



March 2, 2022

VIA ELECTRONIC MAIL

Mr. Hasan Ahmed
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
One Hunters Point Plaza 1st Floor
47-40 21st Street
Long Island City, NY 11101-5401

**Re: Supplemental Remedial Investigation Report
NYSDEC Site No. 241222
Arch Street Yard
Long Island City, New York
TRC Project No.: 414444**

Dear Mr. Ahmed:

MTA Long Island Rail Road (MTA LIRR) has prepared this Supplemental Remedial Investigation Report (SRIR) in connection with the Arch Street Yard (Yard), located south of Jackson Avenue, under the 21st Street Bridge at 49th Avenue, in Long Island City, Queens, New York. A site location map is provided as **Figure 1**. The Yard is currently owned by LIRR and is approximately eight acres in size. The area of the Yard that is currently subject to an Order on Consent and Administrative Settlement is an approximate 0.3-acre portion of the Yard designated as New York Department of Environmental Conservation (NYSDEC) Site No. 241222 (herein referred to as “the Site”). A detailed summary of previous Site investigations is included in a 2016 Remedial Investigation Report (RIR) prepared by D&B Engineers and Architects, P.C. (D&B). The objective of the SRI was to characterize surface soil conditions and document the depth of bluestone ballast cover within the revised Site boundaries. This Supplemental Remedial Investigation Report (SRIR) was prepared in accordance with the SRI Work Plan dated October 15, 2021 and approved by NYSDEC on October 22, 2021.

Site Description

The Site is located in Long Island City, Queens, New York and is identified as Block 61, Lot 5 and 6, and Block 72, portion of Lot 1, on the New York City Tax Map. A United States Geological Survey (USGS) topographical quadrangle map (**Figure 1**) shows the Site location. The Site (NYSDEC Site No. 241222) is situated within the LIRR’s Arch Street Yard (the Yard) and is an approximate 0.3-acre area bounded by Jackson Avenue to the north, 49th Avenue to the south, the Yard maintenance facility to the east, and 11th Street to the west (refer to **Figure 2**). The Site was formerly a 2.7-acre portion of the Yard. The Site boundary was redefined to the current 0.3-acre portion of the Yard where chlorinated volatile organic

The agencies of the MTA

compounds (VOC) impact to soil and groundwater have been identified. The modified Site boundary was effected December 13, 2021.

Site Geology and Hydrogeology

As is typical for most highly industrialized areas such as Queens, New York, the Yard property was likely filled and reworked to allow for development. Based on boring logs and consistent with previous investigations, a layer of urban fill material was observed immediately below the ground surface with a minimum thickness of 5 feet. The fill material is generally described as a dark brown to gray and black, sand and gravel mix with some silt. Varying amounts of anthropogenic material were observed in the fill, such as bluestone, concrete and brick, as well as coal, slag, ash, and cinders. The groundwater surface was observed within this fill material at a depth of approximately 3 to 5 feet below ground surface (bgs).

Based on the absence of anthropogenic materials, native glacial deposits may be present beneath the fill material in some locations that is similar to texture but generally finer and lighter in color. However, at all locations the top of a native clay-rich unit was observed at depths ranging from 10 to 15 feet bgs. The clay-rich unit consists of gray, plastic clay, with some zones of silt or silty sand, and often mixed with significant amounts of organic peat material. It is possible that this clay-rich unit marks the location of a historic wetland area which may have existed prior to filling activities. The clay-rich unit continues to approximately 20 feet bgs, with a thickness ranging from 5 to 10 feet.

The clay-rich unit transitions into a coarser sandy material at depths greater than 20 feet bgs, with refusal generally being encountered at a depth between 25 and 30 feet bgs during the installation of several soil borings during the RI. Based on USGS data for this area of Queens, it is suspected that the refusal is due to encountering the top of bedrock. Bedrock in this area of Queens likely consists of gneiss of the Ravenswood Formation or schist of the Hartland Formation. Material consistent with weathered bedrock was encountered before refusal, including rock fragments.

Background

In December 2003, a LIRR contractor discovered contaminated soil while excavating a utility trench under the 21st Street Bridge at the Yard. The NYSDEC was notified and NYSDEC Spill No. 0310802 was opened. In April 2004, the LIRR's East Side Access Department (ESA) performed an environmental investigation of the impacted area in an attempt to delineate the extent of contamination. Based on the results of this investigation, it was determined that the majority of the impacted surface/shallow subsurface soil had been excavated and removed during the utility trenching. Note there are no records available concerning the details of the utility trenching such as the quantities of soil excavated or the limits of excavation. However, additional follow-up investigations were completed in the vicinity of the excavation.

In 2005, ESA installed four groundwater monitoring wells, which were sampled three to four times per year during the time period from 2005 through 2009. In 2009, ESA advanced seven groundwater probes throughout the impacted area, in order to further define the extent of the contamination. Based on the investigation findings, it was determined that further horizontal and vertical delineation of groundwater contamination was required. In September 2011, the LIRR requested to add the 2.7-acre parcel of the Yard (i.e., the Site) to an existing Voluntary Cleanup Agreement (VCA) with the LIRR. The NYSDEC approved the addition of the Site to the existing VCA Index Nos. W1-0993-04-04 and W2-0994-04-04. Under this VCA, the Site was designated as NYSDEC Site No. V00733. As a result of the termination of the Voluntary Cleanup Program, NYSDEC entered into an Order on Consent and Administrative Settlement with LIRR to address the remaining remedial actions for the Site and NYSDEC Site No. 241222 was assigned.

A summary of the previously completed investigations is presented in Section 2.2.2 of a draft Remedial Action Work Plan (RAWP), dated October 2019, prepared by TRC Engineers, Inc.

The most notable investigation with respect to the current conditions of the Site was a Remedial Investigation (RI) completed by D&B Engineers and Architects, P.C. (D&B) between October 2015 and August 2016. D&B completed the RI field activities in four phases, in accordance with the July 2015 NYSDEC-approved Remedial Investigation Work Plan (RIWP) and subsequent work plan modifications and NYSDEC directives.

As discussed in the final NYSDEC-approved RI Report written by D&B, a localized source area or “hot-spot” of chlorinated VOC contamination is present in a discrete area south of the tracks within the Site, at a depth of approximately 8 to 16 feet below ground surface (bgs) immediately above and within the uppermost portion of the clay-rich unit. Based on the results of the RI and previous investigations, this “hot spot” encompasses approximately 680 square feet and is not migrating. Chlorinated VOCs at concentrations exceeding the NYSDEC Technical and Operational Guidance Series (TOGS) (1.1.1) Class GA Ambient Water Quality Standards and Guidance Values (herein referred to as Class GA Standards) in groundwater are consistent with the discrete residual source area or “hot-spot”.

Due to its discrete location under the bridge and the fact that there is no evidence that the LIRR has utilized, disposed or accidentally spilled chlorinated VOCs at the Yard, the chlorinated VOCs may have been dumped onto the Site by an outside party during a “onetime event” or over a limited period of time. In addition, the results of the RI showing the presence of fill material and limited shallow impacts by chlorinated VOCs are consistent with previous reports indicating that the majority of impacted surface/shallow subsurface soil was excavated and removed during utility trenching conducted in 2003.

It should be noted that an investigation conducted in 2000 identified elevated levels of polychlorinated biphenyls (PCBs) at the Site; however, the RI results did not confirm the presence of PCB contamination within surface and shallow subsurface soil in the track area to the northwest of the chlorinated VOC contamination area. Given that the tracks and the approximately one to two feet of bluestone now present in the area were installed following the initial discovery of the elevated PCB concentrations in 2000, it is presumed that the majority of the PCB contaminated soil was removed previously.

Additionally, in 2018 D&B collected and submitted groundwater samples from three monitoring wells (MW-1 through MW-3) for laboratory analysis of per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane. Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were detected at concentrations between 11 and 170 nanograms per liter (ng/L) and 24 and 90 ng/L, respectively. Detected concentrations of PFOA and PFOS exceeded Class GA Values in each of the groundwater samples collected. 1,4-Dioxane was not detected in any of the groundwater samples collected.

The RAWP selected a remedy primarily consisting of in-situ chemical reduction (ISCR) and enhanced in-situ bioremediation (EISB) of soil and groundwater. However, it was determined that additional evaluation of Site surface soil was necessary to determine if a soil cover or cap would be required as part of the remedy. The purpose of the SRI was to address this data gap.

Supplemental Remedial Investigation Activities

SRI field activities were performed on December 8 and 9, 2021, in general accordance with the SRIWP dated October 15, 2021. SRI field activities were implemented by TRC Engineers, Inc. (TRC) and their subcontractors. A mark-out of the public utilities was requested through the New York City One Call

Center by TRC's drilling subcontractor and through LIRR. A Sample Location Map is shown on the attached **Figure 2**.

Soil Sampling

The soil sampling program was performed on December 8 and 9, 2021 in accordance with the SRIWP and the procedures set forth in the NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (May 2010).

Land, Air, and Water Environmental Services (LAWES) of Center Moriches, New York was retained by TRC as a subcontractor. Bluestone ballast was cleared using a vacuum box mounted truck to top of native soil and soil borings were advanced with a hand auger 2 feet below bottom of encountered ballast. Soil samples collected from each boring were screened with a photoionization detector (PID) and inspected for indications of contamination (e.g., staining, odors, etc.). Geologic descriptions of the soils and field observations were logged by TRC's on-site environmental scientist. The soil boring logs are presented in *Attachment A*. Soil boring locations are shown on **Figure 2**.

The thickness of the bluestone ballast ranged from 2 to 14 inches. The bluestone ballast was underlain by silty sand and silty sand with gravel. Elevated PID readings were detected in three borings (TRC-SB-1, TRC-SB-6, and TRC-SB-10) with the highest PID reading detected in TRC-SB-10 at 9.7 ppm. Very dark brown staining was observed in TRC-SB-1, TRC-SB-5, TRC-SB-6, and TRC-SB-10. No olfactory (i.e., odors) evidence of contamination was observed in recovered soil samples from soil borings.

One (1) soil sample was collected from each soil boring for laboratory analysis for Target Compound List (TCL) VOCs, TCL semi-volatile organic compounds (SVOCs), TCL pesticides and herbicides, polychlorinated biphenyls (PCBs), Target Analyte List (TAL) metals, per- and polyfluoroalkyl substances (PFAS), and 1,4-dioxane. Soil samples were collected from each soil boring from 0 to 0.5 feet below the bluestone ballast. One (1) field duplicate sample and one (1) matrix spike/matrix spike duplicate sample were collected for quality control analyses.

The soil samples selected for laboratory analyses, sample depths, encountered ballast thickness, and PID readings are summarized in the following table.

Boring Depths and Soil Sample Analytical Plan

Soil Boring ID No.	Ballast Thickness (inches)	Boring Depth (inches)	Sample Depth Intervals Selected for Analysis (inches bgs)	Maximum PID Reading (ppm)	VOCs	SVOCs (including 1,4-Dioxane)	PCBs	Herbicides	Pesticides	Metals	PFAS
TRC-SB-01	8	32	8-14	1.9	X	X	X	X	X	X	X
TRC-SB-02	2	26	2-8	0.0	X	X	X	X	X	X	X
TRC-SB-03	7	31	7-13	0.0	X	X	X	X	X	X	X
TRC-SB-04	4	28	4-10	0.0	X	X	X	X	X	X	X
TRC-SB-05	9	33	18-24	0.0	X	X	X	X	X	X	X

Soil Boring ID No.	Ballast Thickness (inches)	Boring Depth (inches)	Sample Depth Intervals Selected for Analysis (inches bgs)	Maximum PID Reading (ppm)	VOCs	SVOCs (including 1,4-Dioxane)	PCBs	Herbicides	Pesticides	Metals	PFAS
TRC-SB-06	5	29	8-14	0.3	X	X	X	X	X	X	X
TRC-SB-07	3	27	3-9	0.0	X	X	X	X	X	X	X
TRC-SB-08	6	30	6-12	0.0	X	X	X	X	X	X	X
TRC-SB-09	5	29	5-11	0.0	X	X	X	X	X	X	X
TRC-SB-10	3	27	3-9	9.7	X	X	X	X	X	X	X
TRC-SB-11	14	42	14-20	0.0	X	X	X	X	X	X	X
TRC-SB-12	12	42	12-18	0.0	X	X	X	X	X	X	X
TRC-SB-13	3	27	3-9	0.0	X	X	X	X	X	X	X
TRC-SB-14	4	28	4-10	0.0	X	X	X	X	X	X	X
TRC-SB-15	5	29	5-11	0.0	X	X	X	X	X	X	X

Notes

ppm: Parts per million

Each sample container was properly labeled, preserved, and placed in a chilled cooler for transport. Samples were transported via courier to Eurofins TestAmerica of Edison, New Jersey. Eurofins TestAmerica is a New York State Department of Health (NYSDOH) ELAP-certified analytical laboratories. Standard chain-of-custody procedures were followed.

In accordance with NYSDEC DER-10, investigation derived wastes (IDW) were minimized by returning excess soil from the soil borings to their original location. Soil borings were backfilled to grade with vacuumed bluestone ballast to the nearby surface grade. Disposable personal protective equipment (PPE) and sampling equipment (scoops, gloves, rope, etc.) free of visible contamination were placed in heavy-duty plastic bags and disposed of properly as solid waste.

Land Surveying

The horizontal coordinates and ground surface elevation of each soil boring location were surveyed by Muñoz Engineering and Land Surveying P.C. (MEPC), a New York State-licensed Land Surveyor, on January 6, 2022.

Soil Sampling Results

The soil sampling results were compared to Restricted Residential Use Soil Cleanup Objectives (RRUSCOs), Industrial Use SCOs (IUSCOs), and Protection of Groundwater use SCOs (PGWSCOs). The soil sampling analytical results are presented on *Tables 1-7*. The laboratory data packages are presented in *Attachment B*. The Data Usability Summary Reports (DUSR) is included as *Attachment C*.

VOCs in Soil

No VOCs were detected in any of the soil samples at concentrations above the corresponding SCOs. The results of the analyses of the soil samples for VOCs are presented in Table 1. The laboratory data packages are presented in *Attachment B*.

SVOCs in Soil

A summary of SVOCs results is presented on Table 2, and the exceedances of the applicable SCOs are summarized below.

SVOCs Detected in Soil at Concentrations Greater than SCOs

Compound	RRUSCOs	PGWSCOs	IUSCOs	TRC-SB-15 (0-0.5)
				Result (ug/kg)
Indeno(1,2,3-cd)pyrene	500	500	11,000	550

Notes

Bold values exceed the SCOs.

Color represents most stringent criteria.

ug/kg – micrograms per kilogram

SCO – Soil Cleanup Objective

As shown in the table above, indeno(1,2,3-cd)pyrene was detected at a concentration exceeding the RRUSCO and PGWSCOs (but below IUSCOs) in one soil sample (TRC-SB-15 [0-0.5]). No other SVOCs were detected at concentrations above the corresponding SCOs.

Metals in Soil

A summary of metals results is presented in Table 6, and the exceedances of the applicable SCOs are summarized below.

Metals Detected in Soil at Concentrations Greater than SCOs

Compound	RRUSCOs	PGWSCOs	IUSCOs	TRC-SB-04 (0-0.5)	TRC-SB-09 (0-0.5)	TRC-SB-13 (0-0.5)	TRC-SB-14 (0-0.5)
				Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)
Copper	270	1,720	10,000	304	179	132	81.8
Lead	400	450	3,900	121	682	99.7	194
Mercury	0.81	0.73	5.7	0.13	1.0	1.4	1.9

Notes

Bold values exceed the SCOs.

Color represents most stringent criteria.

mg/kg – milligrams per kilogram

SCO – Soil Cleanup Objective

As shown in the table above, copper, lead, and mercury were detected in soil samples at concentrations above the RRUSCO and/or PGWSCO. No metals were detected at concentrations above the corresponding IUSCOs.

PCBs in Soil

No PCBs were detected in any of the soil samples at concentrations above the corresponding SCOs. The results of the analyses of the soil samples for PCBs are presented in Table 3. The laboratory data packages are presented in *Attachment B*.

Herbicides and Pesticides in Soil

No Herbicides or Pesticides were detected in any of the soil samples at concentrations above the corresponding SCOs. The results of the analyses of the soil samples for Herbicides and Pesticides are presented in Tables 4 and 5. The laboratory data packages are presented in *Attachment B*.

PFAS in Soil

PFAS were not detected at concentrations greater than the proposed PGWSCOs, RRSCOs, or IUSCOs. A summary of PFAS results is presented in Table 7. The laboratory data packages are presented in *Attachment B*. Restricted Residential, Protection of Groundwater Use, and Industrial Use SCOs for PFAS are presented in the NYSDEC Guidance Document titled "Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances Under NYSDEC's Part 375 Remedial Programs" (June 2021) and are proposed in an upcoming revision to 6 NYCRR Part 375-6.

Quality Assurance/Quality Control Data Evaluation

A QA/QC program for the SRI was instituted to verify that the project analytical data objectives were met. The QA/QC program was implemented consistent with the Quality Assurance Project Plan (QAPP), which specifies the data quality objectives (DQOs) for each analytical parameter for the entire investigation. During the program, the collect of QC samples was monitored to verify that the field QC samples were collected at the proper frequency. Finally, the QA/QC program included validation of the analytical data, as specified in the QAPP.

The results of the data validation are summarized in DUSRs. The DUSRs include a discussion on each qualified result, the potential bias and the effect on the data usability.

In general, the data were found to be valid and usable for decision-making purposes. A summary of the DUSRs, including cautions and/or limitations of data usability, is included in *Attachment C*.

Conclusions and Recommendations

Based on the work performed to date, the following can be concluded:

1. A Supplemental Remedial Investigation was implemented by TRC in December 2021 and consisted of advancement of 15 soil borings to approximately 2 feet below bottom of ballast using hand auguring equipment: and collection of surface soil samples for laboratory analysis of VOCs, SVOCs, PCBs, pesticides, herbicides, metals, and PFAS.
2. The thickness of the bluestone ballast ranged from 2 inches to 14 inches and was underlain by silty sand and silty sand with gravel.

3. Results of analysis of soil samples indicated the following:

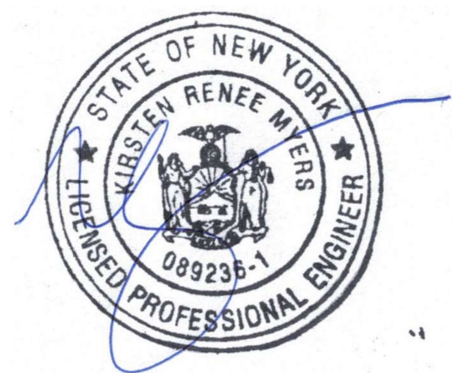
- Three metals (copper, lead, and mercury) were detected at concentrations exceeding RRUSCOs and/or PGWSCO in soil collected from four borings (TRC-SB-09, TRC-SB-13, and TRC-SB-14).
- The SVOC indeno(1,2,3-cd)pyrene was detected at a concentration exceeding RRUSCOs and PGWSCO in sample location TRC-SB-15.
- VOCs, PCBs, herbicides, pesticides, and PFAS were not detected in the surface soil samples at concentrations exceeding the applicable SCOs.

Based on the above, TRC will revise the RAWP to incorporate the Supplemental Remedial Investigation.

Certification

MTA LIRR has retained TRC Engineers, Inc. to review and provide the certification below in accordance with DER-10.

I, Kirsten Myers, P.E., certify that I am currently a New York State registered professional engineer and that this Supplemental Remedial Investigation Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10)



Signature

NYS Professional Engineer No. 089236-1

03/02/2022

Date

Please do not hesitate to contact me at (347) 494-6034 if you have any questions.

Sincerely,

Kathleen Green

Director – Environmental Planning & Compliance
Corporate Safety Department

cc: H. Ahmed, NYSDEC
E. Ebert, D. Warren, K. Myers, TRC

Enclosures:

Figure 1 – Site Location Map

Figure 2 – SRI Soil Sample Locations

Figure 3 – Summary of Supplemental Remedial Investigation Soil Sample Exceedances

Table 1 – Results of Analysis of Soil for Volatile Organic Carbons

Table 2 – Results of Analysis of Soil for Semi-Volatile Organic Carbons

Table 3 – Results of Analysis of Soil for Polychlorinated Biphenyls

Table 4 – Results of Analysis of Soil for Herbicides

Table 5 – Results of Analysis of Soil for Pesticides

Table 6 – Results of Analysis of Soil for Metals

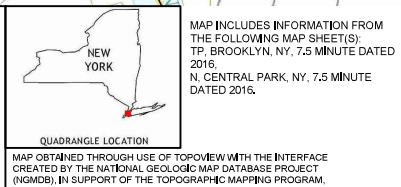
Table 7 – Results of Analysis of Soil for Per- and Polyfluoroalkyl Substances

Attachment A – Soil Boring Logs

Attachment B – Laboratory Data Packages

Attachment C – Data Usability Summary Report

FIGURES



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PROJECT:
METROPOLITAN TRANSPORTATION AUTHORITY LONG ISLAND RAIL ROAD
SUPPLEMENTAL REMEDIAL INVESTIGATION REPORT
ARCH STREET YARD
LONG ISLAND CITY, NEW YORK

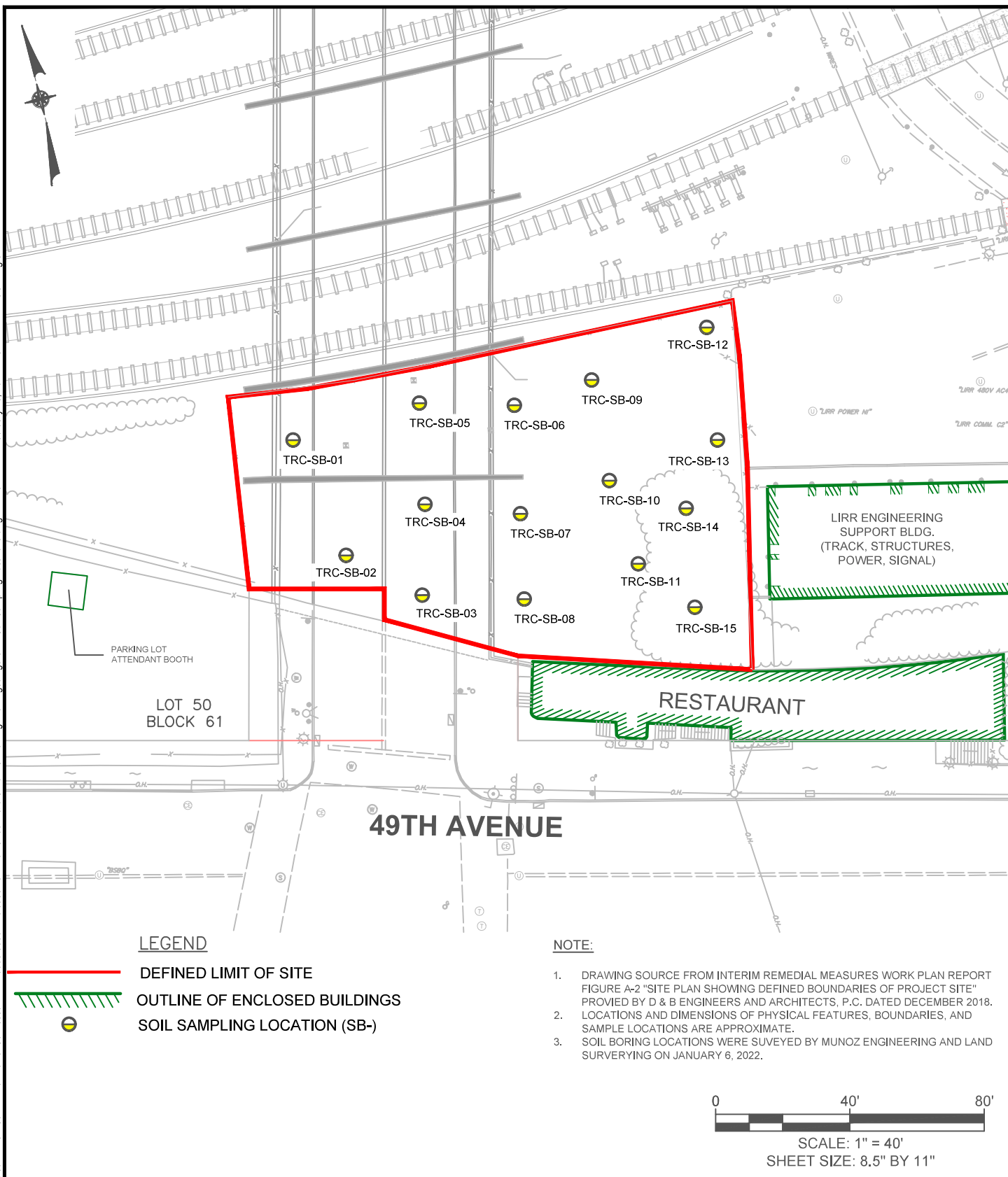
TITLE:

SITE LOCATION MAP

DRAWN BY:	B. SCHLAFF
CHECKED BY:	E. EBERT
APPROVED BY:	K. MYERS
DATE:	MARCH 2022
PROJ. NO.:	414444
FILE:	Figure 1 - Site Location Map (SRI).dwg

FIGURE 1

5.5x11 -- ATTACHED XREFS: 3455XENRIF-3 -- ATTACHED IMAGES: LIRR On-Call Environmental Services\414444\0000\0000 - Release 10 - Arch Street Yard SRI\TRC Working Drawings\ Figure 2 - Soil Sampling Locations.dwg --- PLOT DATE: February 23, 2022 - 4:52PM --- LAYOUT: Fig.3-11x17L



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PROJECT:
**METROPOLITAN TRANSPORTATION AUTHORITY LONG ISLAND RAIL ROAD
SUPPLEMENTAL REMEDIAL INVESTIGATION REPORT
ARCH STREET YARD
LONG ISLAND CITY, NEW YORK**

