

Industrial Pretreatment Annual Report 2023

Industrial Pretreatment Annual Report – 2023

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1.0 INTRODUCTION

Upper Blackstone Clean Water (UBCW) is a 45 MGD advanced regional wastewater treatment facility with solids thickening, dewatering, and incineration. It receives residential and industrial wastewater from the member communities of Worcester, Auburn, the Cherry Valley Sewer District, Millbury, Holden, Rutland, and West Boylston as well as portions of Paxton, Sutton, Oxford, and Shrewsbury. Wastewater from Worcester in fiscal year 2023 accounted for 81.9% of the flow to the treatment plant. UBCW's National Pollutant Discharge Elimination System (NPDES) permit requires implementation of a pretreatment program to control industrial waste discharged to the sewer system and treatment facilities in accordance with EPA's general pretreatment regulations. The NPDES permit also contains reporting requirements which specify the submittal of a pretreatment annual report to assess the effectiveness of UBCW's pretreatment program.

The objectives of the pretreatment program are to prevent pollutants from entering UBCW that may cause pass-through into the Blackstone River; prevent interference with the operation of the treatment plant; prevent the contamination of sludge; and protect worker health and safety within the treatment plant and in the collection system.

UBCW's pretreatment department regulates and monitors the discharge of industrial waste to the treatment plant by permitting and enforcing local, state, and federal pretreatment standards for indirect discharges. In 2023 there were 36 industries permitted by the pretreatment department: 15 Industrial Users (IUs); 21 Significant Industrial Users (SIUs), of which 12 are Categorical Industrial Users (CIUs). This annual report documents UBCW's ongoing effort to regulate and monitor permitted industrial users.

2.0 PROGRAM EFFECTIVENESS

COMPLIANCE AND ENFORCEMENT

All SIUs have been sampled by UBCW at least twice during this reporting period while IUs have been sampled at least once to assess compliance with discharge limits. Most of the compliance sampling was conducted by UBCW personnel without prior notification to the permittee. This practice helps ensure that the industrial wastewater treatment systems are operating sufficiently on a continuous basis. Each permittee was also subject to a facility-wide inspection conducted by UBCW personnel at least once. The facility-wide inspections covered self-monitoring requirements, chemical usage, process discharges, hazardous waste management, discharge permit compliance, record keeping requirements, operation, and maintenance procedures for all pretreatment equipment.

UBCW has continued to implement the Environmental Protection Agency (EPA) approved Enforcement Response Plan (ERP). The ERP defines the range of appropriate enforcement actions based on the nature and severity of the violations and promotes consistent and timely use of enforcement remedies. During the past year, UBCW has issued thirteen enforcement actions against SIUs/IUs and hauled waste permittees. These enforcement actions are detailed in Table 1.

PUBLIC NOTICE OF INDUSTRIES IN SIGNIFICANT NONCOMPLIANCE

An annual assessment is performed on each SIU/IU to determine compliance with applicable pretreatment standards and requirements for the previous 15 months. UBCW applies the definition of significant noncompliance (SNC) found in Chapter 40 *Code of Federal Regulations* (CFR), Part 403.8 to evaluate each permittee's compliance status. To determine SNC status for effluent limit violations, a rolling 6-month quarterly basis with four reporting windows and a total of 15 months of data are utilized. The first three months of data are applied from the previous year beginning on October 1, 2022. The following is a description of the four-time frames used in each reporting window for SNC determination:

1. October 1, 2022 - March 31, 2023
2. January 1, 2023 - June 30, 2023
3. April 1, 2023 - September 30, 2023
4. July 1, 2023 - December 31, 2023

Both Technical Review Criteria (TRC) and chronic violations are calculated for each SIU. Reporting violations are also considered significant violations if the reports are more than 45 days late. The worksheets used to calculate SNC are retained in the appropriate permittee file.

As specified in 40 CFR 403.8(f)(2)(viii) and 40 CFR 25.4(c), UBCW is required to comply with the annual public notification requirements for the enforcement of pretreatment standards. Any

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permitted industry categorized as significantly noncompliant during the previous twelve months have been listed in the local newspaper. The publication of this list must be in a newspaper of general circulation that provides meaningful public notice within the jurisdiction served by the publicly owned treatment works (POTW). The objective of the public participation requirement is to deter industrial noncompliance. Appendix C is a copy of the public notices which appeared in the *Worcester Telegram & Gazette*. The *Worcester Telegram & Gazette* is the largest daily local newspaper of general circulation in the area.

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Table 1
Summary of Enforcement Actions and Significant Noncompliance Determinations

Company Name	Occurrence or Parameter Exceedance	Date of Occurrence	Date of NOV Issuance	Date of Compliance Report Received	Does the SIU/IU satisfy the “chronic violator” definition?	Does the SIU/IU satisfy the “TRC” definition?	SNC - Determination
Century Linen East, LLC*	Phosphorus	01/18/23	02/27/23	04/19/23	Yes	Yes	SNC-S
Saint Gobain Abrasives – Performance Ceramics Refractories.*	Aluminum & Failure to Self-Monitor Correctly	03/01/23	07/24/23	01/16/24	Yes	Yes	SNC-S & M
Stellar Industries Corp.*	Copper, Nickel, & Failure to Self-Monitor Correctly	06/06/23	08/08/23	08/28/23	No	Yes	SNC-S & M
Valmet Flow Control	Late Reporting	N/A	08/08/23	08/23/23	N/A	N/A	I
Aramark Uniform Services	Oil & Grease	09/26/23	11/09/23	11/28/23	No	No	I
New Method Plating Co, Inc	Cyanide	10/16/23	11/09/23	12/12/23	No	No	I
Stellar Industries Corp.*	Copper	11/07/23	11/21/23	12/21/23	No	Yes	SNC-S
Avient Colorants USA, LLC*	Failure to Self-Monitor Correctly – no PFAS sample collection	N/A	01/18/24	2/23/24	N/A	N/A	SNC-M
New England Sugars, LLC*	Failure to Self-Monitor Correctly – no C. O. D. sample collection	N/A	01/18/24	2/12/24	N/A	N/A	SNC-M
Curtis Industries, LLC*	Cyanide & Failure to Self-Monitor Correctly	12/07/23	01/18/24	‡	Yes	Yes	I & SNC- M
WPI Life Science and Bioengineering Center*	Failure to Self-Monitor Correctly – sample collection after the reporting period ended	N/A	01/18/24	2/27/24	N/A	N/A	SNC-M
Polar Beverages	Failure to Self-Monitor Correctly – Faulty pH Monitoring Equipment	8/18-23/24	2/27/24	1/24/24	No	No	I

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I = Infrequent Noncompliance

N/A = Not Applicable

SNC-C = In significant noncompliance to meet a compliance schedule by 90 days

SNC-M = In significant noncompliance with self-monitoring requirements (e.g., permittee did not collect the proper number of samples during a reporting period or the permittee failed to report an occurrence or parameter exceedance within 24 hours of becoming aware of the occurrence or parameter exceedance)

SNC-R = In significant noncompliance with reporting requirements (e.g., permittee failed to submit reports within 45 days of the due date)

SNC-S = In significant noncompliance with discharge standards (e.g., permit limit exceedance)

Chronic violations of wastewater Discharge limits, defined here as those in which 66 percent or more of all of the measurements taken for the same pollutant parameter during a 6-month period exceed (by any magnitude) a numeric Pretreatment Standard or Requirement, including instantaneous limits, as defined by 40 CFR 403.3(l)

Technical Review Criteria (TRC) violations, defined here as those in which 33 percent or more of all of the measurements taken for the same pollutant parameter during a 6-month period equal or exceed the product of the numeric Pretreatment Standard or Requirement including instantaneous limits, as defined by 40 CFR 403.3(l) multiplied by the applicable TRC (TRC = 1.4 for BOD, TSS, fats, oil, and grease, and 1.2 for all other pollutants except pH)

* denotes the permittee's compliance status will be publicized in the Worcester *Telegram and Gazette* newspaper

‡ Curtis Industries is still investigating the source of the cyanide exceedance and has not determined the cause yet.

