96		70	130		
		t-amyl-methyl ether (TAME)		19	ug/L	20	93		70	130		
		carbon tetrachloride		18	ug/L	20	88		70	130		
		1,2-dichloroethane		19	ug/L	20	94		70	130		
		benzene		19	ug/L	20	95		70	130		
		trichloroethene		20	ug/L	20	99		70	130		
		1,2-dichloropropane		21	ug/L	20	107		70	130		
		bromodichloromethane		18	ug/L	20	90		70	130		
		1,4-dioxane		< 50	ug/L	40	98		70	130		
		dibromomethane		19	ug/L	20	97		70	130		
		4-methyl-2-pentanone (MIBK)		18	ug/L	20	91		70	130		
		cis-1,3-dichloropropene		19	ug/L	20	96		70	130		
		toluene		21	ug/L	20	103		70	130		
		trans-1,3-dichloropropene		20	ug/L	20	98		70	130		
		2-hexanone		19	ug/L	20	94		70	130		
		1,1,2-trichloroethane		19	ug/L	20	97		70	130		
		1,3-dichloropropane		21	ug/L	20	104		70	130		
		tetrachloroethene		19	ug/L	20	95		70	130		
		dibromochloromethane		17	ug/L	20	85		70	130		
		1,2-dibromoethane (EDB)		20	ug/L	20	101		70	130		
		chlorobenzene		19	ug/L	20	93		70	130		
		1,1,1,2-tetrachloroethane		20	ug/L	20	99		70	130		
		ethylbenzene		21	ug/L	20	104		70	130		
		m&p-xylenes		43	ug/L	40	107		70	130		
		o-xylene		18	ug/L	20	91		70	130		
		styrene		20	ug/L	20	100		70	130		
		bromoform		17	ug/L	20	84		70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803287	isopropylbenzene		20	ug/L	20	102	70	130		
		1,1,2,2-tetrachloroethane		22	ug/L	20	109	70	130		
		1,2,3-trichloropropane		24	ug/L	20	120	70	130		
		n-propylbenzene		22	ug/L	20	109	70	130		
		bromobenzene		21	ug/L	20	103	70	130		
		1,3,5-trimethylbenzene		22	ug/L	20	109	70	130		
		2-chlorotoluene		21	ug/L	20	104	70	130		
		4-chlorotoluene		22	ug/L	20	111	70	130		
		tert-butylbenzene		21	ug/L	20	106	70	130		
		1,2,4-trimethylbenzene		21	ug/L	20	106	70	130		
		sec-butylbenzene		21	ug/L	20	104	70	130		
		1,3-dichlorobenzene		20	ug/L	20	98	70	130		
		4-isopropyltoluene		22	ug/L	20	108	70	130		
		1,4-dichlorobenzene		20	ug/L	20	100	70	130		
		1,2-dichlorobenzene		20	ug/L	20	100	70	130		
		n-butylbenzene		20	ug/L	20	100	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		20	ug/L	20	100	70	130		
		1,2,4-trichlorobenzene		21	ug/L	20	105	70	130		
		1,3,5-trichlorobenzene		20	ug/L	20	101	70	130		
		hexachlorobutadiene		23	ug/L	20	113	70	130		
		naphthalene		23	ug/L	20	115	70	130		
		1,2,3-trichlorobenzene		21	ug/L	20	105	70	130		
		dibromofluoromethane SUR		95	%			78	114		
		toluene-D8 SUR		98	%			88	110		
		4-bromofluorobenzene SUR		96	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803287	dichlorodifluoromethane		14	ug/L	20	71		70	130	7	20
		chloromethane		15	ug/L	20	73		70	130	15	20
		vinyl chloride		19	ug/L	20	97		70	130	9	20
		bromomethane		10	ug/L	20	50	*	70	130	2	20
		chloroethane		18	ug/L	20	88		70	130	8	20
		trichlorofluoromethane		18	ug/L	20	90		70	130	5	20
		diethyl ether		21	ug/L	20	105		70	130	7	20
		acetone		20	ug/L	20	102		70	130	5	20
		1,1-dichloroethene		18	ug/L	20	92		70	130	4	20
		methylene chloride		20	ug/L	20	101		70	130	6	20
		carbon disulfide		15	ug/L	20	73		70	130	2	20
		methyl t-butyl ether (MTBE)		17	ug/L	20	84		70	130	4	20
		trans-1,2-dichloroethene		18	ug/L	20	91		70	130	6	20
		isopropyl ether (DIPE)		16	ug/L	20	82		70	130	9	20
		ethyl t-butyl ether (ETBE)		17	ug/L	20	85		70	130	8	20
		1,1-dichloroethane		19	ug/L	20	94		70	130	5	20
		t-butanol (TBA)		87	ug/L	100	87		70	130	6	20
		2-butanone (MEK)		18	ug/L	20	91		70	130	5	20
		2,2-dichloropropane		15	ug/L	20	76		70	130	6	20
		cis-1,2-dichloroethene		18	ug/L	20	91		70	130	7	20
		chloroform		19	ug/L	20	94		70	130	2	20
		bromochloromethane		17	ug/L	20	87		70	130	11	20
		tetrahydrofuran (THF)		19	ug/L	20	95		70	130	7	20
		1,1,1-trichloroethane		17	ug/L	20	86		70	130	5	20
		1,1-dichloropropene		18	ug/L	20	90		70	130	6	20
		t-amyl-methyl ether (TAME)		17	ug/L	20	87		70	130	7	20
		carbon tetrachloride		17	ug/L	20	84		70	130	4	20
		1,2-dichloroethane		18	ug/L	20	90		70	130	5	20
		benzene		18	ug/L	20	89		70	130	7	20
		trichloroethene		19	ug/L	20	96		70	130	3	20
		1,2-dichloropropane		20	ug/L	20	99		70	130	8	20
		bromodichloromethane		17	ug/L	20	86		70	130	5	20
		1,4-dioxane		< 50	ug/L	40	87		70	130	11	20
		dibromomethane		18	ug/L	20	89		70	130	8	20
		4-methyl-2-pentanone (MIBK)		18	ug/L	20	88		70	130	3	20
		cis-1,3-dichloropropene		18	ug/L	20	92		70	130	5	20
		toluene		19	ug/L	20	95		70	130	8	20
		trans-1,3-dichloropropene		19	ug/L	20	94		70	130	4	20
		2-hexanone		19	ug/L	20	93		70	130	1	20
		1,1,2-trichloroethane		18	ug/L	20	92		70	130	6	20
		1,3-dichloropropane		21	ug/L	20	105		70	130	1	20
		tetrachloroethene		18	ug/L	20	92		70	130	3	20
		dibromochloromethane		17	ug/L	20	87		70	130	3	20
		1,2-dibromoethane (EDB)		20	ug/L	20	100		70	130	1	20
		chlorobenzene		18	ug/L	20	90		70	130	3	20
		1,1,1,2-tetrachloroethane		19	ug/L	20	96		70	130	3	20
		ethylbenzene		20	ug/L	20	102		70	130	3	20
		m&p-xylenes		41	ug/L	40	104		70	130	3	20
		o-xylene		18	ug/L	20	89		70	130	3	20
		styrene		19	ug/L	20	97		70	130	3	20
		bromoform		16	ug/L	20	81		70	130	3	20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803287	isopropylbenzene		20	ug/L	20	100	70	130	2	20
		1,1,2,2-tetrachloroethane		20	ug/L	20	100	70	130	8	20
		1,2,3-trichloropropane		22	ug/L	20	109	70	130	10	20
		n-propylbenzene		21	ug/L	20	105	70	130	3	20
		bromobenzene		20	ug/L	20	98	70	130	4	20
		1,3,5-trimethylbenzene		21	ug/L	20	103	70	130	6	20
		2-chlorotoluene		20	ug/L	20	102	70	130	3	20
		4-chlorotoluene		21	ug/L	20	106	70	130	5	20
		tert-butylbenzene		21	ug/L	20	103	70	130	3	20
		1,2,4-trimethylbenzene		20	ug/L	20	102	70	130	4	20
		sec-butylbenzene		20	ug/L	20	99	70	130	5	20
		1,3-dichlorobenzene		19	ug/L	20	93	70	130	5	20
		4-isopropyltoluene		21	ug/L	20	106	70	130	2	20
		1,4-dichlorobenzene		19	ug/L	20	96	70	130	3	20
		1,2-dichlorobenzene		19	ug/L	20	97	70	130	3	20
		n-butylbenzene		20	ug/L	20	98	70	130	2	20
		1,2-dibromo-3-chloropropane (DBCP)		21	ug/L	20	103	70	130	2	20
		1,2,4-trichlorobenzene		20	ug/L	20	101	70	130	4	20
		1,3,5-trichlorobenzene		19	ug/L	20	96	70	130	5	20
		hexachlorobutadiene		22	ug/L	20	110	70	130	3	20
		naphthalene		22	ug/L	20	110	70	130	4	20
		1,2,3-trichlorobenzene		20	ug/L	20	102	70	130	3	20
		dibromofluoromethane SUR		96	%			78	114		
		toluene-D8 SUR		96	%			88	110		
		4-bromofluorobenzene SUR		96	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW3510C8270D	BLK11205	pyridine		<	2	ug/L					
		N-nitrosodimethylamine		<	2	ug/L					
		aniline		<	2	ug/L					
		phenol		<	2	ug/L					
		2-chlorophenol		<	5	ug/L					
		bis(2-chloroethyl)ether		<	2	ug/L					
		1,3-dichlorobenzene		<	2	ug/L					
		1,4-dichlorobenzene		<	2	ug/L					
		1,2-dichlorobenzene		<	2	ug/L					
		benzyl alcohol		<	2	ug/L					
		2-methylphenol		<	5	ug/L					
		2,2'-oxybis(1-chloropropane)		<	2	ug/L					
		hexachloroethane		<	2	ug/L					
		N-nitroso-di-N-propylamine		<	2	ug/L					
		4-methylphenol		<	2	ug/L					
		nitrobenzene		<	2	ug/L					
		isophorone		<	5	ug/L					
		2-nitrophenol		<	2	ug/L					
		2,4-dimethylphenol		<	5	ug/L					
		bis(2-chloroethoxy)methane		<	5	ug/L					
		2,4-dichlorophenol		<	5	ug/L					
		1,2,4-trichlorobenzene		<	5	ug/L					
		naphthalene		<	0.5	ug/L					
		benzoic acid		<	50	ug/L					
		4-chloroaniline		<	2	ug/L					
		hexachlorobutadiene		<	2	ug/L					
		4-chloro-3-methylphenol		<	2	ug/L					
		2-methylnaphthalene		<	0.5	ug/L					
		hexachlorocyclopentadiene		<	10	ug/L					
		2,4,6-trichlorophenol		<	2	ug/L					
		2,4,5-trichlorophenol		<	2	ug/L					
		2-chloronaphthalene		<	5	ug/L					
		2-nitroaniline		<	2	ug/L					
		acenaphthylene		<	0.5	ug/L					
		dimethylphthalate		<	5	ug/L					
		2,6-dinitrotoluene		<	5	ug/L					
		2,4-dinitrotoluene		<	5	ug/L					
		acenaphthene		<	0.5	ug/L					
		3-nitroaniline		<	2	ug/L					
		2,4-dinitrophenol		<	50	ug/L					
		dibenzofuran		<	0.5	ug/L					
		4-nitrophenol		<	10	ug/L					
		fluorene		<	0.5	ug/L					
		diethyl phthalate		<	5	ug/L					
		4-chlorophenyl phenyl ether		<	5	ug/L					
		4-nitroaniline		<	5	ug/L					
		4,6-dinitro-2-methylphenol		<	20	ug/L					
		azobenzene		<	2	ug/L					
		N-nitrosodiphenylamine		<	2	ug/L					
		4-bromophenyl phenyl ether		<	2	ug/L					
		hexachlorobenzene		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	BLK11205	pentachlorophenol		<	10	ug/L						
		phenanthrene		<	0.5	ug/L						
		anthracene		<	0.5	ug/L						
		carbazole		<	2	ug/L						
		di-n-butylphthalate		<	5	ug/L						
		fluoranthene		<	0.5	ug/L						
		benzidine		<	30	ug/L						
		pyrene		<	0.5	ug/L						
		butyl benzyl phthalate		<	5	ug/L						
		benzo(a)anthracene		<	0.5	ug/L						
		chrysene		<	0.5	ug/L						
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate		<	5	ug/L						
		di-n-octyl phthalate		<	5	ug/L						
		benzo(b)fluoranthene		<	0.5	ug/L						
		benzo(k)fluoranthene		<	0.5	ug/L						
		benzo(a)pyrene		<	0.2	ug/L						
		indeno(1,2,3-cd)pyrene		<	0.5	ug/L						
		dibenzo(a,h)anthracene		<	0.5	ug/L						
		benzo(g,h,i)perylene		<	0.5	ug/L						
		2-fluorophenol SUR			26	%			21	100		
		phenol-D5 SUR			14	%			10	102		
		2,4,6-tribromophenol SUR			67	%			10	123		
		nitrobenzene-D5 SUR			45	%			35	114		
		2-fluorobiphenyl SUR			63	%			43	116		
		p-terphenyl-D14 SUR			69	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCS11205	pyridine		9.9	ug/L	40	25	*	30	130		
		N-nitrosodimethylamine		11	ug/L	40	28	*	40	140		
		aniline		24	ug/L	40	59		40	140		
		phenol		7	ug/L	40	18	*	30	130		
		2-chlorophenol		28	ug/L	40	70		30	130		
		bis(2-chloroethyl)ether		29	ug/L	40	73		40	140		
		1,3-dichlorobenzene		28	ug/L	40	71		40	140		
		1,4-dichlorobenzene		29	ug/L	40	74		40	140		
		1,2-dichlorobenzene		31	ug/L	40	78		40	140		
		benzyl alcohol		22	ug/L	40	56		30	130		
		2-methylphenol		22	ug/L	40	54		30	130		
		2,2'-oxybis(1-chloropropane)		45	ug/L	40	112		40	140		
		hexachloroethane		24	ug/L	40	60		40	140		
		N-nitroso-di-N-propylamine		30	ug/L	40	74		40	140		
		4-methylphenol		20	ug/L	40	49		30	130		
		nitrobenzene		22	ug/L	40	56		40	140		
		isophorone		26	ug/L	40	64		40	140		
		2-nitrophenol		27	ug/L	40	68		30	130		
		2,4-dimethylphenol		28	ug/L	40	70		30	130		
		bis(2-chloroethoxy)methane		28	ug/L	40	69		40	140		
		2,4-dichlorophenol		29	ug/L	40	72		30	130		
		1,2,4-trichlorobenzene		26	ug/L	40	64		40	140		
		naphthalene		31	ug/L	40	79		40	140		
		benzoic acid		< 50	ug/L							
		4-chloroaniline		36	ug/L	40	89		40	140		
		hexachlorobutadiene		22	ug/L	40	55		40	140		
		4-chloro-3-methylphenol		27	ug/L	40	66		30	130		
		2-methylnaphthalene		35	ug/L	40	88		40	140		
		hexachlorocyclopentadiene		14	ug/L	40	35	*	40	140		
		2,4,6-trichlorophenol		28	ug/L	40	70		30	130		
		2,4,5-trichlorophenol		30	ug/L	40	75		30	130		
		2-chloronaphthalene		29	ug/L	40	73		40	140		
		2-nitroaniline		32	ug/L	40	80		40	140		
		acenaphthylene		32	ug/L	40	80		40	140		
		dimethylphthalate		27	ug/L	40	69		40	140		
		2,6-dinitrotoluene		35	ug/L	40	87		40	140		
		2,4-dinitrotoluene		31	ug/L	40	78		40	140		
		acenaphthene		32	ug/L	40	80		40	140		
		3-nitroaniline		32	ug/L	40	81		40	140		
		2,4-dinitrophenol		< 50	ug/L							
		dibenzofuran		32	ug/L	40	80		40	140		
		4-nitrophenol		< 10	ug/L	40	16	*	30	130		
		fluorene		32	ug/L	40	81		40	140		
		diethyl phthalate		31	ug/L	40	78		40	140		
		4-chlorophenyl phenyl ether		33	ug/L	40	82		40	140		
		4-nitroaniline		29	ug/L	40	74		40	140		
		4,6-dinitro-2-methylphenol		23	ug/L	40	59		30	130		
		azobenzene		29	ug/L	40	73		40	140		
		N-nitrosodiphenylamine		42	ug/L	40	106		40	140		
		4-bromophenyl phenyl ether		34	ug/L	40	86		40	140		
		hexachlorobenzene		35	ug/L	40	87		40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCS11205	pentachlorophenol			29	ug/L	40	72	30	130		
		phenanthrene			37	ug/L	40	92	40	140		
		anthracene			35	ug/L	40	88	40	140		
		carbazole			35	ug/L	40	88	40	140		
		di-n-butylphthalate			36	ug/L	40	91	40	140		
		fluoranthene			34	ug/L	40	86	40	140		
		benzidine		<	30	ug/L						
		pyrene			31	ug/L	40	78	40	140		
		butyl benzyl phthalate			32	ug/L	40	80	40	140		
		benzo(a)anthracene			35	ug/L	40	88	40	140		
		chrysene			28	ug/L	40	71	40	140		
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate			35	ug/L	40	87	40	140		
		di-n-octyl phthalate			29	ug/L	40	73	40	140		
		benzo(b)fluoranthene			32	ug/L	40	79	40	140		
		benzo(k)fluoranthene			33	ug/L	40	83	40	140		
		benzo(a)pyrene			35	ug/L	40	87	40	140		
		indeno(1,2,3-cd)pyrene			40	ug/L	40	100	40	140		
		dibenzo(a,h)anthracene			26	ug/L	40	65	40	140		
		benzo(g,h,i)perylene			43	ug/L	40	107	40	140		
		2-fluorophenol SUR			27	%			21	100		
		phenol-D5 SUR			16	%			10	102		
		2,4,6-tribromophenol SUR			81	%			10	123		
		nitrobenzene-D5 SUR			51	%			35	114		
		2-fluorobiphenyl SUR			66	%			43	116		
		p-terphenyl-D14 SUR			72	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD		RPD Limit
SW3510C8270D	LCSD11205	pyridine		10	ug/L	40	26	*	30	130	3		20
		N-nitrosodimethylamine		11	ug/L	40	27	*	40	140	4		20
		aniline		23	ug/L	40	57		40	140	4		20
		phenol		6	ug/L	40	16	*	30	130	13		20
		2-chlorophenol		25	ug/L	40	63		30	130	11		20
		bis(2-chloroethyl)ether		27	ug/L	40	68		40	140	6		20
		1,3-dichlorobenzene		28	ug/L	40	70		40	140	1		20
		1,4-dichlorobenzene		28	ug/L	40	71		40	140	4		20
		1,2-dichlorobenzene		29	ug/L	40	73		40	140	6		20
		benzyl alcohol		22	ug/L	40	56		30	130	1		20
		2-methylphenol		19	ug/L	40	47		30	130	14		20
		2,2'-oxybis(1-chloropropane)		42	ug/L	40	105		40	140	7		20
		hexachloroethane		24	ug/L	40	61		40	140	2		20
		N-nitroso-di-N-propylamine		26	ug/L	40	66		40	140	12		20
		4-methylphenol		17	ug/L	40	44		30	130	12		20
		nitrobenzene		22	ug/L	40	56		40	140	0		20
		isophorone		26	ug/L	40	64		40	140	0		20
		2-nitrophenol		23	ug/L	40	58		30	130	16		20
		2,4-dimethylphenol		24	ug/L	40	60		30	130	16		20
		bis(2-chloroethoxy)methane		27	ug/L	40	66		40	140	4		20
		2,4-dichlorophenol		26	ug/L	40	64		30	130	13		20
		1,2,4-trichlorobenzene		27	ug/L	40	66		40	140	3		20
		naphthalene		30	ug/L	40	76		40	140	4		20
		benzoic acid		< 50	ug/L								20
		4-chloroaniline		33	ug/L	40	83		40	140	7		20
		hexachlorobutadiene		23	ug/L	40	57		40	140	3		20
		4-chloro-3-methylphenol		25	ug/L	40	63		30	130	6		20
		2-methylnaphthalene		34	ug/L	40	84		40	140	5		20
		hexachlorocyclopentadiene		18	ug/L	40	45		40	140	24	*	20
		2,4,6-trichlorophenol		27	ug/L	40	68		30	130	2		20
		2,4,5-trichlorophenol		27	ug/L	40	67		30	130	12		20
		2-chloronaphthalene		30	ug/L	40	75		40	140	3		20
		2-nitroaniline		33	ug/L	40	83		40	140	3		20
		acenaphthylene		32	ug/L	40	81		40	140	1		20
		dimethylphthalate		29	ug/L	40	71		40	140	4		20
		2,6-dinitrotoluene		35	ug/L	40	88		40	140	0		20
		2,4-dinitrotoluene		33	ug/L	40	84		40	140	6		20
		acenaphthene		33	ug/L	40	82		40	140	3		20
		3-nitroaniline		33	ug/L	40	83		40	140	3		20
		2,4-dinitrophenol		< 50	ug/L								20
		dibenzofuran		32	ug/L	40	81		40	140	1		20
		4-nitrophenol		< 10	ug/L	40	15	*	30	130	5		20
		fluorene		33	ug/L	40	82		40	140	1		20
		diethyl phthalate		32	ug/L	40	79		40	140	2		20
		4-chlorophenyl phenyl ether		32	ug/L	40	80		40	140	4		20
		4-nitroaniline		33	ug/L	40	81		40	140	10		20
		4,6-dinitro-2-methylphenol		25	ug/L	40	63		30	130	8		20
		azobenzene		28	ug/L	40	70		40	140	4		20
		N-nitrosodiphenylamine		41	ug/L	40	103		40	140	3		20
		4-bromophenyl phenyl ether		32	ug/L	40	81		40	140	5		20
		hexachlorobenzene		33	ug/L	40	83		40	140	4		20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD		RPD Limit
SW3510C8270D	LCSD11205	pentachlorophenol			28	ug/L	40	71	30	130	1		20
		phenanthrene			35	ug/L	40	88	40	140	4		20
		anthracene			35	ug/L	40	87	40	140	2		20
		carbazole			36	ug/L	40	90	40	140	2		20
		di-n-butylphthalate			35	ug/L	40	89	40	140	2		20
		fluoranthene			36	ug/L	40	90	40	140	5		20
		benzidine		<	30	ug/L							20
		pyrene			31	ug/L	40	76	40	140	3		20
		butyl benzyl phthalate			31	ug/L	40	77	40	140	3		20
		benzo(a)anthracene			35	ug/L	40	87	40	140	0		20
		chrysene			29	ug/L	40	72	40	140	1		20
		3,3'-dichlorobenzidine		<	30	ug/L							20
		bis(2-ethylhexyl)phthalate			33	ug/L	40	82	40	140	6		20
		di-n-octyl phthalate			31	ug/L	40	79	40	140	8		20
		benzo(b)fluoranthene			33	ug/L	40	82	40	140	4		20
		benzo(k)fluoranthene			35	ug/L	40	88	40	140	5		20
		benzo(a)pyrene			35	ug/L	40	88	40	140	1		20
		indeno(1,2,3-cd)pyrene			32	ug/L	40	80	40	140	22	*	20
		dibenzo(a,h)anthracene			22	ug/L	40	54	40	140	19		20
		benzo(g,h,i)perylene			32	ug/L	40	81	40	140	28	*	20
		2-fluorophenol SUR			25	%			21	100			
		phenol-D5 SUR			15	%			10	102			
		2,4,6-tribromophenol SUR			78	%			10	123			
		nitrobenzene-D5 SUR			52	%			35	114			
		2-fluorobiphenyl SUR			67	%			43	116			
		p-terphenyl-D14 SUR			71	%			33	141			