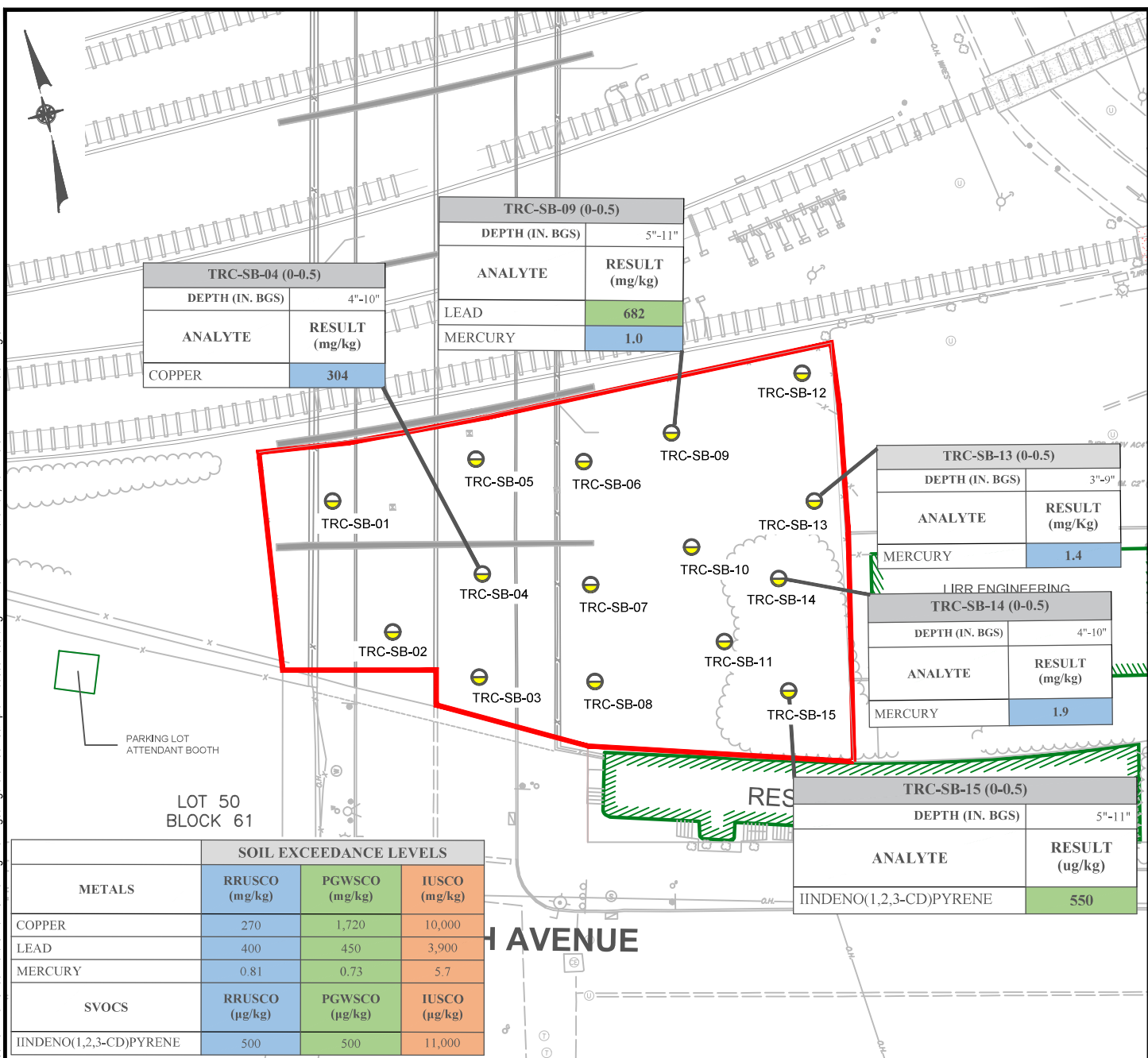
TITLE:

SRI SOIL SAMPLE LOCATIONS

DRAWN BY:	B. SCHLAFF
CHECKED BY:	E. EBERT
APPROVED BY:	K. MYERS
DATE:	MARCH 2022
PROJ. NO.:	41444
FILE:	Figure 2 - Soil Sampling Locations.dwg

FIGURE 2

6.5x11 - ATTACHED XREFS: 3455XENR14-2 - ATTACHED IMAGES: DRAWING NAME: \\nycc-p1\Projects\IRR On-Call Environmental Services\14444.0000.0000 - Release 10 - Arch Street Yard SRI\TRC Working Drawings\ Figure 3 - Soil Sample Exceedances.dwg --- PLOT DATE: March 02, 2022 - 3:34PM --- LAYOUT: Fig.3-11x17L



TRC-SB-04 (0-0.5)	
DEPTH (IN. BGS)	4"-10"
ANALYTE	RESULT (mg/kg)
COPPER	304

TRC-SB-09 (0-0.5)	
DEPTH (IN. BGS)	5"-11"
ANALYTE	RESULT (mg/kg)
LEAD	682
MERCURY	1.0

TRC-SB-13 (0-0.5)	
DEPTH (IN. BGS)	3"-9"
ANALYTE	RESULT (mg/Kg)
MERCURY	1.4

IIR ENGINEERING TRC-SB-14 (0-0.5)	
DEPTH (IN. BGS)	4"-10"
ANALYTE	RESULT (mg/kg)
MERCURY	1.9

TRC-SB-15 (0-0.5)	
DEPTH (IN. BGS)	5"-11"
ANALYTE	RESULT (ug/kg)
IINDENO(1,2,3-CD)PYRENE	550

LEGEND

- DEFINED LIMIT OF SITE
- OUTLINE OF ENCLOSED BUILDINGS
- SOIL SAMPLING LOCATION (SB-)
- SVOC = SEMIVOLATILE ORGANIC COMPOUND
- mg/kg = MILLIGRAMS PER KILOGRAM
- µg/kg = MICROGRAMS PER KILOGRAM
- RRUSCO = RESTRICTED RESIDENTIAL USE SOIL CLEANUP OBJECTIVE
- PGWSCO = PROTECTION OF GROUNDWATER SOIL CLEANUP OBJECTIVE
- IUSCO = INDUSTRIAL USE SOIL CLEANUP OBJECTIVE

NOTE:

- DRAWING SOURCE FROM INTERIM REMEDIAL MEASURES WORK PLAN REPORT FIGURE A-2 "SITE PLAN SHOWING DEFINED BOUNDARIES OF PROJECT SITE" PROVIDED BY D & B ENGINEERS AND ARCHITECTS, P.C. DATED DECEMBER 2018.
- LOCATIONS AND DIMENSIONS OF PHYSICAL FEATURES, BOUNDARIES, AND SAMPLE LOCATIONS ARE APPROXIMATE.
- SOIL BORING LOCATIONS WERE SUEYED BY MUNOZ ENGINEERING AND LAND SURVEYING ON JANUARY 6, 2022.
- SOIL EXCEEDANCE LEVELS BASED ON NYCRR 6 PART 375 SOIL CLEANUP OBJECTIVES

0 40' 80'
SCALE: 1" = 40'
SHEET SIZE: 8.5" BY 11"



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PROJECT:
METROPOLITAN TRANSPORTATION AUTHORITY LONG ISLAND RAIL ROAD
SUPPLEMENTAL REMEDIAL INVESTIGATION REPORT
ARCH STREET YARD
LONG ISLAND CITY, NEW YORK

TITLE:
**SUMMARY OF SRI SOIL SAMPLE
EXCEEDANCES**

DRAWN BY:	B. SCHLAFF
CHECKED BY:	E. EBERT
APPROVED BY:	K. MYERS
DATE:	MARCH 2022
PROJ. NO.:	41444
FILE:	Figure 3 - Soil Sample Exceedances.dwg

FIGURE 3

TABLES

Table 1
Long Island Rail Road
Arch Street Yard SRI
Surface Soil Samples
TCL Volatile Organic Compounds (VOCs)

SAMPLE ID: SAMPLING DATE: START DEPTH (in. bgs): END DEPTH (in. bgs):				TRC-SB-01 (0-0.5) 12/8/2021 8 14		TRC-SB-02 (0-0.5) 12/9/2021 2 8		TRC-SB-03 (0-0.5) 12/9/2021 7 13		TRC-SB-04 (0-0.5) 12/9/2021 4 10		TRC-SB-05 (0-0.5) 12/8/2021 18 24		TRC-SB-06 (0-0.5) 12/8/2021 8 14		TRC-SB-07 (0-0.5) 12/9/2021 3 9		TRC-SB-08 (0-0.5) 12/9/2021 6 12	
	NYCRR 6 Part 375 - Protection of Groundwater* Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Restricted Residential Use Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Industrial Use Soil Cleanup Objectives (SCOs)	Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)	
VOLATILE ORGANIC COMPOUNDS (VOCs)																			
1,1,1-Trichloroethane	680	100,000	1,000,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
1,1,2,2-Tetrachloroethane	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
1,1,2-Trichloro-1,2,2-trifluoroethane	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
1,1,2-Trichloroethane	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
1,1-Dichloroethane	270	26,000	480,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
1,1-Dichloroethene	330	100,000	1,000,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
1,2,3-Trichlorobenzene	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
1,2,4-Trichlorobenzene	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
1,2-Dibromo-3-Chloropropane	--	--	--	1.8	U	2.7	U*	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
1,2-Dichlorobenzene	1,100	100,000	1,000,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
1,2-Dichloroethane	20	3,100	60,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
1,2-Dichloropropane	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
1,3-Dichlorobenzene	2,400	49,000	560,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
1,4-Dichlorobenzene	1,800	13,000	250,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
2-Butanone (MEK)	120	13,000	250,000	9.0	U	13	U	7.1	J	7.8	U	4.4	J	11	U	7.5	U	14	U
2-Hexanone	--	--	--	9.0	U	13	U*	9.9	U	7.8	U	7.9	U	11	U	7.5	U	14	U
4-Methyl-2-pentanone (MIBK)	--	--	--	9.0	U	13	U*	9.9	U	7.8	U	7.9	U	11	U	7.5	U	14	U
Acetone	50	100,000	1,000,000	11	U	16	U	41		9.5		29		19		9.0	U	26	
Benzene	60	4,800	89,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Bromoform	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Bromomethane	--	--	--	3.6	U	5.4	U	3.9	U	3.1	U	3.1	U	4.6	U	3.0	U	5.8	U
Carbon disulfide	--	--	--	1.8	U	2.7	U	0.91	J	1.6	U	0.53	J	2.3	U	1.5	U	2.9	U
Carbon tetrachloride	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Chlorobenzene	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Chlorobromomethane	760	2,400	44,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Chlorodibromomethane	1,100	100,000	1,000,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Chloroethane	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Chloroform	370	49,000	700,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Chloromethane	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
cis-1,2-Dichloroethene	250	100,000	1,000,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
cis-1,3-Dichloropropene	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Cyclohexane	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Dichlorobromomethane	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Dichlorodifluoromethane	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Ethylbenzene	1,000	41,000	780,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Ethylene Dibromide	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Isopropylbenzene	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Methyl acetate	--	--	--	9.0	U	13	U	9.9	U	7.8	U	7.9	U	11	U	7.5	U	14	U
Methyl tert-butyl ether	930	100,000	1,000,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Methylcyclohexane	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Methylene Chloride	50	100,000	1,000,000	3.6	U	5.4	U	3.9	U	3.1	U	2.1	J	4.6	U	3.0	U	5.8	U
m-Xylene & p-Xylene	--	--	--	1.8	U	2.7	U	0.38	J	0.44	J	1.6	U	2.3	U	1.5	U	2.9	U
o-Xylene	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Styrene	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Tetrachloroethene	1,300	19,000	300,000	1.4	J	3.1		2.0	U	0.5	J	1.6	U	2.3	U	1.5	U	2.9	U
Toluene	700	100,000	1,000,000	1.8	U	2.7	U	2.0	U	0.61	J	1.6	U	2.3	U	1.5	U	2.9	U
trans-1,2-Dichloroethene	190	100,000	1,000,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
trans-1,3-Dichloropropene	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Trichloroethene	470	21,000	400,000	1.2	J	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Trichlorofluoromethane	--	--	--	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Vinyl chloride	20	900	27,000	1.8	U	2.7	U	2.0	U	1.6	U	1.6	U	2.3	U	1.5	U	2.9	U
Total Volatile Organic Compounds	--	--	--	2.6		3.1		49.39		11.05		36.03		19		0		26	

Notes:

ug/kg: Micrograms per kilogram

DUP: Blind Duplicate

U: Analyzed for but not detected

* : LCS or LCSD is outside acceptance limits.

J: Estimated value or detection limits

--: No standard

Bolded values exceed Protection of Groundwater SCO (only compared to chlorinated VOCs per NYSDEC)

Highlighted values exceed the Restricted-Residential Use SCO

Bordered values exceed the Industrial Use SCO

Table 1
Long Island Rail Road
Arch Street Yard SRI
Surface Soil Samples
TCL Volatile Organic Compounds (VOCs)

SAMPLE ID: SAMPLING DATE: START DEPTH (in. bgs): END DEPTH (in. bgs):				TRC-SB-09 (0-0.5) 12/8/2021 5 11	TRC-SB-10 (0-0.5) 12/8/2021 3 9	TRC-SB-11 (0-0.5) 12/8/2021 14 20	TRC-SB-12 (0-0.5) 12/8/2021 12 18	TRC-SB-13 (0-0.5) 12/8/2021 3 9	TRC-SB-14 (0-0.5) 12/8/2021 4 10	TRC-SB-15 (0-0.5) 12/8/2021 5 11	TRC-DUP-1 12/9/2021 2 8
NYCRR 6 Part 375 - Protection of Groundwater* Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Restricted Residential Use Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Industrial Use Soil Cleanup Objectives (SCOs)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)
VOLATILE ORGANIC COMPOUNDS (VOCs)											
1,1,1-Trichloroethane	680	100,000	1,000,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
1,1,2,2-Tetrachloroethane	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
1,1,2-Trichloro-1,2,2-trifluoroethane	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
1,1,2-Trichloroethane	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
1,1-Dichloroethane	270	26,000	480,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
1,1-Dichloroethene	330	100,000	1,000,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
1,2,3-Trichlorobenzene	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
1,2,4-Trichlorobenzene	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
1,2-Dibromo-3-Chloropropane	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
1,2-Dichlorobenzene	1,100	100,000	1,000,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
1,2-Dichloroethane	20	3,100	60,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
1,2-Dichloropropane	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
1,3-Dichlorobenzene	2,400	49,000	560,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
1,4-Dichlorobenzene	1,800	13,000	250,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
2-Butanone (MEK)	120	13,000	250,000	10 U	9.1 U	8.8 U	8.4 U	12 U	7.1 U	8.3 U	12 U
2-Hexanone	--	--	--	10 U	9.1 U	8.8 U	8.4 U	12 U	7.1 U	8.3 U	12 U
4-Methyl-2-pentanone (MIBK)	--	--	--	10 U	9.1 U	8.8 U	8.4 U	12 U	7.1 U	8.3 U	12 U
Acetone	50	100,000	1,000,000	37	11 U	12	10 U	15 U	8.5 U	9.9 U	14 U
Benzene	60	4,800	89,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Bromoform	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Bromomethane	--	--	--	4.1 U	3.6 U	3.5 U	3.3 U	4.9 U	2.8 U	3.3 U	4.6 U
Carbon disulfide	--	--	--	1.0 J	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Carbon tetrachloride	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Chlorobenzene	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Chlorobromomethane	760	2,400	44,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Chlorodibromomethane	1,100	100,000	1,000,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Chloroethane	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Chloroform	370	49,000	700,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Chloromethane	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
cis-1,2-Dichloroethene	250	100,000	1,000,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
cis-1,3-Dichloropropene	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Cyclohexane	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Dichlorobromomethane	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Dichlorodifluoromethane	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	120
Ethylbenzene	1,000	41,000	780,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Ethylene Dibromide	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Isopropylbenzene	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Methyl acetate	--	--	--	10 U	9.1 U	8.8 U	8.4 U	12 U	7.1 U	8.3 U	12 U
Methyl tert-butyl ether	930	100,000	1,000,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Methylcyclohexane	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Methylene Chloride	50	100,000	1,000,000	4.1 U	3.6 U	3.5 U	3.3 U	4.9 U	2.8 U	3.3 U	4.6 U
m-Xylene & p-Xylene	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
o-Xylene	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Styrene	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Tetrachloroethene	1,300	19,000	300,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	1.7 J
Toluene	700	100,000	1,000,000	2.1 U	1.8 U	0.45 J	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
trans-1,2-Dichloroethene	190	100,000	1,000,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
trans-1,3-Dichloropropene	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Trichloroethene	470	21,000	400,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Trichlorofluoromethane	--	--	--	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Vinyl chloride	20	900	27,000	2.1 U	1.8 U	1.8 U	1.7 U	2.4 U	1.4 U	1.7 U	2.3 U
Total Volatile Organic Compounds	--	--	--	38	0	12.45	0	0	0	2.3	1.7

Notes:

ug/kg: Micrograms per kilogram

DUP: Blind Duplicate

U: Analyzed for but not detected

* : LCS or LCSD is outside acceptance limits.

J: Estimated value or detection limits

--: No standard

Bolded values exceed Protection of Groundwater SCO (only compared to chlorinated VOCs per NYSDEC)

Highlighted values exceed the Restricted-Residential Use SCO

Bordered values exceed the Industrial Use SCO

Table 2
Long Island Rail Road
Arch Street Yard SRI
Surface Soil Samples
TCL Semivolatile Organic Compounds (SVOCs)

				SAMPLE ID: SAMPLING DATE: START DEPTH (in. bgs): END DEPTH (in. bgs):		TRC-SB-01 (0-0.5) 12/8/2021 8 14	TRC-SB-02 (0-0.5) 12/9/2021 2 8	TRC-SB-03 (0-0.5) 12/9/2021 7 13	TRC-SB-04 (0-0.5) 12/9/2021 4 10	TRC-SB-05 (0-0.5) 12/8/2021 18 24	TRC-SB-06 (0-0.5) 12/8/2021 8 14	TRC-SB-07 (0-0.5) 12/9/2021 3 9	TRC-SB-08 (0-0.5) 12/9/2021 6 12		
	NYCRR 6 Part 375 - Protection of Groundwater* Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Restricted Residential Use Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Industrial Use Soil Cleanup Objectives (SCOs)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)		
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)															
1,1-Biphenyl	--	--	--	340	U	5.2	J	17	J	6.8	J	27	J	380	U
1,2,4,5-Tetrachlorobenzene	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
1,4-Dioxane	100	13,000	250,000	34	U *	36	U *	39	U *	38	U *	36	U *	38	U *
2,2-oxylis(1-Chloropropane)	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
2,3,4,6-Tetrachlorophenol	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
2,4,5-Trichlorophenol	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
2,4,6-Trichlorophenol	--	--	--	140	U	140	U	160	U	150	U	150	U	150	U
2,4-Dichlorophenol	--	--	--	140	U	140	U	160	U	150	U	150	U	150	U
2,4-Dimethylphenol	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
2,4-Dinitrophenol	--	--	--	270	U	290	U	310	U	310	U	290	U	310	U
2,4-Dinitrotoluene	--	--	--	69	U	73	U	79	U	78	U	74	U	77	U
2,6-Dinitrotoluene	--	--	--	69	U	73	U	79	U	78	U	73	U	77	U
2-Chloronaphthalene	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
2-Chlorophenol	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
2-Methylnaphthalene	--	--	--	18	J	15	J	57	J	26	J	99	J	48	J
2-Methylphenol	330	100,000	1,000,000	340	U	360	U	390	U	380	U	360	U	380	U
2-Nitroaniline	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
2-Nitrophenol	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
3,3-Dichlorobenzidine	--	--	--	140	U	140	U *	160	U *	150	U *	150	U	150	U *
3+4-Methylphenols	330	100,000	1,000,000	340	U	360	U	390	U	380	U	360	U	380	U
3-Nitroaniline	--	--	--	270	U	360	U	310	U	310	U	290	U	310	U
4,6-Dinitro-2-methylphenol	--	--	--	340	U	290	U	390	U	380	U	360	U	380	U
4-Bromophenyl-phenylether	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
4-Chloro-3-methylphenol	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
4-Chloroaniline	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
4-Chlorophenyl-phenylether	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
4-Nitroaniline	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
4-Nitrophenol	--	--	--	690	U	730	U	790	U	780	U	730	U	770	U
Acenaphthene	98,000	100,000	1,000,000	14	J	16	J	120	J	37	J	140	J	36	J
Acenaphthylene	107,000	100,000	1,000,000	18	J	34	J	35	J	38	J	47	J	15	J
Acetophenone	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
Anthracene	1,000,000	100,000	1,000,000	41	J	65	J	300	J	130	J	210	J	160	J
Atrazine	--	--	--	140	U	140	U	160	U	150	U	150	U	150	U
Benzaldehyde	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
Benzo(a)anthracene	1,000	1,000	11,000	160	U	220	U	660	U	550	U	570	U	340	U
Benzo(a)pyrene	22,000	1,000	1,100	140	U	220	U	610	U	510	U	520	U	330	U
Benzo(b)fluoranthene	1,700	1,000	11,000	230	U	370	U	800	U	740	U	800	U	420	U
Benzo(g,h,i)perylene	1,000,000	100,000	1,000,000	94	J	110	J	280	J	220	J	240	J	170	J
Benzo(k)fluoranthene	1,700	3,900	110,000	92	U	110	U	280	U	360	U	300	U	140	U
bis(2-Chloroethoxy)methane	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
bis(2-Chloroethyl)ether	--	--	--	34	U	36	U	39	U	38	U	36	U	38	U
Bis(2-ethylhexyl)phthalate	--	--	--	340	U	360	U	390	U	620	JH	76	J	220	J
Butylbenzylphthalate	--	--	--	340	U	85	J	2400	U	1700	U	360	U	26	J
Caprolactam	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
Carbazole	--	--	--	20	J	27	J	100	J	45	J	73	J	22	J
Chrysene	1,000	3,900	110,000	160	J	210	J	610	U	520	U	560	U	180	J
Dibenzo(a,h)anthracene	1,000,000	330	1,100	22	J	32	J	77	J	73	J	56	J	16	J
Dibenzofuran	210,000	59,000	1,000,000	17	J	14	J	80	J	26	J	110	J	29	J
Diethylphthalate	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
Dimethylphthalate	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
Di-n-butylphthalate	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
Di-n-octyl phthalate	--	--	--	340	U	360	U *	390	U *	380	U *	360	U	380	U *
Fluoranthene	1,000,000	100,000	1,000,000	300	J	360	J	1300	U	850	U	1200	U	400	J
Fluorene	386,000	100,000	1,000,000	14	J	26	J	130	J	33	J	130	J	14	J
Hexachlorobenzene	3,200	1,200	12,000	34	U	36	U	39	U	38	U	36	U	38	U
Hexachlorobutadiene	--	--	--	69	U	73	U	79	U	78	U	73	U	74	U
Hexachlorocyclopentadiene	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
Hexachloroethane	--	--	--	34	U	36	U	39	U	38	U	36	U	38	U
Indeno[1,2,3-cd]pyrene	8,200	500	11,000	140	U	130	U	360	U	290	U	380	U	130	U
Isoophorone	--	--	--	140	U	140	U	160	U	150	U	150	U	150	U
Naphthalene	12,000	100,000	1,000,000	21	J	16	J	84	J	35	J	130	J	41	J
Nitrobenzene	--	15,000	140,000	34	U	36	U	39	U	38	U	36	U	38	U
n-Nitroso-di-n-propylamine	--	--	--	34	U	36	U	39	U	38	U	36	U	38	U
n-Nitrosodiphenylamine	--	--	--	340	U	360	U	390	U	380	U	360	U	380	U
Pentachlorophenol	800	6,700	55,000	270	U	290	U	310	U	310	U	290	U	310	U
Phenanthrene	1,000,000	100,000	1,000,000	180	J	200	J	1100	J	440	J	740	J	290	J
Phenol	330	100,000	1,000,000	340	U	360	U	390	U	380	U	360	U	380	U
Pyrene	1,000,000	100,000	1,000,000	260	J	350	J	1300	U	1000	U	340	J	670	J
Total Semivolatile Compounds	--	--	--	1941		2785.2		10820		8249.8		7422		2567.5	

Notes:
ug/kg: Micrograms per kilogram
DUP: Blind duplicate
U: Analyzed for but not detected
J: Estimated value or detection limits
*: LCS or LCSD is outside acceptance limits.
--: No standard or not sampled

Highlighted and bolded values exceeded the Restricted-Residential Use SCO

Bordered values exceed the Industrial Use SCO

Table 2
Long Island Rail Road
Arch Street Yard SRI
Surface Soil Samples
TCL Semivolatile Organic Compounds (SVOCs)