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HAULED WASTE

Hauled waste has the potential to impact the treatment plant as it may contain a higher concentration of pollutants than typical domestic wastewater. UBCW continues to manage its Hauled Waste Program by permitting industrial/commercial waste generators, licensing all haulers, performing random sampling of these trucks, and maintaining a recorded card access system. This procedure allows for the proper screening of trucked waste and protection of the treatment plant from pass-through, interference, sludge contamination, and hazards to UBCW personnel.

UBCW had 10 active hauled waste permits in 2023. Each industrial/commercial facility has completed a hauled waste permit application (Baseline Monitoring Report) and has submitted laboratory analysis of a representative waste sample for approval.

Table 2 2023 List of Industrial/Commercial Hauled Waste Permittees			
Permit #	Name of Permittee	Street Address	City
121	Choice Car Wash	155 Boston Road	Southbridge
171	Curia Bio, Inc.	35 South Street	Hopkinton
4	Fay School	48 Main Street	Southborough
131	Greenhouse Car Wash	101 Main Street	Oxford
133	Holden Car Wash	140 Reservoir Street	Holden
175	Salon Entré Nous	60 Central Street	Southborough
177	Unicorr Packaging Group	300 Cedar Hill Street	Marlborough
144	Unified ² Global Packaging Group	223 Worcester Providence Turnpike	Sutton
109	Vehiclean Total Wash System	10 Grenier Street	Webster
163	Whitinsville Water Company	108 Carr Street	Whitinsville

Each industrial/commercial source can be subjected to a facility-wide inspection conducted by UBCW personnel. Every hauler must be licensed by UBCW to be allowed to discharge into UBCW's treatment facility.

There were 2 enforcement responses issued through the Hauled Waste Program in 2023. The violations are listed below in Table 2: Enforcement Actions Summary for Hauled Waste Permittees.

Table 3 Summary of Hauled Waste Permittee Notices of Violation			
Date	Company Name	Type	Occurrence
7/24/23	Unified ² Global Packaging Group	Civil Penalty (\$352.16)	Improper Discharge – Mixed Load
7/24/23	Chase Harris Corporation	Civil Penalty (\$352.16)	Improper Discharge – Mixed Load

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LOCAL LIMITS

UBCW's NPDES permit requires the submittal of a local limits report for industrial discharges to further reduce pollutant headworks loadings at the treatment plant. Local limits play an important role in the reduction of pollutant loadings to UBCW's treatment facility, thereby minimizing and avoiding instances of pass-through and interference within the treatment plant. The purpose of the local limits is to meet stringent NPDES permit limits and to address other environmental criteria including sludge and ash quality, worker health and safety, air emissions, and preventing inhibition in the treatment processes. UBCW received final approval for the current local limits in December 2014.

During the 2023 reporting year, UBCW continued the enforcement of the approved local limits to industries and has been actively investigating industries to ensure that local limits are met.

TRAINING, STAFFING AND FUNDING

Pretreatment personnel have continued to attend seminars on proposed and existing regulations, requirements, and procedures for the pretreatment program. UBCW personnel have attended safety training and the NERPCA Pretreatment Coordinators Workshop and Conference. UBCW continues to provide the pretreatment program with adequate staffing, funding, equipment, and training.

3.0 COMPLIANCE DATA

UBCW personnel examine the compliance data for each permitted SIU and IU with applicable pretreatment standards and requirements. Table 3: Compliance Data lists the relevant compliance data collected by UBCW during the past year for each SIU and IU. The categorical number is the citation found in the *Code of Federal Regulations* for applicable pretreatment standards for indirect discharges. The Baseline Monitoring Report (BMR) column indicates whether a BMR has been submitted to UBCW. The self-monitoring data column indicates if industrial effluent monitoring data was received by UBCW, or a certification of zero discharge of industrial wastewater. The categorical standards and local standards columns indicate whether the SIU/IU is in significant noncompliance with applicable effluent standards at year's end.

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**Table 4
Compliance Data**

Company Name	Categorical Number (40 CFR)	BMR	Self-Monitoring Data	Permit Number	Categorical Standard Met	Local Standard Met
AbbVie Bioresearch Inc.	439.16	Yes	Received	758	Yes	Yes
Aramark Uniform Services ¹	403	Yes	Received	21	N/A	Yes
Aquarion Water Company ¹	403	Yes	Received	820	N/A	Yes
Auburn Water District ¹	403	Yes	Received	821	N/A	Yes
Avient Colorants USA LLC ¹	403	Yes	Received	770	N/A	Yes
Barrday Corporation*	403/414	N/A	Certification	785	Yes	Yes
Black Oxide Company*	433.17	N/A	Certification	49	Yes	Yes
Century Linens East LLC ²	403	Yes	Received	761	N/A	Yes
City of Worcester, DPW+P	403	Yes	Received	802	N/A	Yes
CoorsTek Inc.	403	Yes	Received	794	N/A	Yes
Curia Bio, Inc. ²	403	Yes	Received	805	N/A	Yes
Curtis Industries, LLC	433.17	Yes	Received	789	Yes	Yes
Exhausted Inc.*	403	N/A	Certification	791	N/A	N/A
Independent Plating Co., Inc.	433.17	Yes	Received	431	Yes	Yes
Lighting by Hammerworks*	433.17	N/A	Certification	451	N/A	N/A
Massachusetts Biomedical Initiative (MBI)	403	Yes	Received	819	N/A	Yes
Masterman's LLP*	403	N/A	Certification	813	N/A	Yes
New England Sugars LLC	403	Yes	Received	801	N/A	Yes
New Method Plating Co., Inc	433.17	Yes	Received	166	Yes	Yes
Polar Corporation	403	Yes	Received	484	N/A	Yes
PremaTech Advanced Ceramics	403	Yes	Received	810	N/A	Yes
S. I. Howard Glass*	403	N/A	Certification	822	N/A	Yes
Saint Gobain Abrasives, Inc. "Worcester Abrasives"	433.17/403	Yes	Received	201	Yes	Yes
Stellar Industries Corp.	433.17	Yes	Received	803	Yes	Yes
University of Massachusetts Medical School-Albert Sherman Center	403	Yes	Received	804	N/A	Yes
University of Massachusetts Medical School-Lazare Research Building	403	Yes	Received	783	N/A	Yes
Valmet Flow Control*	433.17	Yes	Received	182	Yes	Yes
WCS-365 Plantation Street, Inc. (Biotech 1)	403	Yes	Received	811	N/A	Yes
WCS-373 Plantation Street, Inc. (Biotech 2)	403	Yes	Received	812	N/A	Yes