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3005A6020A	BLK11207	Arsenic		<	0.005	mg/L						
		Calcium		<	0.5	mg/L						
		Magnesium		<	0.1	mg/L						
		Manganese		<	0.01	mg/L						
SW3005A6020A	LCS11207	Arsenic			0.47	mg/L	0.5	94	80	120		
		Calcium			2.7	mg/L	2.5	107	80	120		
		Magnesium			0.5	mg/L	0.5	92	80	120		
		Manganese			0.57	mg/L	0.5	114	80	120		
SW3005A6020A	LCSD11207	Arsenic			0.47	mg/L	0.5	93	80	120	1	20
		Calcium			2.6	mg/L	2.5	104	80	120	2	20
		Magnesium			0.5	mg/L	0.5	92	80	120	0	20
		Manganese			0.56	mg/L	0.5	112	80	120	1	20

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CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

46654

Company Name: Dept. of Environmental Services, State of New Hampshire

Company Address: 29 Hazen Drive, P.O. Box 95

Report To: Michael Summerlin, P.E.

Phone #: (603) 271-3649

Invoice to Email: michael.summerlinjr@des.nh.gov

☐ Hard Copy Invoice Required

Project Name: Troy Mills Landfill Superfund Site

Project #: DES #198405082

Project Location: NH (highlighted) MA ME VT NY Other

Protocol: RCRA SDWA NPDES MCP NHDES (highlighted) OTHER

Reporting Limits: QAPP GW-1 S-1 EPA DW Other SAP (highlighted)

Quote #: ____ ☐ NH Reimbursement Pricing

PO #: Contract No. 1051314 (2589-00 T)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	Matrix: SOLID	Matrix: OTHER	Preservation: HCl	Preservation: HNO_3	Preservation: H_2SO_4	Preservation: NaOH	Preservation: MeOH	Sampling: DATE	Sampling: TIME	Sampling: SAMPLER
U1665401	TRIP BLANK	1	X			X					11-~~06~~ 07-18 (MJB)	0800	MB
02	TRY_SW-LEACHATE	4	X			X	X				11-07-18	1125	MB
03	TRY_SW-LEACHATE DUP	4	X			X	X				11-07-18	1125	MB
04	TRY_SW-LEACH-B	4	X			X	X				11-07-18	1105	MB
05	TRY_SW-1	4	X			X	X				11-07-18	1405	TJ

ANALYSIS REQUEST

Analysis	TRIP BLANK	TRY_SW-LEACHATE	TRY_SW-LEACHATE DUP	TRY_SW-LEACH-B	TRY_SW-1
☐ VOC 8260 ☒ VOC 8260 NHDES ☐ VOC 8260 MADEP	X	X	X	X	X
☐ VOC 624 ☐ VOC BTEX ☐ MtBE, only ☐ VOC 8021VT					
☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☒ 1,4-Dioxane 8260 SIM					
☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:					
☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint					
☐ 8270PAH ☒ 8270ABN ☐ 625 ☐ EDB		X	X	X	X
☐ 8082 PCB ☐ 8081 Pesticides ☐					
☐ O&G 1664 ☐ Mineral O&G SM5520F					
☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity					
☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity					
☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☒ Hardness		X	X	X	X
☒ Total Metals-list: As, ~~Cd, Cr, Pb~~, Mn, ~~Ni~~		X	X	X	X
☐ Dissolved Metals-list:					
☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☒ TOC					
☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN					
☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P					
☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride					
☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP					
☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide					
Subcontract: ☒ Grain Size ☐ Herbicides ☐ Formaldehyde					
Grab (G) or Composite (C)					

TAT REQUESTED

Priority (24 hr)* ☐

Expedited (48 hr)* ☐

Standard (10 Business Days) ☒

*Date Needed ____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Please contact Tanya Justham at (603) 493-1548 for sample questions and Michael Summerlin for all others.

~~EQUIP BLANK for water level/804.~~ MJB 11/7/18

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) and Excel; Please send results to michael.summerlinjr@des.nh.gov and tanya.justham@gza.com

☐ HARD COPY REQUIRED ☐ FAX (FAX#) ____

RECEIVED ON ICE ☒ YES ☐ NO

TEMPERATURE 0 °C

CUSTODY RECORD

	Date	Time		Date	Time
Relinquished by Sampler: [signature]	~~11-8-18~~ (MJB)	0930	Received by: [signature]	11/8/18	0930
Relinquished by: [signature]	11/9/18	1105	Received by: [signature]	11/9/18	11:05
Relinquished by: [signature]	11/9/18	1430	Received by Laboratory: [signature]	11/9/18	14:30

QSD-01 Revision 10/14/15

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Michael Summerlin
NHDES-Superfund
29 Hazen Drive
Concord, NH 03301

PO Number: Contct#1061488(2589-
Job ID: 46655
Date Received: 11/9/18

Project: Troy Mills Superfund Site DES #198405082

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

Jennifer Lowe
Laboratory Manager

Date of Approval: 12/5/2018
Total number of pages: 38

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Troy Mills Superfund Site DES #198405082

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
TRIP BLANK	Water	11/7/2018 8:00	46655-001	
				VOCs in water by 8260 Petro & Haz Waste
TRY_SW-3	Water	11/7/2018 13:15	46655-002	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Calcium in water by 6020
				Magnesium in water by 6020
				Manganese in water by 6020
				Total Hardness (includes Ca & Mg) by SM2340B
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_SW-3 DUP	Water	11/7/2018 13:15	46655-003	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Calcium in water by 6020
				Magnesium in water by 6020
				Manganese in water by 6020
				Total Hardness (includes Ca & Mg) by SM2340B
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_SW-4	Water	11/7/2018 13:45	46655-004	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Calcium in water by 6020
				Magnesium in water by 6020
				Manganese in water by 6020
				Total Hardness (includes Ca & Mg) by SM2340B
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis
TRY_SW-100	Water	11/7/2018 12:40	46655-005	
				Acid & Base/Neutral Extractables in water by 8270
				Arsenic in water by 6020
				Calcium in water by 6020
				Magnesium in water by 6020
				Manganese in water by 6020
				Total Hardness (includes Ca & Mg) by SM2340B
				VOCs in water by 8260 Petro & Haz Waste
				Water Digestion for ICPMS Analysis

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655

Sample#: 46655-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/7/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-001
Sample ID: TRIP BLANK
Matrix: Water
Sampled: 11/7/18 8:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**99**	78-114	%	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
toluene-D8 SUR	**102**	88-110	%	1	LMM		1803278	11/14/18	3:34	SW5030C8260C
4-bromofluorobenzene SUR	**98**	86-115	%	1	LMM		1803278	11/14/18	3:34	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-002
Sample ID: TRY_SW-3
Matrix: Water
Sampled: 11/7/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-002
Sample ID: TRY_SW-3
Matrix: Water
Sampled: 11/7/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**91**	78-114	%	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	LMM		1803278	11/14/18	6:09	SW5030C8260C
4-bromofluorobenzene SUR	**95**	86-115	%	1	LMM		1803278	11/14/18	6:09	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-003
Sample ID: TRY_SW-3 DUP
Matrix: Water
Sampled: 11/7/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-003
Sample ID: TRY_SW-3 DUP
Matrix: Water
Sampled: 11/7/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**93**	78-114	%	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
toluene-D8 SUR	**96**	88-110	%	1	LMM		1803278	11/14/18	6:35	SW5030C8260C
4-bromofluorobenzene SUR	**97**	86-115	%	1	LMM		1803278	11/14/18	6:35	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-004
Sample ID: TRY_SW-4
Matrix: Water
Sampled: 11/7/18 13:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-004
Sample ID: TRY_SW-4
Matrix: Water
Sampled: 11/7/18 13:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**97**	78-114	%	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	LMM		1803278	11/14/18	7:01	SW5030C8260C
4-bromofluorobenzene SUR	**96**	86-115	%	1	LMM		1803278	11/14/18	7:01	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-005
Sample ID: TRY_SW-100
Matrix: Water
Sampled: 11/7/18 12:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
dichlorodifluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
chloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
vinyl chloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
bromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
chloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
trichlorofluoromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
diethyl ether	< 5	5	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
acetone	< 50	50	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,1-dichloroethene	< 1	1	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
methylene chloride	< 5	5	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
carbon disulfide	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
trans-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
isopropyl ether (DIPE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
ethyl t-butyl ether (ETBE)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,1-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
t-butanol (TBA)	< 30	30	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
2-butanone (MEK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
2,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
cis-1,2-dichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
chloroform	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
bromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
tetrahydrofuran (THF)	< 10	10	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,1,1-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,1-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
t-amyl-methyl ether (TAME)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
carbon tetrachloride	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,2-dichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
benzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
trichloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,2-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
bromodichloromethane	< 0.6	0.6	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,4-dioxane	< 50	50	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
dibromomethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
4-methyl-2-pentanone (MIBK)	< 10	10	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
cis-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
toluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
trans-1,3-dichloropropene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
2-hexanone	< 10	10	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,1,2-trichloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,3-dichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
tetrachloroethene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
dibromochloromethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-005
Sample ID: TRY_SW-100
Matrix: Water
Sampled: 11/7/18 12:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dibromoethane (EDB)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
chlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,1,1,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
ethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
m&p-xylenes	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
o-xylene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
styrene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
bromoform	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
isopropylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,1,2,2-tetrachloroethane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,2,3-trichloropropane	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
n-propylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
bromobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,3,5-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
2-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
4-chlorotoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
tert-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,2,4-trimethylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
sec-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,3-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
4-isopropyltoluene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,4-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,2-dichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
n-butylbenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,2-dibromo-3-chloropropane (DBCP)	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,2,4-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,3,5-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
hexachlorobutadiene	< 0.5	0.5	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
naphthalene	< 5	5	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
1,2,3-trichlorobenzene	< 2	2	ug/L	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**93**	78-114	%	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
toluene-D8 SUR	**99**	88-110	%	1	LMM		1803278	11/14/18	7:26	SW5030C8260C
4-bromofluorobenzene SUR	**97**	86-115	%	1	LMM		1803278	11/14/18	7:26	SW5030C8260C

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-002
Sample ID: TRY_SW-3
Matrix: Water
Sampled: 11/7/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-002
Sample ID: TRY_SW-3
Matrix: Water
Sampled: 11/7/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**26**	21-100	%	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
phenol-D5 SUR	**13**	10-102	%	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
2,4,6-tribromophenol SUR	**65**	10-123	%	1	CL	11/12/18	11205	11/14/18	13:18	SW3510C8270D
nitrobenzene-D5 SUR	**44**	35-114	%	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
2-fluorobiphenyl SUR	**62**	43-116	%	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D
p-terphenyl-D14 SUR	**63**	33-141	%	1	CL	11/12/18	11205	11/14/18	13:47	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-003
Sample ID: TRY_SW-3 DUP
Matrix: Water
Sampled: 11/7/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-003
Sample ID: TRY_SW-3 DUP
Matrix: Water
Sampled: 11/7/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**28**	21-100	%	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
phenol-D5 SUR	**15**	10-102	%	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
2,4,6-tribromophenol SUR	**67**	10-123	%	1	CL	11/12/18	11205	11/14/18	14:17	SW3510C8270D
nitrobenzene-D5 SUR	**45**	35-114	%	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
2-fluorobiphenyl SUR	**61**	43-116	%	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D
p-terphenyl-D14 SUR	**61**	33-141	%	1	CL	11/12/18	11205	11/14/18	14:46	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-004
Sample ID: TRY_SW-4
Matrix: Water
Sampled: 11/7/18 13:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-004
Sample ID: TRY_SW-4
Matrix: Water
Sampled: 11/7/18 13:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**26**	21-100	%	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
phenol-D5 SUR	**16**	10-102	%	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
2,4,6-tribromophenol SUR	**66**	10-123	%	1	CL	11/12/18	11205	11/14/18	15:16	SW3510C8270D
nitrobenzene-D5 SUR	**39**	35-114	%	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
2-fluorobiphenyl SUR	**54**	43-116	%	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D
p-terphenyl-D14 SUR	**57**	33-141	%	1	CL	11/12/18	11205	11/14/18	15:45	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-005
Sample ID: TRY_SW-100
Matrix: Water
Sampled: 11/7/18 12:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
N-nitrosodimethylamine	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
pyridine	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
aniline	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
phenol	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
2-chlorophenol	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
bis(2-chloroethyl)ether	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
1,3-dichlorobenzene	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
1,4-dichlorobenzene	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
1,2-dichlorobenzene	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
benzyl alcohol	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
2-methylphenol	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
2,2'-oxybis(1-chloropropane)	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
hexachloroethane	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
N-nitroso-di-N-propylamine	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
4-methylphenol	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
nitrobenzene	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
isophorone	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
2-nitrophenol	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
2,4-dimethylphenol	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
bis(2-chloroethoxy)methane	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
2,4-dichlorophenol	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
1,2,4-trichlorobenzene	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
naphthalene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
benzoic acid	< 50	50	ug/L	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
4-chloroaniline	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
hexachlorobutadiene	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
4-chloro-3-methylphenol	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
2-methylnaphthalene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
hexachlorocyclopentadiene	< 10	10	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
2,4,6-trichlorophenol	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
2,4,5-trichlorophenol	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
2-chloronaphthalene	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
2-nitroaniline	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
acenaphthylene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
dimethylphthalate	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
2,6-dinitrotoluene	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
2,4-dinitrotoluene	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
acenaphthene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
3-nitroaniline	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
2,4-dinitrophenol	< 50	50	ug/L	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
dibenzofuran	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
4-nitrophenol	< 10	10	ug/L	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
fluorene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082
Job ID: 46655
Sample#: 46655-005
Sample ID: TRY_SW-100
Matrix: Water
Sampled: 11/7/18 12:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
diethyl phthalate	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
4-chlorophenyl phenyl ether	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
4-nitroaniline	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
4,6-dinitro-2-methylphenol	< 20	20	ug/L	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
azobenzene	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
N-nitrosodiphenylamine	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
4-bromophenyl phenyl ether	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
hexachlorobenzene	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
pentachlorophenol	< 10	10	ug/L	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
phenanthrene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
anthracene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
carbazole	< 2	2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
di-n-butylphthalate	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
fluoranthene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
benzidine	< 30	30	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
pyrene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
butyl benzyl phthalate	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
benzo(a)anthracene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
chrysene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
3,3'-dichlorobenzidine	< 30	30	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
bis(2-ethylhexyl)phthalate	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
di-n-octyl phthalate	< 5	5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
benzo(b)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
benzo(k)fluoranthene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
benzo(a)pyrene	< 0.2	0.2	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
indeno(1,2,3-cd)pyrene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
benzo(g,h,i)perylene	< 0.5	0.5	ug/L	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**25**	21-100	%	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
phenol-D5 SUR	**13**	10-102	%	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
2,4,6-tribromophenol SUR	**61**	10-123	%	1	CL	11/13/18	11205	11/14/18	19:11	SW3510C8270D
nitrobenzene-D5 SUR	**35**	35-114	%	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
2-fluorobiphenyl SUR	**51**	43-116	%	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D
p-terphenyl-D14 SUR	**52**	33-141	%	1	CL	11/13/18	11205	11/14/18	19:41	SW3510C8270D