SAMPLE ID: SAMPLING DATE: START DEPTH (in. bgs): END DEPTH (in. bgs):				TRC-SB-09 (0-0.5) 12/8/2021 5 11	TRC-SB-10 (0-0.5) 12/8/2021 3 9	TRC-SB-11 (0-0.5) 12/8/2021 14 20	TRC-SB-12 (0-0.5) 12/8/2021 12 18	TRC-SB-13 (0-0.5) 12/8/2021 3 9	TRC-SB-14 (0-0.5) 12/8/2021 4 10	TRC-SB-15 (0-0.5) 12/8/2021 5 11	TRC-DUP-1 12/9/2021 2 8
NYCRR 6 Part 375 - Protection of Groundwater* Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Restricted Residential Use Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Industrial Use Soil Cleanup Objectives (SCOs)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)											
1,1-Biphenyl	--	--	--	8.5 J	9.3 J	13 J	34 J	7.3 J	8.1 J	13 J	10 J
1,2,4,5-Tetrachlorobenzene	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
1,4-Dioxane	100	13,000	250,000	36 U *	36 U *	37 U *	36 U *	37 U *	36 U *	36 U *	36 U *
2,2-oxybis(1-Chloropropane)	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
2,3,4,6-Tetrachlorophenol	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
2,4,5-Trichlorophenol	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
2,4,6-Trichlorophenol	--	--	--	150 U	150 U	150 U	140 U	150 U	140 U	140 U	150 U
2,4-Dichlorophenol	--	--	--	150 U	150 U	150 U	140 U	150 U	140 U	140 U	150 U
2,4-Dimethylphenol	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
2,4-Dinitrophenol	--	--	--	290 U	290 U	300 U	290 U	300 U	290 U	290 U	290 U
2,4-Dinitrotoluene	--	--	--	74 U	74 U	75 U	72 U	75 U	72 U	72 U	73 U
2,6-Dinitrotoluene	--	--	--	74 U	74 U	75 U	72 U	75 U	72 U	72 U	73 U
2-Chloronaphthalene	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
2-Chlorophenol	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
2-Methylnaphthalene	--	--	--	28 J	37 J	46 J	250 J	24 J	48 J	45 J	19 J
2-Methylphenol	330	100,000	1,000,000	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
2-Nitroaniline	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
2-Nitrophenol	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
3,3-Dichlorobenzidine	--	--	--	150 U	150 U	150 U	140 U	150 U	140 U	140 U	150 U *
3,4-Methylphenols	330	100,000	1,000,000	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
3-Nitroaniline	--	--	--	290 U	290 U	300 U	290 U	300 U	290 U	290 U	290 U
4,6-Dinitro-2-methylphenol	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
4-Bromophenyl-phenylether	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
4-Chloro-3-methylphenol	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
4-Chloroaniline	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
4-Chlorophenyl-phenylether	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
4-Nitroaniline	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
4-Nitrophenol	--	--	--	740 U	740 U	750 U	720 U	750 U	720 U	720 U	730 U
Acenaphthene	98,000	100,000	1,000,000	25 J	33 J	79 J	180 J	32 J	20 J	69 J	20 J
Acenaphthylene	107,000	100,000	1,000,000	15 J	27 J	21 J	14 J	22 J	24 J	27 J	71 J
Acetophenone	--	--	--	360 U	360 U	53 J	360 U	370 U	360 U	28 J	360 U
Anthracene	1,000,000	100,000	1,000,000	59 J	99 J	250 J	180 J	79 J	52 J	190 J	97 J
Atrazine	--	--	--	150 U	150 U	150 U	140 U	150 U	140 U	140 U	150 U
Benzaldehyde	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
Benzo(a)anthracene	1,000	1,000	11,000	180	340	720	410	330	310	660	350
Benzo(a)pyrene	22,000	1,000	1,100	160	320	620	370	320	310	660	370
Benzo(b)fluoranthene	1,700	1,000	11,000	270	470	860	550	470	480	880	600
Benzo(g,h,i)perylene	1,000,000	100,000	1,000,000	110 J	160 J	290 J	210 J	180 J	180 J	340 J	200 J
Benzo(k)fluoranthene	1,700	3,900	110,000	110	190	350	250	170	170	380	290 U
bis(2-Chloroethoxy)methane	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
bis(2-Chloroethyl)ether	--	--	--	36 U	36 U	37 U	36 U	37 U	36 U	36 U	36 U
Bis(2-ethylhexyl)phthalate	--	--	--	220 J	360 U	330 J	360 U	42 J	360 U	36 J	360 U
Butylbenzylphthalate	--	--	--	360 U	360 U	18 J	360 U	21 J	360 U	360 U	120 J
Caprolactam	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
Carbazole	--	--	--	22 J	33 J	73 J	85 J	33 J	22 J	58 J	42 J
Chrysene	1,000	3,900	110,000	180 J	340 J	660	400	340 J	320 J	610	340 J
Dibenz(a,h)anthracene	1,000,000	330	1,100	16 J	32 J	82	46	35 J	52	68	51
Dibenzofuran	210,000	59,000	1,000,000	29 J	36 J	56 J	120 J	31 J	19 J	45 J	20 J
Diethylphthalate	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
Dimethylphthalate	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
Di-n-butylphthalate	--	--	--	360 U	360 U	3400	360 U	15 J	360 U	360 U	360 U
Di-n-octyl phthalate	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U *
Fluoranthene	1,000,000	100,000	1,000,000	400	680	1400	840	630	510	1300	600
Fluorene	386,000	100,000	1,000,000	14 J	30 J	82 J	130 J	33 J	15 J	60 J	22 J
Hexachlorobenzene	3,200	1,200	12,000	36 U	36 U	37 U	36 U	37 U	36 U	36 U	36 U
Hexachlorobutadiene	--	--	--	74 U	74 U	75 U	72 U	75 U	72 U	72 U	73 U
Hexachlorocyclopentadiene	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
Hexachloroethane	--	--	--	36 U	36 U	37 U	36 U	37 U	36 U	36 U	36 U
Indeno(1,2,3-cd)pyrene	8,200	500	11,000	130	250	450	300	260	260	550	240
Isophorone	--	--	--	150 U	150 U	150 U	140 U	150 U	140 U	140 U	150 U
Naphthalene	12,000	100,000	1,000,000	41 J	47 J	54 J	97 J	41 J	30 J	58 J	23 J
Nitrobenzene	--	15,000	140,000	36 U	36 U	37 U	36 U	37 U	36 U	36 U	36 U
n-Nitroso-di-n-propylamine	--	--	--	36 U	36 U	37 U	36 U	37 U	36 U	36 U	36 U
n-Nitrosodiphenylamine	--	--	--	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
PentaChlorophenol	800	6,700	55,000	290 U	290 U	360 U	290 U	360 U	290 U	290 U	290 U
Phenanthrene	1,000,000	100,000	1,000,000	210 J	430	870	290	370	260 J	770	290 J
Phenol	330	100,000	1,000,000	360 U	360 U	370 U	360 U	370 U	360 U	360 U	360 U
Pyrene	1,000,000	100,000	1,000,000	340 J	630	1200	700	560	480	1200	580
Total Semivolatile Compounds	--	--	--	2567.5	4193.3	11977	5846	4045.3	3570.1	8047	4565

Notes:

ug/kg: Micrograms per kilogram

DUP: Blind duplicate

U: Analyzed for but not detected

J: Estimated value or detection limits

*: LCS or LCSD is outside acceptance limits.

--: No standard or not sampled

Highlighted and bolded values exceeded the Restricted-Residential Use SCO

Bordered values exceed the Industrial Use SCO

Table 3
Long Island Rail Road
Arch Street Yard SRI
Surface Soil Samples
Polychlorinated Biphenyls (PCBs)

				SAMPLE ID:		TRC-SB-01 (0-0.5)	TRC-SB-02 (0-0.5)	TRC-SB-03 (0-0.5)	TRC-SB-04 (0-0.5)	TRC-SB-05 (0-0.5)	TRC-SB-06 (0-0.5)	TRC-SB-07 (0-0.5)	TRC-SB-08 (0-0.5)
				SAMPLING DATE:		12/8/2021	12/9/2021	12/9/2021	12/9/2021	12/8/2021	12/8/2021	12/9/2021	12/9/2021
				START DEPTH (in. bgs):		8	2	7	4	18	8	3	6
				END DEPTH (in. bgs):		14	8	13	10	24	14	9	12
	NYCRR 6 Part 375 - Protection of Groundwater* Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Restricted Residential Use Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Industrial Use Soil Cleanup Objectives (SCOs)	Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)	
POLYCHLORINATED BIPHENYLS (PCBs)													
Aroclor 1016	3,200	1,000	25,000	69	UJ	73	UJ	79	UJ	78	UJ	73	UJ
Aroclor 1221	3,200	1,000	25,000	69	U	73	U	79	U	78	U	73	U
Aroclor 1232	3,200	1,000	25,000	69	U	73	U	79	U	78	U	73	U
Aroclor 1242	3,200	1,000	25,000	69	U	73	U	79	U	78	U	73	U
Aroclor 1248	3,200	1,000	25,000	69	U	73	U	79	U	78	U	73	U
Aroclor 1254	3,200	1,000	25,000	69	U	73	U	79	U	78	U	73	U
Aroclor 1260	3,200	1,000	25,000	69	U	73	U	79	U	78	U	73	U
Aroclor-1262	3,200	1,000	25,000	69	U	73	U	79	U	78	U	73	U
Aroclor-1268	3,200	1,000	25,000	69	U	73	U	79	U	78	U	73	U
Total PCBs	3,200	1,000	25,000	69	U	73	U	79	U	78	U	73	U

Notes:
ug/kg: Micrograms per kilogram
DUP: Blind duplicate
J: Estimated value or detection limits
U: Analyzed for but not detected
---: No standard or not analyzed

Table 3
Long Island Rail Road
Arch Street Yard SRI
Surface Soil Samples
Polychlorinated Biphenyls (PCBs)

SAMPLE ID: SAMPLING DATE: START DEPTH (in. bgs): END DEPTH (in. bgs):				TRC-SB-09 (0-0.5) 12/8/2021 5 11		TRC-SB-10 (0-0.5) 12/8/2021 3 9		TRC-SB-11 (0-0.5) 12/8/2021 14 20		TRC-SB-12 (0-0.5) 12/8/2021 12 18		TRC-SB-13 (0-0.5) 12/8/2021 3 9		TRC-SB-14 (0-0.5) 12/8/2021 4 10		TRC-SB-15 (0-0.5) 12/8/2021 5 11		TRC-DUP-1 12/9/2021 2 8	
	NYCRR 6 Part 375 - Protection of Groundwater* Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Restricted Residential Use Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Industrial Use Soil Cleanup Objectives (SCOs)	Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)	
POLYCHLORINATED BIPHENYLS (PCBs)																			
Aroclor 1016	3,200	1,000	25,000	76	UJ	74	UJ	75	UJ	72	UJ	75	UJ	72	UJ	72	UJ	73	UJ
Aroclor 1221	3,200	1,000	25,000	76	U	74	U	75	U	72	U	75	U	72	U	72	U	73	U
Aroclor 1232	3,200	1,000	25,000	76	U	74	U	75	U	72	U	75	U	72	U	72	U	73	U
Aroclor 1242	3,200	1,000	25,000	76	U	74	U	75	U	72	U	75	U	72	U	72	U	73	U
Aroclor 1248	3,200	1,000	25,000	76	U	270	J	75	U	72	U	75	U	72	U	72	U	73	U
Aroclor 1254	3,200	1,000	25,000	76	U	74	U	75	U	72	U	75	U	72	U	72	U	73	U
Aroclor 1260	3,200	1,000	25,000	76	U	74	U	75	U	72	U	75	U	72	U	72	U	73	U
Aroclor-1262	3,200	1,000	25,000	76	U	74	U	75	U	72	U	75	U	72	U	72	U	73	U
Aroclor-1268	3,200	1,000	25,000	76	U	74	U	75	U	72	U	75	U	72	U	72	U	73	U
Total PCBs	3,200	1,000	25,000	76	U	270		75	U	72	U	75	U	72	U	72	U	73	U

Notes:
ug/kg: Micrograms per kilogram
DUP: Blind duplicate
J: Estimated value or detection limits
U: Analyzed for but not detected
---: No standard or not analyzed

Table 4
Long Island Rail Road
Arch Street Yard SRI
Surface Soil Samples
TCL Herbicides

SAMPLE ID: SAMPLING DATE: START DEPTH (in. bgs): END DEPTH (in. bgs):				TRC-SB-01 (0-0.5) 12/8/2021 8 14		TRC-SB-02 (0-0.5) 12/9/2021 2 8		TRC-SB-03 (0-0.5) 12/9/2021 7 13		TRC-SB-04 (0-0.5) 12/9/2021 4 10		TRC-SB-05 (0-0.5) 12/8/2021 18 24		TRC-SB-06 (0-0.5) 12/8/2021 8 14		TRC-SB-07 (0-0.5) 12/9/2021 3 9		TRC-SB-08 (0-0.5) 12/9/2021 6 12	
	NYCRR 6 Part 375 - Protection of Groundwater* Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Restricted Residential Use Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Industrial Use Soil Cleanup Objectives (SCOs)	Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)	
HERBICIDES																			
2,4,5-T	--	--	--	34	U	36	U	39	U	39	U	36	U	180	U	38	U	39	U
2,4-D	--	--	--	34	U	36	U	39	U	39	U	36	U	180	U	38	U	39	U
Silvex (2,4,5-TP)	3,800	100,000	1,000,000	34	UJ	36	U	39	U	39	U	36	UJ	180	UJ	38	U	39	U

Notes:
ug/kg: Micrograms per kilogram
DUP: Blind duplicate
U: Analyzed for but not detected
J: Estimated value or detection limits
--: No standard

Table 4
Long Island Rail Road
Arch Street Yard SRI
Surface Soil Samples
TCL Herbicides

SAMPLE ID: SAMPLING DATE: START DEPTH (in. bgs): END DEPTH (in. bgs):				TRC-SB-09 (0-0.5) 12/8/2021 5 11		TRC-SB-10 (0-0.5) 12/8/2021 3 9		TRC-SB-11 (0-0.5) 12/8/2021 14 20		TRC-SB-12 (0-0.5) 12/8/2021 12 18		TRC-SB-13 (0-0.5) 12/8/2021 3 9		TRC-SB-14 (0-0.5) 12/8/2021 4 10		TRC-SB-15 (0-0.5) 12/8/2021 5 11		TRC-DUP-1 12/9/2021 2 8	
	NYCRR 6 Part 375 - Protection of Groundwater* Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Restricted Residential Use Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Industrial Use Soil Cleanup Objectives (SCOs)	Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)	
HERBICIDES																			
2,4,5-T	--	--	--	190	U	180	U	190	U	180	U	190	U	180	U	180	U	36	U
2,4-D	--	--	--	190	U	180	U	190	U	180	U	190	U	180	U	180	U	36	U
Silvex (2,4,5-TP)	3,800	100,000	1,000,000	190	UJ	180	UJ	190	UJ	180	UJ	190	UJ	180	UJ	180	UJ	36	U

Notes:
ug/kg: Micrograms per kilogram
DUP: Blind duplicate
U: Analyzed for but not detected
J: Estimated value or detection limits
--: No standard

Table 5
Long Island Rail Road
Arch Street Yard SRI
Surface Soil Samples
TCL Pesticides

				SAMPLE ID: SAMPLING DATE: START DEPTH (in. bgs): END DEPTH (in. bgs):		TRC-SB-01 (0-0.5) 12/8/2021 8 14		TRC-SB-02 (0-0.5) 12/9/2021 2 8		TRC-SB-03 (0-0.5) 12/9/2021 7 13		TRC-SB-04 (0-0.5) 12/9/2021 4 10		TRC-SB-05 (0-0.5) 12/8/2021 18 24		TRC-SB-06 (0-0.5) 12/8/2021 8 14		TRC-SB-07 (0-0.5) 12/9/2021 3 9		TRC-SB-08 (0-0.5) 12/9/2021 6 12	
	NYCRR 6 Part 375 - Protection of Groundwater* Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Restricted Residential Use Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Industrial Use Soil Cleanup Objectives (SCOs)	Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)	
PESTICIDES																					
4,4'-DDD	14,000	13,000	180,000	6.9	U	7.3	U	25		7.8	U	9.8		7.4	U	7.7	U	7.8		U	
4,4'-DDE	17,000	8,900	120,000	6.9	U	7.3	U	20		5.8	J	5.9	J	4.4	J	4.1	J	9.0			
4,4'-DDT	136,000	7,900	94,000	2.8	J	7.3	U	4.8	J	7.8	U	3.4	J p	7.4	U	3.1	J p	7.8		U	
Aldrin	190	97	1,400	6.9	U	7.3	U	7.9	U	7.8	U	7.3	U	7.4	U	7.7	U	7.8		U	
alpha-BHC	20	480	6,800	2.1	U	2.2	U	2.4	U	2.3	U	2.2	U	2.2	U	2.3	U	2.3		U	
beta-BHC	90	4,200	47,000	2.1	U	2.2	U	2.4	U	2.3	U	2.2	U	2.2	U	2.3	U	2.3		U	
Chlordane (technical)	--	360	14,000	69	U	73	U	140		59	J	73	U	74	U	77	U	78		U	
delta-BHC	250	100,000	1,000,000	2.1	U	2.2	U	2.4	U	2.3	U	2.2	U	2.2	U	2.3	U	2.3		U	
Dieldrin	100	200	2,800	2.1	U	2.2	U	2.4	U	2.3	U	2.2	U	2.2	U	2.3	U	2.3		U	
Endosulfan I	102,000	24,000	920,000	6.9	U	7.3	U	7.9	U	7.8	U	7.3	U	7.4	U	7.7	U	7.8		U	
Endosulfan II	102,000	24,000	920,000	6.9	U	7.3	U	7.9	U	7.8	U	7.3	U	7.4	U	7.7	U	7.8		U	
Endosulfan sulfate	1,000,000	24,000	920,000	6.9	U	7.3	U	7.9	U	7.8	U	7.3	U	7.4	U	7.7	U	7.8		U	
Endrin	60	11,000	410,000	6.9	U	7.3	U	7.9	U	7.8	U	7.3	U	7.4	U	7.7	U	7.8		U	
Endrin aldehyde	--	--	--	6.9	U	7.3	U	7.9	U	7.8	U	7.3	U	7.4	U	7.7	U	7.8		U	
Endrin ketone	--	--	--	6.9	U	7.3	U	7.9	U	7.8	U	7.3	U	7.4	U	7.7	U	7.8		U	
gamma-BHC (Lindane)	100	1,300	23,000	2.1	U	2.2	U	2.4	U	2.3	U	2.2	U	2.2	U	2.3	U	2.3		U	
Heptachlor	380	4,200	47,000	6.9	U	7.3	U	7.9	U	7.8	U	7.3	U	7.4	U	7.7	U	7.8		U	
Heptachlor epoxide	--	2,100	29,000	6.9	U	7.3	U	7.9	U	7.8	U	7.3	U	7.4	U	7.7	U	7.8		U	
Methoxychlor	--	--	--	6.9	U	7.3	U	7.9	U	7.8	U	7.3	U	7.4	U	7.7	U	7.8		U	
Toxaphene	--	--	--	69	U	73	U	79	U	78	U	73	U	74	U	77	U	78		U	

Notes:
ug/kg: Micrograms per kilogram
DUP: Blind duplicate
J : Indicates an estimated value.
p : The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U: Analyzed for but not detected
--: No standard

Table 5
Long Island Rail Road
Arch Street Yard SRI
Surface Soil Samples
TCL Pesticides

SAMPLE ID: SAMPLING DATE: START DEPTH (in. bgs): END DEPTH (in. bgs):				TRC-SB-09 (0-0.5) 12/8/2021 5 11		TRC-SB-10 (0-0.5) 12/8/2021 3 9		TRC-SB-11 (0-0.5) 12/8/2021 14 20		TRC-SB-12 (0-0.5) 12/8/2021 12 18		TRC-SB-13 (0-0.5) 12/8/2021 3 9		TRC-SB-14 (0-0.5) 12/8/2021 4 10		TRC-SB-15 (0-0.5) 12/8/2021 5 11		TRC-DUP-1 12/9/2021 2 8	
	NYCRR 6 Part 375 - Protection of Groundwater* Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Restricted Residential Use Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Industrial Use Soil Cleanup Objectives (SCOs)	Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)	
PESTICIDES																			
4,4'-DDD	14,000	13,000	180,000	7.6	U	7.4	U	7.5	U	7.2	U	7.5	U	7.2	U	7.2	U	7.3	U
4,4'-DDE	17,000	8,900	120,000	7.6	U	3.1	J	7.5	U	7.2	U	2.3	J	7.2	U	7.2	U	2.6	J
4,4'-DDT	136,000	7,900	94,000	7.6	U	3.6	J p	7.5	U	7.2	U	7.5	U	7.2	U	7.2	U	3.6	J p
Aldrin	190	97	1,400	7.6	U	7.4	U	7.5	U	7.2	U	7.5	U	7.2	U	7.2	U	7.3	U
alpha-BHC	20	480	6,800	2.3	U	2.2	U	2.3	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
beta-BHC	90	4,200	47,000	2.3	U	2.2	U	2.3	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
Chlordane (technical)	--	360	14,000	76	U	74	U	75	U	72	U	75	U	72	U	72	U	73	U
delta-BHC	250	100,000	1,000,000	2.3	U	2.2	U	2.3	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
Dieldrin	100	200	2,800	2.3	U	2.2	U	2.3	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
Endosulfan I	102,000	24,000	920,000	7.6	U	7.4	U	7.5	U	7.2	U	7.5	U	7.2	U	7.2	U	7.3	U
Endosulfan II	102,000	24,000	920,000	7.6	U	7.4	U	7.5	U	7.2	U	7.5	U	7.2	U	7.2	U	7.3	U
Endosulfan sulfate	1,000,000	24,000	920,000	7.6	U	7.4	U	7.5	U	7.2	U	7.5	U	7.2	U	7.2	U	7.3	U
Endrin	60	11,000	410,000	7.6	U	7.4	U	7.5	U	7.2	U	7.5	U	7.2	U	7.2	U	7.3	U
Endrin aldehyde	--	--	--	7.6	U	7.4	U	7.5	U	7.2	U	7.5	U	7.2	U	7.2	U	7.3	U
Endrin ketone	--	--	--	7.6	U	7.4	U	7.5	U	7.2	U	7.5	U	7.2	U	7.2	U	7.3	U
gamma-BHC (Lindane)	100	1,300	23,000	2.3	U	2.2	U	2.3	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
Heptachlor	380	4,200	47,000	7.6	U	7.4	U	7.5	U	7.2	U	7.5	U	7.2	U	7.2	U	7.3	U
Heptachlor epoxide	--	2,100	29,000	7.6	U	7.4	U	7.5	U	7.2	U	7.5	U	7.2	U	7.2	U	7.3	U
Methoxychlor	--	--	--	7.6	U	7.4	U	7.5	U	7.2	U	7.5	U	7.2	U	7.2	U	7.3	U
Toxaphene	--	--	--	76	U	74	U	75	U	72	U	75	U	72	U	72	U	73	U

Notes:
ug/kg: Micrograms per kilogram
DUP: Blind duplicate
J : Indicates an estimated value.
p : The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U: Analyzed for but not detected
--: No standard

Table 6
Long Island Rail Road
Arch Street Yard SRI
Surface Soil Samples
TAL Metals

SAMPLE ID: SAMPLING DATE: START DEPTH (in. bgs): END DEPTH (in. bgs):				TRC-SB-01 (0-0.5) 12/8/2021 8 14	TRC-SB-02 (0-0.5) 12/9/2021 2 8	TRC-SB-03 (0-0.5) 12/9/2021 7 13	TRC-SB-04 (0-0.5) 12/9/2021 4 10	TRC-SB-05 (0-0.5) 12/8/2021 18 24	TRC-SB-06 (0-0.5) 12/8/2021 8 14	TRC-SB-07 (0-0.5) 12/9/2021 3 9	TRC-SB-08 (0-0.5) 12/9/2021 6 12						
	NYCRR 6 Part 375 - Protection of Groundwater* Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Restricted Residential Use Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Industrial Use Soil Cleanup Objectives (SCOs)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)					
METALS																	
Aluminum	--	--	--	2,250		6,160		6,540		3,910		6,430		5,190		5,690	
Antimony	--	--	--	0.56	J	0.46	J	0.98	J	1.4	J	0.46	J	0.35	J	0.26	J
Arsenic	16	16	16	4.7		6.8		6.6	J	10.4		9.9	J	4.7		5.8	
Barium	820	400	10,000	34.6		72.5		92.2	J	129		67.8	J	68.8		97.3	
Beryllium	47	72	2,700	0.25	J	0.33	J	0.36	J	0.58		0.31	J	0.30	J	0.31	J
Cadmium	7.5	4.3	60	0.18	J	0.52	J	0.69	J	0.28	J	0.49	J	0.25	J	0.29	J
Calcium	--	--	--	8,530		49,000		32,500		46,100		13,100		47,400		50,300	
Chromium	--	180	6,800	11.1		15.7		21.3		23.2		16.4		17.3		15.9	
Cobalt	--	--	--	2.9		5.5		5.3		6.9		4.8		8.4		4.2	
Copper	1,720	270	10,000	40.3		64.3		82.8		304		108		68.2		45.3	
Iron	--	--	--	9,080		15,200		15,600		15,500		21,600		22,100		12,400	
Lead	450	400	3,900	66.3		129		153		121		278		74.0		78.3	
Magnesium	--	--	--	1,460		15,600	J	5610		8,260		2,260		5,380		8,650	
Manganese	2000	2,000	10,000	105		205		226		188		219		244		176	
Mercury	0.73	0.81	5.7	0.081		0.15		0.26		0.13		0.52		0.093		0.14	
Nickel	130	310	10,000	6.5		15.2		17.8		18.7		12.8		19.2		13.3	
Potassium	--	--	--	639		969	JH	1,290		1,020		698		764		906	
Selenium	4	180	6,800	0.19	J	0.35	J	0.58	J	0.27	J	0.58	J	0.22	J	0.27	J
Silver	8.3	180	6,800	0.97	UJ	0.13	J	0.25	J	0.19	J	2.1	UJ	0.14	J	0.15	J
Sodium	--	--	--	135		591	JH	707	JH	335	JH	159	J	311		187	JH
Thallium	--	--	--	0.39	U	0.083	J	0.11	J	0.089	J	0.12	J	0.055	J	0.079	J
Vanadium	--	--	--	12.8		33.8	J	28.3		29.7		18.6		29.9		20.3	
Zinc	2,480	10,000	10,000	59.7		180	J	167		709		209		157		122	

Notes:
mg/kg: Milligrams per kilogram
U: Analyzed for but not detected
J: Estimated value or detection limits
H: Estimated high
--: No standard or not analyzed

Highlighted and bolded values exceeded the Restricted-Residential Use SCO

Table 6
Long Island Rail Road
Arch Street Yard SRI
Surface Soil Samples
TAL Metals