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Table 4
Compliance Data

Company Name	Categorical Number (40 CFR)	BMR	Self-Monitoring Data	Permit Number	Categorical Standard Met	Local Standard Met
WCS-377 Plantation Street, Inc. (Biotech 4)	403	Yes	Received	797	N/A	Yes
WCS-381 Plantation Street, Inc. (Biotech 5)	403	Yes	Received	799	N/A	Yes
WCS-One Innovation Drive, Inc. (BioTech 3)	403	Yes	Received	791	N/A	Yes
Wheelabrator Millbury, Inc.	403	Yes	Received	573	N/A	Yes
Worcester Polytechnic Institute (Gateway Park 2)	403	Yes	N/A	806	N/A	Yes
WPI Life Science and Bioengineering Center (Gateway Park 1)	403	Yes	Received	793	N/A	Yes
Wright line LLC*	433.15	N/A	Certification	58	Yes	Yes
Wyman-Gordon Company*	471.35(bb)	N/A	Certification	798	Yes	Yes

* – Zero Discharge Facility

4.0 ENFORCEMENT DATA

UBCW conducts routine inspections and samplings at industrial facilities to determine compliance with discharge permits. When noncompliance is detected by UBCW personnel, enforcement activities are initiated to cease the noncompliance. The following table lists all dates of inspection and sampling activities performed by UBCW personnel during the 2023 reporting year at industrial facilities. The table also lists the dates of enforcement responses including compliance schedules, administrative orders, Notices of Violation, and Civil Penalties.

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**Table 5
Enforcement Data**

Company Name	Inspection Date	Sample Dates	NOV Date	Compliance Schedule Received	Administrative Order	Civil Penalty Amount
AbbVie Bioresearch Inc.	10/3/23	5/19/23 & 10/4/23	----	----	----	----
Aquarion Water Company	8/7/23	5/9/23, 9/7/23, & 11/7/23	----	----	----	----
Auburn Water District	7/24/23	5/8/23 & 9/1/23	----	----	----	----
Aramark Uniform Services	7/12/23	4/28/23, 9/1/23, & 9/26/23	11/9/23	11/28/23	----	----
Avient Colorants USA LLC	8/9/23	3/7/23, 6/14/23, & 9/13/23	1/18/24	2/23/24	----	----
Barrday Corporation*	7/7/23	N/A	----	----	----	----
Black Oxide Company*	7/19/23	N/A	----	----	----	----
Century Linen East LLC	8/15/23	1/18/23, 9/7/23, & 9/27/23	2/27/23	4/19/23	----	----
City of Worcester, DPW+P	8/9/23	4/11/23, 9/7/23, 10/11/23	----	----	----	----
Coorstek Inc.	10/10/23	1/5/23, 9/15/23, & 10/11/23	----	----	----	----
Curia Bio, Inc.	9/13/23	3/21/23	----	----	----	----
Curtis Industries, LLC	6/9/23	3/1/23, 6/9/23, & 9/7/23	1/18/24	‡	----	----
Exhausted Inc. *	8/15/23	N/A	----	----	----	----
Independent Plating Co.	10/19/23	6/6/23, 9/7/23, & 10/20/23	----	----	----	----
Lighting by Hammerworks*	7/19/23	N/A	----	----	----	----
Massachusetts Biomedical Initiative (MBI)	12/6/23	6/6/23	----	----	----	----
Masterman's LLP*	7/17/23	N/A	----	----	----	----
New England Sugars LLC	7/12/23	1/11/23, 5/18/23, & 10/24/23	1/18/24	2/12/24	----	----
New Method Plating Co., Inc	10/16/23	1/11/23, 9/7/23, & 10/17/23	11/9/23	12/12/23	----	----
Polar Corporation	7/17/23	9/7/23 & 10/17/23	----	----	----	----
PremaTech Advanced Ceramics	8/4/23	4/1/23 & 9/15/23	----	----	----	----
S. I. Howard Glass*	2/10/23	N/A	----	----	----	----
Saint Gobain Abrasives, Inc. "Worcester Abrasives"	11/8-9/23	5/31/23-6/2/23, 7/20/23, 8/10/23, 9/15/23, 11/1/23, & 12/11/23	7/24/23	1/16/24	----	----
Stellar Industries Corp.	8/22/23	5/2/23, 8/31/23, & 11/7/23	8/8/23 & 11/21/23	8/28/23 & 12/21/23	----	----
University of Massachusetts Medical School-Albert Sherman Center	10/2/23	3/17/23	----	----	----	----
University of Massachusetts Medical School-Lazare Research Building	10/2/23	3/23/23 & 10/24/23	----	----	----	----

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**Table 5
Enforcement Data**

Company Name	Inspection Date	Sample Dates	NOV Date	Compliance Schedule Received	Administrative Order	Civil Penalty Amount
Valmet Flow Control*	10/23/23	N/A	8/8/23	8/23/23	----	----
WCS-265 Plantation Street, Inc. (BioTech 1)	1/31/23	2/1/23	----	----	----	----
WCS-373 Plantation Street, Inc. (BioTech 2)	2/14/23	2/1/23	----	----	----	----
WCS-377 Plantation Street, Inc. (BioTech 4)	2/14/23	2/22/23	----	----	----	----
WCS-381 Plantation Street, Inc. (BioTech 5)	2/14/23	2/24/23	----	----	----	----
WCS-One Innovation Drive, Inc. (BioTech 3)	2/14/23	2/22/23	----	----	----	----
Wheelabrator Millbury, Inc.	7/25/23	4/28/23, 9/1/23, & 10/3/23	----	----	----	----
Worcester Polytechnic Institute (Gateway Park #2)	9/29/23	3/21/23	----	----	----	----
WPI Life Science and Bioengineering Center-(Gateway Park #1)	9/29/23	3/21/23	1/18/24	2/27/24	----	----
Wright Line LLC*	7/21/23	N/A	----	----	----	----
Wyman-Gordon Company*	8/14/23	N/A	----	----	----	----

* – Zero Discharge Facility

‡ - Curtis Industries is still investigating the source of the cyanide exceedance and has not determined the cause yet.

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5.0 POLLUTANT ANALYTICAL RESULTS

The following table lists the average daily values of pollutants sampled at the treatment plant for influent, effluent, and sludge during 2023. The averages were based on data collected from UBCW's routine plant sampling. All sampling and analyses were conducted in accordance with EPA approved methods and regulations for the collection, preservation, and analysis of wastewater. Quarterly effluent toxicity reports are shown in Appendix B. Laboratory reports for all analyses are retained electronically.