Project ID: Troy Mills Superfund Site DES #198405082

Job ID: 46655

Sample#: 46655-002

Sample ID: TRY_SW-3

Matrix: Water

Sampled: 11/7/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/14/18	11213	11/16/18	5:39	SW3005A6020A
Calcium	**1.3**	0.5	mg/L	1	AGN	11/14/18	11213	11/16/18	5:39	SW3005A6020A
Magnesium	**0.3**	0.1	mg/L	1	AGN	11/14/18	11213	11/16/18	5:39	SW3005A6020A
Manganese	**0.06**	0.01	mg/L	1	AGN	11/14/18	11213	11/16/18	5:39	SW3005A6020A
Hardness (as CaCO3)	**5**	3	mg/L	1	AGN	11/14/18	11213	11/21/18		SM2340B

Sample#: 46655-003

Sample ID: TRY_SW-3 DUP

Matrix: Water

Sampled: 11/7/18 13:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/14/18	11213	11/16/18	5:59	SW3005A6020A
Calcium	**1.2**	0.5	mg/L	1	AGN	11/14/18	11213	11/16/18	5:59	SW3005A6020A
Magnesium	**0.3**	0.1	mg/L	1	AGN	11/14/18	11213	11/16/18	5:59	SW3005A6020A
Manganese	**0.05**	0.01	mg/L	1	AGN	11/14/18	11213	11/16/18	5:59	SW3005A6020A
Hardness (as CaCO3)	**5**	3	mg/L	1	AGN	11/14/18	11213	11/21/18		SM2340B

Sample#: 46655-004

Sample ID: TRY_SW-4

Matrix: Water

Sampled: 11/7/18 13:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/14/18	11213	11/16/18	6:05	SW3005A6020A
Calcium	**1.1**	0.5	mg/L	1	AGN	11/14/18	11213	11/16/18	6:05	SW3005A6020A
Magnesium	**0.3**	0.1	mg/L	1	AGN	11/14/18	11213	11/16/18	6:05	SW3005A6020A
Manganese	**0.04**	0.01	mg/L	1	AGN	11/14/18	11213	11/16/18	6:05	SW3005A6020A
Hardness (as CaCO3)	**4**	3	mg/L	1	AGN	11/14/18	11213	11/21/18		SM2340B

Sample#: 46655-005

Sample ID: TRY_SW-100

Matrix: Water

Sampled: 11/7/18 12:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	< 0.005	0.005	mg/L	1	AGN	11/14/18	11213	11/16/18	6:12	SW3005A6020A
Calcium	**1.1**	0.5	mg/L	1	AGN	11/14/18	11213	11/16/18	6:12	SW3005A6020A
Magnesium	**0.3**	0.1	mg/L	1	AGN	11/14/18	11213	11/16/18	6:12	SW3005A6020A
Manganese	**0.05**	0.01	mg/L	1	AGN	11/14/18	11213	11/16/18	6:12	SW3005A6020A
Hardness (as CaCO3)	**4**	3	mg/L	1	AGN	11/14/18	11213	11/21/18		SM2340B

Quality Control Report



124 Heritage Avenue Unit 16
Portsmouth, NH 03801
www.absoluteresourceassociates.com

Absolute Resource
associates

Case Narrative
Lab # 46655

Sample Receiving and Chain of Custody Discrepancies

Samples were received in acceptable condition, at 0 degrees C, on ice, and in accordance with sample handling, preservation and integrity guidelines.

Calibration

No exceptions noted.

Method Blank

No exceptions noted.

Surrogate Recoveries

No exceptions noted.

Laboratory Control Sample Results

VOC: The LCS/D1803278 did not meet the acceptance criteria for bromomethane. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.

SVOC: The LCS11205 did not meet the acceptance criteria for pyridine, N-nitrosodimethylamine, phenol, hexachlorocyclopentadiene, and 4-nitrophenol. The LCSD11205 did not meet the acceptance criteria for pyridine, N-nitrosodimethylamine, phenol, and 4-nitrophenol. The relative percent difference between the LCS and LCSD11205 was outside the acceptance criteria hexachlorocyclopentadiene, indeno(1,2,3-cd)pyrene, and benzo(g,h,i)perylene. Since <20% of the compounds were outside of the acceptance criteria, reanalysis is not required.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

Not requested for this project.

Other

The reported results have undergone the standard process of review for data quality. The final report meets the reporting and documentation requirements of the contract. Jennifer Guerette

Jennifer Guerette QA Officer

Reporting Limits: Dilutions performed during the analysis are noted on the result pages.

No other exceptions noted.

GLOSSARY

%R	Percent Recovery
BLK	Blank (Method Blank, Preparation Blank)
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
Dil'n	Dilution
DL	Detection Limit
DUP	Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MB	Methanol Blank (associated with solid VOC samples)
MLCS	Methanol Laboratory Control Sample (associated with solid VOC samples)
MLCSD	Methanol Laboratory Control Sample Duplicate (associated with solid VOC samples)
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PB	Preparation Blank
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SUR	Surrogate

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5030C8260C	BLK1803278	dichlorodifluoromethane		<	2	ug/L					
		chloromethane		<	2	ug/L					
		vinyl chloride		<	2	ug/L					
		bromomethane		<	2	ug/L					
		chloroethane		<	2	ug/L					
		trichlorofluoromethane		<	2	ug/L					
		diethyl ether		<	2	ug/L					
		acetone		<	10	ug/L					
		1,1-dichloroethene		<	1	ug/L					
		methylene chloride		<	2	ug/L					
		carbon disulfide		<	2	ug/L					
		methyl t-butyl ether (MTBE)		<	2	ug/L					
		trans-1,2-dichloroethene		<	2	ug/L					
		isopropyl ether (DIPE)		<	2	ug/L					
		ethyl t-butyl ether (ETBE)		<	2	ug/L					
		1,1-dichloroethane		<	2	ug/L					
		t-butanol (TBA)		<	30	ug/L					
		2-butanone (MEK)		<	10	ug/L					
		2,2-dichloropropane		<	2	ug/L					
		cis-1,2-dichloroethene		<	2	ug/L					
		chloroform		<	2	ug/L					
		bromochloromethane		<	2	ug/L					
		tetrahydrofuran (THF)		<	2	ug/L					
		1,1,1-trichloroethane		<	2	ug/L					
		1,1-dichloropropene		<	2	ug/L					
		t-amyl-methyl ether (TAME)		<	2	ug/L					
		carbon tetrachloride		<	2	ug/L					
		1,2-dichloroethane		<	2	ug/L					
		benzene		<	2	ug/L					
		trichloroethene		<	2	ug/L					
		1,2-dichloropropane		<	2	ug/L					
		bromodichloromethane		<	0.6	ug/L					
		1,4-dioxane		<	50	ug/L					
		dibromomethane		<	2	ug/L					
		4-methyl-2-pentanone (MIBK)		<	10	ug/L					
		cis-1,3-dichloropropene		<	2	ug/L					
		toluene		<	2	ug/L					
		trans-1,3-dichloropropene		<	2	ug/L					
		2-hexanone		<	10	ug/L					
		1,1,2-trichloroethane		<	2	ug/L					
		1,3-dichloropropane		<	2	ug/L					
		tetrachloroethene		<	2	ug/L					
		dibromochloromethane		<	2	ug/L					
		1,2-dibromoethane (EDB)		<	2	ug/L					
		chlorobenzene		<	2	ug/L					
		1,1,1,2-tetrachloroethane		<	2	ug/L					
		ethylbenzene		<	2	ug/L					
		m&p-xylenes		<	2	ug/L					
		o-xylene		<	2	ug/L					
		styrene		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	BLK1803278	bromoform		<	2	ug/L						
		isopropylbenzene		<	2	ug/L						
		1,1,2,2-tetrachloroethane		<	2	ug/L						
		1,2,3-trichloropropane		<	2	ug/L						
		n-propylbenzene		<	2	ug/L						
		bromobenzene		<	2	ug/L						
		1,3,5-trimethylbenzene		<	2	ug/L						
		2-chlorotoluene		<	2	ug/L						
		4-chlorotoluene		<	2	ug/L						
		tert-butylbenzene		<	2	ug/L						
		1,2,4-trimethylbenzene		<	2	ug/L						
		sec-butylbenzene		<	2	ug/L						
		1,3-dichlorobenzene		<	2	ug/L						
		4-isopropyltoluene		<	2	ug/L						
		1,4-dichlorobenzene		<	2	ug/L						
		1,2-dichlorobenzene		<	2	ug/L						
		n-butylbenzene		<	2	ug/L						
		1,2-dibromo-3-chloropropane (DBCP)		<	2	ug/L						
		1,2,4-trichlorobenzene		<	2	ug/L						
		1,3,5-trichlorobenzene		<	2	ug/L						
		hexachlorobutadiene		<	0.5	ug/L						
		naphthalene		<	2	ug/L						
		1,2,3-trichlorobenzene		<	2	ug/L						
		dibromofluoromethane SUR			92	%			78	114		
		toluene-D8 SUR			97	%			88	110		
		4-bromofluorobenzene SUR			98	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCS1803278	dichlorodifluoromethane		15	ug/L	20	75		70	130		
		chloromethane		17	ug/L	20	83		70	130		
		vinyl chloride		22	ug/L	20	110		70	130		
		bromomethane		11	ug/L	20	54	*	70	130		
		chloroethane		18	ug/L	20	90		70	130		
		trichlorofluoromethane		18	ug/L	20	92		70	130		
		diethyl ether		21	ug/L	20	105		70	130		
		acetone		20	ug/L	20	100		70	130		
		1,1-dichloroethene		18	ug/L	20	92		70	130		
		methylene chloride		20	ug/L	20	101		70	130		
		carbon disulfide		14	ug/L	20	72		70	130		
		methyl t-butyl ether (MTBE)		16	ug/L	20	82		70	130		
		trans-1,2-dichloroethene		19	ug/L	20	94		70	130		
		isopropyl ether (DIPE)		17	ug/L	20	84		70	130		
		ethyl t-butyl ether (ETBE)		17	ug/L	20	83		70	130		
		1,1-dichloroethane		19	ug/L	20	96		70	130		
		t-butanol (TBA)		88	ug/L	100	88		70	130		
		2-butanone (MEK)		17	ug/L	20	85		70	130		
		2,2-dichloropropane		17	ug/L	20	86		70	130		
		cis-1,2-dichloroethene		19	ug/L	20	94		70	130		
		chloroform		19	ug/L	20	97		70	130		
		bromochloromethane		18	ug/L	20	92		70	130		
		tetrahydrofuran (THF)		20	ug/L	20	101		70	130		
		1,1,1-trichloroethane		18	ug/L	20	90		70	130		
		1,1-dichloropropene		19	ug/L	20	94		70	130		
		t-amyl-methyl ether (TAME)		17	ug/L	20	87		70	130		
		carbon tetrachloride		17	ug/L	20	87		70	130		
		1,2-dichloroethane		18	ug/L	20	91		70	130		
		benzene		19	ug/L	20	93		70	130		
		trichloroethene		19	ug/L	20	96		70	130		
		1,2-dichloropropane		20	ug/L	20	99		70	130		
		bromodichloromethane		18	ug/L	20	88		70	130		
		1,4-dioxane		< 50	ug/L	40	77		70	130		
		dibromomethane		18	ug/L	20	91		70	130		
		4-methyl-2-pentanone (MIBK)		17	ug/L	20	87		70	130		
		cis-1,3-dichloropropene		19	ug/L	20	94		70	130		
		toluene		20	ug/L	20	99		70	130		
		trans-1,3-dichloropropene		19	ug/L	20	94		70	130		
		2-hexanone		18	ug/L	20	91		70	130		
		1,1,2-trichloroethane		19	ug/L	20	93		70	130		
		1,3-dichloropropane		19	ug/L	20	97		70	130		
		tetrachloroethene		18	ug/L	20	91		70	130		
		dibromochloromethane		16	ug/L	20	81		70	130		
		1,2-dibromoethane (EDB)		19	ug/L	20	94		70	130		
		chlorobenzene		17	ug/L	20	87		70	130		
		1,1,1,2-tetrachloroethane		19	ug/L	20	93		70	130		
		ethylbenzene		20	ug/L	20	99		70	130		
		m&p-xylenes		40	ug/L	40	101		70	130		
		o-xylene		17	ug/L	20	84		70	130		
		styrene		19	ug/L	20	93		70	130		
		bromoform		16	ug/L	20	78		70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCS1803278	isopropylbenzene		20	ug/L	20	98	70	130		
		1,1,2,2-tetrachloroethane		21	ug/L	20	107	70	130		
		1,2,3-trichloropropane		23	ug/L	20	113	70	130		
		n-propylbenzene		22	ug/L	20	109	70	130		
		bromobenzene		20	ug/L	20	100	70	130		
		1,3,5-trimethylbenzene		22	ug/L	20	108	70	130		
		2-chlorotoluene		21	ug/L	20	104	70	130		
		4-chlorotoluene		22	ug/L	20	108	70	130		
		tert-butylbenzene		21	ug/L	20	107	70	130		
		1,2,4-trimethylbenzene		21	ug/L	20	105	70	130		
		sec-butylbenzene		21	ug/L	20	105	70	130		
		1,3-dichlorobenzene		19	ug/L	20	96	70	130		
		4-isopropyltoluene		22	ug/L	20	109	70	130		
		1,4-dichlorobenzene		19	ug/L	20	96	70	130		
		1,2-dichlorobenzene		20	ug/L	20	99	70	130		
		n-butylbenzene		20	ug/L	20	101	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		20	ug/L	20	101	70	130		
		1,2,4-trichlorobenzene		20	ug/L	20	102	70	130		
		1,3,5-trichlorobenzene		20	ug/L	20	102	70	130		
		hexachlorobutadiene		23	ug/L	20	116	70	130		
		naphthalene		22	ug/L	20	109	70	130		
		1,2,3-trichlorobenzene		20	ug/L	20	100	70	130		
		dibromofluoromethane SUR		96	%			78	114		
		toluene-D8 SUR		104	%			88	110		
		4-bromofluorobenzene SUR		105	%			86	115		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803278	dichlorodifluoromethane		14	ug/L	20	71		70	130	4	20
		chloromethane		17	ug/L	20	83		70	130	1	20
		vinyl chloride		21	ug/L	20	107		70	130	3	20
		bromomethane		11	ug/L	20	55	*	70	130	1	20
		chloroethane		18	ug/L	20	91		70	130	1	20
		trichlorofluoromethane		18	ug/L	20	92		70	130	0	20
		diethyl ether		21	ug/L	20	104		70	130	2	20
		acetone		22	ug/L	20	109		70	130	9	20
		1,1-dichloroethene		19	ug/L	20	93		70	130	2	20
		methylene chloride		20	ug/L	20	102		70	130	1	20
		carbon disulfide		15	ug/L	20	77		70	130	7	20
		methyl t-butyl ether (MTBE)		17	ug/L	20	86		70	130	6	20
		trans-1,2-dichloroethene		19	ug/L	20	94		70	130	1	20
		isopropyl ether (DIPE)		17	ug/L	20	87		70	130	4	20
		ethyl t-butyl ether (ETBE)		18	ug/L	20	88		70	130	6	20
		1,1-dichloroethane		20	ug/L	20	98		70	130	2	20
		t-butanol (TBA)		110	ug/L	100	106		70	130	18	20
		2-butanone (MEK)		21	ug/L	20	103		70	130	19	20
		2,2-dichloropropane		17	ug/L	20	87		70	130	0	20
		cis-1,2-dichloroethene		19	ug/L	20	96		70	130	2	20
		chloroform		20	ug/L	20	99		70	130	2	20
		bromochloromethane		18	ug/L	20	91		70	130	1	20
		tetrahydrofuran (THF)		21	ug/L	20	106		70	130	5	20
		1,1,1-trichloroethane		18	ug/L	20	89		70	130	1	20
		1,1-dichloropropene		19	ug/L	20	97		70	130	3	20
		t-amyl-methyl ether (TAME)		18	ug/L	20	92		70	130	5	20
		carbon tetrachloride		17	ug/L	20	87		70	130	0	20
		1,2-dichloroethane		18	ug/L	20	92		70	130	2	20
		benzene		19	ug/L	20	93		70	130	1	20
		trichloroethene		19	ug/L	20	95		70	130	1	20
		1,2-dichloropropane		21	ug/L	20	103		70	130	3	20
		bromodichloromethane		18	ug/L	20	91		70	130	4	20
		1,4-dioxane		< 50	ug/L	40	92		70	130	17	20
		dibromomethane		19	ug/L	20	95		70	130	5	20
		4-methyl-2-pentanone (MIBK)		18	ug/L	20	92		70	130	5	20
		cis-1,3-dichloropropene		19	ug/L	20	96		70	130	2	20
		toluene		20	ug/L	20	99		70	130	0	20
		trans-1,3-dichloropropene		20	ug/L	20	98		70	130	5	20
		2-hexanone		20	ug/L	20	99		70	130	8	20
		1,1,2-trichloroethane		19	ug/L	20	94		70	130	1	20
		1,3-dichloropropane		21	ug/L	20	107		70	130	10	20
		tetrachloroethene		19	ug/L	20	97		70	130	6	20
		dibromochloromethane		19	ug/L	20	94		70	130	15	20
		1,2-dibromoethane (EDB)		21	ug/L	20	106		70	130	12	20
		chlorobenzene		19	ug/L	20	95		70	130	8	20
		1,1,1,2-tetrachloroethane		21	ug/L	20	103		70	130	10	20
		ethylbenzene		22	ug/L	20	108		70	130	8	20
		m&p-xylenes		43	ug/L	40	109		70	130	7	20
		o-xylene		19	ug/L	20	93		70	130	11	20
		styrene		20	ug/L	20	102		70	130	9	20
		bromoform		18	ug/L	20	89		70	130	12	20