SAMPLE ID: SAMPLING DATE: START DEPTH (in. bgs): END DEPTH (in. bgs):				TRC-SB-09 (0-0.5) 12/8/2021 5 11	TRC-SB-10 (0-0.5) 12/8/2021 3 9	TRC-SB-11 (0-0.5) 12/8/2021 14 20	TRC-SB-12 (0-0.5) 12/8/2021 12 18	TRC-SB-13 (0-0.5) 12/8/2021 3 9	TRC-SB-14 (0-0.5) 12/8/2021 4 10	TRC-SB-15 (0-0.5) 12/8/2021 5 11	TRC-DUP-1 12/9/2021 2 8
	NYCRR 6 Part 375 - Protection of Groundwater* Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Restricted Residential Use Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Industrial Use Soil Cleanup Objectives (SCOs)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)
METALS											
Aluminum	--	--	--	5,200	3,970	8,700	3,330	5,060	4,120	4,480	6,090
Antimony	--	--	--	1.2	1.3	0.34 J	0.49 J	0.43 J	0.54 J	0.66 J	0.44 J
Arsenic	16	16	16	11.0	8.1	4.5	4.3	5.1	6.1	6.5	5.8
Barium	820	400	10,000	145	85.6	123	41.5	69.3	58.0	63.7	86.6
Beryllium	47	72	2,700	0.55	0.33 J	0.34 J	0.25 J	0.34 J	0.31 J	0.28 J	0.31 J
Cadmium	7.5	4.3	60	0.65 J	0.50 J	0.27 J	0.28 J	0.26 J	0.37 J	0.42 J	0.54 J
Calcium	--	--	--	29,500	26,500	57,500	29,200	34,800	9,720	35,000	36,700
Chromium	--	180	6,800	19.7	16.6	33.9	10.2	12.8	12.6	11.1	16.0
Cobalt	--	--	--	7.2	5.1	6.3	3.4	4.6	10.3	5.6	5.6
Copper	1,720	270	10,000	179	144	39.5	54.0	132	81.8	85.9	68.0
Iron	--	--	--	18,300	16,500	16,500	11,100	9,740	12,700	14,700	15,800
Lead	450	400	3,900	682	241	56.5	119	99.7	194	159	129
Magnesium	--	--	--	6,940	10,400	8,730	9,340	5,990	2,810	12,400	10,200
Manganese	2000	2,000	10,000	220	188	245	169	153	175	205	202 J
Mercury	0.73	0.81	5.7	1.0	0.52	0.13	0.24	1.4	1.9	0.49	0.15
Nickel	130	310	10,000	20.2	13.5	16.4	11.1	11.8	13.0	12.6	15.8
Potassium	--	--	--	785	604 JH	3,300 JH	490 JH	656 JH	536 JH	719 JH	942
Selenium	4	180	6,800	1.0 J	0.83 J	0.21 J	0.21 J	0.20 J	0.35 J	0.40 J	0.29 J
Silver	8.3	180	6,800	0.46 J	0.27 J	1.1 J	0.11 J	0.15 J	0.14 J	0.17 J	0.12 J
Sodium	--	--	--	952	733	147	98.8	134	596	695	636 JH
Thallium	--	--	--	0.10 J	0.10 J	0.21 J	0.045 J	0.060 J	0.073 J	0.085 J	0.094 J
Vanadium	--	--	--	27.2	22.5	33.5	28.8	21.9	16.7	26.7	30.2 J
Zinc	2,480	10,000	10,000	511	200	100	107	105	200	161	193 J

Notes:

mg/kg: Milligrams per kilogram

U: Analyzed for but not detected

J: Estimated value or detection limits

H: Estimated high

--: No standard or not analyzed

Highlighted and bolded values exceeded the Restricted-Residential Use SCO

Table 7
Long Island Rail Road
Arch Street Yard RAWP
Surface Soil Samples
TCL PFAS

SAMPLE ID: SAMPLING DATE: START DEPTH (in. bgs): END DEPTH (in. bgs):				TRC-SB-01 (0-0.5) 12/8/2021 8 14		TRC-SB-02 (0-0.5) 12/9/2021 2 8		TRC-SB-03 (0-0.5) 12/9/2021 7 13		TRC-SB-04 (0-0.5) 12/9/2021 4 10		TRC-SB-05 (0-0.5) 12/8/2021 18 24		TRC-SB-06 (0-0.5) 12/8/2021 8 14		TRC-SB-07 (0-0.5) 12/9/2021 3 9		TRC-SB-08 (0-0.5) 12/9/2021 6 12	
PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)	NYCRR 6 Part 375 - Protection of Groundwater* Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Restricted Residential Use Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Industrial Use Soil Cleanup Objectives (SCOs)	Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)		Result (ug/kg)	
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	--	--	--	2.05	U	2.14	U	2.32	U	2.25	U	0.032	J	2.19	U	2.28	U	2.34	U
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	--	--	--	2.05	U	2.14	U	2.32	U	2.25	U	2.23	U	2.19	U	2.28	U	2.34	U
N-ethylperfluorooctanesulfonamidoacetic acid (NtFOSAA)	--	--	--	2.05	U	2.14	U	2.32	U	2.25	U	2.23	U	2.19	U	2.28	U	2.34	U
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	--	--	--	2.05	U	2.14	U	2.32	U	2.25	U	2.23	U	2.19	U	2.28	U	2.34	U
Perfluorobutanesulfonic acid (PFBS)	--	--	--	0.21	U	0.21	U	0.23	U	0.23	U	0.22	U	0.22	U	0.23	U	0.23	U
Perfluorobutanoic acid (PFBA)	--	--	--	0.51	U	0.54	U	0.58	U	0.56	U	0.56	U	0.55	U	0.57	U	0.58	U
Perfluorodecanesulfonic acid (PFDS)	--	--	--	0.032	J	0.063	J	0.070	J	0.029	J	0.030	J	0.034	J	0.032	J	0.060	J
Perfluorodecanoic acid (PFDA)	--	--	--	0.21	U	0.21	U	0.23	U	0.23	U	0.22	U	0.22	U	0.23	U	0.23	U
Perfluorododecanoic acid (PFDoA)	--	--	--	0.032	J	0.10	J	0.11	J	0.061	J	0.031	J	0.068	J	0.12	J	0.090	J
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	--	0.21	U	0.021	J	0.23	U	0.23	U	0.22	U	0.22	U	0.23	U	0.23	U
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	--	0.026	J	0.052	J	0.024	J	0.23	U	0.22	U	0.22	U	0.23	U	0.23	U
Perfluorohexanesulfonic acid (PFHxS)	--	--	--	0.21	U	0.21	U	0.23	U	0.23	U	0.22	U	0.22	U	0.23	U	0.016	J
Perfluorohexanoic acid (PFHxA)	--	--	--	0.037	J	0.050	J	0.027	J	0.029	J	0.22	U	0.029	J	0.032	J	0.23	U
Perfluorononanoic acid (PFNA)	--	--	--	0.048	J	0.063	J	0.058	J	0.030	J	0.22	U	0.22	U	0.021	J	0.23	U
Perfluorooctanesulfonamide (PFOSA)	--	--	--	0.21	U	0.033	J	0.11	J	0.23	U	0.22	U	0.22	U	0.23	U	0.23	U
Perfluorooctanesulfonic acid (PFOS)	3.4	44	440	0.50		2.26	JH	1.71	JH	0.35	JH	0.33		0.12	J	0.29	JH	0.23	U
Perfluorooctanoic acid (PFOA)	1.1	33	600	0.20	J	0.48		0.21	J	0.072	J	0.096	J	0.031	J	0.050	J	0.029	J
Perfluoropentanoic acid (PFPeA)	--	--	--	0.21	U	0.21	U	0.23	U	0.23	U	0.22	U	0.22	U	0.23	U	0.23	U
Perfluorotetradecanoic acid (PFTeA)	--	--	--	0.21	U	0.056	J	0.054	J	0.027	J	0.22	U	0.047	J	0.072	J	0.049	J
Perfluorotridecanoic acid (PFTriA)	--	--	--	0.21	U	0.055	J	0.067	J	0.034	J	0.018	J	0.036	J	0.065	J	0.047	J
Perfluoroundecanoic acid (PFUnA)	--	--	--	0.037	J	0.10	J	0.11	J	0.057	J	0.029	J	0.037	J	0.066	J	0.060	J

Notes:

ug/kg: Micrograms per kilogram

DUP: Blind duplicate

U: Analyzed for but not detected

J: Estimated value or detection limits

JH: High Estimated value or detection limits

---: No standard

Restricted Residential, Protection of Groundwater Use, and Industrial Use SCOs for PFAS are presented in the NYSDEC Guidance Document titled "Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances Under NYSDEC's Part 375 Remedial Programs" (June 2021) and are proposed in an upcoming revision to 6 NYCRR Part 375-6.

Table 7
Long Island Rail Road
Arch Street Yard RAWP
Surface Soil Samples
TCL PFAS

SAMPLE ID: SAMPLING DATE: START DEPTH (in. bgs): END DEPTH (in. bgs):				TRC-SB-09 (0-0.5) 12/8/2021 5 11	TRC-SB-10 (0-0.5) 12/8/2021 3 9	TRC-SB-11 (0-0.5) 12/8/2021 14 20	TRC-SB-12 (0-0.5) 12/8/2021 12 18	TRC-SB-13 (0-0.5) 12/8/2021 3 9	TRC-SB-14 (0-0.5) 12/8/2021 4 10	TRC-SB-15 (0-0.5) 12/8/2021 5 11	TRC-DUP-1 12/9/2021 2 8
PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)	NYCRR 6 Part 375 - Protection of Groundwater* Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Restricted Residential Use Soil Cleanup Objectives (SCOs)	NYCRR 6 Part 375 - Industrial Use Soil Cleanup Objectives (SCOs)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)	Result (ug/kg)
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	--	--	--	2.22 U	2.17 U	2.21 U	2.19 U	2.16 U	2.13 U	2.16 U	2.12 U
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	--	--	--	2.22 U	2.17 U	2.21 U	2.19 U	2.16 U	2.13 U	2.16 U	2.12 U
N-ethylperfluorooctanesulfonamidoacetic acid (NtFOSAA)	--	--	--	2.22 U	2.17 U	2.21 U	2.19 U	2.16 U	2.13 U	2.16 U	2.12 U
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	--	--	--	2.22 U	2.17 U	2.21 U	2.19 U	2.16 U	2.13 U	2.16 U	2.12 U
Perfluorobutanesulfonic acid (PFBS)	--	--	--	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.21 U	0.22 U	0.21 U
Perfluorobutanoic acid (PFBA)	--	--	--	0.55 U	0.54 U	0.55 U	0.55 U	0.54 U	0.23 J	0.54 U	0.53 U
Perfluorodecanesulfonic acid (PFDS)	--	--	--	0.027 J	0.026 J	0.023 J	0.042 J	0.032 J	0.025 J	0.045 J	0.058 J
Perfluorodecanoic acid (PFDA)	--	--	--	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.21 U	0.22 U	0.21 U
Perfluorododecanoic acid (PFDoA)	--	--	--	0.047 J	0.033 J	0.068 J	0.068 J	0.094 J	0.068 J	0.095 J	0.11 J
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	--	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.21 U	0.22 U	0.025 J
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	--	0.22 U	0.027 J	0.22 U	0.045 J	0.033 J	0.073 J	0.060 J	0.042 J
Perfluorohexanesulfonic acid (PFHxS)	--	--	--	0.22 U	0.22 U	0.22 U	0.016 J	0.22 U	0.21 U	0.22 U	0.21 U
Perfluorohexanoic acid (PFHxA)	--	--	--	0.22 U	0.051 J	0.024 J	0.035 J	0.047 J	0.13 J	0.11 J	0.055 J
Perfluorononanoic acid (PFNA)	--	--	--	0.027 J	0.042 J	0.021 J	0.22 U	0.031 J	0.052 J	0.053 J	0.079 J
Perfluorooctanesulfonamide (PFOSA)	--	--	--	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.21 U	0.22 U	0.21 U
Perfluorooctanesulfonic acid (PFOS)	3.4	44	440	0.33	0.58	0.11 J	0.15 J	0.13 J	0.28	0.21 J	2.22 JH
Perfluorooctanoic acid (PFOA)	1.1	33	600	0.065 J	0.099 J	0.042 J	0.033 J	0.044 J	0.098 J	0.095 J	0.45
Perfluoropentanoic acid (PFPeA)	--	--	--	0.22 U	0.22 U	0.22 U	0.058 J	0.043	0.12 J	0.11 J	0.21 U
Perfluorotetradecanoic acid (PFTeA)	--	--	--	0.031 J	0.029 J	0.047 J	0.22 U	0.057 J	0.037 J	0.091 J	0.043 J
Perfluorotridecanoic acid (PFTriA)	--	--	--	0.028 J	0.020 J	0.033 J	0.034 J	0.050 J	0.028 J	0.063 J	0.054 J
Perfluoroundecanoic acid (PFUnA)	--	--	--	0.045 J	0.043 J	0.034 J	0.059 J	0.090 J	0.078 J	0.082 J	0.11 J

Notes:

ug/kg: Micrograms per kilogram

DUP: Blind duplicate

U: Analyzed for but not detected

J: Estimated value or detection limits

JH: High Estimated value or detection limits

---: No standard

Restricted Residential, Protection of Groundwater Use, and Industrial Use SCOs for PFAS are presented in the NYSDEC Guidance Document titled "Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances Under NYSDEC's Part 375 Remedial Programs" (June 2021) and are proposed in an upcoming revision to 6 NYCRR Part 375-6.

ATTACHMENT A



BORING NUMBER: **TRC-SB-01**
Page 1 of 1

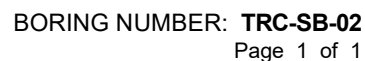
PROJECT INFORMATION				BORING INFORMATION			
Project Name: Arch Street Yard				Boring Depth: 2.88 Hole Diameter: 3.5"			
Project Location: Arch Street Yard, Long Island City, NY				Date Started: 12/8/21 Date Completed: 12/8/21			
Project Number: 414444				Coordinate System: Long Island State Plane			
Client: MTA LIRR				North: 209932.3288 East: 998324.1835			
Logged By: B. Schlaff				Vertical Datum: Ground Elevation: 7.4795			
Checked By: E. Ebert							
DRILLING INFORMATION				GROUND WATER OBSERVATIONS			
Drilling Contractor: Land, Air, Water Environmental Services, Inc.				MEASUREMENT	▼ At Time of Drilling	▼ At End of Drilling	▼ After Drilling
Driller(s): Kevin McGourty				DATE	12/8/21		
Drilling Method: Hand Auger				DEPTH (ft.bgs.)	Not Observed		
Equipment/Model: Bucket Auger/ AMS				REFERENCE	Ground Surface		
Sampler: Bucket Auger				STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆ VOC SCREENING RESULTS (ppm)
						0' - 0.66' Bluestone Ballast.	20 40 60 80
	TRC-SB-01 (0-0.5)					0.66' - 2' Poorly Graded Sand: yellowish brown, fine sand, slightly moist, trace gravel and ballast, N/S, N/O.	
						2' - 2.88' Poorly Graded Sand with Silt: very dark brown, fine sand, sub-angular gravel, slightly moist, dark brown staining, N/O.	

Bottom of borehole at 2.9 feet.

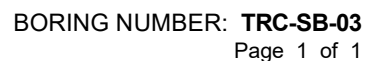
Notes: bgs = below ground surface; NO = No odor; NS = No Staining; Sample collected from 0-0.5' below the bluestone ballast

SOIL BORING WELL COMPLETION WITH NOTES - 2 - TRC_WINDSOR_STD.GDT - 2/25/22
C:\USERS\BSCHLAF\ONE DRIVE - TRC\DESKTOP\ARCH STREET YARD.GPJ



Bottom of borehole at 2.2 feet.

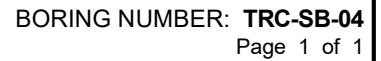
Notes: bgs = below ground surface; NO = No odor; NS = No Staining; Sample collected from 0-0.5' below the bluestone ballast



DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆ VOC SCREENING RESULTS (ppm)
						0' - 0.58' Bluestone Ballast.	20406080
	TRC-SB-03 (0-0.5)					0.58' - 2.58' Silty Sand with Gravel: dark brown, fine to medium sand, poorly graded, slightly moist, N/O, N/S.	◆

Bottom of borehole at 2.6 feet.

Notes: bgs = below ground surface; NO = No odor; NS = No Staining; Sample collected from 0-0.5' below the bluestone ballast



DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
							20 40 60 80
						0' - 0.33' Bluestone Ballast.	
	TRC-SB-04 (0-0.5)					0.33' - 2.33' Silty Sand with Gravel: dark brown, fine to medium sand, poorly graded, slightly moist, sub-angular gravel, N/O, N/S.	

Bottom of borehole at 2.3 feet.

Notes: bgs = below ground surface; NO = No odor; NS = No Staining; Sample collected from 0-0.5' below the bluestone ballast



BORING NUMBER: **TRC-SB-05**
Page 1 of 1

PROJECT INFORMATION		BORING INFORMATION	
Project Name:	Arch Street Yard	Boring Depth:	2.75
Project Location:	Arch Street Yard, Long Island City, NY	Hole Diameter:	3.5"
Project Number:	414444	Date Started:	12/8/21
Client:	MTA LIRR	Date Completed:	12/8/21
Logged By:	B. Schlaff	Coordinate System:	Long Island State Plane
Checked By:	E. Ebert	North:	209934.3536
		East:	998364.8977
		Vertical Datum:	
		Ground Elevation:	7.5812
DRILLING INFORMATION		GROUND WATER OBSERVATIONS	
Drilling Contractor:	Land, Air, Water Environmental Services, Inc.	MEASUREMENT	At Time of Drilling
Driller(s):	Kevin McGourty	DATE	12/8/21
Drilling Method:	Hand Auger	DEPTH (ft.bgs.)	Not Observed
Equipment/Model:	Bucket Auger/ AMS	REFERENCE	Ground Surface
Sampler:	Bucket Auger	STABILIZATION	

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
						0' - 0.75' Bluestone Ballast.	20 40 60 80
						0.75' - 1.5' Debris: brick, wood, bluestone ballast, N/O, N/S.	
	TRC-SB-05 (0-0.5)		0.5			1.5' - 2.75' Silty Sand with Gravel: very dark brown, slightly moist, fine sand, sub-angular gravel < 3", N/O, dark brown staining.	
						Bottom of borehole at 2.8 feet.	

Notes: bgs = below ground surface; NO = No odor; NS = No Staining; Sample collected from 0-0.5' below the bluestone ballast

SOIL BORING WELL COMPLETION WITH NOTES - 2 - TRC_WINDSOR_STD.GDT - 2/25/22
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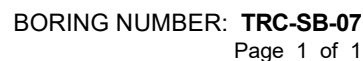
BORING NUMBER: **TRC-SB-06**
Page 1 of 1

PROJECT INFORMATION				BORING INFORMATION			
Project Name: Arch Street Yard				Boring Depth: 2.5 Hole Diameter: 3.5"			
Project Location: Arch Street Yard, Long Island City, NY				Date Started: 12/8/21 Date Completed: 12/8/21			
Project Number: 414444				Coordinate System: Long Island State Plane			
Client: MTA LIRR				North: 209927.2648 East: 998390.7678			
Logged By: B. Schlaff				Vertical Datum: Ground Elevation: 7.9929			
Checked By: E. Ebert							
DRILLING INFORMATION				GROUND WATER OBSERVATIONS			
Drilling Contractor: Land, Air, Water Environmental Services, Inc.				MEASUREMENT	At Time of Drilling	At End of Drilling	After Drilling
Driller(s): Kevin McGourty				DATE	12/8/21		
Drilling Method: Hand Auger				DEPTH (ft.bgs.)	Not Observed		
Equipment/Model: Bucket Auger/ AMS				REFERENCE	Ground Surface		
Sampler: Bucket Auger				STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
						0' - 0.5' Bluestone Ballast.	20 40 60 80
						0.5' - 0.66' Asphalt.	
	TRC-SB-06 (0-0.5)					0.66' - 2' Silty Sand with Gravel: dark brown, slightly moist, fine-medium sand, poorly graded, pea gravel + brick debris, N/O, N/S.	
						2' - 2.5' Silty Sand: very dark brown, slightly moist, sub-angular gravel, very dark brown staining, N/O.	
						Bottom of borehole at 2.5 feet.	

Notes: bgs = below ground surface; NO = No odor; NS = No Staining; Sample collected from 0-0.5' below the bluestone ballast

SOIL BORING WELL COMPLETION WITH NOTES_2 - TRC_WINDSOR_STD.GDT - 2/25/22
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Top of borehole at 0 feet

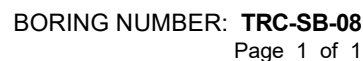
Bottom of borehole at 2.3 feet

Gravel

Soil

Notes: bgs = below ground surface; NO = No odor; NS = No Staining; Sample collected from 0-0.5' below the bluestone ballast

SOIL BORING/WELL COMPLETION WITH NOTES 2 - TRC WINDSOR STD.GDT - 2/25/22

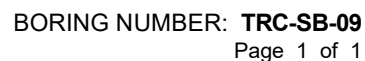


DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
						0' - 0.5' Bluestone Ballast.	20 40 60 80
	TRC-SB-08 (0-0.5)					0.5' - 2.5' Silty Sand with Gravel: dark yellowish brown, fine to medium sand, brick + concrete debris, slightly moist, N/O, N/S.	

Bottom of borehole at 2.5 feet.

Notes: bgs = below ground surface; NO = No odor; NS = No Staining; Sample collected from 0-0.5' below the bluestone ballast

SOIL BORINGWELL COMPLETION WITH NOTES.2 - TRC_WINDSOR STD.GDT - 2/25/22
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DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆ VOC SCREENING RESULTS (ppm)
						0' - 0.5' Bluestone Ballast.	20 40 60 80
	TRC-SB-09 (0-0.5)					0.5' - 2.5' Silty Sandy with Gravel: dark brown, fine-medium sand, poorly graded, slightly moist, brick + concrete debris, sub-angular gravel, N/O, N/S.	

Bottom of borehole at 2.5 feet.

Notes: bgs = below ground surface; NO = No odor; NS = No Staining; Sample collected from 0-0.5' below the bluestone ballast

SOIL BORINGWELL COMPLETION WITH NOTES.2 - TRC_WINDSOR STD.GDT - 2/25/22
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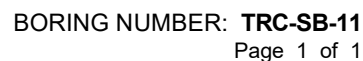
BORING NUMBER: **TRC-SB-10**
Page 1 of 1

PROJECT INFORMATION		BORING INFORMATION			
Project Name:	Arch Street Yard	Boring Depth:	2.25	Hole Diameter:	3.5"
Project Location:	Arch Street Yard, Long Island City, NY	Date Started:	12/8/21	Date Completed:	12/8/21
Project Number:	414444	Coordinate System:	Long Island State Plane		
Client:	MTA LIRR	North:	209899.1035	East:	998414.1734
Logged By:	B. Schlaff	Vertical Datum:		Ground Elevation:	9.0882
Checked By:	E. Ebert				
DRILLING INFORMATION		GROUND WATER OBSERVATIONS			
Drilling Contractor:	Land, Air, Water Environmental Services, Inc.	MEASUREMENT	▼ At Time of Drilling	▼ At End of Drilling	▼ After Drilling
Driller(s):	Kevin McGourty	DATE	12/8/21		
Drilling Method:	Hand Auger	DEPTH (ft.bgs.)	Not Observed		
Equipment/Model:	Bucket Auger/ AMS	REFERENCE	Ground Surface		
Sampler:	Bucket Auger	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
						0' - 0.25' Bluestone Ballast.	20 40 60 80
	TRC-SB-10 (0-0.5)					0.25' - 1.5' Silty Sand with Gravel: dark yellowish brown, fine - medium sand, poorly graded, slightly moist, sub-angular gravel, brick debris, N/O, N/S.	
						1.5' - 2' Silty Sand with Gravel: yellowish brown, fine - medium sand, poorly graded, slightly moist, sub-angular gravel, brick debris, N/S, N/O.	
						2' - 2.25' Silty Sand with Gravel: dark yellowish brown, fine - medium sand, poorly graded, slightly moist, sub-angular gravel, brick debris, N/O, very dark brown staining.	

Bottom of borehole at 2.3 feet.

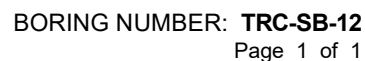
Notes: bgs = below ground surface; NO = No odor; NS = No Staining; Sample collected from 0-0.5' below the bluestone ballast



DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
						0' - 1.17' Bluestone Ballast.	20 40 60 80
	TRC-SB-11 (0-0.5)					1.17' - 3.5' Silty Sand with Gravel: Silty Sand, dark yellowish brown, fine - medium sand, poorly graded, slightly moist, sub-angular gravel, brick debris, N/S, N/O.	20 40 60 80
Bottom of borehole at 3.5 feet.							

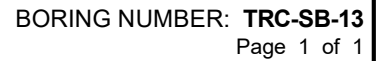
Notes: bgs = below ground surface; NO = No odor; NS = No Staining; Sample collected from 0-0.5' below the bluestone ballast

SOIL BORINGWELL COMPLETION WITH NOTES.2 - TRC_WINDSOR STD.GDT - 2/25/22
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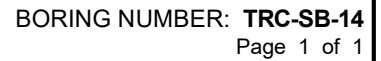
Notes: bgs = below ground surface; NO = No odor; NS = No Staining; Sample collected from 0-0.5' below the bluestone ballast

SOIL BORINGWELL COMPLETION WITH NOTES.2 - TRC_WINDSOR STD.GDT - 2/25/22
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[illegible]

Bottom of borehole at 2.3 feet.

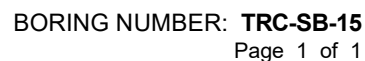
Notes: bgs = below ground surface; NO = No odor; NS = No Staining; Sample collected from 0-0.5' below the bluestone ballast



DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
							20 40 60 80
						0' - 0.33' Bluestone Ballast.	
	TRC-SB-14 (0-0.5)					0.33' - 2.33' Silty Sand wih Gravel: dark yellowish brown, fine - medium sand, poorly graded, slightly moist, sub-angular gravel, brick debris, N/S, N/O.	

Bottom of borehole at 2.3 feet.

Notes: bgs = below ground surface; NO = No odor; NS = No Staining; Sample collected from 0-0.5' below the bluestone ballast



Notes: bgs = below ground surface; NO = No odor; NS = No Staining; Sample collected from 0-0.5' below the bluestone ballast

SOIL BORINGWELL COMPLETION WITH NOTES.2 - TRC_WINDSOR STD.GDT - 2/25/22
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ATTACHMENT B

ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

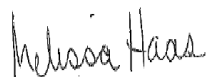
Laboratory Job ID: 460-248692-1

Client Project/Site: MTA LIRR Arch St Yard Supplemental RI

For:

TRC Environmental Corporation
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Authorized for release by:
12/15/2021 4:15:47 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Job ID: 460-248692-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

CASE NARRATIVE

Client: TRC Environmental Corporation

Project: MTA LIRR Arch St Yard Supplemental RI

Report Number: 460-248692-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 12/8/2021 6:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.5° C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The sample collection times were not recorded on the COC and were taken from the containers. In addition, the sample IDs had a character that is not allowed per Equis requirements. The foot and inch markers in the depths were removed.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples TRC-SB-01 (0-0.5) (460-248692-1), TRC-SB-05 (0-0.5) (460-248692-2), TRC-SB-06 (0-0.5) (460-248692-3), TRC-SB-09 (0-0.5) (460-248692-4), TRC-SB-12 (0-0.5) (460-248692-5), TRC-SB-13 (0-0.5) (460-248692-6), TRC-SB-10 (0-0.5) (460-248692-7), TRC-SB-14 (0-0.5) (460-248692-8), TRC-SB-11 (0-0.5) (460-248692-9) and TRC-SB-15 (0-0.5) (460-248692-10) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC. The samples were prepared and analyzed on 12/13/2021.