Table 6 Priority Analytical Results*					
Parameter	Influent mg/L	Effluent mg/L	Sludge mg/kg Dry weight	Process Inhibition Threshold Levels mg/L	Chronic Water Quality Standards mg/L
Aluminum	0.2942	0.0130	7000	----	----
Arsenic	0.0043	0.0032	20.23	0.1	0.150000
Beryllium	0.0000	0.0000	0.000	----	----
Cadmium	0.0002	0.0000	3.72	1.0	0.001600
Chromium	0.0016	0.0000	28.73	0.25	0.062700
Copper	0.0243	0.0026	349.75	0.05	0.0062
Cyanide	0.0000	0.0000	----	0.1	0.005000
Lead	0.0033	0.0000	39.53	0.5	0.001600
Mercury	0.0001	0.0000	0.4181	0.1	0.000660
Nickel	0.0032	0.0019	23.28	0.25	0.03610
Selenium	0.0013	0.0000	2.98	----	----
Silver	0.0002	0.0000	0.0000	----	0.001600
Thallium	0.0001	0.0000	1.41	----	----
Zinc	0.0690	0.0339	547.0	0.08	0.082000

*Lab results reported as not detected (ND) are considered as 0 mg/L for averaging purposes.

6.0 SPECIAL PROJECTS AND PROGRAMS

DENTAL PROGRAM

In 2020 UBCW developed a dental program in response to the EPA's Dental Regulations 40 CFR 441 – Dental Office Point Source Category.

This program requires all dentists with UBCW's jurisdiction to complete a permit application for dental dischargers (compliance report). The dental permits are renewed every two years. Currently, UBCW has ninety-five permitted dentists in the dental program. Eighty-nine dental offices submitted renewal applications and were subsequently issued new dental discharger permits for the 2024-2026 monitoring period. Additionally, UBCW performs random inspections of permitted dental offices every three to five years. Twenty-four dental inspections were completed in 2023. The names of each renewed dental permit and inspection date are listed in Table 7.

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Table 7
Dental Offices Permitted & Inspection Dates in 2023*

Permit #	Dental Facility Name	Street Address	City	Date of Inspection
D001	Aspen Dental	434 Southbridge St,	Auburn	----
D002	Auburn Dental Group	492 Washington St	Auburn	----
D003	Auburn Family Dental	4 Albert St	Auburn	2/9/23
D004	Balian Family Dental	741 Southbridge St	Auburn	----
D006	D.A. Dental	916 Southbridge St	Auburn	2/9/23
D007	Great Expressions Dental Center	567 Southbridge St, Unit 7	Auburn	----
D008	Jill M. O'Connell DMD	730 Southbridge St	Auburn	----
D010	Steadfast Family Dental	824 Southbridge Street, Suite 200	Auburn	----
D011	Welcome Smiles	184 Oxford St North	Auburn	----
D018	Christina Shaw DMD (Shaw Family Smiles)	64 Boyden Road, Suite 110	Holden	----
D117	Holden Dental Arts PC/Dr. Sarah Alaraji	1116 Main St	Holden	----
D012	Khanani Family Dental P.C.	1084 Main St	Holden	----
D014	Mulroy Family Dental PC	1072 Main St	Holden	7/11/23
D015	Neal M Novack, DMD, Inc Holden Dental Care	1092 Main St	Holden	----
D016	Nicholas Tretter DDS	694 Main St	Holden	7/11/23
D115	Ralph S. McCracken Jr., DDS.	21 Mayo Dr	Holden	----
D108	Sandy Lor DMD LLC dba Holden Family Dentistry	1010 Main St, Suite 6	Holden	----
D021	Millbury Family Dentistry	116 Main St	Millbury	----
D022	Zohni Family Dental	101 Elm St	Millbury	----
D024	Carewell Dental P.C.	102 Main St	Rutland	----
D025	Pleasant Valley Dentistry	22 Galaxy Pass, Unit A	Sutton	6/9/23
D027	Taher Family Dental	32 West Boylston St	West Boylston	----
D026	West Boylston Dental PC	71 Central St	West Boylston	----
D028	1010 Dental On Elm	70 Elm St	Worcester	----
D031	Arena Family Dental, LLC	1049 Main St	Worcester	----

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Table 7
Dental Offices Permitted & Inspection Dates in 2023*

Permit #	Dental Facility Name	Street Address	City	Date of Inspection
D033	Aspen Dental	537 Lincoln St	Worcester	----
D036	Bright Dental DBA Friendly Dental	347 Greenwood St	Worcester	----
D112	Burncoat Family Dental	363 Burncoat St	Worcester	7/31/23
D038	Central New England Endodontics	67 Highland St	Worcester	----
D039	Chandler Dental PC	372 Chandler St, Suite 10	Worcester	----
D057	Charles Samborski DDS	87 June St	Worcester	----
D113	Cohen - Urdaneta PLLC	210 Lincoln St	Worcester	----
D041	Common Park Dental	111 Elm St, Suite 203	Worcester	6/22/23
D111	Cordial Dental	130 Lincoln St	Worcester	6/22/23
D110	Cute Smiles Dental	809 Grafton St	Worcester	----
D043	Daniel J. Ouellette DDS	62 South Ludlow St	Worcester	----
D045	Dental Dreams	68 Stafford St	Worcester	----
D044	Dental Dreams	943 Grafton St	Worcester	10/6/23
D107	Dental Team of Worcester	580 Lincoln St	Worcester	----
D046	Dentistry By Nita Gampa	67 Highland St	Worcester	----
D047	Dongmei Yang D.M.D., PC	111 Elm St, Suite 202	Worcester	----
D086	Dr. Christy Savas	10 Winthrop St, Suite 221	Worcester	----
D119	Dr. Costa & Waxman	255 Park Ave	Worcester	----
D073	Dr. Gobran and Associates	11 Harvard St	Worcester	6/14/23
D048	Dr. Robert McCarthy P.C.	548 Pleasant St	Worcester	6/6/23
D049	Dr. Sam Tanoglu D.M.D.	101 Pleasant St, Suite 208	Worcester	----
D050	Endodontics at Worcester County	255 Park Avenue, Suite 700	Worcester	6/26/23
D053	Family Health Center Of Worcester	26 Queen St, 3rd Floor	Worcester	----
D054	Feeley Dental and Associates	6 East Mountain St	Worcester	7/31/23
D058	Gentle Dental Worcester	225 Shrewsbury St	Worcester	----
D104	Gentle Dental Worcester at the Trolley Yard	41 Park Ave, Trolley Yard Plaza	Worcester	----
D060	Grace Family Dental, LLC	898 Grafton St	Worcester	10/18/23
D116	Great Dental Care P.C.	490 Lincoln St, Suite 4	Worcester	----
D061	Green Street Dental	90 Green St	Worcester	7/5/23
D062	Howard Spring, DMD	94 June St	Worcester	7/27/23
D103	James V Gagne, DMD, PC	32 Park Ave	Worcester	----