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5030C8260C	LCSD1803278	isopropylbenzene		21	ug/L	20	105	70	130	6	20
		1,1,2,2-tetrachloroethane		23	ug/L	20	113	70	130	6	20
		1,2,3-trichloropropane		24	ug/L	20	121	70	130	7	20
		n-propylbenzene		22	ug/L	20	112	70	130	3	20
		bromobenzene		21	ug/L	20	103	70	130	4	20
		1,3,5-trimethylbenzene		22	ug/L	20	110	70	130	2	20
		2-chlorotoluene		22	ug/L	20	108	70	130	4	20
		4-chlorotoluene		23	ug/L	20	113	70	130	5	20
		tert-butylbenzene		22	ug/L	20	108	70	130	1	20
		1,2,4-trimethylbenzene		22	ug/L	20	108	70	130	3	20
		sec-butylbenzene		21	ug/L	20	106	70	130	1	20
		1,3-dichlorobenzene		20	ug/L	20	98	70	130	3	20
		4-isopropyltoluene		22	ug/L	20	111	70	130	2	20
		1,4-dichlorobenzene		20	ug/L	20	101	70	130	5	20
		1,2-dichlorobenzene		20	ug/L	20	101	70	130	2	20
		n-butylbenzene		20	ug/L	20	101	70	130	1	20
		1,2-dibromo-3-chloropropane (DBCP)		23	ug/L	20	113	70	130	11	20
		1,2,4-trichlorobenzene		22	ug/L	20	108	70	130	5	20
		1,3,5-trichlorobenzene		20	ug/L	20	99	70	130	3	20
		hexachlorobutadiene		23	ug/L	20	117	70	130	1	20
		naphthalene		25	ug/L	20	127	70	130	15	20
		1,2,3-trichlorobenzene		23	ug/L	20	115	70	130	13	20
		dibromofluoromethane SUR		97	%			78	114		
		toluene-D8 SUR		102	%			88	110		
		4-bromofluorobenzene SUR		112	%			86	115		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW3510C8270D	BLK11205	pyridine		<	2	ug/L					
		N-nitrosodimethylamine		<	2	ug/L					
		aniline		<	2	ug/L					
		phenol		<	2	ug/L					
		2-chlorophenol		<	5	ug/L					
		bis(2-chloroethyl)ether		<	2	ug/L					
		1,3-dichlorobenzene		<	2	ug/L					
		1,4-dichlorobenzene		<	2	ug/L					
		1,2-dichlorobenzene		<	2	ug/L					
		benzyl alcohol		<	2	ug/L					
		2-methylphenol		<	5	ug/L					
		2,2'-oxybis(1-chloropropane)		<	2	ug/L					
		hexachloroethane		<	2	ug/L					
		N-nitroso-di-N-propylamine		<	2	ug/L					
		4-methylphenol		<	2	ug/L					
		nitrobenzene		<	2	ug/L					
		isophorone		<	5	ug/L					
		2-nitrophenol		<	2	ug/L					
		2,4-dimethylphenol		<	5	ug/L					
		bis(2-chloroethoxy)methane		<	5	ug/L					
		2,4-dichlorophenol		<	5	ug/L					
		1,2,4-trichlorobenzene		<	5	ug/L					
		naphthalene		<	0.5	ug/L					
		benzoic acid		<	50	ug/L					
		4-chloroaniline		<	2	ug/L					
		hexachlorobutadiene		<	2	ug/L					
		4-chloro-3-methylphenol		<	2	ug/L					
		2-methylnaphthalene		<	0.5	ug/L					
		hexachlorocyclopentadiene		<	10	ug/L					
		2,4,6-trichlorophenol		<	2	ug/L					
		2,4,5-trichlorophenol		<	2	ug/L					
		2-chloronaphthalene		<	5	ug/L					
		2-nitroaniline		<	2	ug/L					
		acenaphthylene		<	0.5	ug/L					
		dimethylphthalate		<	5	ug/L					
		2,6-dinitrotoluene		<	5	ug/L					
		2,4-dinitrotoluene		<	5	ug/L					
		acenaphthene		<	0.5	ug/L					
		3-nitroaniline		<	2	ug/L					
		2,4-dinitrophenol		<	50	ug/L					
		dibenzofuran		<	0.5	ug/L					
		4-nitrophenol		<	10	ug/L					
		fluorene		<	0.5	ug/L					
		diethyl phthalate		<	5	ug/L					
		4-chlorophenyl phenyl ether		<	5	ug/L					
		4-nitroaniline		<	5	ug/L					
		4,6-dinitro-2-methylphenol		<	20	ug/L					
		azobenzene		<	2	ug/L					
		N-nitrosodiphenylamine		<	2	ug/L					
		4-bromophenyl phenyl ether		<	2	ug/L					
		hexachlorobenzene		<	2	ug/L					

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	BLK11205	pentachlorophenol		<	10	ug/L						
		phenanthrene		<	0.5	ug/L						
		anthracene		<	0.5	ug/L						
		carbazole		<	2	ug/L						
		di-n-butylphthalate		<	5	ug/L						
		fluoranthene		<	0.5	ug/L						
		benzidine		<	30	ug/L						
		pyrene		<	0.5	ug/L						
		butyl benzyl phthalate		<	5	ug/L						
		benzo(a)anthracene		<	0.5	ug/L						
		chrysene		<	0.5	ug/L						
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate		<	5	ug/L						
		di-n-octyl phthalate		<	5	ug/L						
		benzo(b)fluoranthene		<	0.5	ug/L						
		benzo(k)fluoranthene		<	0.5	ug/L						
		benzo(a)pyrene		<	0.2	ug/L						
		indeno(1,2,3-cd)pyrene		<	0.5	ug/L						
		dibenzo(a,h)anthracene		<	0.5	ug/L						
		benzo(g,h,i)perylene		<	0.5	ug/L						
		2-fluorophenol SUR			26	%			21	100		
		phenol-D5 SUR			14	%			10	102		
		2,4,6-tribromophenol SUR			67	%			10	123		
		nitrobenzene-D5 SUR			45	%			35	114		
		2-fluorobiphenyl SUR			63	%			43	116		
		p-terphenyl-D14 SUR			69	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3510C8270D	LCS11205	pyridine		9.9	ug/L	40	25	*	30	130		
		N-nitrosodimethylamine		11	ug/L	40	28	*	40	140		
		aniline		24	ug/L	40	59		40	140		
		phenol		7	ug/L	40	18	*	30	130		
		2-chlorophenol		28	ug/L	40	70		30	130		
		bis(2-chloroethyl)ether		29	ug/L	40	73		40	140		
		1,3-dichlorobenzene		28	ug/L	40	71		40	140		
		1,4-dichlorobenzene		29	ug/L	40	74		40	140		
		1,2-dichlorobenzene		31	ug/L	40	78		40	140		
		benzyl alcohol		22	ug/L	40	56		30	130		
		2-methylphenol		22	ug/L	40	54		30	130		
		2,2'-oxybis(1-chloropropane)		45	ug/L	40	112		40	140		
		hexachloroethane		24	ug/L	40	60		40	140		
		N-nitroso-di-N-propylamine		30	ug/L	40	74		40	140		
		4-methylphenol		20	ug/L	40	49		30	130		
		nitrobenzene		22	ug/L	40	56		40	140		
		isophorone		26	ug/L	40	64		40	140		
		2-nitrophenol		27	ug/L	40	68		30	130		
		2,4-dimethylphenol		28	ug/L	40	70		30	130		
		bis(2-chloroethoxy)methane		28	ug/L	40	69		40	140		
		2,4-dichlorophenol		29	ug/L	40	72		30	130		
		1,2,4-trichlorobenzene		26	ug/L	40	64		40	140		
		naphthalene		31	ug/L	40	79		40	140		
		benzoic acid		< 50	ug/L							
		4-chloroaniline		36	ug/L	40	89		40	140		
		hexachlorobutadiene		22	ug/L	40	55		40	140		
		4-chloro-3-methylphenol		27	ug/L	40	66		30	130		
		2-methylnaphthalene		35	ug/L	40	88		40	140		
		hexachlorocyclopentadiene		14	ug/L	40	35	*	40	140		
		2,4,6-trichlorophenol		28	ug/L	40	70		30	130		
		2,4,5-trichlorophenol		30	ug/L	40	75		30	130		
		2-chloronaphthalene		29	ug/L	40	73		40	140		
		2-nitroaniline		32	ug/L	40	80		40	140		
		acenaphthylene		32	ug/L	40	80		40	140		
		dimethylphthalate		27	ug/L	40	69		40	140		
		2,6-dinitrotoluene		35	ug/L	40	87		40	140		
		2,4-dinitrotoluene		31	ug/L	40	78		40	140		
		acenaphthene		32	ug/L	40	80		40	140		
		3-nitroaniline		32	ug/L	40	81		40	140		
		2,4-dinitrophenol		< 50	ug/L							
		dibenzofuran		32	ug/L	40	80		40	140		
		4-nitrophenol		< 10	ug/L	40	16	*	30	130		
		fluorene		32	ug/L	40	81		40	140		
		diethyl phthalate		31	ug/L	40	78		40	140		
		4-chlorophenyl phenyl ether		33	ug/L	40	82		40	140		
		4-nitroaniline		29	ug/L	40	74		40	140		
		4,6-dinitro-2-methylphenol		23	ug/L	40	59		30	130		
		azobenzene		29	ug/L	40	73		40	140		
		N-nitrosodiphenylamine		42	ug/L	40	106		40	140		
		4-bromophenyl phenyl ether		34	ug/L	40	86		40	140		
		hexachlorobenzene		35	ug/L	40	87		40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8270D	LCS11205	pentachlorophenol			29	ug/L	40	72	30	130		
		phenanthrene			37	ug/L	40	92	40	140		
		anthracene			35	ug/L	40	88	40	140		
		carbazole			35	ug/L	40	88	40	140		
		di-n-butylphthalate			36	ug/L	40	91	40	140		
		fluoranthene			34	ug/L	40	86	40	140		
		benzidine		<	30	ug/L						
		pyrene			31	ug/L	40	78	40	140		
		butyl benzyl phthalate			32	ug/L	40	80	40	140		
		benzo(a)anthracene			35	ug/L	40	88	40	140		
		chrysene			28	ug/L	40	71	40	140		
		3,3'-dichlorobenzidine		<	30	ug/L						
		bis(2-ethylhexyl)phthalate			35	ug/L	40	87	40	140		
		di-n-octyl phthalate			29	ug/L	40	73	40	140		
		benzo(b)fluoranthene			32	ug/L	40	79	40	140		
		benzo(k)fluoranthene			33	ug/L	40	83	40	140		
		benzo(a)pyrene			35	ug/L	40	87	40	140		
		indeno(1,2,3-cd)pyrene			40	ug/L	40	100	40	140		
		dibenzo(a,h)anthracene			26	ug/L	40	65	40	140		
		benzo(g,h,i)perylene			43	ug/L	40	107	40	140		
		2-fluorophenol SUR			27	%			21	100		
		phenol-D5 SUR			16	%			10	102		
		2,4,6-tribromophenol SUR			81	%			10	123		
		nitrobenzene-D5 SUR			51	%			35	114		
		2-fluorobiphenyl SUR			66	%			43	116		
		p-terphenyl-D14 SUR			72	%			33	141		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD		RPD Limit
SW3510C8270D	LCSD11205	pyridine		10	ug/L	40	26	*	30	130	3		20
		N-nitrosodimethylamine		11	ug/L	40	27	*	40	140	4		20
		aniline		23	ug/L	40	57		40	140	4		20
		phenol		6	ug/L	40	16	*	30	130	13		20
		2-chlorophenol		25	ug/L	40	63		30	130	11		20
		bis(2-chloroethyl)ether		27	ug/L	40	68		40	140	6		20
		1,3-dichlorobenzene		28	ug/L	40	70		40	140	1		20
		1,4-dichlorobenzene		28	ug/L	40	71		40	140	4		20
		1,2-dichlorobenzene		29	ug/L	40	73		40	140	6		20
		benzyl alcohol		22	ug/L	40	56		30	130	1		20
		2-methylphenol		19	ug/L	40	47		30	130	14		20
		2,2'-oxybis(1-chloropropane)		42	ug/L	40	105		40	140	7		20
		hexachloroethane		24	ug/L	40	61		40	140	2		20
		N-nitroso-di-N-propylamine		26	ug/L	40	66		40	140	12		20
		4-methylphenol		17	ug/L	40	44		30	130	12		20
		nitrobenzene		22	ug/L	40	56		40	140	0		20
		isophorone		26	ug/L	40	64		40	140	0		20
		2-nitrophenol		23	ug/L	40	58		30	130	16		20
		2,4-dimethylphenol		24	ug/L	40	60		30	130	16		20
		bis(2-chloroethoxy)methane		27	ug/L	40	66		40	140	4		20
		2,4-dichlorophenol		26	ug/L	40	64		30	130	13		20
		1,2,4-trichlorobenzene		27	ug/L	40	66		40	140	3		20
		naphthalene		30	ug/L	40	76		40	140	4		20
		benzoic acid		< 50	ug/L								20
		4-chloroaniline		33	ug/L	40	83		40	140	7		20
		hexachlorobutadiene		23	ug/L	40	57		40	140	3		20
		4-chloro-3-methylphenol		25	ug/L	40	63		30	130	6		20
		2-methylnaphthalene		34	ug/L	40	84		40	140	5		20
		hexachlorocyclopentadiene		18	ug/L	40	45		40	140	24	*	20
		2,4,6-trichlorophenol		27	ug/L	40	68		30	130	2		20
		2,4,5-trichlorophenol		27	ug/L	40	67		30	130	12		20
		2-chloronaphthalene		30	ug/L	40	75		40	140	3		20
		2-nitroaniline		33	ug/L	40	83		40	140	3		20
		acenaphthylene		32	ug/L	40	81		40	140	1		20
		dimethylphthalate		29	ug/L	40	71		40	140	4		20
		2,6-dinitrotoluene		35	ug/L	40	88		40	140	0		20
		2,4-dinitrotoluene		33	ug/L	40	84		40	140	6		20
		acenaphthene		33	ug/L	40	82		40	140	3		20
		3-nitroaniline		33	ug/L	40	83		40	140	3		20
		2,4-dinitrophenol		< 50	ug/L								20
		dibenzofuran		32	ug/L	40	81		40	140	1		20
		4-nitrophenol		< 10	ug/L	40	15	*	30	130	5		20
		fluorene		33	ug/L	40	82		40	140	1		20
		diethyl phthalate		32	ug/L	40	79		40	140	2		20
		4-chlorophenyl phenyl ether		32	ug/L	40	80		40	140	4		20
		4-nitroaniline		33	ug/L	40	81		40	140	10		20
		4,6-dinitro-2-methylphenol		25	ug/L	40	63		30	130	8		20
		azobenzene		28	ug/L	40	70		40	140	4		20
		N-nitrosodiphenylamine		41	ug/L	40	103		40	140	3		20
		4-bromophenyl phenyl ether		32	ug/L	40	81		40	140	5		20
		hexachlorobenzene		33	ug/L	40	83		40	140	4		20

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD		RPD Limit
SW3510C8270D	LCSD11205	pentachlorophenol			28	ug/L	40	71	30	130	1		20
		phenanthrene			35	ug/L	40	88	40	140	4		20
		anthracene			35	ug/L	40	87	40	140	2		20
		carbazole			36	ug/L	40	90	40	140	2		20
		di-n-butylphthalate			35	ug/L	40	89	40	140	2		20
		fluoranthene			36	ug/L	40	90	40	140	5		20
		benzidine		<	30	ug/L							20
		pyrene			31	ug/L	40	76	40	140	3		20
		butyl benzyl phthalate			31	ug/L	40	77	40	140	3		20
		benzo(a)anthracene			35	ug/L	40	87	40	140	0		20
		chrysene			29	ug/L	40	72	40	140	1		20
		3,3'-dichlorobenzidine		<	30	ug/L							20
		bis(2-ethylhexyl)phthalate			33	ug/L	40	82	40	140	6		20
		di-n-octyl phthalate			31	ug/L	40	79	40	140	8		20
		benzo(b)fluoranthene			33	ug/L	40	82	40	140	4		20
		benzo(k)fluoranthene			35	ug/L	40	88	40	140	5		20
		benzo(a)pyrene			35	ug/L	40	88	40	140	1		20
		indeno(1,2,3-cd)pyrene			32	ug/L	40	80	40	140	22	*	20
		dibenzo(a,h)anthracene			22	ug/L	40	54	40	140	19		20
		benzo(g,h,i)perylene			32	ug/L	40	81	40	140	28	*	20
		2-fluorophenol SUR			25	%			21	100			
		phenol-D5 SUR			15	%			10	102			
		2,4,6-tribromophenol SUR			78	%			10	123			
		nitrobenzene-D5 SUR			52	%			35	114			
		2-fluorobiphenyl SUR			67	%			43	116			
		p-terphenyl-D14 SUR			71	%			33	141			

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3005A6020A	BLK11213	Arsenic		<	0.005	mg/L						
		Calcium		<	0.5	mg/L						
		Magnesium		<	0.1	mg/L						
		Manganese		<	0.01	mg/L						
SW3005A6020A	DUP11213	Arsenic	46655-002	<	0.005	mg/L						20
		Calcium	46655-002		1.4	mg/L					5	20
		Magnesium	46655-002		0.3	mg/L					0	20
		Manganese	46655-002		0.05	mg/L					10	20
SW3005A6020A	LCS11213	Arsenic			0.49	mg/L	0.5	99	80	120		
		Calcium			2.6	mg/L	2.5	104	80	120		
		Magnesium			0.5	mg/L	0.5	103	80	120		
		Manganese			0.50	mg/L	0.5	99	80	120		
SW3005A6020A	LCSD11213	Arsenic			0.50	mg/L	0.5	101	80	120	2	20
		Calcium			2.7	mg/L	2.5	107	80	120	3	20
		Magnesium			0.5	mg/L	0.5	102	80	120	1	20
		Manganese			0.50	mg/L	0.5	100	80	120	1	20
SW3005A6020A	MS11213	Arsenic	46363-009		4.9	mg/L	5	97	75	125		
SW3005A6020A	MS11213	Arsenic	46655-002		0.48	mg/L	0.5	95	75	125		
		Calcium	46655-002		3.8	mg/L	2.5	98	75	125		
		Magnesium	46655-002		0.8	mg/L	0.5	90	75	125		
		Manganese	46655-002		0.61	mg/L	0.5	110	75	125		

PAGE 1 OF 1

Absolute Resource associates

124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

46655

Company Name: Dept. of Environmental Services, State of New Hampshire

Company Address: 29 Hazen Drive, P.O. Box 95

Report To: Michael Summerlin, P.E.

Phone #: (603) 271-3649

Invoice to Email: michael.summerlinjr@des.nh.gov

☐ Hard Copy Invoice Required

Project Name: Troy Mills Landfill Superfund Site

Project #: DES #198405082

Project Location: NH MA ME VT NY Other

Protocol: RCRA SDWA NPDES MCP NHDES OTHER

Reporting Limits: QAPP GW-1 S-1 EPA DW Other SAP

Quote # ☐ NH Reimbursement Pricing

PO # Contract No. 1051314 (2589-00 T)

ANALYSIS REQUEST

Analysis columns:

- A1: ☐ VOC 8260 ☒ VOC 8260 NHDES ☐ VOC 8260 MADEP
- A2: ☐ VOC 624 ☐ VOC BTEX ☐ MtBE, only ☐ VOC 8021VT
- A3: ☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☒ 1,4-Dioxane 8260 SIM
- A4: ☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:
- A5: ☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint
- A6: ☐ 8270PAH ☒ 8270ABN ☐ 625 ☐ EDB
- A7: ☐ 8082 PCB ☐ 8081 Pesticides ☐
- A8: ☐ O&G 1664 ☐ Mineral O&G SM5520F
- A9: ☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity
- A10: ☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity
- A11: ☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☒ Hardness
- A12: ☒ Total Metals-list: As, ~~Cd, Cr, Pb~~, Mn, ~~Ni~~
- A13: ☐ Dissolved Metals-list:
- A14: ☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☒ TOC
- A15: ☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN
- A16: ☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P
- A17: ☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride
- A18: ☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP
- A19: ☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide
- A20: Subcontract: ☒ Grain Size ☐ Herbicides ☐ Formaldehyde
- Grab (G) or Composite (C)

Lab Sample ID (Lab Use Only)	Field ID	# Containers	Water	Solid	Other	HCl	HNO_3	H_2SO_4	NaOH	MeOH	Date	Time	Sampler	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	Grab (G) or Composite (C)
46655-01	TRIP BLANK	1	X			X					11-~~06~~ 07 MJD -18	0800	MB	X																				
-02	TRY_SW-3	4	X			X	X				11-07-18	1315	TJ	X					X					X	X									
-03	TRY_SW-3 DUP	4	X			X	X				11-07-18	1315	TJ	X					X					X	X									
-04	TRY_SW-4	4	X			X	X				11-07-18	1345	TJ	X					X					X	X									
-05	TRY_SW-100	4	X			X	X				11-07-18	1240	TJ	X					X					X	X									

TAT REQUESTED

Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ☒
*Date Needed ______

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Please contact Tanya Justham at (603) 493-1548 for sample questions and Michael Summerlin for all others.
~~EQUIP BLANK for water level/804~~ TJ 11/7/18

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) and Excel; Please send results to michael.summerlinjr@des.nh.gov and tanya.justham@gza.com

☐ HARD COPY REQUIRED ☐ FAX (FAX#)

RECEIVED ON ICE ☒ YES ☐ NO

TEMPERATURE 0 °C

CUSTODY RECORD

	Date	Time		Date	Time
Relinquished by Sampler: [signature]	11-8-18	0930	Received by: [signature]	11/8/18	0930
Relinquished by: [signature]	11/9/18	1105	Received by: [signature]	11/9/18	11:05
Relinquished by: [signature]	11/9/18	1430	Received by Laboratory: [signature]	11/9/18	14:30

QSD-01 Revision 10/14/15

Maxxam Analytical Data Package

Maxxam
A Bureau Veritas Group Company

Your P.O. #: 46562
Your Project #: 46562
Your C.O.C. #: na

Attention: Aaron DeWees

Absolute Resource Associates LLC
124 Heritage Avenue
Unit # 16
Portsmouth, NH
USA 03801

Report Date: 2018/12/04
Report #: R5511025
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8T5622
Received: 2018/11/06, 13:49

Sample Matrix: Water
Samples Received: 11

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Low level PFAS in Water by SPE/LC-MS/MS (1)	11	2018/11/12	2018/11/17	CAM SOP-00894	EPA 537 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Per- and polyfluoroalkyl substances (PFAS) identified as surrogates on the certificate of analysis represent the extracted internal standard.