The "I" qualifier associated with samples TRC-SB-12 (0-0.5) (460-248692-5), TRC-SB-10 (0-0.5) (460-248692-7) and TRC-SB-11 (0-0.5) (460-248692-9) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

No other difficulties were encountered during the PFAS analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples TRC-SB-01 (0-0.5) (460-248692-1), TRC-SB-05 (0-0.5) (460-248692-2), TRC-SB-06 (0-0.5) (460-248692-3), TRC-SB-09 (0-0.5) (460-248692-4), TRC-SB-12 (0-0.5) (460-248692-5), TRC-SB-13 (0-0.5) (460-248692-6), TRC-SB-10 (0-0.5) (460-248692-7), TRC-SB-14

Case Narrative

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Job ID: 460-248692-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

(0-0.5) (460-248692-8), TRC-SB-11 (0-0.5) (460-248692-9) and TRC-SB-15 (0-0.5) (460-248692-10) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 12/13/2021.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248692-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.037	J	0.21	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.026	J	0.21	0.021	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.20	J	0.21	0.026	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.048	J	0.21	0.018	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.054	J	0.21	0.012	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.037	J	0.21	0.021	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.032	J	0.21	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.033	J	0.21	0.014	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.50		0.21	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.032	J	0.21	0.012	ug/Kg	1	✱	537 (modified)	Total/NA

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248692-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	0.096	J	0.22	0.028	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.035	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.029	J	0.22	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.031	J	0.22	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.018	J	0.22	0.017	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.024	J	0.22	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.33		0.22	0.018	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.030	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.032	J	2.23	0.018	ug/Kg	1	✱	537 (modified)	Total/NA

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248692-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.029	J	0.22	0.024	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.031	J	0.22	0.027	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.035	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.037	J	0.22	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.068	J	0.22	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.036	J	0.22	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.047	J	0.22	0.025	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.12	J	0.22	0.018	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.034	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.16	J	2.19	0.041	ug/Kg	1	✱	537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.13	J	2.19	0.050	ug/Kg	1	✱	537 (modified)	Total/NA

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248692-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	0.065	J	0.22	0.028	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.027	J	0.22	0.020	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.074	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.045	J	0.22	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.047	J	0.22	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.028	J	0.22	0.017	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.031	J	0.22	0.025	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.016	J	0.22	0.016	ug/Kg	1	✱	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-09 (0-0.5) (Continued)

Lab Sample ID: 460-248692-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	0.33		0.22	0.018	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.027	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248692-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.058	J	0.22	0.043	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.035	J	0.22	0.024	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.045	J	0.22	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.033	J	0.22	0.027	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.058	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.059	J	0.22	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.068	J	0.22	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.034	J	0.22	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.15	J	0.22	0.018	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.042	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248692-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.043	J	0.22	0.042	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.047	J	0.22	0.024	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.033	J	0.22	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.044	J	0.22	0.027	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.031	J	0.22	0.019	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.076	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.090	J	0.22	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.094	J	0.22	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.050	J	0.22	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.057	J	0.22	0.025	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.015	J	0.22	0.010	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.13	J	0.22	0.017	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.032	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248692-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.051	J	0.22	0.024	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.027	J	0.22	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.099	J	0.22	0.027	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.042	J	0.22	0.020	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.096	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.043	J	0.22	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.033	J	0.22	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.020	J	0.22	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.029	J	0.22	0.025	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.014	J	0.22	0.010	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.026	J	0.22	0.015	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.58		0.22	0.017	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.026	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248692-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.23	J	0.53	0.17	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.12	J	0.21	0.041	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.13	J	0.21	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.073	J	0.21	0.021	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.098	J	0.21	0.027	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.052	J	0.21	0.019	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.12	J	0.21	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.078	J	0.21	0.021	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.068	J	0.21	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.028	J	0.21	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.037	J	0.21	0.024	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.014	J	0.21	0.0099	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.018	J	0.21	0.015	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.28	J	0.21	0.017	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.025	J	0.21	0.013	ug/Kg	1	✱	537 (modified)	Total/NA

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248692-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.024	J	0.22	0.024	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.042	J	0.22	0.028	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.021	J	0.22	0.020	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.053	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.034	J	0.22	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.068	J	0.22	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.033	J	0.22	0.017	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.047	J	0.22	0.025	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.11	J	0.22	0.018	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.023	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.19	J	2.21	0.041	ug/Kg	1	✱	537 (modified)	Total/NA

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248692-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.11	J	0.22	0.042	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.11	J	0.22	0.024	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.060	J	0.22	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.095	J	0.22	0.027	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.053	J	0.22	0.019	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.12	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.082	J	0.22	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.095	J	0.22	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.063	J	0.22	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.091	J	0.22	0.025	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.015	J	0.22	0.015	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.21	J	0.22	0.017	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.045	J	0.22	0.013	ug/Kg	1	✱	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248692-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 94.6

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.51	U	0.51	0.17	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluoropentanoic acid (PFPeA)	0.21	U	0.21	0.040	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluorohexanoic acid (PFHxA)	0.037	J	0.21	0.023	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluoroheptanoic acid (PFHpA)	0.026	J	0.21	0.021	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluorooctanoic acid (PFOA)	0.20	J	0.21	0.026	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluorononanoic acid (PFNA)	0.048	J	0.21	0.018	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluorodecanoic acid (PFDA)	0.054	J	0.21	0.012	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluoroundecanoic acid (PFUnA)	0.037	J	0.21	0.021	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluorododecanoic acid (PFDoA)	0.032	J	0.21	0.022	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.015	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.024	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.0095	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluorohexanesulfonic acid (PFHxS)	0.033	J	0.21	0.014	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.21	U	0.21	0.015	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluorooctanesulfonic acid (PFOS)	0.50		0.21	0.016	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluorodecanesulfonic acid (PFDS)	0.032	J	0.21	0.012	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.017	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.05	U	2.05	0.038	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.05	U	2.05	0.047	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.05	U	2.05	0.032	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.05	U	2.05	0.016	ug/Kg	✱	12/13/21 08:32	12/13/21 20:14	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	74		50 - 150				12/13/21 08:32	12/13/21 20:14	1
13C4 PFHpA	87		50 - 150				12/13/21 08:32	12/13/21 20:14	1
13C4 PFOA	91		50 - 150				12/13/21 08:32	12/13/21 20:14	1
13C4 PFOS	76		50 - 150				12/13/21 08:32	12/13/21 20:14	1
13C5 PFNA	93		50 - 150				12/13/21 08:32	12/13/21 20:14	1
13C4 PFBA	88		25 - 150				12/13/21 08:32	12/13/21 20:14	1
13C2 PFHxA	87		50 - 150				12/13/21 08:32	12/13/21 20:14	1
13C2 PFDA	89		50 - 150				12/13/21 08:32	12/13/21 20:14	1
13C2 PFUnA	93		50 - 150				12/13/21 08:32	12/13/21 20:14	1
13C2 PFDoA	89		50 - 150				12/13/21 08:32	12/13/21 20:14	1
13C8 FOSA	74		25 - 150				12/13/21 08:32	12/13/21 20:14	1
13C5 PFPeA	86		25 - 150				12/13/21 08:32	12/13/21 20:14	1
13C2 PFTeA	91		50 - 150				12/13/21 08:32	12/13/21 20:14	1
d3-NMeFOSAA	81		50 - 150				12/13/21 08:32	12/13/21 20:14	1
d5-NEtFOSAA	84		50 - 150				12/13/21 08:32	12/13/21 20:14	1
M2-6:2 FTS	71		25 - 150				12/13/21 08:32	12/13/21 20:14	1
M2-8:2 FTS	78		25 - 150				12/13/21 08:32	12/13/21 20:14	1
13C3 PFBS	75		50 - 150				12/13/21 08:32	12/13/21 20:14	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248692-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 94.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	94.6		0.3	0.3	%			12/13/21 14:33	1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248692-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.3

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.56	U	0.56	0.18	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluoropentanoic acid (PFPeA)	0.22	U	0.22	0.044	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluorohexanoic acid (PFHxA)	0.22	U	0.22	0.025	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluoroheptanoic acid (PFHpA)	0.22	U	0.22	0.022	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluorooctanoic acid (PFOA)	0.096	J	0.22	0.028	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluorononanoic acid (PFNA)	0.22	U	0.22	0.020	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluorodecanoic acid (PFDA)	0.035	J	0.22	0.013	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluoroundecanoic acid (PFUnA)	0.029	J	0.22	0.022	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluorododecanoic acid (PFDoA)	0.031	J	0.22	0.023	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluorotridecanoic acid (PFTriA)	0.018	J	0.22	0.017	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluorotetradecanoic acid (PFTeA)	0.22	U	0.22	0.026	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.010	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluorohexanesulfonic acid (PFHxS)	0.024	J	0.22	0.016	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.017	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluorooctanesulfonic acid (PFOS)	0.33		0.22	0.018	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluorodecanesulfonic acid (PFDS)	0.030	J	0.22	0.013	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.019	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.23	U	2.23	0.041	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.23	U	2.23	0.051	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.23	U	2.23	0.035	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.032	J	2.23	0.018	ug/Kg	✱	12/13/21 08:32	12/13/21 20:22	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	71		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C4 PFHpA	90		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C4 PFOA	91		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C4 PFOS	74		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C5 PFNA	91		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C4 PFBA	83		25 - 150	12/13/21 08:32	12/13/21 20:22	1
13C2 PFHxA	85		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C2 PFDA	86		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C2 PFUnA	95		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C2 PFDoA	90		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C8 FOSA	72		25 - 150	12/13/21 08:32	12/13/21 20:22	1
13C5 PFPeA	84		25 - 150	12/13/21 08:32	12/13/21 20:22	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248692-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.3

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	99		50 - 150	12/13/21 08:32	12/13/21 20:22	1
d3-NMeFOSAA	89		50 - 150	12/13/21 08:32	12/13/21 20:22	1
d5-NEtFOSAA	108		50 - 150	12/13/21 08:32	12/13/21 20:22	1
M2-6:2 FTS	69		25 - 150	12/13/21 08:32	12/13/21 20:22	1
M2-8:2 FTS	90		25 - 150	12/13/21 08:32	12/13/21 20:22	1
13C3 PFBS	74		50 - 150	12/13/21 08:32	12/13/21 20:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	89.3		0.3	0.3	%			12/13/21 14:33	1

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248692-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.55	U	0.55	0.18	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluoropentanoic acid (PFPeA)	0.22	U	0.22	0.043	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorohexanoic acid (PFHxA)	0.029	J	0.22	0.024	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluoroheptanoic acid (PFHpA)	0.22	U	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorooctanoic acid (PFOA)	0.031	J	0.22	0.027	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorononanoic acid (PFNA)	0.22	U	0.22	0.020	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorodecanoic acid (PFDA)	0.035	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluoroundecanoic acid (PFUnA)	0.037	J	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorododecanoic acid (PFDoA)	0.068	J	0.22	0.023	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorotridecanoic acid (PFTriA)	0.036	J	0.22	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorotetradecanoic acid (PFTeA)	0.047	J	0.22	0.025	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.010	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorohexanesulfonic acid (PFHxS)	0.22	U	0.22	0.015	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorooctanesulfonic acid (PFOS)	0.12	J	0.22	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorodecanesulfonic acid (PFDS)	0.034	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.019	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.16	J	2.19	0.041	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.13	J	2.19	0.050	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.19	U	2.19	0.034	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.19	U	2.19	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	79		50 - 150				12/13/21 08:32	12/13/21 20:30	1
13C4 PFHpA	84		50 - 150				12/13/21 08:32	12/13/21 20:30	1
13C4 PFOA	89		50 - 150				12/13/21 08:32	12/13/21 20:30	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248692-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	81		50 - 150	12/13/21 08:32	12/13/21 20:30	1
13C5 PFNA	86		50 - 150	12/13/21 08:32	12/13/21 20:30	1
13C4 PFBA	81		25 - 150	12/13/21 08:32	12/13/21 20:30	1
13C2 PFHxA	81		50 - 150	12/13/21 08:32	12/13/21 20:30	1
13C2 PFDA	86		50 - 150	12/13/21 08:32	12/13/21 20:30	1
13C2 PFUnA	101		50 - 150	12/13/21 08:32	12/13/21 20:30	1
13C2 PFDoA	95		50 - 150	12/13/21 08:32	12/13/21 20:30	1
13C8 FOSA	76		25 - 150	12/13/21 08:32	12/13/21 20:30	1
13C5 PFPeA	83		25 - 150	12/13/21 08:32	12/13/21 20:30	1
13C2 PFTeDA	98		50 - 150	12/13/21 08:32	12/13/21 20:30	1
d3-NMeFOSAA	84		50 - 150	12/13/21 08:32	12/13/21 20:30	1
d5-NEtFOSAA	99		50 - 150	12/13/21 08:32	12/13/21 20:30	1
M2-6:2 FTS	74		25 - 150	12/13/21 08:32	12/13/21 20:30	1
M2-8:2 FTS	89		25 - 150	12/13/21 08:32	12/13/21 20:30	1
13C3 PFBS	79		50 - 150	12/13/21 08:32	12/13/21 20:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	88.9		0.3	0.3	%			12/13/21 14:33	1

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248692-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.3

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.55	U	0.55	0.18	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluoropentanoic acid (PFPeA)	0.22	U	0.22	0.043	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluorohexanoic acid (PFHxA)	0.22	U	0.22	0.024	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluoroheptanoic acid (PFHpA)	0.22	U	0.22	0.022	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluorooctanoic acid (PFOA)	0.065	J	0.22	0.028	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluorononanoic acid (PFNA)	0.027	J	0.22	0.020	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluorodecanoic acid (PFDA)	0.074	J	0.22	0.013	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluoroundecanoic acid (PFUnA)	0.045	J	0.22	0.022	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluorododecanoic acid (PFDoA)	0.047	J	0.22	0.023	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluorotridecanoic acid (PFTriA)	0.028	J	0.22	0.017	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluorotetradecanoic acid (PFTeA)	0.031	J	0.22	0.025	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.010	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluorohexanesulfonic acid (PFHxS)	0.016	J	0.22	0.016	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.017	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluorooctanesulfonic acid (PFOS)	0.33		0.22	0.018	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluorodecanesulfonic acid (PFDS)	0.027	J	0.22	0.013	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.019	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.22	U	2.22	0.041	ug/Kg	✱	12/13/21 08:32	12/13/21 20:38	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248692-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.3

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.22	U	2.22	0.051	ug/Kg	☆	12/13/21 08:32	12/13/21 20:38	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.22	U	2.22	0.034	ug/Kg	☆	12/13/21 08:32	12/13/21 20:38	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.22	U	2.22	0.018	ug/Kg	☆	12/13/21 08:32	12/13/21 20:38	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	75		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C4 PFHpA	85		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C4 PFOA	90		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C4 PFOS	74		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C5 PFNA	97		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C4 PFBA	84		25 - 150				12/13/21 08:32	12/13/21 20:38	1
13C2 PFHxA	84		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C2 PFDA	90		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C2 PFUnA	92		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C2 PFDoA	95		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C8 FOSA	67		25 - 150				12/13/21 08:32	12/13/21 20:38	1
13C5 PFPeA	77		25 - 150				12/13/21 08:32	12/13/21 20:38	1
13C2 PFTeDA	96		50 - 150				12/13/21 08:32	12/13/21 20:38	1
d3-NMeFOSAA	98		50 - 150				12/13/21 08:32	12/13/21 20:38	1
d5-NEtFOSAA	109		50 - 150				12/13/21 08:32	12/13/21 20:38	1
M2-6:2 FTS	81		25 - 150				12/13/21 08:32	12/13/21 20:38	1
M2-8:2 FTS	121		25 - 150				12/13/21 08:32	12/13/21 20:38	1
13C3 PFBS	77		50 - 150				12/13/21 08:32	12/13/21 20:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	88.3		0.3	0.3	%			12/13/21 14:33	1

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248692-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.3

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.55	U	0.55	0.18	ug/Kg	☆	12/13/21 08:32	12/13/21 20:55	1
Perfluoropentanoic acid (PFPeA)	0.058	J	0.22	0.043	ug/Kg	☆	12/13/21 08:32	12/13/21 20:55	1
Perfluorohexanoic acid (PFHxA)	0.035	J	0.22	0.024	ug/Kg	☆	12/13/21 08:32	12/13/21 20:55	1
Perfluoroheptanoic acid (PFHpA)	0.045	J	0.22	0.022	ug/Kg	☆	12/13/21 08:32	12/13/21 20:55	1
Perfluorooctanoic acid (PFOA)	0.033	J	0.22	0.027	ug/Kg	☆	12/13/21 08:32	12/13/21 20:55	1
Perfluorononanoic acid (PFNA)	0.22	U	0.22	0.020	ug/Kg	☆	12/13/21 08:32	12/13/21 20:55	1
Perfluorodecanoic acid (PFDA)	0.058	J	0.22	0.013	ug/Kg	☆	12/13/21 08:32	12/13/21 20:55	1
Perfluoroundecanoic acid (PFUnA)	0.059	J	0.22	0.022	ug/Kg	☆	12/13/21 08:32	12/13/21 20:55	1
Perfluorododecanoic acid (PFDoA)	0.068	J	0.22	0.023	ug/Kg	☆	12/13/21 08:32	12/13/21 20:55	1
Perfluorotridecanoic acid (PFTriA)	0.034	J	0.22	0.016	ug/Kg	☆	12/13/21 08:32	12/13/21 20:55	1
Perfluorotetradecanoic acid (PFTeA)	0.22	U	0.22	0.025	ug/Kg	☆	12/13/21 08:32	12/13/21 20:55	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.010	ug/Kg	☆	12/13/21 08:32	12/13/21 20:55	1
Perfluorohexanesulfonic acid (PFHxS)	0.22	U	0.22	0.015	ug/Kg	☆	12/13/21 08:32	12/13/21 20:55	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248692-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.3

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.016	ug/Kg	✱	12/13/21 08:32	12/13/21 20:55	1
Perfluorooctanesulfonic acid (PFOS)	0.15	J	0.22	0.018	ug/Kg	✱	12/13/21 08:32	12/13/21 20:55	1
Perfluorodecanesulfonic acid (PFDS)	0.042	J	0.22	0.013	ug/Kg	✱	12/13/21 08:32	12/13/21 20:55	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.019	ug/Kg	✱	12/13/21 08:32	12/13/21 20:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.19	U	2.19	0.041	ug/Kg	✱	12/13/21 08:32	12/13/21 20:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.19	U	2.19	0.050	ug/Kg	✱	12/13/21 08:32	12/13/21 20:55	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.19	U	2.19	0.034	ug/Kg	✱	12/13/21 08:32	12/13/21 20:55	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.19	U	2.19	0.018	ug/Kg	✱	12/13/21 08:32	12/13/21 20:55	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	80		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C4 PFHpA	90		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C4 PFOA	94		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C4 PFOS	83		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C5 PFNA	98		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C4 PFBA	89		25 - 150				12/13/21 08:32	12/13/21 20:55	1
13C2 PFHxA	91		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C2 PFDA	91		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C2 PFUnA	106		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C2 PFDoA	91		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C8 FOSA	69		25 - 150				12/13/21 08:32	12/13/21 20:55	1
13C5 PFPeA	89		25 - 150				12/13/21 08:32	12/13/21 20:55	1
13C2 PFTeDA	98		50 - 150				12/13/21 08:32	12/13/21 20:55	1
d3-NMeFOSAA	101		50 - 150				12/13/21 08:32	12/13/21 20:55	1
d5-NEtFOSAA	112		50 - 150				12/13/21 08:32	12/13/21 20:55	1
M2-6:2 FTS	83		25 - 150				12/13/21 08:32	12/13/21 20:55	1
M2-8:2 FTS	117		25 - 150				12/13/21 08:32	12/13/21 20:55	1
13C3 PFBS	82		50 - 150				12/13/21 08:32	12/13/21 20:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	90.3		0.3	0.3	%			12/13/21 14:33	1

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248692-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 87.6

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.17	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
Perfluoropentanoic acid (PFPeA)	0.043	J	0.22	0.042	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
Perfluorohexanoic acid (PFHxA)	0.047	J	0.22	0.024	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
Perfluoroheptanoic acid (PFHpA)	0.033	J	0.22	0.022	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
Perfluorooctanoic acid (PFOA)	0.044	J	0.22	0.027	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
Perfluorononanoic acid (PFNA)	0.031	J	0.22	0.019	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
Perfluorodecanoic acid (PFDA)	0.076	J	0.22	0.013	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248692-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 87.6

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	0.090	J	0.22	0.022	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
Perfluorododecanoic acid (PFDoA)	0.094	J	0.22	0.023	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
Perfluorotridecanoic acid (PFTriA)	0.050	J	0.22	0.016	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
Perfluorotetradecanoic acid (PFTeA)	0.057	J	0.22	0.025	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
Perfluorobutanesulfonic acid (PFBS)	0.015	J	0.22	0.010	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
Perfluorohexanesulfonic acid (PFHxS)	0.22	U	0.22	0.015	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.016	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
Perfluorooctanesulfonic acid (PFOS)	0.13	J	0.22	0.017	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
Perfluorodecanesulfonic acid (PFDS)	0.032	J	0.22	0.013	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.018	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.16	U	2.16	0.040	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.16	U	2.16	0.050	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.16	U	2.16	0.034	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.16	U	2.16	0.017	ug/Kg	✱	12/13/21 08:32	12/13/21 21:03	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	83		50 - 150	12/13/21 08:32	12/13/21 21:03	1
13C4 PFHpA	86		50 - 150	12/13/21 08:32	12/13/21 21:03	1
13C4 PFOA	89		50 - 150	12/13/21 08:32	12/13/21 21:03	1
13C4 PFOS	82		50 - 150	12/13/21 08:32	12/13/21 21:03	1
13C5 PFNA	95		50 - 150	12/13/21 08:32	12/13/21 21:03	1
13C4 PFBA	84		25 - 150	12/13/21 08:32	12/13/21 21:03	1
13C2 PFHxA	89		50 - 150	12/13/21 08:32	12/13/21 21:03	1
13C2 PFDA	92		50 - 150	12/13/21 08:32	12/13/21 21:03	1
13C2 PFUnA	91		50 - 150	12/13/21 08:32	12/13/21 21:03	1
13C2 PFDoA	85		50 - 150	12/13/21 08:32	12/13/21 21:03	1
13C8 FOSA	76		25 - 150	12/13/21 08:32	12/13/21 21:03	1
13C5 PFPeA	85		25 - 150	12/13/21 08:32	12/13/21 21:03	1
13C2 PFTeDA	101		50 - 150	12/13/21 08:32	12/13/21 21:03	1
d3-NMeFOSAA	87		50 - 150	12/13/21 08:32	12/13/21 21:03	1
d5-NEtFOSAA	101		50 - 150	12/13/21 08:32	12/13/21 21:03	1
M2-6:2 FTS	79		25 - 150	12/13/21 08:32	12/13/21 21:03	1
M2-8:2 FTS	95		25 - 150	12/13/21 08:32	12/13/21 21:03	1
13C3 PFBS	83		50 - 150	12/13/21 08:32	12/13/21 21:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	87.6		0.3	0.3	%			12/13/21 14:33	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248692-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.17	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluoropentanoic acid (PFPeA)	0.22	U	0.22	0.042	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluorohexanoic acid (PFHxA)	0.051	J	0.22	0.024	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluoroheptanoic acid (PFHpA)	0.027	J	0.22	0.022	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluorooctanoic acid (PFOA)	0.099	J	0.22	0.027	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluorononanoic acid (PFNA)	0.042	J	0.22	0.020	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluorodecanoic acid (PFDA)	0.096	J	0.22	0.013	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluoroundecanoic acid (PFUnA)	0.043	J	0.22	0.022	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluorododecanoic acid (PFDoA)	0.033	J	0.22	0.023	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluorotridecanoic acid (PFTriA)	0.020	J	0.22	0.016	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluorotetradecanoic acid (PFTeA)	0.029	J	0.22	0.025	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluorobutanesulfonic acid (PFBS)	0.014	J	0.22	0.010	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluorohexanesulfonic acid (PFHxS)	0.026	J	0.22	0.015	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.016	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluorooctanesulfonic acid (PFOS)	0.58		0.22	0.017	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluorodecanesulfonic acid (PFDS)	0.026	J	0.22	0.013	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.018	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.17	U	2.17	0.040	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.17	U	2.17	0.050	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.17	U	2.17	0.034	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.17	U	2.17	0.017	ug/Kg	✱	12/13/21 08:32	12/13/21 21:11	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	74		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C4 PFHpA	82		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C4 PFOA	83		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C4 PFOS	73		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C5 PFNA	89		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C4 PFBA	85		25 - 150	12/13/21 08:32	12/13/21 21:11	1
13C2 PFHxA	82		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C2 PFDA	82		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C2 PFUnA	88		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C2 PFDoA	90		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C8 FOSA	66		25 - 150	12/13/21 08:32	12/13/21 21:11	1
13C5 PFPeA	82		25 - 150	12/13/21 08:32	12/13/21 21:11	1
13C2 PFTeDA	88		50 - 150	12/13/21 08:32	12/13/21 21:11	1
d3-NMeFOSAA	80		50 - 150	12/13/21 08:32	12/13/21 21:11	1
d5-NEtFOSAA	90		50 - 150	12/13/21 08:32	12/13/21 21:11	1
M2-6:2 FTS	75		25 - 150	12/13/21 08:32	12/13/21 21:11	1
M2-8:2 FTS	92		25 - 150	12/13/21 08:32	12/13/21 21:11	1
13C3 PFBS	72		50 - 150	12/13/21 08:32	12/13/21 21:11	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-10 (0-0.5)