Industrial Pretreatment Annual Report – 2023

Table 7
Dental Offices Permitted & Inspection Dates in 2023*

Permit #	Dental Facility Name	Street Address	City	Date of Inspection
D063	James W Vuona DDS	617 Chandler St	Worcester	----
D065	John J. Giordano DMD LLC	255 Park Ave, Suite 802	Worcester	----
D029	KE Dental, PC dba 64 Highland Dental	64 Highland St	Worcester	7/26/23
D067	Kozica Dental	116 Belmont St, Suite 23	Worcester	----
D088	Levenson Smile	9 Linden St	Worcester	----
D069	Lincoln Dental	129 Lincoln St	Worcester	6/5/23
D072	Millbrook Dental	9 Millbrook St	Worcester	----
D074	New England Dental Group	456 Park Avenue, Suite 2	Worcester	----
D075	Nikhil Kumar M. Patel, DMD, PC	130 Lincoln St	Worcester	----
D078	Peter A. Stathoulopoulos	251 Salisbury St	Worcester	----
D052	Phuong T. Pham DMD	17 Daniels St	Worcester	----
D079	Premier Family Dental Group	610 West Boylston St	Worcester	----
D080	Ralph Sahakian, DMD, PC	14 Lake Ave	Worcester	----
D083	Robert D. Babigian, D.M.D.	111 Elm St, Suite 101	Worcester	----
D118	Russell Street Dental Associates	227 Russell St	Worcester	8/1/23
D095	Shustak Dental Group, Inc.	1 West Boylston Street, Suite 101	Worcester	----
D056	Simply Dental of Worcester (Dr. Bayon)	445 Grove St	Worcester	----
D114	Tatnuck Family Dental Care	617 Mill St	Worcester	----
D090	Timothy Wolfenden, DDS	65 James St	Worcester	6/14/23
D109	Triangle Street Dental	3 Triangle St	Worcester	----
D091	Trident Dental Care PC	16 Park Ave	Worcester	----
D092	Tufts Dental Facility @ Worcester	150 Goddard Memorial Dr, Suite 2	Worcester	----
D093	Unique Dental of Worcester	1438 Grafton St	Worcester	----
D094	University Dental Group	330 Plantation St	Worcester	----
D105	Wave Dental	281 Shrewsbury St	Worcester	----
D096	Webster Square Dental Care	17 Young St	Worcester	----
D055	Winthrop Street Dentistry (Fiorillo Dentistry)	10 Winthrop St, Suite 200	Worcester	7/5/23
D097	Worcester Dental	88 Pleasant St	Worcester	----
D098	Worcester Dentist Group, PC	255 Park Avenue, Suite 405	Worcester	----
D106	Worcester Dentistry and Braces	544 Southbridge Street, Suite 1	Worcester	8/8/23
D100	Worcester Hills Dental P.C.	290 Park Ave	Worcester	----

Industrial Pretreatment Annual Report – 2023

Table 7
Dental Offices Permitted & Inspection Dates in 2023*

Permit #	Dental Facility Name	Street Address	City	Date of Inspection
D101	Worcester Kids Dentist	41 Lancaster St	Worcester	----
D102	Worcester Quality Dental	715 Pleasant St	Worcester	----

* - Art of Dentistry and OMG Braces were inspected on 6/6/23 and 6/26/23 respectively. Their original dental industrial user permits expire in 2023 and are not subject to 40 CFR 441 because they no longer remove and/or use amalgam in dental fillings.

Industrial Pretreatment Annual Report – 2023

COMMUNITY CONNECTIONS AND COLLECTION SYSTEM PROGRAM

The purpose of this program is to investigate each district member's loading to the plant. During this investigation UBCW personnel may identify industrial activity within these communities or industries in violation with UBCW's Sewer and Pretreatment Regulations. The goal is to prevent the introduction of pollutants into the treatment facility that will interfere with the operation of the treatment plant and pass through into the receiving waters. Each year, UBCW selects one community to sample. Twenty-four-hour composite and grab samples were collected each day over a seven-day period from a sewer main in the Cherry Valley Sewer District in March 2023. Testing results for all local limit parameters are on file.

PER- AND POLYFLUORONATED ALKYL SUBSTANCES (PFAS) SAMPLING

UBCW personnel collected PFAS grab samples at a select number of permitted industries. The purpose of the sampling events was to ascertain which permitted industries contributed PFAS, if any, to the collection system and to UBCW's influent. Table 8 delineates the summation of PFAS concentrations analyzed using EPA Method 1633: *Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS*, as found in "Table 1: Names, Abbreviations, and CAS Registry Numbers for Target PFAS". UBCW will continue to monitor select permitted industries for PFAS. While UBCW has no permitted limitations on PFAS in wastewater, it has begun including annual PFAS sampling in all renewed wastewater discharge permits for monitoring purposes.

Table 8 2023 PFAS Sampling Results			
Company Name	Results*	Company Name	Results*
Aquarion Water Company	42.0 ng/L	New England Sugars, LLC	10.6 ng/L
Aramark Uniform Services	32.2 ng/L	New Method Plating Co., Inc.	1556.8 ng/L
Auburn Water District	9.1 ng/L	Prema Tech Advance Ceramics	0.0 ng/L
Avient Colorants USA, LLC	39.8 ng/L	Polar Corporation	49.1 ng/L
Century Linen East, LLC	50.3 ng/L	Saint Gobain Abrasives - Outfall #1	0.0 ng/L
City of Worcester DPW +P	22.9 ng/L	Saint Gobain Abrasives - Outfall #2	47.0 ng/L
Coors Tek, Inc	16.9 ng/L	Saint Gobain Abrasives - Outfall #3	26.7 ng/L
Curtis Industries, LLC	91.7 ng/L	Stellar Industries Corp.	2.5 ng/L
Independent Plating Co.	5090.9 ng/L	Wheelabrator Millbury, Inc.	186.3 ng/L

APPENDIX A

Annual Report Summary Form

Industrial Pretreatment Annual Report – 2023

EPA Region 1 Annual Pretreatment Report Summary Sheet December 2023

POTW Name:	Upper Blackstone Clean Water
NPDES Permit #:	MA0102369
Pretreatment Report Period Start:	January 1, 2023
Pretreatment Report Period End:	December 31, 2023
# of Significant Industrial Users (SIUs):	21
# of SIUs without Control Mechanisms:	0
# of SIUs Not Inspected:	0
# of SIUs Not Sampled:	0
# of SIUs in Significant Noncompliance (SNC) with Pretreatment Standards:	3
# of SIUs in SNC with Reporting Requirements:	4
# of SIUs in SNC with Pretreatment Compliance Schedules:	0
# of SIUs in SNC Published in Newspaper:	7
# of SIUs with Compliance Schedules:	0
# of Notices of Violation Issued to SIUs:	11
# of Administrative Orders Issued to SIUs:	0
# of Civil Suits Filed against SIUs:	0
# of Criminal Suits Filed against SIUs:	0
# of Categorical Industrial Users (CIUs):	12
# of CIUs in SNC:	2
<u>Penalties</u>	
Total Dollar Amount of Penalties Collected:	\$704.32
# of IUs from which Penalties Have Been Collected:	2
<u>Local Limits</u>	
Date of Most Recent Technical Evaluation of Local Limits:	December 2014
Date of Most Recent Adoption of Technically Based Local Limits:	July 22, 2015

Industrial Pretreatment Annual Report – 2023

Table 9 Upper Blackstone Local Limits Summary		
Pollutant	Limit	MAHL (lbs./day)
Aluminum	168 mg/L	3,141.00
Arsenic	3.7 mg/L	40.00
Beryllium	1.2 mg/L	35.00
Cadmium	0.16 lbs./day ¹	0.22
Chromium	1.3 mg/L	24.00
Copper	1.09 mg/L	26.00
Lead	1.0 mg/L	7.35
Mercury	0.03 mg/L	0.48
Nickel	8.6 mg/L	13.76
Silver	0.5 mg/L	1.64
Zinc	3.7 mg/L	39.00
Cyanide	2.0 mg/L	4.00
Total Nitrogen	325 mg/L	9,871.00
Total Phosphorus	715 lbs./day ¹	1,330.00

¹ Load-based limits will be apportioned among industries appropriately.