Your P.O. #: 46562
Your Project #: 46562
Your C.O.C. #: na

Attention: Aaron DeWees

Absolute Resource Associates LLC
124 Heritage Avenue
Unit # 16
Portsmouth, NH
USA 03801

Report Date: 2018/12/04
Report #: R5511025
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8T5622
Received: 2018/11/06, 13:49

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Stephanie Pollen, Project Manager
Email: SPollen@maxxam.ca
Phone# (905) 817-5700
==========
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8T5622
Report Date: 2018/12/04

Absolute Resource Associates LLC
Client Project #: 46562
Your P.O. #: 46562

RESULTS OF ANALYSES OF WATER

Maxxam ID		IFK318	IFK319			IFK320			
Sampling Date		2018/10/30 08:00	2018/10/30 11:40			2018/10/30 13:30			
COC Number		na	na			na			
	UNITS	TRIP BLANK	FIELD BLANK-MURPHY	RDL	MDL	TRY_MW-101S	RDL	MDL	QC Batch
Miscellaneous Parameters									
6:2 Fluorotelomer sulfonate	ng/L	<4.0	<4.0	4.0	1.0	<4.0	4.0	1.0	5833139
8:2 Fluorotelomer sulfonate	ng/L	<4.0	<4.0	4.0	1.2	<4.0	4.0	1.2	5833139
Perfluorobutanesulfonic acid	ng/L	<2.0	<2.0	2.0	0.89	17	2.0	0.89	5833139
Perfluorobutanoic acid	ng/L	<2.0	<2.0	2.0	0.86	82	2.0	0.86	5833139
Perfluorodecanesulfonic acid (PFDS)	ng/L	<2.0	<2.0	2.0	0.87	<2.0	2.0	0.87	5833139
Perfluorodecanoic Acid (PFDA)	ng/L	<2.0	<2.0	2.0	0.54	<2.0	2.0	0.54	5833139
Perfluorododecanoic Acid (PFDoA)	ng/L	<2.0	<2.0	2.0	0.68	<2.0	2.0	0.68	5833139
Perfluoroheptanesulfonic acid	ng/L	<2.0	<2.0	2.0	0.77	<2.0	2.0	0.77	5833139
Perfluoroheptanoic Acid (PFHpA)	ng/L	<2.0	<2.0	2.0	0.47	260	20	4.7	5833139
Perfluorohexanesulfonic acid	ng/L	<2.0	<2.0	2.0	0.90	10	2.0	0.90	5833139
Perfluorohexanoic Acid (PFHxA)	ng/L	<2.0	<2.0	2.0	0.41	210	20	4.1	5833139
Perfluorononanoic Acid (PFNA)	ng/L	<2.0	<2.0	2.0	0.68	5.6	2.0	0.68	5833139
Perfluorooctane Sulfonamide (PFOSA)	ng/L	<4.0	<4.0	4.0	1.3	<4.0	4.0	1.3	5833139
Perfluorooctanesulfonic acid	ng/L	<2.0	<2.0	2.0	0.70	3.7	2.0	0.70	5833139
Perfluorooctanoic Acid (PFOA)	ng/L	<2.0	<2.0	2.0	0.60	480	20	6.0	5833139
Perfluoropentanoic Acid (PFPeA)	ng/L	<2.0	<2.0	2.0	0.87	160	20	8.7	5833139
Perfluorotetradecanoic Acid	ng/L	<2.0	<2.0	2.0	0.62	<2.0	2.0	0.62	5833139
Perfluorotridecanoic Acid	ng/L	<2.0	<2.0	2.0	0.74	<2.0	2.0	0.74	5833139
Perfluoroundecanoic Acid (PFUnA)	ng/L	<2.0	<2.0	2.0	0.72	<2.0	2.0	0.72	5833139
Surrogate Recovery (%)									
13C2-6:2 Fluorotelomer sulfonate	%	95	96	N/A	N/A	154 (1)	N/A	N/A	5833139
13C2-8:2 Fluorotelomer sulfonate	%	90	93	N/A	N/A	126	N/A	N/A	5833139
13C2-Perfluorodecanoic acid	%	101	88	N/A	N/A	93	N/A	N/A	5833139
13C2-Perfluorododecanoic acid	%	89	87	N/A	N/A	95	N/A	N/A	5833139
13C2-Perfluorohexanoic acid	%	97	98	N/A	N/A	93	N/A	N/A	5833139
13C2-perfluorotetradecanoic acid	%	73	65	N/A	N/A	90	N/A	N/A	5833139
13C2-Perfluoroundecanoic acid	%	90	94	N/A	N/A	96	N/A	N/A	5833139
13C4-Perfluorobutanoic acid	%	99	99	N/A	N/A	70	N/A	N/A	5833139
13C4-Perfluoroheptanoic acid	%	99	96	N/A	N/A	93	N/A	N/A	5833139

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Extracted internal standard analyte recovery was above the defined upper control limit (UCL). Because quantitation is performed using isotope dilution techniques, any apparent gains of the native compound that may occur during any of the sample preparation, extraction, cleanup or determinative steps will be mirrored by a similar gain of the labeled standard, and as such can be accounted for and corrected. Therefore, the quantification of these target compounds is not affected by the high extracted internal standard analyte recovery.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8T5622
Report Date: 2018/12/04

Absolute Resource Associates LLC
Client Project #: 46562
Your P.O. #: 46562

RESULTS OF ANALYSES OF WATER

Maxxam ID		IFK318	IFK319			IFK320			
Sampling Date		2018/10/30 08:00	2018/10/30 11:40			2018/10/30 13:30			
COC Number		na	na			na			
	UNITS	TRIP BLANK	FIELD BLANK-MURPHY	RDL	MDL	TRY_MW-101S	RDL	MDL	QC Batch
13C4-Perfluorooctanesulfonic acid	%	94	110	N/A	N/A	119	N/A	N/A	5833139
13C4-Perfluorooctanoic acid	%	100	102	N/A	N/A	95	N/A	N/A	5833139
13C5-Perfluorononanoic acid	%	100	103	N/A	N/A	88	N/A	N/A	5833139
13C5-Perfluoropentanoic acid	%	98	98	N/A	N/A	98	N/A	N/A	5833139
13C8-Perfluorooctane Sulfonamide	%	55	56	N/A	N/A	80	N/A	N/A	5833139
18O2-Perfluorohexanesulfonic acid	%	101	104	N/A	N/A	114	N/A	N/A	5833139

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Job #: B8T5622
Report Date: 2018/12/04

Absolute Resource Associates LLC
Client Project #: 46562
Your P.O. #: 46562

RESULTS OF ANALYSES OF WATER

Maxxam ID		IFK321			IFK322			IFK323			
Sampling Date		2018/10/30 11:45			2018/10/31 13:25			2018/10/31 15:00			
COC Number		na			na			na			
	UNITS	TRY_MW-602B	RDL	MDL	TRY_M-7	RDL	MDL	TRY_MW-C6S	RDL	MDL	QC Batch
Miscellaneous Parameters											
6:2 Fluorotelomer sulfonate	ng/L	<4.0	4.0	1.0	<4.0	4.0	1.0	<4.0	4.0	1.0	5833139
8:2 Fluorotelomer sulfonate	ng/L	<4.0	4.0	1.2	<4.0	4.0	1.2	<4.0	4.0	1.2	5833139
Perfluorobutanesulfonic acid	ng/L	9.9	2.0	0.89	14	2.0	0.89	7.9	2.0	0.89	5833139
Perfluorobutanoic acid	ng/L	35	2.0	0.86	56	2.0	0.86	47	20	8.6	5833139
Perfluorodecanesulfonic acid (PFDS)	ng/L	<2.0	2.0	0.87	<2.0	2.0	0.87	<2.0	2.0	0.87	5833139
Perfluorodecanoic Acid (PFDA)	ng/L	2.6	2.0	0.54	<2.0	2.0	0.54	<2.0	2.0	0.54	5833139
Perfluorododecanoic Acid (PFDoA)	ng/L	<2.0	2.0	0.68	<2.0	2.0	0.68	<2.0	2.0	0.68	5833139
Perfluoroheptanesulfonic acid	ng/L	<2.0	2.0	0.77	<2.0	2.0	0.77	<2.0	2.0	0.77	5833139
Perfluoroheptanoic Acid (PFHpA)	ng/L	140	20	4.7	220	20	4.7	190	20	4.7	5833139
Perfluorohexanesulfonic acid	ng/L	4.8	2.0	0.90	5.8	2.0	0.90	11	2.0	0.90	5833139
Perfluorohexanoic Acid (PFHxA)	ng/L	120	20	4.1	200	20	4.1	160	20	4.1	5833139
Perfluorononanoic Acid (PFNA)	ng/L	8.1	2.0	0.68	4.3	2.0	0.68	12	2.0	0.68	5833139
Perfluorooctane Sulfonamide (PFOSA)	ng/L	<4.0	4.0	1.3	<4.0	4.0	1.3	<4.0	4.0	1.3	5833139
Perfluorooctanesulfonic acid	ng/L	<2.0	2.0	0.70	<2.0	2.0	0.70	3.8	2.0	0.70	5833139
Perfluorooctanoic Acid (PFOA)	ng/L	270	20	6.0	200	20	6.0	420	20	6.0	5833139
Perfluoropentanoic Acid (PFPeA)	ng/L	85	2.0	0.87	130	20	8.7	150	20	8.7	5833139
Perfluorotetradecanoic Acid	ng/L	<2.0	2.0	0.62	<2.0	2.0	0.62	<2.0	2.0	0.62	5833139
Perfluorotridecanoic Acid	ng/L	<2.0	2.0	0.74	<2.0	2.0	0.74	<2.0	2.0	0.74	5833139
Perfluoroundecanoic Acid (PFUnA)	ng/L	<2.0	2.0	0.72	<2.0	2.0	0.72	<2.0	2.0	0.72	5833139
Surrogate Recovery (%)											
13C2-6:2 Fluorotelomer sulfonate	%	120	N/A	N/A	122	N/A	N/A	88	N/A	N/A	5833139
13C2-8:2 Fluorotelomer sulfonate	%	105	N/A	N/A	104	N/A	N/A	74	N/A	N/A	5833139
13C2-Perfluorodecanoic acid	%	97	N/A	N/A	88	N/A	N/A	71	N/A	N/A	5833139
13C2-Perfluorododecanoic acid	%	85	N/A	N/A	84	N/A	N/A	64	N/A	N/A	5833139
13C2-Perfluorohexanoic acid	%	96	N/A	N/A	92	N/A	N/A	70	N/A	N/A	5833139
13C2-perfluorotetradecanoic acid	%	87	N/A	N/A	78	N/A	N/A	61	N/A	N/A	5833139
13C2-Perfluoroundecanoic acid	%	92	N/A	N/A	89	N/A	N/A	65	N/A	N/A	5833139
13C4-Perfluorobutanoic acid	%	85	N/A	N/A	75	N/A	N/A	72	N/A	N/A	5833139
13C4-Perfluoroheptanoic acid	%	94	N/A	N/A	109	N/A	N/A	68	N/A	N/A	5833139
13C4-Perfluorooctanesulfonic acid	%	110	N/A	N/A	105	N/A	N/A	86	N/A	N/A	5833139
13C4-Perfluorooctanoic acid	%	93	N/A	N/A	108	N/A	N/A	67	N/A	N/A	5833139
13C5-Perfluorononanoic acid	%	96	N/A	N/A	97	N/A	N/A	69	N/A	N/A	5833139
13C5-Perfluoropentanoic acid	%	104	N/A	N/A	132	N/A	N/A	73	N/A	N/A	5833139
13C8-Perfluorooctane Sulfonamide	%	55	N/A	N/A	71	N/A	N/A	53	N/A	N/A	5833139

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Report Date: 2018/12/04

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Client Project #: 46562
Your P.O. #: 46562

RESULTS OF ANALYSES OF WATER

Maxxam ID		IFK321			IFK322			IFK323			
Sampling Date		2018/10/30 11:45			2018/10/31 13:25			2018/10/31 15:00			
COC Number		na			na			na			
	UNITS	**TRY_MW-602B**	**RDL**	**MDL**	**TRY_M-7**	**RDL**	**MDL**	**TRY_MW-C6S**	**RDL**	**MDL**	**QC Batch**
18O2-Perfluorohexanesulfonic acid	%	114	N/A	N/A	106	N/A	N/A	84	N/A	N/A	5833139

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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RESULTS OF ANALYSES OF WATER

Maxxam ID		IFK324			IFK325	IFK326			
Sampling Date		2018/10/31 15:00			2018/10/31 13:35	2018/10/31 15:05			
COC Number		na			na	na			
	UNITS	TRY_MW-C6S DUP	RDL	MDL	FIELD BLANK-BERGEN	FIELD BLANK-DYRNESS	RDL	MDL	QC Batch
Miscellaneous Parameters									
6:2 Fluorotelomer sulfonate	ng/L	<4.0	4.0	1.0	<4.0	<4.0	4.0	1.0	5833139
8:2 Fluorotelomer sulfonate	ng/L	<4.0	4.0	1.2	<4.0	<4.0	4.0	1.2	5833139
Perfluorobutanesulfonic acid	ng/L	8.1	2.0	0.89	<2.0	<2.0	2.0	0.89	5833139
Perfluorobutanoic acid	ng/L	53	20	8.6	<2.0	<2.0	2.0	0.86	5833139
Perfluorodecanesulfonic acid (PFDS)	ng/L	<2.0	2.0	0.87	<2.0	<2.0	2.0	0.87	5833139
Perfluorodecanoic Acid (PFDA)	ng/L	<2.0	2.0	0.54	<2.0	<2.0	2.0	0.54	5833139
Perfluorododecanoic Acid (PFDoA)	ng/L	<2.0	2.0	0.68	<2.0	<2.0	2.0	0.68	5833139
Perfluoroheptanesulfonic acid	ng/L	<2.0	2.0	0.77	<2.0	<2.0	2.0	0.77	5833139
Perfluoroheptanoic Acid (PFHpA)	ng/L	190	20	4.7	<2.0	<2.0	2.0	0.47	5833139
Perfluorohexanesulfonic acid	ng/L	11	2.0	0.90	<2.0	<2.0	2.0	0.90	5833139
Perfluorohexanoic Acid (PFHxA)	ng/L	170	20	4.1	<2.0	<2.0	2.0	0.41	5833139
Perfluorononanoic Acid (PFNA)	ng/L	9.6	2.0	0.68	<2.0	<2.0	2.0	0.68	5833139
Perfluorooctane Sulfonamide (PFOSA)	ng/L	<4.0	4.0	1.3	<4.0	<4.0	4.0	1.3	5833139
Perfluorooctanesulfonic acid	ng/L	4.3	2.0	0.70	<2.0	<2.0	2.0	0.70	5833139
Perfluorooctanoic Acid (PFOA)	ng/L	440	20	6.0	<2.0	<2.0	2.0	0.60	5833139
Perfluoropentanoic Acid (PFPeA)	ng/L	140	20	8.7	<2.0	<2.0	2.0	0.87	5833139
Perfluorotetradecanoic Acid	ng/L	<2.0	2.0	0.62	<2.0	<2.0	2.0	0.62	5833139
Perfluorotridecanoic Acid	ng/L	<2.0	2.0	0.74	<2.0	<2.0	2.0	0.74	5833139
Perfluoroundecanoic Acid (PFUnA)	ng/L	<2.0	2.0	0.72	<2.0	<2.0	2.0	0.72	5833139
Surrogate Recovery (%)									
13C2-6:2 Fluorotelomer sulfonate	%	82	N/A	N/A	78	73	N/A	N/A	5833139
13C2-8:2 Fluorotelomer sulfonate	%	70	N/A	N/A	71	68	N/A	N/A	5833139
13C2-Perfluorodecanoic acid	%	71	N/A	N/A	68	71	N/A	N/A	5833139
13C2-Perfluorododecanoic acid	%	66	N/A	N/A	66	64	N/A	N/A	5833139
13C2-Perfluorohexanoic acid	%	69	N/A	N/A	73	73	N/A	N/A	5833139
13C2-perfluorotetradecanoic acid	%	65	N/A	N/A	56	52	N/A	N/A	5833139
13C2-Perfluoroundecanoic acid	%	69	N/A	N/A	69	66	N/A	N/A	5833139
13C4-Perfluorobutanoic acid	%	72	N/A	N/A	78	78	N/A	N/A	5833139
13C4-Perfluoroheptanoic acid	%	67	N/A	N/A	71	75	N/A	N/A	5833139
13C4-Perfluorooctanesulfonic acid	%	82	N/A	N/A	84	89	N/A	N/A	5833139
13C4-Perfluorooctanoic acid	%	70	N/A	N/A	74	76	N/A	N/A	5833139
13C5-Perfluorononanoic acid	%	72	N/A	N/A	75	80	N/A	N/A	5833139
13C5-Perfluoropentanoic acid	%	73	N/A	N/A	76	78	N/A	N/A	5833139
13C8-Perfluorooctane Sulfonamide	%	49	N/A	N/A	48	36	N/A	N/A	5833139

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Client Project #: 46562
Your P.O. #: 46562

RESULTS OF ANALYSES OF WATER

Maxxam ID		IFK324			IFK325	IFK326			
Sampling Date		2018/10/31 15:00			2018/10/31 13:35	2018/10/31 15:05			
COC Number		na			na	na			
	UNITS	**TRY_MW-C6S DUP**	**RDL**	**MDL**	**FIELD BLANK-BERGEN**	**FIELD BLANK-DYRNESS**	**RDL**	**MDL**	**QC Batch**
18O2-Perfluorohexanesulfonic acid	%	82	N/A	N/A	82	87	N/A	N/A	5833139

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Job #: B8T5622
Report Date: 2018/12/04

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RESULTS OF ANALYSES OF WATER