Date Collected: 12/08/21 13:15

Date Received: 12/08/21 18:00

Lab Sample ID: 460-248692-7

Matrix: Solid

Percent Solids: 88.9

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	88.9		0.3	0.3	%			12/13/21 14:33	1

Client Sample ID: TRC-SB-14 (0-0.5)

Date Collected: 12/08/21 13:40

Date Received: 12/08/21 18:00

Lab Sample ID: 460-248692-8

Matrix: Solid

Percent Solids: 89.6

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.23	J	0.53	0.17	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluoropentanoic acid (PFPeA)	0.12	J	0.21	0.041	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluorohexanoic acid (PFHxA)	0.13	J	0.21	0.023	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluoroheptanoic acid (PFHpA)	0.073	J	0.21	0.021	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluorooctanoic acid (PFOA)	0.098	J	0.21	0.027	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluorononanoic acid (PFNA)	0.052	J	0.21	0.019	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluorodecanoic acid (PFDA)	0.12	J	0.21	0.013	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluoroundecanoic acid (PFUnA)	0.078	J	0.21	0.021	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluorododecanoic acid (PFDoA)	0.068	J	0.21	0.022	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluorotridecanoic acid (PFTriA)	0.028	J	0.21	0.016	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluorotetradecanoic acid (PFTeA)	0.037	J	0.21	0.024	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluorobutanesulfonic acid (PFBS)	0.014	J	0.21	0.0099	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluorohexanesulfonic acid (PFHxS)	0.018	J	0.21	0.015	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.21	U	0.21	0.016	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluorooctanesulfonic acid (PFOS)	0.28		0.21	0.017	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluorodecanesulfonic acid (PFDS)	0.025	J	0.21	0.013	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.018	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.13	U	2.13	0.039	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.13	U	2.13	0.049	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.13	U	2.13	0.033	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.13	U	2.13	0.017	ug/Kg	✱	12/13/21 08:32	12/13/21 21:19	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	75		50 - 150				12/13/21 08:32	12/13/21 21:19	1
13C4 PFHpA	90		50 - 150				12/13/21 08:32	12/13/21 21:19	1
13C4 PFOA	88		50 - 150				12/13/21 08:32	12/13/21 21:19	1
13C4 PFOS	76		50 - 150				12/13/21 08:32	12/13/21 21:19	1
13C5 PFNA	94		50 - 150				12/13/21 08:32	12/13/21 21:19	1
13C4 PFBA	88		25 - 150				12/13/21 08:32	12/13/21 21:19	1
13C2 PFHxA	88		50 - 150				12/13/21 08:32	12/13/21 21:19	1
13C2 PFDA	89		50 - 150				12/13/21 08:32	12/13/21 21:19	1
13C2 PFUnA	100		50 - 150				12/13/21 08:32	12/13/21 21:19	1
13C2 PFDoA	91		50 - 150				12/13/21 08:32	12/13/21 21:19	1
13C8 FOSA	71		25 - 150				12/13/21 08:32	12/13/21 21:19	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248692-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.6

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFPeA	87		25 - 150	12/13/21 08:32	12/13/21 21:19	1
13C2 PFTeDA	97		50 - 150	12/13/21 08:32	12/13/21 21:19	1
d3-NMeFOSAA	80		50 - 150	12/13/21 08:32	12/13/21 21:19	1
d5-NEtFOSAA	92		50 - 150	12/13/21 08:32	12/13/21 21:19	1
M2-6:2 FTS	74		25 - 150	12/13/21 08:32	12/13/21 21:19	1
M2-8:2 FTS	80		25 - 150	12/13/21 08:32	12/13/21 21:19	1
13C3 PFBS	74		50 - 150	12/13/21 08:32	12/13/21 21:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	89.6		0.3	0.3	%			12/13/21 14:33	1

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248692-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.55	U	0.55	0.18	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluoropentanoic acid (PFPeA)	0.22	U	0.22	0.043	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorohexanoic acid (PFHxA)	0.024	J	0.22	0.024	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluoroheptanoic acid (PFHpA)	0.22	U	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorooctanoic acid (PFOA)	0.042	J	0.22	0.028	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorononanoic acid (PFNA)	0.021	J	0.22	0.020	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorodecanoic acid (PFDA)	0.053	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluoroundecanoic acid (PFUnA)	0.034	J	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorododecanoic acid (PFDoA)	0.068	J	0.22	0.023	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorotridecanoic acid (PFTriA)	0.033	J	0.22	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorotetradecanoic acid (PFTeA)	0.047	J	0.22	0.025	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.010	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorohexanesulfonic acid (PFHxS)	0.22	U	0.22	0.015	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorooctanesulfonic acid (PFOS)	0.11	J	0.22	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorodecanesulfonic acid (PFDS)	0.023	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.019	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.19	J	2.21	0.041	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.21	U	2.21	0.051	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.21	U	2.21	0.034	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.21	U	2.21	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	89		50 - 150				12/13/21 08:32	12/13/21 21:27	1
13C4 PFHpA	93		50 - 150				12/13/21 08:32	12/13/21 21:27	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248692-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	91		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C4 PFOS	87		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C5 PFNA	99		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C4 PFBA	93		25 - 150	12/13/21 08:32	12/13/21 21:27	1
13C2 PFHxA	96		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C2 PFDA	94		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C2 PFUnA	110		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C2 PFDoA	100		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C8 FOSA	80		25 - 150	12/13/21 08:32	12/13/21 21:27	1
13C5 PFPeA	96		25 - 150	12/13/21 08:32	12/13/21 21:27	1
13C2 PFTeDA	115		50 - 150	12/13/21 08:32	12/13/21 21:27	1
d3-NMeFOSAA	90		50 - 150	12/13/21 08:32	12/13/21 21:27	1
d5-NEtFOSAA	104		50 - 150	12/13/21 08:32	12/13/21 21:27	1
M2-6:2 FTS	80		25 - 150	12/13/21 08:32	12/13/21 21:27	1
M2-8:2 FTS	102		25 - 150	12/13/21 08:32	12/13/21 21:27	1
13C3 PFBS	85		50 - 150	12/13/21 08:32	12/13/21 21:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	88.7		0.3	0.3	%			12/13/21 14:33	1

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248692-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.17	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluoropentanoic acid (PFPeA)	0.11	J	0.22	0.042	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluorohexanoic acid (PFHxA)	0.11	J	0.22	0.024	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluoroheptanoic acid (PFHpA)	0.060	J	0.22	0.022	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluorooctanoic acid (PFOA)	0.095	J	0.22	0.027	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluorononanoic acid (PFNA)	0.053	J	0.22	0.019	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluorodecanoic acid (PFDA)	0.12	J	0.22	0.013	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluoroundecanoic acid (PFUnA)	0.082	J	0.22	0.022	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluorododecanoic acid (PFDoA)	0.095	J	0.22	0.023	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluorotridecanoic acid (PFTriA)	0.063	J	0.22	0.016	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluorotetradecanoic acid (PFTeA)	0.091	J	0.22	0.025	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.010	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluorohexanesulfonic acid (PFHxS)	0.015	J	0.22	0.015	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.016	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluorooctanesulfonic acid (PFOS)	0.21	J	0.22	0.017	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluorodecanesulfonic acid (PFDS)	0.045	J	0.22	0.013	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.018	ug/Kg	✱	12/13/21 08:32	12/13/21 21:36	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248692-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.16	U	2.16	0.040	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.16	U	2.16	0.050	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.16	U	2.16	0.034	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.16	U	2.16	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	78		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C4 PFHpA	89		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C4 PFOA	91		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C4 PFOS	78		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C5 PFNA	86		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C4 PFBA	88		25 - 150				12/13/21 08:32	12/13/21 21:36	1
13C2 PFHxA	90		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C2 PFDA	88		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C2 PFUnA	99		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C2 PFDoA	93		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C8 FOSA	71		25 - 150				12/13/21 08:32	12/13/21 21:36	1
13C5 PFPeA	88		25 - 150				12/13/21 08:32	12/13/21 21:36	1
13C2 PFTeDA	98		50 - 150				12/13/21 08:32	12/13/21 21:36	1
d3-NMeFOSAA	87		50 - 150				12/13/21 08:32	12/13/21 21:36	1
d5-NEtFOSAA	100		50 - 150				12/13/21 08:32	12/13/21 21:36	1
M2-6:2 FTS	75		25 - 150				12/13/21 08:32	12/13/21 21:36	1
M2-8:2 FTS	96		25 - 150				12/13/21 08:32	12/13/21 21:36	1
13C3 PFBS	77		50 - 150				12/13/21 08:32	12/13/21 21:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	90.9		0.3	0.3	%	-		12/13/21 14:33	1

Isotope Dilution Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (50-150)	C4PFHA (50-150)	PFOA (50-150)	PFOS (50-150)	PFNA (50-150)	PFBA (25-150)	PFHxA (50-150)	PFDA (50-150)
460-248673-A-2-B MS	Matrix Spike	81	86	85	78	85	80	89	80
460-248673-A-2-C MSD	Matrix Spike Duplicate	80	91	86	75	87	84	83	76
460-248692-1	TRC-SB-01 (0-0.5)	74	87	91	76	93	88	87	89
460-248692-2	TRC-SB-05 (0-0.5)	71	90	91	74	91	83	85	86
460-248692-3	TRC-SB-06 (0-0.5)	79	84	89	81	86	81	81	86
460-248692-4	TRC-SB-09 (0-0.5)	75	85	90	74	97	84	84	90
460-248692-5	TRC-SB-12 (0-0.5)	80	90	94	83	98	89	91	91
460-248692-6	TRC-SB-13 (0-0.5)	83	86	89	82	95	84	89	92
460-248692-7	TRC-SB-10 (0-0.5)	74	82	83	73	89	85	82	82
460-248692-8	TRC-SB-14 (0-0.5)	75	90	88	76	94	88	88	89
460-248692-9	TRC-SB-11 (0-0.5)	89	93	91	87	99	93	96	94
460-248692-10	TRC-SB-15 (0-0.5)	78	89	91	78	86	88	90	88
LCS 200-174839/2-A	Lab Control Sample	85	87	87	79	81	81	85	72
MB 200-174839/1-A	Method Blank	86	93	92	82	94	84	88	78

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDoA (50-150)	PFOSA (25-150)	PFPeA (25-150)	PFTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (25-150)
460-248673-A-2-B MS	Matrix Spike	80	77	69	81	82	77	82	70
460-248673-A-2-C MSD	Matrix Spike Duplicate	76	78	69	85	82	74	75	72
460-248692-1	TRC-SB-01 (0-0.5)	93	89	74	86	91	81	84	71
460-248692-2	TRC-SB-05 (0-0.5)	95	90	72	84	99	89	108	69
460-248692-3	TRC-SB-06 (0-0.5)	101	95	76	83	98	84	99	74
460-248692-4	TRC-SB-09 (0-0.5)	92	95	67	77	96	98	109	81
460-248692-5	TRC-SB-12 (0-0.5)	106	91	69	89	98	101	112	83
460-248692-6	TRC-SB-13 (0-0.5)	91	85	76	85	101	87	101	79
460-248692-7	TRC-SB-10 (0-0.5)	88	90	66	82	88	80	90	75
460-248692-8	TRC-SB-14 (0-0.5)	100	91	71	87	97	80	92	74
460-248692-9	TRC-SB-11 (0-0.5)	110	100	80	96	115	90	104	80
460-248692-10	TRC-SB-15 (0-0.5)	99	93	71	88	98	87	100	75
LCS 200-174839/2-A	Lab Control Sample	65	60	62	82	73	67	63	74
MB 200-174839/1-A	Method Blank	79	69	72	88	81	78	75	78

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (25-150)	C3PFBS (50-150)
460-248673-A-2-B MS	Matrix Spike	72	78
460-248673-A-2-C MSD	Matrix Spike Duplicate	68	81
460-248692-1	TRC-SB-01 (0-0.5)	78	75
460-248692-2	TRC-SB-05 (0-0.5)	90	74
460-248692-3	TRC-SB-06 (0-0.5)	89	79
460-248692-4	TRC-SB-09 (0-0.5)	121	77
460-248692-5	TRC-SB-12 (0-0.5)	117	82
460-248692-6	TRC-SB-13 (0-0.5)	95	83
460-248692-7	TRC-SB-10 (0-0.5)	92	72
460-248692-8	TRC-SB-14 (0-0.5)	80	74
460-248692-9	TRC-SB-11 (0-0.5)	102	85
460-248692-10	TRC-SB-15 (0-0.5)	96	77
LCS 200-174839/2-A	Lab Control Sample	68	84
MB 200-174839/1-A	Method Blank	75	89

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Isotope Dilution Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Surrogate Legend

PFHxS = 18O2 PFHxS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFOSA = 13C8 FOSA
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
C3PFBS = 13C3 PFBS

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-174839/1-A

Matrix: Solid

Analysis Batch: 174872

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 174839

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.50	U	0.50	0.16	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluoropentanoic acid (PFPeA)	0.20	U	0.20	0.039	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluorohexanoic acid (PFHxA)	0.20	U	0.20	0.022	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluoroheptanoic acid (PFHpA)	0.20	U	0.20	0.020	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluorooctanoic acid (PFOA)	0.20	U	0.20	0.025	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluorononanoic acid (PFNA)	0.20	U	0.20	0.018	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluorodecanoic acid (PFDA)	0.20	U	0.20	0.012	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluoroundecanoic acid (PFUnA)	0.20	U	0.20	0.020	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluorododecanoic acid (PFDoA)	0.20	U	0.20	0.021	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluorotridecanoic acid (PFTriA)	0.20	U	0.20	0.015	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluorotetradecanoic acid (PFTeA)	0.20	U	0.20	0.023	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.0093	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluorohexanesulfonic acid (PFHxS)	0.20	U	0.20	0.014	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.20	U	0.20	0.015	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluorooctanesulfonic acid (PFOS)	0.20	U	0.20	0.016	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.012	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.017	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	U	2.00	0.037	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	U	2.00	0.046	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.00	U	2.00	0.031	ug/Kg		12/13/21 08:32	12/13/21 19:08	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.016	ug/Kg		12/13/21 08:32	12/13/21 19:08	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	86		50 - 150	12/13/21 08:32	12/13/21 19:08	1
13C4 PFHpA	93		50 - 150	12/13/21 08:32	12/13/21 19:08	1
13C4 PFOA	92		50 - 150	12/13/21 08:32	12/13/21 19:08	1
13C4 PFOS	82		50 - 150	12/13/21 08:32	12/13/21 19:08	1
13C5 PFNA	94		50 - 150	12/13/21 08:32	12/13/21 19:08	1
13C4 PFBA	84		25 - 150	12/13/21 08:32	12/13/21 19:08	1
13C2 PFHxA	88		50 - 150	12/13/21 08:32	12/13/21 19:08	1
13C2 PFDA	78		50 - 150	12/13/21 08:32	12/13/21 19:08	1
13C2 PFUnA	79		50 - 150	12/13/21 08:32	12/13/21 19:08	1
13C2 PFDoA	69		50 - 150	12/13/21 08:32	12/13/21 19:08	1
13C8 FOSA	72		25 - 150	12/13/21 08:32	12/13/21 19:08	1
13C5 PFPeA	88		25 - 150	12/13/21 08:32	12/13/21 19:08	1
13C2 PFTeDA	81		50 - 150	12/13/21 08:32	12/13/21 19:08	1
d3-NMeFOSAA	78		50 - 150	12/13/21 08:32	12/13/21 19:08	1
d5-NEtFOSAA	75		50 - 150	12/13/21 08:32	12/13/21 19:08	1
M2-6:2 FTS	78		25 - 150	12/13/21 08:32	12/13/21 19:08	1
M2-8:2 FTS	75		25 - 150	12/13/21 08:32	12/13/21 19:08	1
13C3 PFBS	89		50 - 150	12/13/21 08:32	12/13/21 19:08	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-174839/2-A

Matrix: Solid

Analysis Batch: 174872

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 174839

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	2.00	2.332		ug/Kg		117	60 - 140
Perfluoropentanoic acid (PFPeA)	2.00	2.225		ug/Kg		111	60 - 140
Perfluorohexanoic acid (PFHxA)	2.00	2.174		ug/Kg		109	60 - 140
Perfluoroheptanoic acid (PFHpA)	2.00	2.197		ug/Kg		110	60 - 140
Perfluorooctanoic acid (PFOA)	2.00	2.200		ug/Kg		110	60 - 140
Perfluorononanoic acid (PFNA)	2.00	2.289		ug/Kg		114	60 - 140
Perfluorodecanoic acid (PFDA)	2.00	2.380		ug/Kg		119	60 - 140
Perfluoroundecanoic acid (PFUnA)	2.00	2.078		ug/Kg		104	60 - 140
Perfluorododecanoic acid (PFDoA)	2.00	2.346		ug/Kg		117	60 - 140
Perfluorotridecanoic acid (PFTriA)	2.00	2.387		ug/Kg		119	60 - 140
Perfluorotetradecanoic acid (PFTeA)	2.00	2.366		ug/Kg		118	60 - 140
Perfluorobutanesulfonic acid (PFBS)	1.77	1.963		ug/Kg		111	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.859		ug/Kg		102	60 - 140
Perfluoroheptanesulfonic Acid (PFHpS)	1.90	2.135		ug/Kg		112	60 - 140
Perfluorooctanesulfonic acid (PFOS)	1.86	2.006		ug/Kg		108	60 - 140
Perfluorodecanesulfonic acid (PFDS)	1.93	1.587		ug/Kg		82	60 - 140
Perfluorooctanesulfonamide (PFOSA)	2.00	2.200		ug/Kg		110	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.215		ug/Kg		111	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.251		ug/Kg		113	60 - 140
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.90	2.145		ug/Kg		113	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.92	2.201		ug/Kg		115	60 - 140

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
18O2 PFHxS	85		50 - 150
13C4 PFHpA	87		50 - 150
13C4 PFOA	87		50 - 150
13C4 PFOS	79		50 - 150
13C5 PFNA	81		50 - 150
13C4 PFBA	81		25 - 150
13C2 PFHxA	85		50 - 150
13C2 PFDA	72		50 - 150
13C2 PFUnA	65		50 - 150
13C2 PFDoA	60		50 - 150
13C8 FOSA	62		25 - 150
13C5 PFPeA	82		25 - 150
13C2 PFTeDA	73		50 - 150
d3-NMeFOSAA	67		50 - 150
d5-NEtFOSAA	63		50 - 150

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-174839/2-A

Matrix: Solid

Analysis Batch: 174872

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 174839

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
M2-6:2 FTS	74		25 - 150
M2-8:2 FTS	68		25 - 150
13C3 PFBS	84		50 - 150

Lab Sample ID: 460-248673-A-2-B MS

Matrix: Solid

Analysis Batch: 174872

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 174839

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Perfluorobutanoic acid (PFBA)	0.50	U	2.04	2.324		ug/Kg	☼	114	60 - 140
Perfluoropentanoic acid (PFPeA)	0.20	U	2.04	2.289		ug/Kg	☼	112	60 - 140
Perfluorohexanoic acid (PFHxA)	0.20	U	2.04	2.224		ug/Kg	☼	109	60 - 140
Perfluoroheptanoic acid (PFHpA)	0.20	U	2.04	2.312		ug/Kg	☼	114	60 - 140
Perfluorooctanoic acid (PFOA)	0.072	J	2.04	2.257		ug/Kg	☼	107	60 - 140
Perfluorononanoic acid (PFNA)	0.20	U	2.04	2.193		ug/Kg	☼	108	60 - 140
Perfluorodecanoic acid (PFDA)	0.20	U	2.04	2.361		ug/Kg	☼	116	60 - 140
Perfluoroundecanoic acid (PFUnA)	0.20	U	2.04	2.172		ug/Kg	☼	107	60 - 140
Perfluorododecanoic acid (PFDoA)	0.20	U	2.04	2.310		ug/Kg	☼	113	60 - 140
Perfluorotridecanoic acid (PFTriA)	0.20	U	2.04	2.394		ug/Kg	☼	118	60 - 140
Perfluorotetradecanoic acid (PFTeA)	0.20	U	2.04	2.221		ug/Kg	☼	109	60 - 140
Perfluorobutanesulfonic acid (PFBS)	0.20	U	1.80	2.065		ug/Kg	☼	115	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	0.028	J	1.85	2.030		ug/Kg	☼	108	60 - 140
Perfluoroheptanesulfonic Acid (PFHpS)	0.20	U	1.94	2.164		ug/Kg	☼	112	60 - 140
Perfluorooctanesulfonic acid (PFOS)	0.13	J	1.89	2.170		ug/Kg	☼	108	60 - 140
Perfluorodecanesulfonic acid (PFDS)	0.20	U	1.96	1.989		ug/Kg	☼	101	60 - 140
Perfluorooctanesulfonamide (PFOSA)	0.20	U	2.04	2.404		ug/Kg	☼	118	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	U	2.04	2.326		ug/Kg	☼	114	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	U	2.04	2.313		ug/Kg	☼	114	60 - 140
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.00	U	1.93	2.144		ug/Kg	☼	111	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	1.95	2.236		ug/Kg	☼	115	60 - 140

Isotope Dilution	MS		Limits
	%Recovery	Qualifier	
18O2 PFHxS	81		50 - 150
13C4 PFHpA	86		50 - 150
13C4 PFOA	85		50 - 150
13C4 PFOS	78		50 - 150
13C5 PFNA	85		50 - 150
13C4 PFBA	80		25 - 150

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-248673-A-2-B MS

Matrix: Solid

Analysis Batch: 174872

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 174839

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2 PFHxA	89		50 - 150
13C2 PFDA	80		50 - 150
13C2 PFUnA	80		50 - 150
13C2 PFDoA	77		50 - 150
13C8 FOSA	69		25 - 150
13C5 PFPeA	81		25 - 150
13C2 PFTeDA	82		50 - 150
d3-NMeFOSAA	77		50 - 150
d5-NEtFOSAA	82		50 - 150
M2-6:2 FTS	70		25 - 150
M2-8:2 FTS	72		25 - 150
13C3 PFBS	78		50 - 150

Lab Sample ID: 460-248673-A-2-C MSD

Matrix: Solid

Analysis Batch: 174872

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 174839

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	0.50	U	2.04	2.276		ug/Kg	✱	112	60 - 140	2	30
Perfluoropentanoic acid (PFPeA)	0.20	U	2.04	2.245		ug/Kg	✱	110	60 - 140	2	30
Perfluorohexanoic acid (PFHxA)	0.20	U	2.04	2.338		ug/Kg	✱	115	60 - 140	5	30
Perfluoroheptanoic acid (PFHpA)	0.20	U	2.04	2.067		ug/Kg	✱	101	60 - 140	11	30
Perfluorooctanoic acid (PFOA)	0.072	J	2.04	2.289		ug/Kg	✱	109	60 - 140	1	30
Perfluorononanoic acid (PFNA)	0.20	U	2.04	2.156		ug/Kg	✱	106	60 - 140	2	30
Perfluorodecanoic acid (PFDA)	0.20	U	2.04	2.465		ug/Kg	✱	121	60 - 140	4	30
Perfluoroundecanoic acid (PFUnA)	0.20	U	2.04	2.271		ug/Kg	✱	111	60 - 140	4	30
Perfluorododecanoic acid (PFDoA)	0.20	U	2.04	2.231		ug/Kg	✱	109	60 - 140	3	30
Perfluorotridecanoic acid (PFTriA)	0.20	U	2.04	2.295		ug/Kg	✱	112	60 - 140	4	30
Perfluorotetradecanoic acid (PFTeA)	0.20	U	2.04	2.345		ug/Kg	✱	115	60 - 140	5	30
Perfluorobutanesulfonic acid (PFBS)	0.20	U	1.80	2.047		ug/Kg	✱	113	60 - 140	1	30
Perfluorohexanesulfonic acid (PFHxS)	0.028	J	1.86	2.019		ug/Kg	✱	107	60 - 140	1	30
Perfluoroheptanesulfonic Acid (PFHpS)	0.20	U	1.94	2.355		ug/Kg	✱	121	60 - 140	8	30
Perfluorooctanesulfonic acid (PFOS)	0.13	J	1.89	2.199		ug/Kg	✱	109	60 - 140	1	30
Perfluorodecanesulfonic acid (PFDS)	0.20	U	1.97	1.963		ug/Kg	✱	100	60 - 140	1	30
Perfluorooctanesulfonamide (PFOSA)	0.20	U	2.04	2.371		ug/Kg	✱	116	60 - 140	1	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	U	2.04	2.353		ug/Kg	✱	115	60 - 140	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	U	2.04	2.397		ug/Kg	✱	117	60 - 140	4	30
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.00	U	1.93	2.181		ug/Kg	✱	113	50 - 150	2	30

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QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-248673-A-2-C MSD

Matrix: Solid

Analysis Batch: 174872

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 174839

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	1.96	2.295		ug/Kg	*	117	60 - 140	3	30
Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits								
18O2 PFHxS	80		50 - 150								
13C4 PFHpA	91		50 - 150								
13C4 PFOA	86		50 - 150								
13C4 PFOS	75		50 - 150								
13C5 PFNA	87		50 - 150								
13C4 PFBA	84		25 - 150								
13C2 PFHxA	83		50 - 150								
13C2 PFDA	76		50 - 150								
13C2 PFUnA	76		50 - 150								
13C2 PFDoA	78		50 - 150								
13C8 FOSA	69		25 - 150								
13C5 PFPeA	85		25 - 150								
13C2 PFTeDA	82		50 - 150								
d3-NMeFOSAA	74		50 - 150								
d5-NEtFOSAA	75		50 - 150								
M2-6:2 FTS	72		25 - 150								
M2-8:2 FTS	68		25 - 150								
13C3 PFBS	81		50 - 150								

Method: Moisture - Percent Moisture

Lab Sample ID: 200-61356-A-141 DU

Matrix: Solid

Analysis Batch: 174862

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	87.8		86.3		%		2	20

Lab Sample ID: 460-248770-A-6 DU

Matrix: Solid

Analysis Batch: 174862

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	82.9		84.8		%		2	20

QC Association Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

LCMS

Prep Batch: 174839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248692-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	SHAKE	
460-248692-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	SHAKE	
460-248692-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	SHAKE	
460-248692-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	SHAKE	
460-248692-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	SHAKE	
460-248692-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	SHAKE	
460-248692-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	SHAKE	
460-248692-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	SHAKE	
460-248692-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	SHAKE	
460-248692-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	SHAKE	
MB 200-174839/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 200-174839/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
460-248673-A-2-B MS	Matrix Spike	Total/NA	Solid	SHAKE	
460-248673-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	SHAKE	