Industrial Pretreatment Annual Report – 2023

Table 10 List of Permitted Industrial Users		
Name of Industrial User	Name of Categorical Industrial User	Name of Significant Industrial User
Aquarion Water Company	AbbVie Bioresearch Center, Inc.	Century Linen East, LLC
Auburn Water District	Baraday Corporation	Aramark Uniform Services
CuriaBio, Inc.	Black Oxide Company	Avient Colorants USA, LLC
Masterman's	Curtis Industries	City of Worcester, D. P. W. + P
Massachusetts Biomedical Initiative	Independent Plating, Inc.	Coorstek, Inc.
New England Sugars, LLC	Lightning by Hammerworks	Exhausted, Inc.
PremaTech Advanced Ceramics	New Method Plating Co., Inc.	Polar Corporation
S. I. Howard Glass	Saint Gobain Abrasives, Inc.	UMass Medical School – Lazare Research Building
UMass Medical School – Albert Shermin Ctr.	Stellar Industries Corp.	Wheelabrator Millbury, Inc.
WCS – 365 Plantation Street, Inc. (BioTech 1)	Valmet Flow Control, Inc.	
WCS – 373 Plantation Street, Inc. (BioTech 2)	Wright Line, LLC	
WCS – 377 Plantation Street, Inc. (BioTech 4)	Wyman-Gordon Company	
WCS – 381 Plantation Street, Inc. (BioTech 5)		
WCS – One Innovation Drive, Inc. (BioTech 3)		
Worcester Polytechnical Institute (Gateway Park 2)		
WPI Life Sciences & Bioengineering Center (Gateway Park 1)		

APPENDIX B

Toxicity Report Summary

Industrial Pretreatment Annual Report – 2023



77 Batson Drive
Manchester, CT 06042
(860)-643-9560
www.nebio.com

New England Bioassay Inc.

Aquatic Toxicity Testing Services

CHRONIC AQUATIC TOXICITY TEST REPORT

Permittee: Upper Blackstone Clean Water NPDES # MA0102369
Report submitted to: 50 Route 20
Millbury, MA 01527
Sample ID: Effluent
Test Month/Year: January 2023
NEB Proj # 46173

Test Type / Method: *Ceriodaphnia dubia* Modified Chronic Static-Renewal Freshwater
Test Method 1002.0; EPA 821-R-02-013

Effluent Sample Dates: #1 1/8/23 #2 1/10/23 #3 1/12/23

Test Start Date: 1/9/23

Results Summary

Your results were as follows:

Passed all permit limits

Acute Test Results

Species	LC50	A-NOEC	Permit Limit	Pass / Fail
<i>Ceriodaphnia dubia</i>	>100%	100%	≥ 100%	Pass

Chronic Test Results

Species	C-NOEC	C-LOEC	IC25	Permit Limit	Pass/Fail
<i>Ceriodaphnia dubia</i>	100%	>100%	>100%	≥ 90%	Pass

Data Qualifiers affecting this test:

Certifications & Approvals: NH ELAP (2071), NJ DEP (CT405)

This report shall not be reproduced, except in its entirety, without approval of NEB. NEB is the sole authority for authorizing edits or modifications to the data contained in this report. NEB holds no responsibility for results and/or data that are not consistent with the original. Please contact the Lab Director, Kimberly Wills, at 860-643-9560 or kimberly.wills@nebio.com if you have questions concerning these results.

NEB Issued: 2/6/23 Page 1 of 72

Industrial Pretreatment Annual Report – 2023

Test Report Certification

Permittee name: Upper Blackstone Clean Water Permit number: MA0102369
Client sample ID: Effluent Test Start Date: 1/9/23

Whole Effluent Toxicity Test Report Certification (Permittee)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on: February 07, 2023
(Date)

Timothy Lafter
Authorized Signature
Timothy Lafter, Lab/Pretreatment Manager
Print or Type Name and Title
Upper Blackstone Clean Water
Print or Type the Permittee's Name
MA0102369
Print or Type the NPDES Permit Number

Whole Effluent Toxicity Test Report Certification (Bioassay Laboratory)

The results reported relate only to the samples submitted as received

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on: 2/6/23
(Date)

Kimberly Wills
Kimberly Wills
Laboratory Director
New England Bioassay Inc.

Industrial Pretreatment Annual Report – 2023



77 Batson Drive
Manchester, CT 06042
(860)-643-9560
www.nebio.com

New England Bioassay Inc.

Aquatic Toxicity Testing Services

CHRONIC AQUATIC TOXICITY TEST REPORT

Permittee: Upper Blackstone Clean Water NPDES # MA0102369
Report submitted to: 50 Route 20
Millbury, MA 01527
Sample ID: Effluent
Test Month/Year: April 2023
NEB Proj # 46173

Test Type / Method: *Ceriodaphnia dubia* Modified Chronic Static-Renewal Freshwater
Test Method 1002.0; EPA 821-R-02-013

Effluent Sample Dates: #1 4/2/23 #2 4/4/23 #3 4/6/23

Test Start Date: 4/3/23

Results Summary

Your results were as follows:

Passed all permit limits

Acute Test Results

Species	LC50	A-NOEC	Permit Limit	Pass / Fail
<i>Ceriodaphnia dubia</i>	>100%	100%	≥ 100%	Pass

Chronic Test Results

Species	C-NOEC	C-LOEC	IC25	Permit Limit	Pass/Fail
<i>Ceriodaphnia dubia</i>	100%	>100%	>100%	≥ 90%	Pass

Data Qualifiers affecting this test:

Certifications & Approvals: NH ELAP (2071), NJ DEP (CT405)

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NEB Issued: 5/1/23 Page 1 of 72

Industrial Pretreatment Annual Report – 2023

Test Report Certification

Permittee name: Upper Blackstone Clean Water Permit number: MA0102369
Client sample ID: Effluent Test Start Date: 4/3/23

Whole Effluent Toxicity Test Report Certification (Permittee)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on: May 02, 2023
(Date)

[Signature]
Authorized Signature

Timothy Lottus, Lab Manager
Print or Type Name and Title

Upper Blackstone Clean Water
Print or Type the Permittee's Name

MA0102369
Print or Type the NPDES Permit Number

Whole Effluent Toxicity Test Report Certification (Bioassay Laboratory)

The results reported relate only to the samples submitted as received

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on: 5/1/23
(Date)

Kimberly Wills
Kimberly Wills
Laboratory Director
New England Bioassay Inc.

Industrial Pretreatment Annual Report – 2023



77 Batson Drive
Manchester, CT 06042
(860)-643-9560
www.nebio.com

New England Bioassay Inc.