Maxxam ID		IFK327			IFK328			
Sampling Date		2018/10/31 11:10			2018/11/01 12:55			
COC Number		na			na			
	UNITS	TRY_MW-701	RDL	MDL	TRY_MW-105S	RDL	MDL	QC Batch
Miscellaneous Parameters								
6:2 Fluorotelomer sulfonate	ng/L	<4.0	4.0	1.0	<4.0	4.0	1.0	5833139
8:2 Fluorotelomer sulfonate	ng/L	<4.0	4.0	1.2	<4.0	4.0	1.2	5833139
Perfluorobutanesulfonic acid	ng/L	<2.0	2.0	0.89	20	2.0	0.89	5833139
Perfluorobutanoic acid	ng/L	<2.0	2.0	0.86	44	2.0	0.86	5833139
Perfluorodecanesulfonic acid (PFDS)	ng/L	<2.0	2.0	0.87	<2.0	2.0	0.87	5833139
Perfluorodecanoic Acid (PFDA)	ng/L	<2.0	2.0	0.54	<2.0	2.0	0.54	5833139
Perfluorododecanoic Acid (PFDoA)	ng/L	<2.0	2.0	0.68	<2.0	2.0	0.68	5833139
Perfluoroheptanesulfonic acid	ng/L	<2.0	2.0	0.77	5.3	2.0	0.77	5833139
Perfluoroheptanoic Acid (PFHpA)	ng/L	<2.0	2.0	0.47	170	20	4.7	5833139
Perfluorohexanesulfonic acid	ng/L	<2.0	2.0	0.90	5.7	2.0	0.90	5833139
Perfluorohexanoic Acid (PFHxA)	ng/L	<2.0	2.0	0.41	150	20	4.1	5833139
Perfluorononanoic Acid (PFNA)	ng/L	3.7	2.0	0.68	31	2.0	0.68	5833139
Perfluorooctane Sulfonamide (PFOSA)	ng/L	<4.0	4.0	1.3	<4.0	4.0	1.3	5833139
Perfluorooctanesulfonic acid	ng/L	<2.0	2.0	0.70	10	2.0	0.70	5833139
Perfluorooctanoic Acid (PFOA)	ng/L	<2.0	2.0	0.60	260	20	6.0	5833139
Perfluoropentanoic Acid (PFPeA)	ng/L	<2.0	2.0	0.87	87	2.0	0.87	5833139
Perfluorotetradecanoic Acid	ng/L	<2.0	2.0	0.62	<2.0	2.0	0.62	5833139
Perfluorotridecanoic Acid	ng/L	<2.0	2.0	0.74	<2.0	2.0	0.74	5833139
Perfluoroundecanoic Acid (PFUnA)	ng/L	<2.0	2.0	0.72	<2.0	2.0	0.72	5833139
Surrogate Recovery (%)								
13C2-6:2 Fluorotelomer sulfonate	%	62	N/A	N/A	59	N/A	N/A	5833139
13C2-8:2 Fluorotelomer sulfonate	%	69	N/A	N/A	70	N/A	N/A	5833139
13C2-Perfluorodecanoic acid	%	68	N/A	N/A	63	N/A	N/A	5833139
13C2-Perfluorododecanoic acid	%	67	N/A	N/A	60	N/A	N/A	5833139
13C2-Perfluorohexanoic acid	%	71	N/A	N/A	67	N/A	N/A	5833139
13C2-perfluorotetradecanoic acid	%	65	N/A	N/A	57	N/A	N/A	5833139
13C2-Perfluoroundecanoic acid	%	65	N/A	N/A	63	N/A	N/A	5833139
13C4-Perfluorobutanoic acid	%	71	N/A	N/A	58	N/A	N/A	5833139
13C4-Perfluoroheptanoic acid	%	73	N/A	N/A	69	N/A	N/A	5833139
13C4-Perfluorooctanesulfonic acid	%	77	N/A	N/A	76	N/A	N/A	5833139
13C4-Perfluorooctanoic acid	%	70	N/A	N/A	67	N/A	N/A	5833139
13C5-Perfluorononanoic acid	%	69	N/A	N/A	65	N/A	N/A	5833139
13C5-Perfluoropentanoic acid	%	75	N/A	N/A	70	N/A	N/A	5833139
13C8-Perfluorooctane Sulfonamide	%	45	N/A	N/A	35	N/A	N/A	5833139

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Your P.O. #: 46562

RESULTS OF ANALYSES OF WATER

Maxxam ID		IFK327			IFK328			
Sampling Date		2018/10/31 11:10			2018/11/01 12:55			
COC Number		na			na			
	UNITS	**TRY_MW-701**	**RDL**	**MDL**	**TRY_MW-105S**	**RDL**	**MDL**	**QC Batch**
18O2-Perfluorohexanesulfonic acid	%	84	N/A	N/A	75	N/A	N/A	5833139

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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TEST SUMMARY

Maxxam ID: IFK318 **Collected:** 2018/10/30
Sample ID: TRIP BLANK **Shipped:**
Matrix: Water **Received:** 2018/11/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5833139	2018/11/12	2018/11/17	Adnan Khan

Maxxam ID: IFK319 **Collected:** 2018/10/30
Sample ID: FIELD BLANK-MURPHY **Shipped:**
Matrix: Water **Received:** 2018/11/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5833139	2018/11/12	2018/11/17	Adnan Khan

Maxxam ID: IFK320 **Collected:** 2018/10/30
Sample ID: TRY_MW-101S **Shipped:**
Matrix: Water **Received:** 2018/11/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5833139	2018/11/12	2018/11/17	Adnan Khan

Maxxam ID: IFK321 **Collected:** 2018/10/30
Sample ID: TRY_MW-602B **Shipped:**
Matrix: Water **Received:** 2018/11/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5833139	2018/11/12	2018/11/17	Adnan Khan

Maxxam ID: IFK322 **Collected:** 2018/10/31
Sample ID: TRY_M-7 **Shipped:**
Matrix: Water **Received:** 2018/11/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5833139	2018/11/12	2018/11/17	Adnan Khan

Maxxam ID: IFK323 **Collected:** 2018/10/31
Sample ID: TRY_MW-C6S **Shipped:**
Matrix: Water **Received:** 2018/11/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5833139	2018/11/12	2018/11/17	Adnan Khan

Maxxam ID: IFK324 **Collected:** 2018/10/31
Sample ID: TRY_MW-C6S DUP **Shipped:**
Matrix: Water **Received:** 2018/11/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5833139	2018/11/12	2018/11/17	Adnan Khan

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TEST SUMMARY

Maxxam ID: IFK325 **Collected:** 2018/10/31
Sample ID: FIELD BLANK-BERGEN **Shipped:**
Matrix: Water **Received:** 2018/11/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5833139	2018/11/12	2018/11/17	Adnan Khan

Maxxam ID: IFK326 **Collected:** 2018/10/31
Sample ID: FIELD BLANK-DYRNESS **Shipped:**
Matrix: Water **Received:** 2018/11/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5833139	2018/11/12	2018/11/17	Adnan Khan

Maxxam ID: IFK327 **Collected:** 2018/10/31
Sample ID: TRY_MW-701 **Shipped:**
Matrix: Water **Received:** 2018/11/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5833139	2018/11/12	2018/11/17	Adnan Khan

Maxxam ID: IFK328 **Collected:** 2018/11/01
Sample ID: TRY_MW-105S **Shipped:**
Matrix: Water **Received:** 2018/11/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5833139	2018/11/12	2018/11/17	Adnan Khan

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

GENERAL COMMENTS

Revised Report V2 (2018/11/26): Sample IDs corrected for IFK323 and IFK324 as per client request.

Revised Report V3 (2018/12/04): Sample ID corrected for IFK326 as per client request.

Sample IFK320 [TRY_MW-101S] : Per- and polyfluoroalkyl substances (PFAS): Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly.

Sample IFK321 [TRY_MW-602B] : Per- and polyfluoroalkyl substances (PFAS): Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly.

Sample IFK322 [TRY_M-7] : Per- and polyfluoroalkyl substances (PFAS): Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly.

Sample IFK323 [TRY_MW-C6S] : Per- and polyfluoroalkyl substances (PFAS): Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly.

Sample IFK324 [TRY_MW-C6S DUP] : Per- and polyfluoroalkyl substances (PFAS): Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly.

Sample IFK328 [TRY_MW-105S] : Per- and polyfluoroalkyl substances (PFAS): Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly.

Results relate only to the items tested.

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Maxxam Job #: B8T5622
Report Date: 2018/12/04

Absolute Resource Associates LLC
Client Project #: 46562
Your P.O. #: 46562

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
5833139	AKH	Spiked Blank	13C2-6:2 Fluorotelomer sulfonate	2018/11/17		92	%	50 - 150
			13C2-8:2 Fluorotelomer sulfonate	2018/11/17		99	%	50 - 150
			13C2-Perfluorodecanoic acid	2018/11/17		102	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/11/17		90	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/11/17		97	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/11/17		88	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/11/17		96	%	50 - 150
			13C4-Perfluorobutanoic acid	2018/11/17		97	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/11/17		94	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2018/11/17		98	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/11/17		98	%	50 - 150
			13C5-Perfluorononanoic acid	2018/11/17		94	%	50 - 150
			13C5-Perfluoropentanoic acid	2018/11/17		97	%	50 - 150
			13C8-Perfluorooctane Sulfonamide	2018/11/17		63	%	20 - 100
			18O2-Perfluorohexanesulfonic acid	2018/11/17		96	%	50 - 150
			6:2 Fluorotelomer sulfonate	2018/11/17		99	%	70 - 130
			8:2 Fluorotelomer sulfonate	2018/11/17		101	%	50 - 150
			Perfluorobutanesulfonic acid	2018/11/17		107	%	70 - 130
			Perfluorobutanoic acid	2018/11/17		108	%	70 - 130
			Perfluorodecanesulfonic acid (PFDS)	2018/11/17		98	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2018/11/17		108	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2018/11/17		110	%	70 - 130
			Perfluoroheptanesulfonic acid	2018/11/17		105	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2018/11/17		108	%	70 - 130
			Perfluorohexanesulfonic acid	2018/11/17		117	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2018/11/17		108	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2018/11/17		115	%	70 - 130
			Perfluorooctane Sulfonamide (PFOSA)	2018/11/17		102	%	70 - 130
			Perfluorooctanesulfonic acid	2018/11/17		101	%	70 - 130
			Perfluorooctanoic Acid (PFOA)	2018/11/17		108	%	70 - 130
			Perfluoropentanoic Acid (PFPeA)	2018/11/17		107	%	70 - 130
			Perfluorotetradecanoic Acid	2018/11/17		112	%	70 - 130
			Perfluorotridecanoic Acid	2018/11/17		116	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2018/11/17		111	%	70 - 130
5833139	AKH	Spiked Blank DUP	13C2-6:2 Fluorotelomer sulfonate	2018/11/17		92	%	50 - 150
			13C2-8:2 Fluorotelomer sulfonate	2018/11/17		97	%	50 - 150
			13C2-Perfluorodecanoic acid	2018/11/17		93	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/11/17		88	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/11/17		97	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/11/17		84	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/11/17		95	%	50 - 150
			13C4-Perfluorobutanoic acid	2018/11/17		96	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/11/17		94	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2018/11/17		97	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/11/17		98	%	50 - 150
			13C5-Perfluorononanoic acid	2018/11/17		100	%	50 - 150
			13C5-Perfluoropentanoic acid	2018/11/17		97	%	50 - 150
			13C8-Perfluorooctane Sulfonamide	2018/11/17		65	%	20 - 100
			18O2-Perfluorohexanesulfonic acid	2018/11/17		97	%	50 - 150
			6:2 Fluorotelomer sulfonate	2018/11/17		99	%	70 - 130
			8:2 Fluorotelomer sulfonate	2018/11/17		98	%	50 - 150
			Perfluorobutanesulfonic acid	2018/11/17		106	%	70 - 130
			Perfluorobutanoic acid	2018/11/17		107	%	70 - 130
			Perfluorodecanesulfonic acid (PFDS)	2018/11/17		102	%	70 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorodecanoic Acid (PFDA)	2018/11/17		109	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2018/11/17		104	%	70 - 130
			Perfluoroheptanesulfonic acid	2018/11/17		104	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2018/11/17		109	%	70 - 130
			Perfluorohexanesulfonic acid	2018/11/17		110	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2018/11/17		107	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2018/11/17		104	%	70 - 130
			Perfluorooctane Sulfonamide (PFOSA)	2018/11/17		103	%	70 - 130
			Perfluorooctanesulfonic acid	2018/11/17		100	%	70 - 130
			Perfluorooctanoic Acid (PFOA)	2018/11/17		106	%	70 - 130
			Perfluoropentanoic Acid (PFPeA)	2018/11/17		104	%	70 - 130
			Perfluorotetradecanoic Acid	2018/11/17		109	%	70 - 130
			Perfluorotridecanoic Acid	2018/11/17		115	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2018/11/17		104	%	70 - 130
5833139	AKH	RPD	6:2 Fluorotelomer sulfonate	2018/11/17	0.34		%	30
			8:2 Fluorotelomer sulfonate	2018/11/17	3.5		%	30
			Perfluorobutanesulfonic acid	2018/11/17	1.0		%	30
			Perfluorobutanoic acid	2018/11/17	1.0		%	30
			Perfluorodecanesulfonic acid (PFDS)	2018/11/17	4.1		%	30
			Perfluorodecanoic Acid (PFDA)	2018/11/17	1.7		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/11/17	6.3		%	30
			Perfluoroheptanesulfonic acid	2018/11/17	1.4		%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/11/17	0.50		%	30
			Perfluorohexanesulfonic acid	2018/11/17	6.3		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/11/17	1.2		%	30
			Perfluorononanoic Acid (PFNA)	2018/11/17	9.5		%	30
			Perfluorooctane Sulfonamide (PFOSA)	2018/11/17	1.6		%	30
			Perfluorooctanesulfonic acid	2018/11/17	1.6		%	30
			Perfluorooctanoic Acid (PFOA)	2018/11/17	1.8		%	30
			Perfluoropentanoic Acid (PFPeA)	2018/11/17	2.8		%	30
			Perfluorotetradecanoic Acid	2018/11/17	3.0		%	30
			Perfluorotridecanoic Acid	2018/11/17	0.42		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/11/17	6.7		%	30
5833139	AKH	Method Blank	13C2-6:2 Fluorotelomer sulfonate	2018/11/17		98	%	50 - 150
			13C2-8:2 Fluorotelomer sulfonate	2018/11/17		90	%	50 - 150
			13C2-Perfluorodecanoic acid	2018/11/17		94	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/11/17		84	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/11/17		96	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/11/17		77	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/11/17		89	%	50 - 150
			13C4-Perfluorobutanoic acid	2018/11/17		95	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/11/17		95	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2018/11/17		96	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/11/17		101	%	50 - 150
			13C5-Perfluorononanoic acid	2018/11/17		97	%	50 - 150
			13C5-Perfluoropentanoic acid	2018/11/17		95	%	50 - 150
			13C8-Perfluorooctane Sulfonamide	2018/11/17		52	%	20 - 100
			18O2-Perfluorohexanesulfonic acid	2018/11/17		95	%	50 - 150
			6:2 Fluorotelomer sulfonate	2018/11/17	<4.0		ng/L	
			8:2 Fluorotelomer sulfonate	2018/11/17	<4.0		ng/L	
			Perfluorobutanesulfonic acid	2018/11/17	<2.0		ng/L	
			Perfluorobutanoic acid	2018/11/17	<2.0		ng/L	
			Perfluorodecanesulfonic acid (PFDS)	2018/11/17	<2.0		ng/L	
			Perfluorodecanoic Acid (PFDA)	2018/11/17	<2.0		ng/L	

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Maxxam Job #: B8T5622
Report Date: 2018/12/04

Absolute Resource Associates LLC
Client Project #: 46562
Your P.O. #: 46562

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorododecanoic Acid (PFDoA)	2018/11/17	<2.0		ng/L	
			Perfluoroheptanesulfonic acid	2018/11/17	<2.0		ng/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/11/17	<2.0		ng/L	
			Perfluorohexanesulfonic acid	2018/11/17	<2.0		ng/L	
			Perfluorohexanoic Acid (PFHxA)	2018/11/17	<2.0		ng/L	
			Perfluorononanoic Acid (PFNA)	2018/11/17	<2.0		ng/L	
			Perfluorooctane Sulfonamide (PFOSA)	2018/11/17	<4.0		ng/L	
			Perfluorooctanesulfonic acid	2018/11/17	<2.0		ng/L	
			Perfluorooctanoic Acid (PFOA)	2018/11/17	<2.0		ng/L	
			Perfluoropentanoic Acid (PFPeA)	2018/11/17	<2.0		ng/L	
			Perfluorotetradecanoic Acid	2018/11/17	<2.0		ng/L	
			Perfluorotridecanoic Acid	2018/11/17	<2.0		ng/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/11/17	<2.0		ng/L	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

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Maxxam Job #: B8T5622
Report Date: 2018/12/04

Absolute Resource Associates LLC
Client Project #: 46562
Your P.O. #: 46562

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Adam Robinson, Supervisor, LC/MS/MS

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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06-Nov-18 13:49

Stephanie Pollen

B8T5622

AIR Absolute Resource associates

SUBC MAF ENV-930 Y DOCUMENTATION

Client:	Absolute Resource Associates		Contact:	Aaron DeWees	Phone: 603-436-2001	Fax:			Page	of
Report to:	Aaron DeWees/Jane Stratton		Address:	124 Heritage Ave, #16			Project Name/Number:	46562		
Invoice to:	cathyd@absoluteresourceassociates.com			Portsmouth, NH 03801			Project State:	(NH) MA ME VT		
PO#: 46562	Quote #:						Protocol: RCRA SDWA NPDES MCP (NHDES) Other			

Lab Number: (assigned by laboratory)	Field ID: (must agree with container)	Date Sampled	Time Sampled	Sampled By	Container Size (mL)	Container Type (P/G/T)	Field Preservation	Matrix S=Soil W=Water	Analyses Requested: Special Instructions:
	TRIP BLANK	10/30/18	8:00		125mL x2	P	None	W	PFAS UL 19
	FIELD BLANK-MURPHY		11:40						
	TRY_MW-101S		13:30						
	TRY_MW-602B		11:45						
	TRY_M-7	10/31/18	13:25						
	TRY_MW-C6S		15:00						
	TRY_MW-C6S DUP		15:00						
	FIELD BLANK-BERGEN		13:35						
	FIELD BLANK-DRUMESS		15:05						
	TRY_MW-701		11:10						
	TRY_MW-105S	11/1/18	12:55						

Subcontract Laboratory: Maxxam

Relinquished by:		Date: 11/5/18	Time: 10:38	Received by:	FedEx	Date: 11/5/18	Time: 10:38
Relinquished by:	FedEx	Date:	Time:	Received by:	Dipika Singh DIPIKA SINGH	Date: 2018/11/06	Time: 13:49
Relinquished by:		Date:	Time:	Received by:		Date:	Time:

Reporting Instructions: PDF (Email Address: aarond@absoluteresourceassociates.com; janes@absoluteresourceassociates.com)

Excel File: Y / N

Received on ice? (Y) N

Temp:

TAT Requested: Priority (24hr) Expedited (48hr) 10 Business days Date needed:

Comments:

4.5, 2.4, 2.9

QSD-21 4/15/16 Rev0 ajd (pg 1/1)

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

46562

Company Name: Dept. of Environmental Services, State of New Hampshire
Company Address: 29 Hazen Drive, P.O. Box 95
Report To: Michael Summerlin, P.E.
Phone #: (603) 271-3649
Invoice to Email: michael.summerlinjr@des.nh.gov
☐ Hard Copy Invoice Required

Project Name: Troy Mills Landfill Superfund Site
Project #: DES #198405082
Project Location: NH MA ME VT NY Other
Protocol: RCRA SDWA NPDES MCP NHDES OTHER
Reporting Limits: QAPP GW-1 S-1 EPA DW Other SAP
Quote # ☐ NH Reimbursement Pricing
PO # Contract No. 1051314 (2589-00 T)

ANALYSIS REQUEST

☐ VOC 8260 ☐ VOC 8260 NHDES ☐ VOC 8260 MADEP ☐ VOC 624 ☐ VOC BTEX ☐ MtBE, only ☐ VOC 8021WT ☐ VPH- MADEP ☐ MEGRO ☐ GRO 8015 ☐ 1,4-Dioxane 8260 SIM ☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List: ☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint ☐ 8270PAH ☐ 8270ABN ☐ 625 ☐ EDB ☐ 8082 PCB ☐ 8081 Pesticides ☐ O&G 1664 ☐ Mineral O&G SM5520F ☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity ☐ TSS ☐ TDS ☐ TVS ☐ Alkalinity ☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☐ Hardness ☐ Total Metals-list: ☐ Dissolved Metals-list: ☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☐ TOC ☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN ☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P ☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride ☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitability/FP ☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide Subcontract: ☐ Grain Size ☐ Herbicides ☐ Formaldehyde

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER	PFAS	Grab (G) or Composite (C)
46562-01	TRIP BLANK	2	X								10/30/18	800	MB	X	
-02	FIELD BLANK - MURPHY	2	X								10/30/18	1140	MM	X	
-03	TRY_MW-101S	2	X								10/30/18	1330	MM	X	
-04	TRY_MW-602B	2	X								10/30/18	1145	MM	X	
-05	TRY_M-7	2	X								10/31/18	1325	MB	X	
-06	TRY_MW-C6S	2	X								10/31/18	1500	ED	X	
-07	TRY_MW-C6S DUP	2	X								10/31/18	1500	ED	X	
-08	FIELD BLANK - BERGEN	2	X								10/31/18	1335	MB	X	
-09	FIELD BLANK - DYRNESS	2	X								10/31/18	1505	ED	X	
-10	TRY_MW-701	2	X								10/31/18	1110	MM	X	
-11	TRY_MW-105S	2	X								11/1/18	1255	MM	X	

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ☒
*Date Needed _____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Please contact Tanya Justham at (603) 493-1548 for sample questions and Michael Summerlin for all others. This is not a DOD site please use NHDES Superfund reporting requirements.