Analysis Batch: 174872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248692-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	537 (modified)	174839
460-248692-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	537 (modified)	174839
460-248692-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	537 (modified)	174839
460-248692-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	537 (modified)	174839
460-248692-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	537 (modified)	174839
460-248692-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	537 (modified)	174839
460-248692-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	537 (modified)	174839
460-248692-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	537 (modified)	174839
460-248692-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	537 (modified)	174839
460-248692-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	537 (modified)	174839
MB 200-174839/1-A	Method Blank	Total/NA	Solid	537 (modified)	174839
LCS 200-174839/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	174839
460-248673-A-2-B MS	Matrix Spike	Total/NA	Solid	537 (modified)	174839
460-248673-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	537 (modified)	174839

General Chemistry

Analysis Batch: 174862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248692-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	Moisture	
460-248692-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	Moisture	
460-248692-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	Moisture	
460-248692-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	Moisture	
460-248692-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	Moisture	
460-248692-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	Moisture	
460-248692-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	Moisture	
460-248692-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	Moisture	
460-248692-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	Moisture	
460-248692-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	Moisture	
200-61356-A-141 DU	Duplicate	Total/NA	Solid	Moisture	
460-248770-A-6 DU	Duplicate	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248692-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248692-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 94.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174839	12/13/21 08:32	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	174872	12/13/21 20:14	KFW	TAL BUR

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248692-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248692-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174839	12/13/21 08:32	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	174872	12/13/21 20:22	KFW	TAL BUR

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248692-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248692-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174839	12/13/21 08:32	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	174872	12/13/21 20:30	KFW	TAL BUR

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248692-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Eurofins TestAmerica, Edison

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248692-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174839	12/13/21 08:32	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	174872	12/13/21 20:38	KFW	TAL BUR

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248692-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248692-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174839	12/13/21 08:32	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	174872	12/13/21 20:55	KFW	TAL BUR

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248692-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248692-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 87.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174839	12/13/21 08:32	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	174872	12/13/21 21:03	KFW	TAL BUR

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248692-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248692-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174839	12/13/21 08:32	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	174872	12/13/21 21:11	KFW	TAL BUR

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248692-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248692-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174839	12/13/21 08:32	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	174872	12/13/21 21:19	KFW	TAL BUR

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248692-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248692-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174839	12/13/21 08:32	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	174872	12/13/21 21:27	KFW	TAL BUR

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248692-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248692-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174839	12/13/21 08:32	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	174872	12/13/21 21:36	KFW	TAL BUR

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-21 *
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-17-22
Florida	NELAP	E87467	06-30-22
Minnesota	NELAP	050-999-436	12-31-22
New Hampshire	NELAP	2006	12-18-21
New Jersey	NELAP	VT972	06-30-22
New York	NELAP	10391	04-01-22
Pennsylvania	NELAP	68-00489	04-30-22
Rhode Island	State	LAO00298	12-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-17-00272	10-30-23
Vermont	State	VT4000	02-10-22
Virginia	NELAP	460209	12-14-21
Wisconsin	State	399133350	08-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Edison

Method Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
Moisture	Percent Moisture	EPA	TAL BUR
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-248692-1	TRC-SB-01 (0-0.5)	Solid	12/08/21 09:15	12/08/21 18:00
460-248692-2	TRC-SB-05 (0-0.5)	Solid	12/08/21 10:10	12/08/21 18:00
460-248692-3	TRC-SB-06 (0-0.5)	Solid	12/08/21 11:00	12/08/21 18:00
460-248692-4	TRC-SB-09 (0-0.5)	Solid	12/08/21 11:35	12/08/21 18:00
460-248692-5	TRC-SB-12 (0-0.5)	Solid	12/08/21 12:15	12/08/21 18:00
460-248692-6	TRC-SB-13 (0-0.5)	Solid	12/08/21 12:35	12/08/21 18:00
460-248692-7	TRC-SB-10 (0-0.5)	Solid	12/08/21 13:15	12/08/21 18:00
460-248692-8	TRC-SB-14 (0-0.5)	Solid	12/08/21 13:40	12/08/21 18:00
460-248692-9	TRC-SB-11 (0-0.5)	Solid	12/08/21 14:10	12/08/21 18:00
460-248692-10	TRC-SB-15 (0-0.5)	Solid	12/08/21 15:00	12/08/21 18:00

NYC

222

Address: 218 Jackson Ave
Queens, NY
11401

Chain of Custody Record

578454



Environment Testing
TestAmerica

Regulatory Program:

☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact Company Name: <u>TRC Companies Inc</u> Address: <u>143 Broadway 10th floor</u> City/State/Zip: <u>NY, NY 10018</u> Phone: <u>(212) 221-7821</u> Fax: Project Name: <u>LIRR Arch Street Yard</u> Site: <u>LIRR Arch Street Yard</u> PO # <u>ITH990</u>		Project Manager: Emily Ebert Tel/Email: <u>Ebert@trc.com</u> Analysis Turnaround Time ☒ CALENDAR DAYS ☐ WORKING DAYS TAT if different from Below <u>10 days</u> ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Site Contact: Brian Smith Date: <u>12/18/21</u> Carrier: <u>1</u> of <u>1</u> COCs Lab Contact: Filtered Sample (Y/N) <u>PTAS</u> Perform MS / MSD (Y/N)		COC No: <u>2</u> Date: <u>12/18/21</u> Carrier: <u>1</u> of <u>1</u> COCs Barcode:  460-248692 Chain of Custody	
Sample Identification TRC-SB-01 (8"-14") TRC-SB-05 (1.5'-2') TRC-SB-06 (8"-14") TRC-SB-09 (5'-11") TRC-SB-12 (1'-1.5') TRC-SB-13 (3"-9") TRC-SB-10 (3"-9") TRC-SB-14 (4"-10") TRC-SB-11 (14"-20") TRC-SB-5 (5'-11")		Sample Date: <u>12/18/21</u> Sample Time: Sample Type (C-Comp, G-Grab): <u>G</u> Matrix: <u>S</u> # of Cont.: <u>1</u>		Sample Specific Notes: <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> <u>8</u> <u>9</u> <u>10</u>		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other							
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown							
Special Instructions/QC Requirements & Comments: <u>Eqvis EDD & category B deliverable required</u>							
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Cor'd: _____		Therm ID No.:	
Relinquished by: <u>Brian Smith</u>		Date/Time: <u>12/18/21</u>		Company: <u>TRC</u>		Date/Time: <u>12/18/21</u>	
Relinquished by: <u>Newell</u>		Date/Time: <u>12/18/21</u>		Company: <u>TRC</u>		Date/Time: <u>12/18/21</u>	
Relinquished by:		Date/Time:		Company:		Date/Time:	

2-6 25.1.2029

1
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24892

IR Gun #

2

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	26	28	Cooler #4:	7	7
Cooler #2:	7	7	Cooler #5:	7	7
Cooler #3:	7	7	Cooler #6:	7	7
			Cooler #7:	7	7
			Cooler #8:	7	7
			Cooler #9:	7	7

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.:

Volume of Preservative used (ml):

Lot # of Preservative(s):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

EDS-WI-038, Rev 4.1
10/22/2019

Initials:

Kenia

Date: 12821

Chain of Custody Record



460-248692 Chain of Custody

Client Information (Sub Contract Lab)		Lab Pkt:		Sampler:			
Client Contact: Shipping/Receiving		Haas, Melissa		Phone:			
Company:		E-Mail:		State of Origin:			
TestAmerica Laboratories, Inc.		Melissa.Haas@Eurofinset.com		New York			
Address:		Accreditations Required (See note):		Page:			
530 Community Drive, Suite 11,		NELAP - New York		3591.1			
City:		Due Date Requested:		Job #:			
South Burlington		12/20/2021		460-248692-1			
State, Zip:		TAT Requested (days):		Preservation Codes:			
VT, 05403		PO #:		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)			
Phone:		WO #:		Other:			
802-660-1990(Tel) 802-660-1919(Fax)		Project #:					
Email:		46036740					
Project Name:		SSOW#:					
MTA LIRR Arch St Yard Supplemental RI							
Site:							
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, AA=air)	Analysis Requested	Special Instructions/Note:
TRC-SB-01 (8"-14") (460-248692-1)		12/8/21	09:15 Eastern		Solid		
TRC-SB-05 (1.5"-2") (460-248692-2)		12/8/21	10:10 Eastern		Solid		
TRC-SB-06 (8"-14") (460-248692-3)		12/8/21	11:00 Eastern		Solid		
TRC-SB-09 (5"-11") (460-248692-4)		12/8/21	11:35 Eastern		Solid		
TRC-SB-12 (1"-1.5") (460-248692-5)		12/8/21	12:15 Eastern		Solid		
TRC-SB-13 (3"-9") (460-248692-6)		12/8/21	12:35 Eastern		Solid		
TRC-SB-10 (3"-9") (460-248692-7)		12/8/21	13:15 Eastern		Solid		
TRC-SB-14 (4"-10") (460-248692-8)		12/8/21	13:40 Eastern		Solid		
TRC-SB-11 (14"-20") (460-248692-9)		12/8/21	14:10 Eastern		Solid		

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification
Unconfirmed
Deliverable Requested: I, II, III, IV, Other (specify) _____
Primary Deliverable Rank: 1
Empty Kit Relinquished by: _____ Date: _____
Relinquished by: _____ Date/Time: 12/9/21 1900
Relinquished by: _____ Date/Time: _____
Relinquished by: _____ Date/Time: _____
Custody Seals Intact: _____
Custody Seal No.: _____
Cooler Temperature(s) °C and Other Remarks: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Special Instructions/QC Requirements: _____
Method of Shipment: _____
Received by: _____ Date/Time: 12/10/21 11:30
Received by: _____ Date/Time: _____
Received by: _____ Date/Time: _____
Cooler Temperature(s) °C and Other Remarks: _____

ORIGIN ID:LDJA (732) 549-3900
SAMPLE RECEIVING
EUROFINS TESTAMERICA EDISON
777 NEW DURHAM ROAD

EDISON, NJ 08817
UNITED STATES US

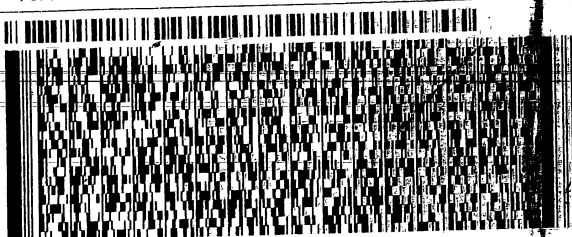
SHIP DATE: 09DEC21
ACTWGT: 64.25 LB
CAD: 0358159/CAFE3507

BILL SENDER

TO SHIPPING/RECEIVING
TESTAMERICA LABORATORIES, INC.
530 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

(802) 660-1990
PO: YES

REF: S460-150293



FedEx
Express



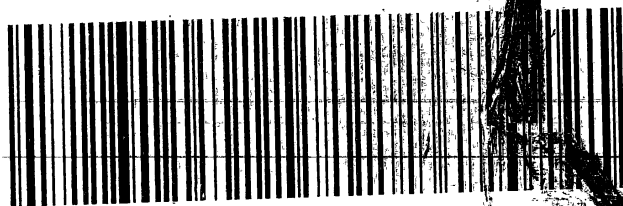
J211020121101W

1 of 2
TRK# 1161 6405 8505
0201
MASTER

XE BTVA

FRI - 10 DEC 11:30A
PRIORITY OVERNIGHT

05403
US BTV



ORIGIN ID:LDJA (732) 549-3900
SAMPLE RECEIVING
EUROFINS TESTAMERICA EDISON
777 NEW DURHAM ROAD

EDISON, NJ 08817
UNITED STATES US

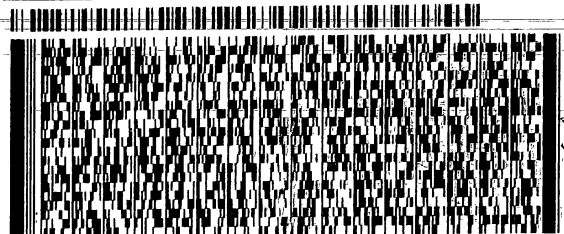
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CAD: 0358159/CAFE3507

BILL SENDER

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TESTAMERICA LABORATORIES, INC.
530 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

(802) 660-1990
PO: YES

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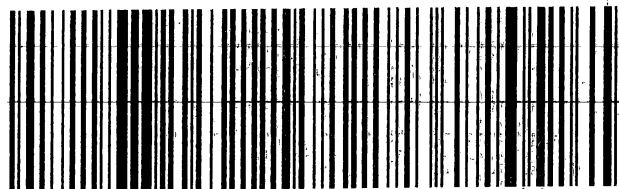
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PRIORITY OVERNIGHT

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Login Sample Receipt Checklist

Client: TRC Environmental Corporation

Job Number: 460-248692-1

Login Number: 248692

List Source: Eurofins TestAmerica, Edison

List Number: 1

Creator: Meyers, Gary

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: TRC Environmental Corporation

Job Number: 460-248692-1

Login Number: 248692

List Number: 2

Creator: Cunningham, Caroline R

List Source: Eurofins TestAmerica, Burlington

List Creation: 12/10/21 03:32 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1487893, -894
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2°C, 2.1°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

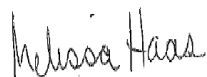
Laboratory Job ID: 460-248693-1

Client Project/Site: MTA LIRR Arch St Yard Supplemental RI

For:

TRC Environmental Corporation
1430 Broadway
10 Floor
New York, New York 10018

Attn: Emily Ebert



Authorized for release by:
12/17/2021 9:01:32 AM

Melissa Haas, Senior Project Manager
(203)308-0880
Melissa.Haas@Eurofinset.com

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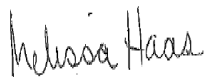
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Melissa Haas
Senior Project Manager
12/17/2021 9:01:32 AM

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Definitions/Glossary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*	Surrogate is outside acceptance limits.
J	Indicates an estimated value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control

Definitions/Glossary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Job ID: 460-248693-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

CASE NARRATIVE

Client: TRC Environmental Corporation

Project: MTA LIRR Arch St Yard Supplemental RI

Report Number: 460-248693-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 12/08/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.5 C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The client requested the change in sample ID depths to 0-0.5.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 12/09/2021 and analyzed on 12/11/2021 and 12/12/2021.

The continuing calibration verification (CCV) associated with batch 460-818258 recovered above the upper control limit for Bromomethane, Trichlorofluoromethane and Chloroethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 460-818258 recovered outside control limits for the following analytes: Chloroethane, Bromomethane and 2-Hexanone. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported.

No other difficulties were encountered during the Volatiles analysis.

Case Narrative

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Job ID: 460-248693-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 12/10/2021 and analyzed on 12/11/2021 and 12/12/2021.

The continuing calibration verification (CCV) analyzed in batch 460-818224 was outside the method criteria for the following analyte(s): Benzaldehyde. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 460-818114 and analytical batch 460-818224 recovered outside control limits for the following analytes: 1,4-Dioxane. This analyte was biased high in the LCS/LCSD and was not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) analyzed in batch 460-818345 was outside the method criteria for the following analyte(s): Benzaldehyde. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Several analytes failed the recovery criteria low for the MS of sample 460-248701-3 in batch 460-818224.

Several analytes failed the recovery criteria low for the MSD of sample 460-248701-3 in batch 460-818224.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 12/10/2021 and analyzed on 12/12/2021 and 12/13/2021.

The %RPD between the primary and confirmation column exceeded 40% for 4,4'-DDT for the following samples: TRC-SB-05 (0-0.5) (460-248693-2) and TRC-SB-10 (0-0.5) (460-248693-7). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

Surrogate recoveries for the following sample were outside the upper control limit: TRC-SB-09 (0-0.5) (460-248693-4). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No other difficulties were encountered during the Pesticides analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 12/10/2021 and analyzed on 12/12/2021 and 12/13/2021.

Case Narrative

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Job ID: 460-248693-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

The Tetrachloro-m-xylene surrogate recovery for the following LCS was outside acceptance limits (low biased) on the confirmation column: (LCS 460-818188/2-A). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

The Tetrachloro-m-xylene surrogate recovery for the following samples was outside acceptance limits (low biased) on the confirmation column: TRC-SB-06 (0-0.5) (460-248693-3). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Surrogate recovery for the following sample was outside the upper control limit: TRC-SB-09 (0-0.5) (460-248693-4). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared and analyzed on 12/10/2021.

The 2,4-Dichlorophenylacetic acid surrogate recovery for the following samples was outside acceptance limits (high biased) on the confirmation column due to matrix interference: TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

The following samples were diluted due to the nature of the sample matrix: TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) at 5.0, 5.0, 5.0, 5.0, 5.0, 5.0 and 5.0. Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the herbicides analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 12/15/2021 and analyzed on 12/16/2021.

Several analytes failed the recovery criteria low for the MS of sample 460-248403-8 in batch 460-819195. Barium and Lead failed the recovery criteria high.

The following sample was diluted due to the nature of the sample matrix: TRC-SB-05 (0-0.5) (460-248693-2). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14

Case Narrative

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Job ID: 460-248693-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

(0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 12/13/2021.

Samples TRC-SB-09 (0-0.5) (460-248693-4)[3X], TRC-SB-13 (0-0.5) (460-248693-6)[3X] and TRC-SB-14 (0-0.5) (460-248693-8)[3X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 12/13/2021.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248693-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.0014	J	0.0018	0.00055	mg/Kg	1	✱	8260D	Total/NA
Trichloroethene	0.0012	J	0.0018	0.00058	mg/Kg	1	✱	8260D	Total/NA
2-Methylnaphthalene	0.018	J	0.34	0.0095	mg/Kg	1	✱	8270E	Total/NA
Acenaphthene	0.014	J	0.34	0.0097	mg/Kg	1	✱	8270E	Total/NA
Acenaphthylene	0.018	J	0.34	0.0034	mg/Kg	1	✱	8270E	Total/NA
Anthracene	0.041	J	0.34	0.010	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	0.16		0.034	0.012	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	0.14		0.034	0.0091	mg/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	0.23		0.034	0.0088	mg/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	0.094	J	0.34	0.010	mg/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	0.092		0.034	0.0067	mg/Kg	1	✱	8270E	Total/NA
Carbazole	0.020	J	0.34	0.013	mg/Kg	1	✱	8270E	Total/NA
Chrysene	0.16	J	0.34	0.0058	mg/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	0.022	J	0.034	0.015	mg/Kg	1	✱	8270E	Total/NA
Dibenzofuran	0.017	J	0.34	0.0048	mg/Kg	1	✱	8270E	Total/NA
Fluoranthene	0.30	J	0.34	0.012	mg/Kg	1	✱	8270E	Total/NA
Fluorene	0.014	J	0.34	0.0046	mg/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.14		0.034	0.013	mg/Kg	1	✱	8270E	Total/NA
Naphthalene	0.021	J	0.34	0.0059	mg/Kg	1	✱	8270E	Total/NA
Phenanthrene	0.18	J	0.34	0.0060	mg/Kg	1	✱	8270E	Total/NA
Pyrene	0.26	J	0.34	0.0085	mg/Kg	1	✱	8270E	Total/NA
4,4'-DDT	0.0028	J	0.0069	0.0013	mg/Kg	1	✱	8081B	Total/NA
Aluminum	2250		19.5	5.3	mg/Kg	1	✱	6020B	Total/NA
Antimony	0.56	J	0.97	0.14	mg/Kg	1	✱	6020B	Total/NA
Arsenic	4.7		0.97	0.10	mg/Kg	1	✱	6020B	Total/NA
Barium	34.6		1.9	0.14	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.25	J	0.39	0.055	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.18	J	0.97	0.11	mg/Kg	1	✱	6020B	Total/NA
Calcium	8530		97.4	17.2	mg/Kg	1	✱	6020B	Total/NA
Chromium	11.1		1.9	0.26	mg/Kg	1	✱	6020B	Total/NA
Cobalt	2.9		1.9	0.14	mg/Kg	1	✱	6020B	Total/NA
Copper	40.3		1.9	0.36	mg/Kg	1	✱	6020B	Total/NA
Iron	9080		58.4	19.7	mg/Kg	1	✱	6020B	Total/NA
Lead	66.3		0.58	0.19	mg/Kg	1	✱	6020B	Total/NA
Magnesium	1460		97.4	9.9	mg/Kg	1	✱	6020B	Total/NA
Manganese	105		3.9	0.39	mg/Kg	1	✱	6020B	Total/NA
Nickel	6.5		1.9	0.46	mg/Kg	1	✱	6020B	Total/NA
Potassium	639		97.4	11.8	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.19	J	1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Sodium	135		97.4	44.5	mg/Kg	1	✱	6020B	Total/NA
Vanadium	12.8		1.9	0.20	mg/Kg	1	✱	6020B	Total/NA
Zinc	59.7		7.8	3.0	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.081		0.016	0.0076	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	0.0044	J	0.0079	0.00058	mg/Kg	1	✱	8260D	Total/NA
Acetone	0.029		0.0094	0.0090	mg/Kg	1	✱	8260D	Total/NA
Carbon disulfide	0.00053	J	0.0016	0.00042	mg/Kg	1	✱	8260D	Total/NA
Methylene Chloride	0.0021	J	0.0031	0.0018	mg/Kg	1	✱	8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-05 (0-0.5) (Continued)

Lab Sample ID: 460-248693-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.027	J	0.36	0.0048	mg/Kg	1	✱	8270E	Total/NA
2-Methylnaphthalene	0.099	J	0.36	0.010	mg/Kg	1	✱	8270E	Total/NA
Acenaphthene	0.14	J	0.36	0.010	mg/Kg	1	✱	8270E	Total/NA
Acenaphthylene	0.047	J	0.36	0.0036	mg/Kg	1	✱	8270E	Total/NA
Anthracene	0.21	J	0.36	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	0.57		0.036	0.013	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	0.52		0.036	0.0096	mg/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	0.80		0.036	0.0094	mg/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	0.24	J	0.36	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	0.30		0.036	0.0071	mg/Kg	1	✱	8270E	Total/NA
Bis(2-ethylhexyl) phthalate	0.076	J	0.36	0.019	mg/Kg	1	✱	8270E	Total/NA
Carbazole	0.073	J	0.36	0.014	mg/Kg	1	✱	8270E	Total/NA
Chrysene	0.56		0.36	0.0061	mg/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	0.056		0.036	0.016	mg/Kg	1	✱	8270E	Total/NA
Dibenzofuran	0.11	J	0.36	0.0051	mg/Kg	1	✱	8270E	Total/NA
Di-n-butyl phthalate	0.014	J	0.36	0.014	mg/Kg	1	✱	8270E	Total/NA
Fluoranthene	1.2		0.36	0.013	mg/Kg	1	✱	8270E	Total/NA
Fluorene	0.13	J	0.36	0.0049	mg/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.38		0.036	0.014	mg/Kg	1	✱	8270E	Total/NA
Naphthalene	0.13	J	0.36	0.0063	mg/Kg	1	✱	8270E	Total/NA
Phenanthrene	0.74		0.36	0.0064	mg/Kg	1	✱	8270E	Total/NA
Pyrene	1.0		0.36	0.0090	mg/Kg	1	✱	8270E	Total/NA
4,4'-DDD	0.0098		0.0073	0.0012	mg/Kg	1	✱	8081B	Total/NA
4,4'-DDE	0.0059	J	0.0073	0.00086	mg/Kg	1	✱	8081B	Total/NA
4,4'-DDT	0.0034	J p	0.0073	0.0013	mg/Kg	1	✱	8081B	Total/NA
Aluminum	3910		41.3	11.3	mg/Kg	2	✱	6020B	Total/NA
Antimony	1.4	J	2.1	0.30	mg/Kg	2	✱	6020B	Total/NA
Arsenic	10.4		2.1	0.21	mg/Kg	2	✱	6020B	Total/NA
Barium	129		4.1	0.30	mg/Kg	2	✱	6020B	Total/NA
Beryllium	0.31	J	0.83	0.12	mg/Kg	2	✱	6020B	Total/NA
Cadmium	0.49	J	2.1	0.23	mg/Kg	2	✱	6020B	Total/NA
Calcium	13100		207	36.6	mg/Kg	2	✱	6020B	Total/NA
Chromium	16.4		4.1	0.55	mg/Kg	2	✱	6020B	Total/NA
Cobalt	4.8		4.1	0.31	mg/Kg	2	✱	6020B	Total/NA
Copper	108		4.1	0.76	mg/Kg	2	✱	6020B	Total/NA
Iron	21600		124	41.7	mg/Kg	2	✱	6020B	Total/NA
Lead	278		1.2	0.41	mg/Kg	2	✱	6020B	Total/NA
Magnesium	2260		207	21.1	mg/Kg	2	✱	6020B	Total/NA
Manganese	219		8.3	0.83	mg/Kg	2	✱	6020B	Total/NA
Nickel	12.8		4.1	0.97	mg/Kg	2	✱	6020B	Total/NA
Potassium	698		207	25.0	mg/Kg	2	✱	6020B	Total/NA
Selenium	0.58	J	2.6	0.26	mg/Kg	2	✱	6020B	Total/NA
Sodium	159	J	207	94.4	mg/Kg	2	✱	6020B	Total/NA
Thallium	0.12	J	0.83	0.085	mg/Kg	2	✱	6020B	Total/NA
Vanadium	18.6		4.1	0.43	mg/Kg	2	✱	6020B	Total/NA
Zinc	209		16.5	6.3	mg/Kg	2	✱	6020B	Total/NA
Mercury	0.52		0.018	0.0085	mg/Kg	1	✱	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248693-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.019		0.014	0.013	mg/Kg	1	✱	8260D	Total/NA
1,1'-Biphenyl	0.0085	J	0.36	0.0048	mg/Kg	1	✱	8270E	Total/NA
2-Methylnaphthalene	0.028	J	0.36	0.010	mg/Kg	1	✱	8270E	Total/NA
Acenaphthene	0.025	J	0.36	0.010	mg/Kg	1	✱	8270E	Total/NA
Acenaphthylene	0.015	J	0.36	0.0037	mg/Kg	1	✱	8270E	Total/NA
Anthracene	0.059	J	0.36	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	0.18		0.036	0.013	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	0.16		0.036	0.0097	mg/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	0.27		0.036	0.0094	mg/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	0.11	J	0.36	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	0.11		0.036	0.0072	mg/Kg	1	✱	8270E	Total/NA
Bis(2-ethylhexyl) phthalate	0.22	J	0.36	0.019	mg/Kg	1	✱	8270E	Total/NA
Carbazole	0.022	J	0.36	0.014	mg/Kg	1	✱	8270E	Total/NA
Chrysene	0.18	J	0.36	0.0062	mg/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	0.016	J	0.036	0.016	mg/Kg	1	✱	8270E	Total/NA
Dibenzofuran	0.029	J	0.36	0.0051	mg/Kg	1	✱	8270E	Total/NA
Fluoranthene	0.40		0.36	0.013	mg/Kg	1	✱	8270E	Total/NA
Fluorene	0.014	J	0.36	0.0050	mg/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.13		0.036	0.014	mg/Kg	1	✱	8270E	Total/NA
Naphthalene	0.041	J	0.36	0.0063	mg/Kg	1	✱	8270E	Total/NA
Phenanthrene	0.21	J	0.36	0.0064	mg/Kg	1	✱	8270E	Total/NA
Pyrene	0.34	J	0.36	0.0091	mg/Kg	1	✱	8270E	Total/NA
4,4'-DDE	0.0044	J	0.0074	0.00087	mg/Kg	1	✱	8081B	Total/NA
Aluminum	6430		20.4	5.6	mg/Kg	1	✱	6020B	Total/NA
Antimony	0.46	J	1.0	0.15	mg/Kg	1	✱	6020B	Total/NA
Arsenic	9.9		1.0	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	67.8		2.0	0.15	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.35	J	0.41	0.058	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.25	J	1.0	0.12	mg/Kg	1	✱	6020B	Total/NA
Calcium	47400		102	18.1	mg/Kg	1	✱	6020B	Total/NA
Chromium	17.3		2.0	0.27	mg/Kg	1	✱	6020B	Total/NA
Cobalt	8.4		2.0	0.15	mg/Kg	1	✱	6020B	Total/NA
Copper	68.2		2.0	0.38	mg/Kg	1	✱	6020B	Total/NA
Iron	22100		61.3	20.6	mg/Kg	1	✱	6020B	Total/NA
Lead	77.4		0.61	0.20	mg/Kg	1	✱	6020B	Total/NA
Magnesium	5380		102	10.4	mg/Kg	1	✱	6020B	Total/NA
Manganese	244		4.1	0.41	mg/Kg	1	✱	6020B	Total/NA
Nickel	19.2		2.0	0.48	mg/Kg	1	✱	6020B	Total/NA
Potassium	764		102	12.4	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.22	J	1.3	0.13	mg/Kg	1	✱	6020B	Total/NA
Silver	0.14	J	1.0	0.091	mg/Kg	1	✱	6020B	Total/NA
Sodium	311		102	46.7	mg/Kg	1	✱	6020B	Total/NA
Thallium	0.055	J	0.41	0.042	mg/Kg	1	✱	6020B	Total/NA
Vanadium	29.9		2.0	0.21	mg/Kg	1	✱	6020B	Total/NA
Zinc	157		8.2	3.1	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.093		0.018	0.0084	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248693-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.037		0.012	0.012	mg/Kg	1	✱	8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-09 (0-0.5) (Continued)