Aquatic Toxicity Testing Services

CHRONIC AQUATIC TOXICITY TEST REPORT

Permittee: Upper Blackstone Clean Water NPDES # MA0102369
Report submitted to: 50 Route 20
Millbury, MA 01527
Sample ID: Effluent
Test Month/Year: July 2023
NEB Proj # 46173

Test Type / Method: *Ceriodaphnia dubia* Modified Chronic Static-Renewal Freshwater
Test Method 1002.0; EPA 821-R-02-013

Effluent Sample Dates: #1 7/4/23 #2 7/6/23 #3 7/9/23

Test Start Date: 7/5/23

Results Summary

Your results were as follows:

Passed all permit limits

Acute Test Results

Species	LC50	A-NOEC	Permit Limit	Pass / Fail
<i>Ceriodaphnia dubia</i>	>100%	100%	≥ 100%	Pass

Chronic Test Results

Species	C-NOEC	C-LOEC	IC25	Permit Limit	Pass/Fail
<i>Ceriodaphnia dubia</i>	100%	>100%	>100%	≥ 90%	Pass

Data Qualifiers affecting this test:

Certifications & Approvals: NH ELAP (2071), NJ DEP (CT405)

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NEB Issued: 8/4/23 Page 2 of 72

Industrial Pretreatment Annual Report – 2023

Test Report Certification

Permittee name: Upper Blackstone Clean Water Permit number: MA0102369
Client sample ID: Effluent Test Start Date: 7/5/23

Whole Effluent Toxicity Test Report Certification (Permittee)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on: August 04, 2023
(Date)


Authorized Signature

Timothy Lattus, Lab Administrator Manager
Print or Type Name and Title

Upper Blackstone Clean Water
Print or Type the Permittee's Name

MA0102369

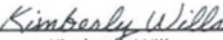
Print or Type the NPDES Permit Number

Whole Effluent Toxicity Test Report Certification (Bioassay Laboratory)

The results reported relate only to the samples submitted as received

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on: 8/2/23
(Date)


Kimberly Wills
Laboratory Director
New England Bioassay Inc.

NEB Issued: 8/2/23 Page 2 of 71

NEB Issued: 8/4/23 Page 3 of 72

Industrial Pretreatment Annual Report – 2023



Stewardship Through Science

50 ROUTE 20 MILLBURY, MA 01527 P 508.755.1286 ubcleanwater.org

November 20, 2023

Ms. Xiaoning Chen
MA-DEP
Central Region
8 New Bond St.
Worcester, MA 01606

RE: October 2023 Whole Effluent Toxicity Report

Ms. Chen,

Enclosed is the October 2023 Whole Effluent Toxicity (WET) test report for Upper Blackstone Clean Water, NPDES permit number MA0102369. Sampling for this test began on October 10, 2023, and concluded on October 15, 2023.

In summary, our reportable results were >100% for the acute LC-50 reporting requirement and 25% for the chronic C-NOEC reporting requirement. We successfully met the permit limit for the acute LC-50 criteria but failed the reproductive criteria of the C-NOEC portion of the test. There was a statistically significant reduction in reproduction of the test organism in the 50% effluent concentration samples. The number of total live young observed was 408 in the diluent river water control sample set and 177 in the 90% effluent sample set over the course of the seven-day chronic test.

As you know, Upper Blackstone has a very good history of compliance with this test, so this result is unusual. A repeat test was immediately scheduled, and sampling for the repeat test occurred November 13-17, 2023. We will submit the results of the repeat test after we receive them from our contracted laboratory.

While awaiting the results of the repeat test, our staff have taken some preliminary steps to investigate conditions surrounding the Oct 10-15, 2023 test. These include:

- Additional metals analysis for the second and third sampling dates. (These are amended to the attached report).
- Review of influent conditions and other parameter data including ammonia, total suspended solids, pH, and toxicants.
- Contacting industrial dischargers to identify any unusual discharges or process changes that might have contributed to the result.

Member Communities: Auburn, Cherry Valley Sewer District, Holden, Millbury, Rutland, West Boylston, Worcester

Industrial Pretreatment Annual Report – 2023

November 20, 2023

2

So far, we have not identified any results for Oct 10-15, 2023 that are outside of normal ranges. Depending on the results of the repeat test, we will evaluate next steps, and keep MA-DEP informed of our process. Please feel free to contact me if you have any questions.

Very truly yours,
UPPER BLACKSTONE CLEAN WATER



Mark Chaplin
Laboratory/Pretreatment Manager

C: Karla Sangrey, Engineer/Director Treasurer

Enclosure/Attachment

Copy

Industrial Pretreatment Annual Report – 2023



77 Batson Drive
Manchester, CT 06042
(860)-643-9560
www.nebio.com

New England Bioassay Inc.

Aquatic Toxicity Testing Services

CHRONIC AQUATIC TOXICITY TEST REPORT

Permittee: Upper Blackstone Clean Water NDES # MA0102369
Report submitted to: 50 Route 20
Millbury, MA 01527
Sample ID: Effluent
Test Month/Year: October 2023
NEB Proj # 46173

Test Type / Method: *Ceriodaphnia dubia* Modified Chronic Static-Renewal Freshwater
Test Method 1002.0; EPA 821-R-02-013

Effluent Sample Dates: #1 10/10/23 #2 10/12/23 #3 10/15/23

Test Start Date: 10/11/23

Results Summary

Your results were as follows:

Fail - Please proceed according to the instructions in your permit

Acute Test Results

Species	LC50	A-NOEC	Permit Limit	Pass / Fail
<i>Ceriodaphnia dubia</i>	>100%	100%	≥ 100%	Pass

Chronic Test Results

Species	C-NOEC	C-LOEC	IC25	Permit Limit	Pass/Fail
<i>Ceriodaphnia dubia</i>	25%	50%	44.6%	≥ 90%	Fail

Data Qualifiers affecting this test:

Certifications & Approvals: NH ELAP (2071), NJ DEP (CT405)

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NEB Issued: 11/9/23 Page 1 of 69

Industrial Pretreatment Annual Report – 2023

Test Report Certification

Permittee name: Upper Blackstone Clean Water Permit number: MA0102369
Client sample ID: Effluent Test Start Date: 10/11/23

Whole Effluent Toxicity Test Report Certification (Permittee)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on: 11/20/2023
(Date)

Mark Chapin
Authorized Signature

Mark Chapin Lab Manager
Print or Type Name and Title

Upper Blackstone Clean Water
Print or Type the Permittee's Name

MA0102369
Print or Type the NPDES Permit Number

Whole Effluent Toxicity Test Report Certification (Bioassay Laboratory)

The results reported relate only to the samples submitted as received

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on: 11/9/23
(Date)

Kimberly Wills
Kimberly Wills
Laboratory Director
New England Bioassay Inc.

Industrial Pretreatment Annual Report – 2023



Stewardship Through Science

50 ROUTE 20 MILLBURY, MA 01527 P 508.755.1286 ubcleanwater.org

December 26, 2023

Ms. Xiaoning Chen
MA-DEP
Central Region
8 New Bond St.
Worcester, MA 01606

RE: November 2023 Whole Effluent Toxicity Report

Ms. Chen,

Enclosed is the November 2023 Whole Effluent Toxicity (WET) test report for Upper Blackstone Clean Water, NPDES permit number MA0102369. Sampling for this test began on November 12, 2023, and concluded on November 17, 2023.