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) and Excel; Please send results to michael.summerlinjr@des.nh.gov and tanya.justham@gza.com
☐ HARD COPY REQUIRED ☐ FAX (FAX#) _____

RECEIVED ON ICE ☑ YES ☐ NO
TEMPERATURE 0 °C

CUSTODY RECORD
QSD-01 Revision 10/14/15

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Sampler:	11-1-18	1915	Amy Samson	11/2/18	14:15
2	Amy Samson	11/2/18	14:15			
3		11/2/18	1530	Received by Laboratory:	11/2/18	15:30

Maxxam
A Bureau Veritas Group Company

Your P.O. #: 46649
Your Project #: 46649
Your C.O.C. #: n/a

Attention: Aaron DeWees

Absolute Resource Associates LLC
124 Heritage Avenue
Unit # 16
Portsmouth, NH
USA 03801

Report Date: 2018/11/27
Report #: R5500670
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8U2563
Received: 2018/11/13, 13:38

Sample Matrix: Water
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Low level PFAS in Water by SPE/LC-MS/MS (1)	8	2018/11/15	2018/11/23	CAM SOP-00894	EPA 537 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Per- and polyfluoroalkyl substances (PFAS) identified as surrogates on the certificate of analysis represent the extracted internal standard.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your P.O. #: 46649
Your Project #: 46649
Your C.O.C. #: n/a

Attention: Aaron DeWees

Absolute Resource Associates LLC
124 Heritage Avenue
Unit # 16
Portsmouth, NH
USA 03801

Report Date: 2018/11/27
Report #: R5500670
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8U2563
Received: 2018/11/13, 13:38

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Stephanie Pollen, Project Manager
Email: SPollen@maxxam.ca
Phone# (905) 817-5700

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8U2563
Report Date: 2018/11/27

Absolute Resource Associates LLC
Client Project #: 46649
Your P.O. #: 46649

RESULTS OF ANALYSES OF WATER

Maxxam ID		IGY546			IGY547			IGY548			
Sampling Date		2018/11/02 08:00			2018/11/02 10:45			2018/11/02 15:00			
COC Number		n/a			n/a			n/a			
	UNITS	TRIP BLANK	RDL	MDL	TRY_MW-805	RDL	MDL	EQUIP BLANK	RDL	MDL	QC Batch
Miscellaneous Parameters											
6:2 Fluorotelomer sulfonate	ng/L	<4.0 (1)	4.0	1.0	<4.0 (1)	4.0	1.0	<4.0 (1)	4.0	1.0	5855317
8:2 Fluorotelomer sulfonate	ng/L	<4.0	4.0	1.2	<40	40	12	<4.0	4.0	1.2	5838644
Perfluorobutanesulfonic acid	ng/L	<2.0	2.0	0.89	<20	20	8.9	<2.0	2.0	0.89	5838644
Perfluorobutanoic acid	ng/L	<2.0	2.0	0.86	55	20	8.6	<2.0	2.0	0.86	5838644
Perfluorodecanesulfonic acid (PFDS)	ng/L	<2.0	2.0	0.87	<20	20	8.7	<2.0	2.0	0.87	5838644
Perfluorodecanoic Acid (PFDA)	ng/L	<2.0	2.0	0.54	<20	20	5.4	<2.0	2.0	0.54	5838644
Perfluorododecanoic Acid (PFDoA)	ng/L	<2.0	2.0	0.68	<20	20	6.8	<2.0	2.0	0.68	5838644
Perfluoroheptanesulfonic acid	ng/L	<2.0	2.0	0.77	<20	20	7.7	<2.0	2.0	0.77	5838644
Perfluoroheptanoic Acid (PFHpA)	ng/L	<2.0	2.0	0.47	170	20	4.7	<2.0	2.0	0.47	5838644
Perfluorohexanesulfonic acid	ng/L	<2.0	2.0	0.90	<20	20	9.0	<2.0	2.0	0.90	5838644
Perfluorohexanoic Acid (PFHxA)	ng/L	<2.0	2.0	0.41	150	20	4.1	<2.0	2.0	0.41	5838644
Perfluorononanoic Acid (PFNA)	ng/L	<2.0	2.0	0.68	<20	20	6.8	<2.0	2.0	0.68	5838644
Perfluorooctane Sulfonamide (PFOSA)	ng/L	<4.0	4.0	1.3	<40	40	13	<4.0	4.0	1.3	5838644
Perfluorooctanesulfonic acid	ng/L	<2.0	2.0	0.70	<20	20	7.0	<2.0	2.0	0.70	5838644
Perfluorooctanoic Acid (PFOA)	ng/L	<2.0	2.0	0.60	130	20	6.0	<2.0	2.0	0.60	5838644
Perfluoropentanoic Acid (PFPeA)	ng/L	<2.0	2.0	0.87	110	20	8.7	<2.0	2.0	0.87	5838644
Perfluorotetradecanoic Acid	ng/L	<2.0	2.0	0.62	<20	20	6.2	<2.0	2.0	0.62	5838644
Perfluorotridecanoic Acid	ng/L	<2.0	2.0	0.74	<20	20	7.4	<2.0	2.0	0.74	5838644
Perfluoroundecanoic Acid (PFUnA)	ng/L	<2.0	2.0	0.72	<20	20	7.2	<2.0	2.0	0.72	5838644
Surrogate Recovery (%)											
13C2-6:2 Fluorotelomer sulfonate	%	96	N/A	N/A	105	N/A	N/A	89	N/A	N/A	5855317
13C2-8:2 Fluorotelomer sulfonate	%	80	N/A	N/A	98	N/A	N/A	94	N/A	N/A	5838644
13C2-Perfluorodecanoic acid	%	74	N/A	N/A	106	N/A	N/A	104	N/A	N/A	5838644
13C2-Perfluorododecanoic acid	%	68	N/A	N/A	101	N/A	N/A	99	N/A	N/A	5838644
13C2-Perfluorohexanoic acid	%	88	N/A	N/A	105	N/A	N/A	101	N/A	N/A	5838644
13C2-perfluorotetradecanoic acid	%	55	N/A	N/A	94	N/A	N/A	85	N/A	N/A	5838644
13C2-Perfluoroundecanoic acid	%	74	N/A	N/A	110	N/A	N/A	105	N/A	N/A	5838644
13C4-Perfluorobutanoic acid	%	94	N/A	N/A	107	N/A	N/A	113	N/A	N/A	5838644
13C4-Perfluoroheptanoic acid	%	84	N/A	N/A	108	N/A	N/A	107	N/A	N/A	5838644
13C4-Perfluorooctanesulfonic acid	%	82	N/A	N/A	103	N/A	N/A	105	N/A	N/A	5838644
13C4-Perfluorooctanoic acid	%	90	N/A	N/A	107	N/A	N/A	96	N/A	N/A	5838644

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Analysis was performed past the method defined holding time. Because of their chemical structure, PFAS are chemically and biologically stable in the environment and resist typical environmental degradation processes. This would suggest a hold time exceedance would not have a significant impact on the data.

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Maxxam Job #: B8U2563
Report Date: 2018/11/27

Absolute Resource Associates LLC
Client Project #: 46649
Your P.O. #: 46649

RESULTS OF ANALYSES OF WATER

Maxxam ID		IGY546			IGY547			IGY548			
Sampling Date		2018/11/02 08:00			2018/11/02 10:45			2018/11/02 15:00			
COC Number		n/a			n/a			n/a			
	UNITS	TRIP BLANK	RDL	MDL	TRY_MW-805	RDL	MDL	EQUIP BLANK	RDL	MDL	QC Batch
13C5-Perfluorononanoic acid	%	85	N/A	N/A	111	N/A	N/A	82	N/A	N/A	5838644
13C5-Perfluoropentanoic acid	%	87	N/A	N/A	107	N/A	N/A	104	N/A	N/A	5838644
13C8-Perfluorooctane Sulfonamide	%	17 (1)	N/A	N/A	79	N/A	N/A	82	N/A	N/A	5838644
18O2-Perfluorohexanesulfonic acid	%	90	N/A	N/A	111	N/A	N/A	107	N/A	N/A	5838644

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) Extracted internal standard analyte recovery was below the defined lower control limit (LCL). Because quantitation is performed using isotope dilution techniques, any losses of the native compound that may occur during any of the sample preparation, extraction, cleanup or determinative steps will be mirrored by a similar loss of the labeled standard, and as such can be accounted for and corrected. Therefore, the quantification of these target compounds is not affected by the low extracted internal standard analyte recovery.

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Maxxam Job #: B8U2563
Report Date: 2018/11/27

Absolute Resource Associates LLC
Client Project #: 46649
Your P.O. #: 46649

RESULTS OF ANALYSES OF WATER

Maxxam ID		IGY549			IGY550	IGY551	IGY552			
Sampling Date		2018/11/05 12:15			2018/11/05 14:55	2018/11/06 13:30	2018/11/06 13:30			
COC Number		n/a			n/a	n/a	n/a			
	UNITS	TRY_MW-A28	RDL	MDL	TRY_MW-102	TRY_MW-804	TRY_MW-804DUP	RDL	MDL	QC Batch
Miscellaneous Parameters										
6:2 Fluorotelomer sulfonate	ng/L	<4.0 (1)	4.0	1.0	<40 (1)	<40 (1)	<40 (1)	40	10	5855317
8:2 Fluorotelomer sulfonate	ng/L	<40	40	12	<40	<40	<40	40	12	5838644
Perfluorobutanesulfonic acid	ng/L	<20	20	8.9	37	<20	20	20	8.9	5838644
Perfluorobutanoic acid	ng/L	21	20	8.6	120	110	110	20	8.6	5838644
Perfluorodecanesulfonic acid (PFDS)	ng/L	<20	20	8.7	<20	<20	<20	20	8.7	5838644
Perfluorodecanoic Acid (PFDA)	ng/L	<20	20	5.4	<20	<20	<20	20	5.4	5838644
Perfluorododecanoic Acid (PFDoA)	ng/L	<20	20	6.8	<20	<20	<20	20	6.8	5838644
Perfluoroheptanesulfonic acid	ng/L	<20	20	7.7	<20	<20	<20	20	7.7	5838644
Perfluoroheptanoic Acid (PFHpA)	ng/L	<20	20	4.7	570	400	410	20	4.7	5838644
Perfluorohexanesulfonic acid	ng/L	<20	20	9.0	<20	<20	<20	20	9.0	5838644
Perfluorohexanoic Acid (PFHxA)	ng/L	<20	20	4.1	440	280	290	20	4.1	5838644
Perfluorononanoic Acid (PFNA)	ng/L	<20	20	6.8	<20	<20	<20	20	6.8	5838644
Perfluorooctane Sulfonamide (PFOSA)	ng/L	<40	40	13	<40	<40	<40	40	13	5838644
Perfluorooctanesulfonic acid	ng/L	<20	20	7.0	<20	<20	<20	20	7.0	5838644
Perfluorooctanoic Acid (PFOA)	ng/L	<20	20	6.0	610	790	770	20	6.0	5838644
Perfluoropentanoic Acid (PFPeA)	ng/L	23	20	8.7	270	220	220	20	8.7	5838644
Perfluorotetradecanoic Acid	ng/L	<20	20	6.2	<20	<20	<20	20	6.2	5838644
Perfluorotridecanoic Acid	ng/L	<20	20	7.4	<20	<20	<20	20	7.4	5838644
Perfluoroundecanoic Acid (PFUnA)	ng/L	<20	20	7.2	<20	<20	<20	20	7.2	5838644
Surrogate Recovery (%)										
13C2-6:2 Fluorotelomer sulfonate	%	87	N/A	N/A	80	78	68	N/A	N/A	5855317
13C2-8:2 Fluorotelomer sulfonate	%	86	N/A	N/A	89	88	100	N/A	N/A	5838644
13C2-Perfluorodecanoic acid	%	88	N/A	N/A	89	88	96	N/A	N/A	5838644
13C2-Perfluorododecanoic acid	%	89	N/A	N/A	87	89	97	N/A	N/A	5838644
13C2-Perfluorohexanoic acid	%	91	N/A	N/A	95	93	100	N/A	N/A	5838644
13C2-perfluorotetradecanoic acid	%	89	N/A	N/A	80	86	93	N/A	N/A	5838644
13C2-Perfluoroundecanoic acid	%	87	N/A	N/A	91	95	101	N/A	N/A	5838644
13C4-Perfluorobutanoic acid	%	98	N/A	N/A	106	87	92	N/A	N/A	5838644
13C4-Perfluoroheptanoic acid	%	91	N/A	N/A	99	97	104	N/A	N/A	5838644
13C4-Perfluorooctanesulfonic acid	%	97	N/A	N/A	105	92	106	N/A	N/A	5838644
13C4-Perfluorooctanoic acid	%	89	N/A	N/A	98	91	100	N/A	N/A	5838644

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Analysis was performed past the method defined holding time. Because of their chemical structure, PFAS are chemically and biologically stable in the environment and resist typical environmental degradation processes. This would suggest a hold time exceedance would not have a significant impact on the data.

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Maxxam Job #: B8U2563
Report Date: 2018/11/27

Absolute Resource Associates LLC
Client Project #: 46649
Your P.O. #: 46649

RESULTS OF ANALYSES OF WATER

Maxxam ID		IGY549			IGY550	IGY551	IGY552			
Sampling Date		2018/11/05 12:15			2018/11/05 14:55	2018/11/06 13:30	2018/11/06 13:30			
COC Number		n/a			n/a	n/a	n/a			
	UNITS	**TRY_MW-A28**	**RDL**	**MDL**	**TRY_MW-102**	**TRY_MW-804**	**TRY_MW-804DUP**	**RDL**	**MDL**	**QC Batch**
13C5-Perfluorononanoic acid	%	86	N/A	N/A	104	92	103	N/A	N/A	5838644
13C5-Perfluoropentanoic acid	%	93	N/A	N/A	106	92	100	N/A	N/A	5838644
13C8-Perfluorooctane Sulfonamide	%	66	N/A	N/A	62	66	74	N/A	N/A	5838644
18O2-Perfluorohexanesulfonic acid	%	100	N/A	N/A	104	106	104	N/A	N/A	5838644

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Job #: B8U2563
Report Date: 2018/11/27

Absolute Resource Associates LLC
Client Project #: 46649
Your P.O. #: 46649

RESULTS OF ANALYSES OF WATER

Maxxam ID		IGY553			
Sampling Date		2018/11/07 10:50			
COC Number		n/a			
	UNITS	TRY_MW-205	RDL	MDL	QC Batch
Miscellaneous Parameters					
6:2 Fluorotelomer sulfonate	ng/L	<4.0 (1)	4.0	1.0	5855317
8:2 Fluorotelomer sulfonate	ng/L	<40	40	12	5838644
Perfluorobutanesulfonic acid	ng/L	<20	20	8.9	5838644
Perfluorobutanoic acid	ng/L	78	20	8.6	5838644
Perfluorodecanesulfonic acid (PFDS)	ng/L	<20	20	8.7	5838644
Perfluorodecanoic Acid (PFDA)	ng/L	<20	20	5.4	5838644
Perfluorododecanoic Acid (PFDoA)	ng/L	<20	20	6.8	5838644
Perfluoroheptanesulfonic acid	ng/L	<20	20	7.7	5838644
Perfluoroheptanoic Acid (PFHpA)	ng/L	83	20	4.7	5838644
Perfluorohexanesulfonic acid	ng/L	<20	20	9.0	5838644
Perfluorohexanoic Acid (PFHxA)	ng/L	62	20	4.1	5838644
Perfluorononanoic Acid (PFNA)	ng/L	24	20	6.8	5838644
Perfluorooctane Sulfonamide (PFOSA)	ng/L	<40	40	13	5838644
Perfluorooctanesulfonic acid	ng/L	<20	20	7.0	5838644
Perfluorooctanoic Acid (PFOA)	ng/L	47	20	6.0	5838644
Perfluoropentanoic Acid (PFPeA)	ng/L	100	20	8.7	5838644
Perfluorotetradecanoic Acid	ng/L	<20	20	6.2	5838644
Perfluorotridecanoic Acid	ng/L	<20	20	7.4	5838644
Perfluoroundecanoic Acid (PFUnA)	ng/L	<20	20	7.2	5838644
Surrogate Recovery (%)					
13C2-6:2 Fluorotelomer sulfonate	%	118	N/A	N/A	5855317
13C2-8:2 Fluorotelomer sulfonate	%	88	N/A	N/A	5838644
13C2-Perfluorodecanoic acid	%	87	N/A	N/A	5838644
13C2-Perfluorododecanoic acid	%	90	N/A	N/A	5838644
13C2-Perfluorohexanoic acid	%	102	N/A	N/A	5838644
13C2-perfluorotetradecanoic acid	%	91	N/A	N/A	5838644
13C2-Perfluoroundecanoic acid	%	93	N/A	N/A	5838644
13C4-Perfluorobutanoic acid	%	93	N/A	N/A	5838644
13C4-Perfluoroheptanoic acid	%	102	N/A	N/A	5838644

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Analysis was performed past the method defined holding time. Because of their chemical structure, PFAS are chemically and biologically stable in the environment and resist typical environmental degradation processes. This would suggest a hold time exceedance would not have a significant impact on the data.