In summary, our reportable results were >100% for the acute LC-50 reporting requirement and 90% for the chronic C-NOEC reporting requirement. We successfully met the permit limits for both the acute LC-50 and the chronic C-NOEC portions of the test.

This additional test was performed as a follow-up to the test from October. As you may recall, October's test results did not meet our NPDES permit limits for the chronic portion of that test, which showed a statistically significant decrease in reproduction of the test organism at higher effluent concentrations.

Upper Blackstone has an excellent history of compliance with WET testing, and so October's result was unusual. We did not identify any influent or effluent characteristics or test results from October or November that were outside of normal ranges. With this subsequent toxicity test meeting our permit limits, we will resume toxicity testing according to our regular quarterly schedule. If any further toxicity is observed during our next scheduled test in January 2024, we will evaluate how to proceed, and keep MA-DEP informed of our process.

Please feel free to contact me if you have any questions.

Very truly yours,
UPPER BLACKSTONE CLEAN WATER

Mark Chaplin
Laboratory/Pretreatment Manager

C: Karla Sangrey, Engineer/Director Treasurer

Enclosure/Attachment

Member Communities: Auburn, Cherry Valley Sewer District, Holden, Millbury, Rutland, West Boylston, Worcester

Industrial Pretreatment Annual Report – 2023



77 Batson Drive
Manchester, CT 06042
(860)-643-9560
www.nebio.com

New England Bioassay Inc.

Aquatic Toxicity Testing Services

CHRONIC AQUATIC TOXICITY TEST REPORT

Permittee: Upper Blackstone Clean Water NPDES # MA0102369
Report submitted to: 50 Route 20
Millbury, MA 01527
Sample ID: Effluent
Test Month/Year: November 2013
NEB Proj # 46173

Test Type / Method: *Ceriodaphnia dubia* Modified Chronic Static-Renewal Freshwater
Test Method 1002.0; EPA 821-R-02-013

Effluent Sample Dates: #1 11/12/23 #2 11/14/23 #3 11/16/23

Test Start Date: 11/13/23

Results Summary

Your results were as follows:

Passed all permit limits

Acute Test Results

Species	LC50	A-NOEC	Permit Limit	Pass / Fail
<i>Ceriodaphnia dubia</i>	>100%	100%	≥ 100%	Pass

Chronic Test Results

Species	C-NOEC	C-LOEC	IC25	Permit Limit	Pass/Fail
<i>Ceriodaphnia dubia</i>	90%	100%	100%	≥ 90%	Pass

Data Qualifiers affecting this test:

Certifications & Approvals: NH ELAP (2071), NJ DEP (CT405)

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Test Report Certification

Permittee name: Upper Blackstone Clean Water Permit number: MA0102369
Client sample ID: Effluent Test Start Date: 11/13/23

Whole Effluent Toxicity Test Report Certification (Permittee)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on: 12/26/2023
(Date)

Mark Chaplin
Authorized Signature

Mark Chaplin, Laboratory Manager
Print or Type Name and Title

Upper Blackstone Clean Water
Print or Type the Permittee's Name

MA0102369
Print or Type the NPDES Permit Number

Whole Effluent Toxicity Test Report Certification (Bioassay Laboratory)

The results reported relate only to the samples submitted as received

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on: 12/14/23
(Date)

Kimberly Wills
Kimberly Wills
Laboratory Director
New England Bioassay Inc.

Industrial Pretreatment Annual Report – 2023



77 Batson Drive
Manchester, CT 06042
(860)-643-9560
www.nebio.com

New England Bioassay Inc.

Aquatic Toxicity Testing Services

CHRONIC AQUATIC TOXICITY TEST REPORT

Permittee: Upper Blackstone Clean Water NPDES # MA0102369
Report submitted to: 50 Route 20
Millbury, MA 01527
Sample ID: Effluent
Test Month/Year: January 2024
NEB Proj # 46173

Test Type / Method: *Ceriodaphnia dubia* Modified Chronic Static-Renewal Freshwater
Test Method 1002.0; EPA 821-R-02-013

Effluent Sample Dates: #1 1/7/24 #2 1/9/24 #3 1/11/24

Test Start Date: 1/8/24

Results Summary

Your results were as follows:

Passed all permit limits

Acute Test Results

Species	LC50	A-NOEC	Permit Limit	Pass / Fail
<i>Ceriodaphnia dubia</i>	>100%	100%	≥ 100%	Pass

Chronic Test Results

Species	C-NOEC	C-LOEC	IC25	Permit Limit	Pass/Fail
<i>Ceriodaphnia dubia</i>	100%	>100%	>100%	≥ 90%	Pass

Data Qualifiers affecting this test:

Certifications & Approvals: NH ELAP (2071), NJ DEP (CT405)

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APPENDIX C

Publication of Legal Notice in the *Worcester Telegram & Gazette* on March 6, 2024

Industrial Pretreatment Annual Report – 2023

Public Notice of Industries in Significant Noncompliance

Seven industrial users were in significant noncompliance with the federally mandated Industrial Pretreatment regulations pursuant to 40 CFR 403 and Upper Blackstone Clean Water's (UBCW) Sewer and Pretreatment Regulations for the period January 1, 2023 through December 31, 2023.

Avient Colorants USA, Inc. (Holden)

Violation: Failed to self-monitor correctly.

Status: UBCW issued a Notice of Violation on January 18, 2024. This industrial user returned to compliance on February 12, 2024.

Century Linen East (Worcester)

Violation: Failed to meet the discharge limits for phosphorus.

Status: UBCW issued a Notice of Violation on February 27, 2023. This industrial user returned to compliance on April 19, 2023.

Curtis Industries (West Boylston)

Violation: Failed to self-monitor correctly.

Status: UBCW issued a Notice of Violation on January 18, 2024. This industrial user is still investigating the cause of cyanide exceedance.

New England Sugars, LLC (Worcester)

Violation: Failed to self-monitor correctly.

Status: UBCW issued a Notice of Violation on January 18, 2024. This industrial user returned to compliance on February 12, 2024.

Saint Gobain – Performance Ceramics Refractories (Worcester)

Violation: Failed to meet the discharge limits for aluminum and failed to self-monitor correctly.

Status: UBCW issued a Notice of Violation on July 24, 2023. This industrial user returned to compliance on January 16, 2024.

Stellar Industries Corpora- tion (Millbury)

Violation: Failed to meet the discharge limits for copper and nickel.

Status: UBCW issued a Notice of Violation on August 8, 2023. This industrial user returned to compliance on August 28, 2023.

Violation: Failed to meet the discharge limits for copper.

Status: UBCW issued a Notice of Violation on November 21, 2023. This industrial user returned to compliance on December 12, 2023.

Worcester Polytechnical Institute Life Sciences and Bioengineering Center (Worcester)

Violation: Failed to self-monitor correctly.

Status: UBCW issued a Notice of Violation on January 18, 2024. This industrial user returned to compliance on February 27, 2024.