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Maxxam Job #: B8U2563
Report Date: 2018/11/27

Absolute Resource Associates LLC
Client Project #: 46649
Your P.O. #: 46649

RESULTS OF ANALYSES OF WATER

Maxxam ID		IGY553			
Sampling Date		2018/11/07 10:50			
COC Number		n/a			
	UNITS	TRY_MW-205	RDL	MDL	QC Batch
13C4-Perfluorooctanesulfonic acid	%	104	N/A	N/A	5838644
13C4-Perfluorooctanoic acid	%	97	N/A	N/A	5838644
13C5-Perfluorononanoic acid	%	93	N/A	N/A	5838644
13C5-Perfluoropentanoic acid	%	101	N/A	N/A	5838644
13C8-Perfluorooctane Sulfonamide	%	87	N/A	N/A	5838644
18O2-Perfluorohexanesulfonic acid	%	103	N/A	N/A	5838644

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Job #: B8U2563
Report Date: 2018/11/27

Absolute Resource Associates LLC
Client Project #: 46649
Your P.O. #: 46649

TEST SUMMARY

Maxxam ID: IGY546 **Collected:** 2018/11/02
Sample ID: TRIP BLANK **Shipped:**
Matrix: Water **Received:** 2018/11/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5855317	2018/11/24	2018/11/25	Marian Godax

Maxxam ID: IGY547 **Collected:** 2018/11/02
Sample ID: TRY_MW-805 **Shipped:**
Matrix: Water **Received:** 2018/11/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5855317	2018/11/24	2018/11/25	Marian Godax

Maxxam ID: IGY548 **Collected:** 2018/11/02
Sample ID: EQUIP BLANK **Shipped:**
Matrix: Water **Received:** 2018/11/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5855317	2018/11/24	2018/11/25	Marian Godax

Maxxam ID: IGY549 **Collected:** 2018/11/05
Sample ID: TRY_MW-A28 **Shipped:**
Matrix: Water **Received:** 2018/11/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5855317	2018/11/24	2018/11/25	Marian Godax

Maxxam ID: IGY550 **Collected:** 2018/11/05
Sample ID: TRY_MW-102 **Shipped:**
Matrix: Water **Received:** 2018/11/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5855317	2018/11/24	2018/11/25	Marian Godax

Maxxam ID: IGY551 **Collected:** 2018/11/06
Sample ID: TRY_MW-804 **Shipped:**
Matrix: Water **Received:** 2018/11/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5855317	2018/11/24	2018/11/25	Marian Godax

Maxxam ID: IGY552 **Collected:** 2018/11/06
Sample ID: TRY_MW-804DUP **Shipped:**
Matrix: Water **Received:** 2018/11/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5855317	2018/11/24	2018/11/25	Marian Godax

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Maxxam Job #: B8U2563
Report Date: 2018/11/27

Absolute Resource Associates LLC
Client Project #: 46649
Your P.O. #: 46649

TEST SUMMARY

Maxxam ID: IGY553
Sample ID: TRY_MW-205
Matrix: Water

Collected: 2018/11/07
Shipped:
Received: 2018/11/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFAS in Water by SPE/LC-MS/MS	LCMS	5855317	2018/11/24	2018/11/25	Marian Godax

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8U2563
Report Date: 2018/11/27

Absolute Resource Associates LLC
Client Project #: 46649
Your P.O. #: 46649

GENERAL COMMENTS

Sample IGY547 [TRY_MW-805] : Per- and polyfluoroalkyl substances (PFAS): Due to sample matrix, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly. Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly.

Sample IGY549 [TRY_MW-A28] : Per- and polyfluoroalkyl substances (PFAS): Due to sample matrix, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly.

Sample IGY550 [TRY_MW-102] : Per- and polyfluoroalkyl substances (PFAS): Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly.

Sample IGY551 [TRY_MW-804] : Per- and polyfluoroalkyl substances (PFAS): Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly.

Sample IGY552 [TRY_MW-804DUP] : Per- and polyfluoroalkyl substances (PFAS): Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly.

Sample IGY553 [TRY_MW-205] : Per- and polyfluoroalkyl substances (PFAS): Due to sample matrix, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly.

Sample IGY546, Low level PFAS in Water by SPE/LC-MS/MS: Test repeated.
Sample IGY547, Low level PFAS in Water by SPE/LC-MS/MS: Test repeated.
Sample IGY548, Low level PFAS in Water by SPE/LC-MS/MS: Test repeated.
Sample IGY549, Low level PFAS in Water by SPE/LC-MS/MS: Test repeated.
Sample IGY550, Low level PFAS in Water by SPE/LC-MS/MS: Test repeated.
Sample IGY551, Low level PFAS in Water by SPE/LC-MS/MS: Test repeated.
Sample IGY552, Low level PFAS in Water by SPE/LC-MS/MS: Test repeated.
Sample IGY553, Low level PFAS in Water by SPE/LC-MS/MS: Test repeated.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8U2563
Report Date: 2018/11/27

Absolute Resource Associates LLC
Client Project #: 46649
Your P.O. #: 46649

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
5838644	AKH	Spiked Blank	13C2-8:2 Fluorotelomer sulfonate	2018/11/23		97	%	50 - 150
			13C2-Perfluorodecanoic acid	2018/11/23		98	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/11/23		87	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/11/23		105	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/11/23		87	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/11/23		102	%	50 - 150
			13C4-Perfluorobutanoic acid	2018/11/23		105	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/11/23		103	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2018/11/23		92	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/11/23		103	%	50 - 150
			13C5-Perfluorononanoic acid	2018/11/23		99	%	50 - 150
			13C5-Perfluoropentanoic acid	2018/11/23		101	%	50 - 150
			13C8-Perfluorooctane Sulfonamide	2018/11/23		74	%	20 - 100
			18O2-Perfluorohexanesulfonic acid	2018/11/23		97	%	50 - 150
			8:2 Fluorotelomer sulfonate	2018/11/23		84	%	70 - 130
			Perfluorobutanesulfonic acid	2018/11/23		87	%	70 - 130
			Perfluorobutanoic acid	2018/11/23		91	%	70 - 130
			Perfluorodecanesulfonic acid (PFDS)	2018/11/23		88	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2018/11/23		94	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2018/11/23		97	%	70 - 130
			Perfluoroheptanesulfonic acid	2018/11/23		86	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2018/11/23		91	%	70 - 130
			Perfluorohexanesulfonic acid	2018/11/23		93	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2018/11/23		91	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2018/11/23		91	%	70 - 130
			Perfluorooctane Sulfonamide (PFOSA)	2018/11/23		90	%	70 - 130
			Perfluorooctanesulfonic acid	2018/11/23		100	%	70 - 130
			Perfluorooctanoic Acid (PFOA)	2018/11/23		90	%	70 - 130
			Perfluoropentanoic Acid (PFPeA)	2018/11/23		92	%	70 - 130
			Perfluorotetradecanoic Acid	2018/11/23		92	%	70 - 130
			Perfluorotridecanoic Acid	2018/11/23		94	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2018/11/23		91	%	70 - 130
5838644	AKH	Spiked Blank DUP	13C2-8:2 Fluorotelomer sulfonate	2018/11/23		98	%	50 - 150
			13C2-Perfluorodecanoic acid	2018/11/23		95	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/11/23		86	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/11/23		102	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/11/23		81	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/11/23		92	%	50 - 150
			13C4-Perfluorobutanoic acid	2018/11/23		107	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/11/23		102	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2018/11/23		110	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/11/23		102	%	50 - 150
			13C5-Perfluorononanoic acid	2018/11/23		98	%	50 - 150
			13C5-Perfluoropentanoic acid	2018/11/23		100	%	50 - 150
			13C8-Perfluorooctane Sulfonamide	2018/11/23		47	%	20 - 100
			18O2-Perfluorohexanesulfonic acid	2018/11/23		98	%	50 - 150
			8:2 Fluorotelomer sulfonate	2018/11/23		82	%	70 - 130
			Perfluorobutanesulfonic acid	2018/11/23		86	%	70 - 130
			Perfluorobutanoic acid	2018/11/23		88	%	70 - 130
			Perfluorodecanesulfonic acid (PFDS)	2018/11/23		80	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2018/11/23		91	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2018/11/23		90	%	70 - 130
			Perfluoroheptanesulfonic acid	2018/11/23		86	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2018/11/23		90	%	70 - 130

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorohexanesulfonic acid	2018/11/23		90	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2018/11/23		90	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2018/11/23		91	%	70 - 130
			Perfluorooctane Sulfonamide (PFOSA)	2018/11/23		88	%	70 - 130
			Perfluorooctanesulfonic acid	2018/11/23		81	%	70 - 130
			Perfluorooctanoic Acid (PFOA)	2018/11/23		88	%	70 - 130
			Perfluoropentanoic Acid (PFPeA)	2018/11/23		90	%	70 - 130
			Perfluorotetradecanoic Acid	2018/11/23		94	%	70 - 130
			Perfluorotridecanoic Acid	2018/11/23		95	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2018/11/23		93	%	70 - 130
5838644	AKH	RPD	8:2 Fluorotelomer sulfonate	2018/11/23	3.0		%	30
			Perfluorobutanesulfonic acid	2018/11/23	1.1		%	30
			Perfluorobutanoic acid	2018/11/23	3.2		%	30
			Perfluorodecanesulfonic acid (PFDS)	2018/11/23	9.1		%	30
			Perfluorodecanoic Acid (PFDA)	2018/11/23	3.4		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/11/23	7.0		%	30
			Perfluoroheptanesulfonic acid	2018/11/23	0.17		%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/11/23	1.5		%	30
			Perfluorohexanesulfonic acid	2018/11/23	3.6		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/11/23	0.68		%	30
			Perfluorononanoic Acid (PFNA)	2018/11/23	0.0031		%	30
			Perfluorooctane Sulfonamide (PFOSA)	2018/11/23	2.7		%	30
			Perfluorooctanesulfonic acid	2018/11/23	21		%	30
			Perfluorooctanoic Acid (PFOA)	2018/11/23	2.1		%	30
			Perfluoropentanoic Acid (PFPeA)	2018/11/23	2.3		%	30
			Perfluorotetradecanoic Acid	2018/11/23	2.3		%	30
			Perfluorotridecanoic Acid	2018/11/23	1.0		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/11/23	2.7		%	30
5838644	AKH	Method Blank	13C2-8:2 Fluorotelomer sulfonate	2018/11/23		101	%	50 - 150
			13C2-Perfluorodecanoic acid	2018/11/23		93	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/11/23		86	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/11/23		101	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/11/23		85	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/11/23		91	%	50 - 150
			13C4-Perfluorobutanoic acid	2018/11/23		105	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/11/23		106	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2018/11/23		92	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/11/23		105	%	50 - 150
			13C5-Perfluorononanoic acid	2018/11/23		98	%	50 - 150
			13C5-Perfluoropentanoic acid	2018/11/23		102	%	50 - 150
			13C8-Perfluorooctane Sulfonamide	2018/11/23		72	%	20 - 100
			18O2-Perfluorohexanesulfonic acid	2018/11/23		95	%	50 - 150
			8:2 Fluorotelomer sulfonate	2018/11/23	<4.0		ng/L	
			Perfluorobutanesulfonic acid	2018/11/23	<2.0		ng/L	
			Perfluorobutanoic acid	2018/11/23	<2.0		ng/L	
			Perfluorodecanesulfonic acid (PFDS)	2018/11/23	<2.0		ng/L	
			Perfluorodecanoic Acid (PFDA)	2018/11/23	<2.0		ng/L	
			Perfluorododecanoic Acid (PFDoA)	2018/11/23	<2.0		ng/L	
			Perfluoroheptanesulfonic acid	2018/11/23	<2.0		ng/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/11/23	<2.0		ng/L	
			Perfluorohexanesulfonic acid	2018/11/23	<2.0		ng/L	
			Perfluorohexanoic Acid (PFHxA)	2018/11/23	<2.0		ng/L	
			Perfluorononanoic Acid (PFNA)	2018/11/23	<2.0		ng/L	
			Perfluorooctane Sulfonamide (PFOSA)	2018/11/23	<4.0		ng/L	

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Maxxam Job #: B8U2563
Report Date: 2018/11/27

Absolute Resource Associates LLC
Client Project #: 46649
Your P.O. #: 46649

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorooctanesulfonic acid	2018/11/23	<2.0		ng/L	
			Perfluorooctanoic Acid (PFOA)	2018/11/23	<2.0		ng/L	
			Perfluoropentanoic Acid (PFPeA)	2018/11/23	<2.0		ng/L	
			Perfluorotetradecanoic Acid	2018/11/23	<2.0		ng/L	
			Perfluorotridecanoic Acid	2018/11/23	<2.0		ng/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/11/23	<2.0		ng/L	
5855317	M_G	Spiked Blank	13C2-6:2 Fluorotelomer sulfonate	2018/11/25		84	%	50 - 150
			6:2 Fluorotelomer sulfonate	2018/11/25		103	%	70 - 130
5855317	M_G	Spiked Blank DUP	13C2-6:2 Fluorotelomer sulfonate	2018/11/25		78	%	50 - 150
			6:2 Fluorotelomer sulfonate	2018/11/25		108	%	70 - 130
5855317	M_G	RPD	6:2 Fluorotelomer sulfonate	2018/11/25	4.4		%	30
5855317	M_G	Method Blank	13C2-6:2 Fluorotelomer sulfonate	2018/11/25		85	%	50 - 150
			6:2 Fluorotelomer sulfonate	2018/11/25	<4.0		ng/L	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

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Maxxam Job #: B8U2563
Report Date: 2018/11/27

Absolute Resource Associates LLC
Client Project #: 46649
Your P.O. #: 46649

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Colm McNamara, Senior Analyst, Liquid Chromatography

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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AIR Absolute Resource associates

SUBCONTRACT CHAIN OF CUSTODY DOCUMENTATION

Client:	Absolute Resource Associates	Contact:	Aaron DeWees	Phone: 603-436-2001 Fax:	Page 1 of 1
Report to:	Aaron DeWees/Jane Stratton	Address:	124 Heritage Ave, #16	Project Name/Number: 46649	
Invoice to:	cathyd@absoluteresourceassociates.com		Portsmouth, NH 03801	Project State: (NH) MA ME VT	
PO#: 46649	Quote #:			Protocol: RCRA SDWA NPDES MCP (NHDES) Other	

Lab Number: (assigned by laboratory)	Field ID: (must agree with container)	Date Sampled	Time Sampled	Sampled By	Container Size (mL)	Container Type (P/G/T)	Field Preservation	Matrix S=Soil W=Water	Analyses Requested: Special Instructions:
	TRIP BLANK	11/2/18	8:00		125mL x2	P	None	W	VOC
	TRY_MW-805	"	10:45		"	"	"	"	"
	EQUIP BLANK	"	15:00		"	"	"	"	"
	TRY_MW-A28	11/5/18	12:15		"	"	"	"	"
	TRY_MW-102	"	14:55		"	"	"	"	"
	TRY_MW-804	11/6/18	13:30		"	"	"	"	"
	TRY_MW-804DUP	"	"		"	"	"	"	"
	TRY_MW-205	11/7/18	10:50		"	"	"	"	"

Subcontract Laboratory: Maxxam

Relinquished by:		Date: 11/12/18	Time: 12:35	Received by:	FedEx	Date: 11/12/18	Time: 12:35
Relinquished by:	FedEx	Date:	Time:	Received by:	Dipika Singh DIPIKA SINGH	Date: 2018/11/13	Time: 13:38
Relinquished by:		Date:	Time:	Received by:		Date:	Time:

Reporting Instructions: PDF (Email Address: aarond@absoluteresourceassociates.com; janes@absoluteresourceassociates.com)

Received on ice? (Y) N

Excel File: Y / N

Temp: 3.6, 3.3, 3.7

TAT Requested: Priority (24hr) Expedited (48hr) 10 Business days Date needed:

Comments:

13-Nov-18 13:38
Stephanie Pollen
B8U2563

URE ENV-1337

4/15/16 Rev0 ajd (pg 1/1)

46649

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

Company Name: Dept. of Environmental Services, State of New Hampshire

Company Address: 29 Hazen Drive, P.O. Box 95

Report To: Michael Summerlin, P.E.

Phone #: (603) 271-3649

Invoice to Email: michael.summerlinjr@des.nh.gov

☐ Hard Copy Invoice Required

Project Name: Troy Mills Landfill Superfund Site

Project #: DES #198405082

Project Location: NH MA ME VT NY Other

Protocol: RCRA SDWA NPDES MCP NHDES OTHER

Reporting Limits: QAPP GW-1 S-1 EPA DW Other SAP

Quote # ☐ NH Reimbursement Pricing

PO # Contract No. 1051314 (2589-00 T)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER	PFAS
460701	TRIP BLANK	2	X								11-02-18	0800	MM	X
02	TRY_MW-805	2	X								11-02-18	1045	EB	X
03	EQUIP BLANK	2	X								11-02-18	1500	TJ	X
04	TRY_MW-A28	2	X								11-05-18	1215	ED	X
05	TRY_MW-102	2	X								11-05-18	1455	MB	X
06	TRY_MW-804	2	X								11-06-18	1330	MB	X
07	TRY_MW-804 DUP	2	X								11-06-18	1330	MB	X
08	TRY_MW-205	2	X								11-07-18	1050	ED	X

ANALYSIS REQUEST

☐ VOC 8260 ☐ VOC 8260 NHDES ☐ VOC 8260 MADEP
☐ VOC 624 ☐ VOC BTEX ☐ MtBE. only ☐ VOC 8021VT
☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☐ 1,4-Dioxane 8260 SIM
☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:
☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint
☐ 8270PAH ☐ 8270ABN ☐ 625 ☐ EDB
☐ 8082 PCB ☐ 8081 Pesticides ☐
☐ O&G 1664 ☐ Mineral O&G SM5520F
☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity
☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity
☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☐ Hardness
☐ Total Metals-list:
☐ Dissolved Metals-list:
☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☐ TOC
☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN
☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P
☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride
☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP
☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide
Subcontract: ☐ Grain Size ☐ Herbicides ☐ Formaldehyde
X PFAS
Grab (G) or Composite (C)

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ☒
*Date Needed _____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Please contact Tanya Justham at (603) 493-1548 for sample questions and Michael Summerlin for all others. This is not a DOD site please use NHDES Superfund reporting requirements. EQUIP BLANK dated 11-02-18 for SamplePro/805.

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) and Excel; Please send results to michael.summerlinjr@des.nh.gov and tanya.justham@gza.com
☐ HARD COPY REQUIRED ☐ FAX (FAX#) _____

RECEIVED ON ICE ☒ YES ☐ NO
TEMPERATURE 0 °C

CUSTODY RECORD
QSD-01 Revision 10/14/15

	Date	Time		Date	Time
Relinquished by Sampler:	11-8-18	MS 1516	Received by:		
Relinquished by:			Received by:	11/8/18	1540
Relinquished by:	11/8/18	1705	Received by Laboratory:	11/8/18	1705



GZA GeoEnvironmental, Inc.