Lab Sample ID: 460-248693-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	0.0010	J	0.0021	0.00055	mg/Kg	1	✱	8260D	Total/NA
1,1'-Biphenyl	0.038	J	0.37	0.0050	mg/Kg	1	✱	8270E	Total/NA
2-Methylnaphthalene	0.077	J	0.37	0.010	mg/Kg	1	✱	8270E	Total/NA
Acenaphthene	0.23	J	0.37	0.011	mg/Kg	1	✱	8270E	Total/NA
Acenaphthylene	0.25	J	0.37	0.0038	mg/Kg	1	✱	8270E	Total/NA
Anthracene	1.7		0.37	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	4.2		0.037	0.013	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	3.7		0.037	0.0099	mg/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	4.3		0.037	0.0097	mg/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	1.5		0.37	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	2.2		0.037	0.0073	mg/Kg	1	✱	8270E	Total/NA
Bis(2-ethylhexyl) phthalate	0.072	J	0.37	0.020	mg/Kg	1	✱	8270E	Total/NA
Carbazole	0.15	J	0.37	0.014	mg/Kg	1	✱	8270E	Total/NA
Chrysene	3.9		0.37	0.0063	mg/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	0.50		0.037	0.016	mg/Kg	1	✱	8270E	Total/NA
Dibenzofuran	0.20	J	0.37	0.0052	mg/Kg	1	✱	8270E	Total/NA
Fluoranthene	8.3		0.37	0.013	mg/Kg	1	✱	8270E	Total/NA
Fluorene	0.33	J	0.37	0.0051	mg/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	1.9		0.037	0.015	mg/Kg	1	✱	8270E	Total/NA
Naphthalene	0.17	J	0.37	0.0064	mg/Kg	1	✱	8270E	Total/NA
Phenanthrene	4.8		0.37	0.0066	mg/Kg	1	✱	8270E	Total/NA
Pyrene	8.1		0.37	0.0093	mg/Kg	1	✱	8270E	Total/NA
Aluminum	5200		21.1	5.8	mg/Kg	1	✱	6020B	Total/NA
Antimony	1.2		1.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Arsenic	11.0		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	145		2.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.55		0.42	0.060	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.65	J	1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Calcium	29500		105	18.7	mg/Kg	1	✱	6020B	Total/NA
Chromium	19.7		2.1	0.28	mg/Kg	1	✱	6020B	Total/NA
Cobalt	7.2		2.1	0.16	mg/Kg	1	✱	6020B	Total/NA
Copper	179		2.1	0.39	mg/Kg	1	✱	6020B	Total/NA
Iron	18300		63.2	21.3	mg/Kg	1	✱	6020B	Total/NA
Lead	682		0.63	0.21	mg/Kg	1	✱	6020B	Total/NA
Magnesium	6940		105	10.7	mg/Kg	1	✱	6020B	Total/NA
Manganese	220		4.2	0.42	mg/Kg	1	✱	6020B	Total/NA
Nickel	20.2		2.1	0.50	mg/Kg	1	✱	6020B	Total/NA
Potassium	785		105	12.8	mg/Kg	1	✱	6020B	Total/NA
Selenium	1.0	J	1.3	0.13	mg/Kg	1	✱	6020B	Total/NA
Silver	0.46	J	1.1	0.094	mg/Kg	1	✱	6020B	Total/NA
Sodium	952		105	48.2	mg/Kg	1	✱	6020B	Total/NA
Thallium	0.10	J	0.42	0.043	mg/Kg	1	✱	6020B	Total/NA
Vanadium	27.2		2.1	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	511		8.4	3.2	mg/Kg	1	✱	6020B	Total/NA
Mercury	1.0		0.055	0.026	mg/Kg	3	✱	7471B	Total/NA

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248693-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.034	J	0.36	0.0047	mg/Kg	1	✱	8270E	Total/NA
2-Methylnaphthalene	0.25	J	0.36	0.010	mg/Kg	1	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-12 (0-0.5) (Continued)

Lab Sample ID: 460-248693-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.18	J	0.36	0.010	mg/Kg	1	✖	8270E	Total/NA
Acenaphthylene	0.014	J	0.36	0.0036	mg/Kg	1	✖	8270E	Total/NA
Anthracene	0.18	J	0.36	0.011	mg/Kg	1	✖	8270E	Total/NA
Benzo[a]anthracene	0.41		0.036	0.012	mg/Kg	1	✖	8270E	Total/NA
Benzo[a]pyrene	0.37		0.036	0.0095	mg/Kg	1	✖	8270E	Total/NA
Benzo[b]fluoranthene	0.55		0.036	0.0092	mg/Kg	1	✖	8270E	Total/NA
Benzo[g,h,i]perylene	0.21	J	0.36	0.011	mg/Kg	1	✖	8270E	Total/NA
Benzo[k]fluoranthene	0.25		0.036	0.0070	mg/Kg	1	✖	8270E	Total/NA
Carbazole	0.085	J	0.36	0.014	mg/Kg	1	✖	8270E	Total/NA
Chrysene	0.40		0.36	0.0060	mg/Kg	1	✖	8270E	Total/NA
Dibenz(a,h)anthracene	0.046		0.036	0.015	mg/Kg	1	✖	8270E	Total/NA
Dibenzofuran	0.12	J	0.36	0.0050	mg/Kg	1	✖	8270E	Total/NA
Fluoranthene	0.84		0.36	0.012	mg/Kg	1	✖	8270E	Total/NA
Fluorene	0.13	J	0.36	0.0049	mg/Kg	1	✖	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.30		0.036	0.014	mg/Kg	1	✖	8270E	Total/NA
Naphthalene	0.097	J	0.36	0.0062	mg/Kg	1	✖	8270E	Total/NA
Phenanthrene	0.68		0.36	0.0063	mg/Kg	1	✖	8270E	Total/NA
Pyrene	0.70		0.36	0.0089	mg/Kg	1	✖	8270E	Total/NA
Aluminum	3330		20.6	5.7	mg/Kg	1	✖	6020B	Total/NA
Antimony	0.49	J	1.0	0.15	mg/Kg	1	✖	6020B	Total/NA
Arsenic	4.3		1.0	0.11	mg/Kg	1	✖	6020B	Total/NA
Barium	41.5		2.1	0.15	mg/Kg	1	✖	6020B	Total/NA
Beryllium	0.25	J	0.41	0.059	mg/Kg	1	✖	6020B	Total/NA
Cadmium	0.28	J	1.0	0.12	mg/Kg	1	✖	6020B	Total/NA
Calcium	29200		103	18.2	mg/Kg	1	✖	6020B	Total/NA
Chromium	10.2		2.1	0.27	mg/Kg	1	✖	6020B	Total/NA
Cobalt	3.4		2.1	0.15	mg/Kg	1	✖	6020B	Total/NA
Copper	54.0		2.1	0.38	mg/Kg	1	✖	6020B	Total/NA
Iron	11100		61.8	20.8	mg/Kg	1	✖	6020B	Total/NA
Lead	119		0.62	0.21	mg/Kg	1	✖	6020B	Total/NA
Magnesium	9340		103	10.5	mg/Kg	1	✖	6020B	Total/NA
Manganese	169		4.1	0.41	mg/Kg	1	✖	6020B	Total/NA
Nickel	11.1		2.1	0.48	mg/Kg	1	✖	6020B	Total/NA
Potassium	490		103	12.5	mg/Kg	1	✖	6020B	Total/NA
Selenium	0.21	J	1.3	0.13	mg/Kg	1	✖	6020B	Total/NA
Silver	0.11	J	1.0	0.092	mg/Kg	1	✖	6020B	Total/NA
Sodium	98.8	J	103	47.0	mg/Kg	1	✖	6020B	Total/NA
Thallium	0.045	J	0.41	0.042	mg/Kg	1	✖	6020B	Total/NA
Vanadium	28.8		2.1	0.21	mg/Kg	1	✖	6020B	Total/NA
Zinc	107		8.2	3.1	mg/Kg	1	✖	6020B	Total/NA
Mercury	0.24		0.017	0.0081	mg/Kg	1	✖	7471B	Total/NA

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248693-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.0073	J	0.37	0.0049	mg/Kg	1	✖	8270E	Total/NA
2-Methylnaphthalene	0.024	J	0.37	0.010	mg/Kg	1	✖	8270E	Total/NA
Acenaphthene	0.032	J	0.37	0.011	mg/Kg	1	✖	8270E	Total/NA
Acenaphthylene	0.022	J	0.37	0.0037	mg/Kg	1	✖	8270E	Total/NA
Anthracene	0.079	J	0.37	0.011	mg/Kg	1	✖	8270E	Total/NA
Benzo[a]anthracene	0.33		0.037	0.013	mg/Kg	1	✖	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-13 (0-0.5) (Continued)

Lab Sample ID: 460-248693-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.32		0.037	0.0099	mg/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	0.47		0.037	0.0096	mg/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	0.18	J	0.37	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	0.17		0.037	0.0073	mg/Kg	1	✱	8270E	Total/NA
Bis(2-ethylhexyl) phthalate	0.042	J	0.37	0.020	mg/Kg	1	✱	8270E	Total/NA
Butyl benzyl phthalate	0.021	J	0.37	0.017	mg/Kg	1	✱	8270E	Total/NA
Carbazole	0.033	J	0.37	0.014	mg/Kg	1	✱	8270E	Total/NA
Chrysene	0.34	J	0.37	0.0063	mg/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	0.035	J	0.037	0.016	mg/Kg	1	✱	8270E	Total/NA
Dibenzofuran	0.031	J	0.37	0.0052	mg/Kg	1	✱	8270E	Total/NA
Di-n-butyl phthalate	0.015	J	0.37	0.014	mg/Kg	1	✱	8270E	Total/NA
Fluoranthene	0.63		0.37	0.013	mg/Kg	1	✱	8270E	Total/NA
Fluorene	0.033	J	0.37	0.0050	mg/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.26		0.037	0.014	mg/Kg	1	✱	8270E	Total/NA
Naphthalene	0.041	J	0.37	0.0064	mg/Kg	1	✱	8270E	Total/NA
Phenanthrene	0.37		0.37	0.0065	mg/Kg	1	✱	8270E	Total/NA
Pyrene	0.56		0.37	0.0092	mg/Kg	1	✱	8270E	Total/NA
4,4'-DDE	0.0023	J	0.0075	0.00089	mg/Kg	1	✱	8081B	Total/NA
Aluminum	5060		20.9	5.8	mg/Kg	1	✱	6020B	Total/NA
Antimony	0.43	J	1.0	0.15	mg/Kg	1	✱	6020B	Total/NA
Arsenic	5.1		1.0	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	69.3		2.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.34	J	0.42	0.060	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.26	J	1.0	0.12	mg/Kg	1	✱	6020B	Total/NA
Calcium	34800		105	18.5	mg/Kg	1	✱	6020B	Total/NA
Chromium	12.8		2.1	0.28	mg/Kg	1	✱	6020B	Total/NA
Cobalt	4.6		2.1	0.16	mg/Kg	1	✱	6020B	Total/NA
Copper	132		2.1	0.39	mg/Kg	1	✱	6020B	Total/NA
Iron	9740		62.8	21.2	mg/Kg	1	✱	6020B	Total/NA
Lead	99.7		0.63	0.21	mg/Kg	1	✱	6020B	Total/NA
Magnesium	5990		105	10.7	mg/Kg	1	✱	6020B	Total/NA
Manganese	153		4.2	0.42	mg/Kg	1	✱	6020B	Total/NA
Nickel	11.8		2.1	0.49	mg/Kg	1	✱	6020B	Total/NA
Potassium	656		105	12.7	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.20	J	1.3	0.13	mg/Kg	1	✱	6020B	Total/NA
Silver	0.15	J	1.0	0.093	mg/Kg	1	✱	6020B	Total/NA
Sodium	134		105	47.9	mg/Kg	1	✱	6020B	Total/NA
Thallium	0.060	J	0.42	0.043	mg/Kg	1	✱	6020B	Total/NA
Vanadium	21.9		2.1	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	105		8.4	3.2	mg/Kg	1	✱	6020B	Total/NA
Mercury	1.4		0.053	0.025	mg/Kg	3	✱	7471B	Total/NA

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248693-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.0093	J	0.36	0.0048	mg/Kg	1	✱	8270E	Total/NA
2-Methylnaphthalene	0.037	J	0.36	0.010	mg/Kg	1	✱	8270E	Total/NA
Acenaphthene	0.033	J	0.36	0.010	mg/Kg	1	✱	8270E	Total/NA
Acenaphthylene	0.027	J	0.36	0.0037	mg/Kg	1	✱	8270E	Total/NA
Anthracene	0.099	J	0.36	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	0.34		0.036	0.013	mg/Kg	1	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-10 (0-0.5) (Continued)

Lab Sample ID: 460-248693-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.32		0.036	0.0097	mg/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	0.47		0.036	0.0094	mg/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	0.16	J	0.36	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	0.19		0.036	0.0071	mg/Kg	1	✱	8270E	Total/NA
Carbazole	0.033	J	0.36	0.014	mg/Kg	1	✱	8270E	Total/NA
Chrysene	0.34	J	0.36	0.0061	mg/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	0.032	J	0.036	0.016	mg/Kg	1	✱	8270E	Total/NA
Dibenzofuran	0.036	J	0.36	0.0051	mg/Kg	1	✱	8270E	Total/NA
Fluoranthene	0.68		0.36	0.013	mg/Kg	1	✱	8270E	Total/NA
Fluorene	0.030	J	0.36	0.0049	mg/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.25		0.036	0.014	mg/Kg	1	✱	8270E	Total/NA
Naphthalene	0.047	J	0.36	0.0063	mg/Kg	1	✱	8270E	Total/NA
Phenanthrene	0.43		0.36	0.0064	mg/Kg	1	✱	8270E	Total/NA
Pyrene	0.63		0.36	0.0090	mg/Kg	1	✱	8270E	Total/NA
4,4'-DDE	0.0031	J	0.0074	0.00087	mg/Kg	1	✱	8081B	Total/NA
4,4'-DDT	0.0036	J p	0.0074	0.0014	mg/Kg	1	✱	8081B	Total/NA
Aroclor 1248	0.27		0.074	0.020	mg/Kg	1	✱	8082A	Total/NA
Polychlorinated biphenyls, Total	0.27		0.074	0.020	mg/Kg	1	✱	8082A	Total/NA
Aluminum	3970		20.7	5.7	mg/Kg	1	✱	6020B	Total/NA
Antimony	1.3		1.0	0.15	mg/Kg	1	✱	6020B	Total/NA
Arsenic	8.1		1.0	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	85.6		2.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.33	J	0.41	0.059	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.50	J	1.0	0.12	mg/Kg	1	✱	6020B	Total/NA
Calcium	26500		104	18.4	mg/Kg	1	✱	6020B	Total/NA
Chromium	16.6		2.1	0.28	mg/Kg	1	✱	6020B	Total/NA
Cobalt	5.1		2.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Copper	144		2.1	0.38	mg/Kg	1	✱	6020B	Total/NA
Iron	16500		62.2	21.0	mg/Kg	1	✱	6020B	Total/NA
Lead	241		0.62	0.21	mg/Kg	1	✱	6020B	Total/NA
Magnesium	10400		104	10.6	mg/Kg	1	✱	6020B	Total/NA
Manganese	188		4.1	0.42	mg/Kg	1	✱	6020B	Total/NA
Nickel	13.5		2.1	0.49	mg/Kg	1	✱	6020B	Total/NA
Potassium	604		104	12.6	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.83	J	1.3	0.13	mg/Kg	1	✱	6020B	Total/NA
Silver	0.27	J	1.0	0.092	mg/Kg	1	✱	6020B	Total/NA
Sodium	733		104	47.4	mg/Kg	1	✱	6020B	Total/NA
Thallium	0.10	J	0.41	0.043	mg/Kg	1	✱	6020B	Total/NA
Vanadium	22.5		2.1	0.21	mg/Kg	1	✱	6020B	Total/NA
Zinc	200		8.3	3.2	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.52		0.018	0.0085	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248693-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.0081	J	0.36	0.0047	mg/Kg	1	✱	8270E	Total/NA
2-Methylnaphthalene	0.048	J	0.36	0.010	mg/Kg	1	✱	8270E	Total/NA
Acenaphthene	0.020	J	0.36	0.010	mg/Kg	1	✱	8270E	Total/NA
Acenaphthylene	0.024	J	0.36	0.0036	mg/Kg	1	✱	8270E	Total/NA
Anthracene	0.052	J	0.36	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	0.31		0.036	0.012	mg/Kg	1	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-14 (0-0.5) (Continued)

Lab Sample ID: 460-248693-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.31		0.036	0.0095	mg/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	0.48		0.036	0.0092	mg/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	0.18	J	0.36	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	0.17		0.036	0.0070	mg/Kg	1	✱	8270E	Total/NA
Carbazole	0.022	J	0.36	0.014	mg/Kg	1	✱	8270E	Total/NA
Chrysene	0.32	J	0.36	0.0060	mg/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	0.052		0.036	0.015	mg/Kg	1	✱	8270E	Total/NA
Dibenzofuran	0.019	J	0.36	0.0050	mg/Kg	1	✱	8270E	Total/NA
Fluoranthene	0.51		0.36	0.012	mg/Kg	1	✱	8270E	Total/NA
Fluorene	0.015	J	0.36	0.0048	mg/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.26		0.036	0.014	mg/Kg	1	✱	8270E	Total/NA
Naphthalene	0.030	J	0.36	0.0062	mg/Kg	1	✱	8270E	Total/NA
Phenanthrene	0.26	J	0.36	0.0063	mg/Kg	1	✱	8270E	Total/NA
Pyrene	0.48		0.36	0.0089	mg/Kg	1	✱	8270E	Total/NA
Aluminum	4120		20.6	5.6	mg/Kg	1	✱	6020B	Total/NA
Antimony	0.54	J	1.0	0.15	mg/Kg	1	✱	6020B	Total/NA
Arsenic	6.1		1.0	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	58.0		2.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.31	J	0.41	0.059	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.37	J	1.0	0.12	mg/Kg	1	✱	6020B	Total/NA
Calcium	9720		103	18.2	mg/Kg	1	✱	6020B	Total/NA
Chromium	12.6		2.1	0.27	mg/Kg	1	✱	6020B	Total/NA
Cobalt	10.3		2.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Copper	81.8		2.1	0.38	mg/Kg	1	✱	6020B	Total/NA
Iron	12700		61.7	20.8	mg/Kg	1	✱	6020B	Total/NA
Lead	194		0.62	0.21	mg/Kg	1	✱	6020B	Total/NA
Magnesium	2810		103	10.5	mg/Kg	1	✱	6020B	Total/NA
Manganese	175		4.1	0.41	mg/Kg	1	✱	6020B	Total/NA
Nickel	13.0		2.1	0.48	mg/Kg	1	✱	6020B	Total/NA
Potassium	536		103	12.4	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.35	J	1.3	0.13	mg/Kg	1	✱	6020B	Total/NA
Silver	0.14	J	1.0	0.092	mg/Kg	1	✱	6020B	Total/NA
Sodium	596		103	47.0	mg/Kg	1	✱	6020B	Total/NA
Thallium	0.073	J	0.41	0.042	mg/Kg	1	✱	6020B	Total/NA
Vanadium	16.7		2.1	0.21	mg/Kg	1	✱	6020B	Total/NA
Zinc	200		8.2	3.1	mg/Kg	1	✱	6020B	Total/NA
Mercury	1.9		0.052	0.025	mg/Kg	3	✱	7471B	Total/NA

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248693-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.012		0.011	0.010	mg/Kg	1	✱	8260D	Total/NA
Toluene	0.00045	J	0.0018	0.00041	mg/Kg	1	✱	8260D	Total/NA
1,1'-Biphenyl	0.013	J	0.37	0.0049	mg/Kg	1	✱	8270E	Total/NA
2-Methylnaphthalene	0.046	J	0.37	0.010	mg/Kg	1	✱	8270E	Total/NA
Acenaphthene	0.079	J	0.37	0.011	mg/Kg	1	✱	8270E	Total/NA
Acenaphthylene	0.021	J	0.37	0.0037	mg/Kg	1	✱	8270E	Total/NA
Acetophenone	0.053	J	0.37	0.018	mg/Kg	1	✱	8270E	Total/NA
Anthracene	0.25	J	0.37	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	0.72		0.037	0.013	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	0.62		0.037	0.0099	mg/Kg	1	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-11 (0-0.5) (Continued)

Lab Sample ID: 460-248693-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.86		0.037	0.0096	mg/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	0.29	J	0.37	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	0.35		0.037	0.0073	mg/Kg	1	✱	8270E	Total/NA
Bis(2-ethylhexyl) phthalate	0.33	J	0.37	0.020	mg/Kg	1	✱	8270E	Total/NA
Butyl benzyl phthalate	0.018	J	0.37	0.017	mg/Kg	1	✱	8270E	Total/NA
Carbazole	0.073	J	0.37	0.014	mg/Kg	1	✱	8270E	Total/NA
Chrysene	0.66		0.37	0.0063	mg/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	0.082		0.037	0.016	mg/Kg	1	✱	8270E	Total/NA
Dibenzofuran	0.056	J	0.37	0.0052	mg/Kg	1	✱	8270E	Total/NA
Di-n-butyl phthalate	3.4		0.37	0.014	mg/Kg	1	✱	8270E	Total/NA
Fluoranthene	1.4		0.37	0.013	mg/Kg	1	✱	8270E	Total/NA
Fluorene	0.082	J	0.37	0.0050	mg/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.45		0.037	0.015	mg/Kg	1	✱	8270E	Total/NA
Naphthalene	0.054	J	0.37	0.0064	mg/Kg	1	✱	8270E	Total/NA
Phenanthrene	0.87		0.37	0.0065	mg/Kg	1	✱	8270E	Total/NA
Pyrene	1.2		0.37	0.0093	mg/Kg	1	✱	8270E	Total/NA
Aluminum	8700		21.6	5.9	mg/Kg	1	✱	6020B	Total/NA
Antimony	0.34	J	1.1	0.16	mg/Kg	1	✱	6020B	Total/NA
Arsenic	4.5		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	123		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.34	J	0.43	0.062	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.27	J	1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Calcium	57500		1080	191	mg/Kg	10	✱	6020B	Total/NA
Chromium	33.9		2.2	0.29	mg/Kg	1	✱	6020B	Total/NA
Cobalt	6.3		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Copper	39.5		2.2	0.40	mg/Kg	1	✱	6020B	Total/NA
Iron	16500		64.9	21.9	mg/Kg	1	✱	6020B	Total/NA
Lead	56.5		0.65	0.22	mg/Kg	1	✱	6020B	Total/NA
Magnesium	8730		108	11.0	mg/Kg	1	✱	6020B	Total/NA
Manganese	245		4.3	0.44	mg/Kg	1	✱	6020B	Total/NA
Nickel	16.4		2.2	0.51	mg/Kg	1	✱	6020B	Total/NA
Potassium	3300		108	13.1	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.21	J	1.4	0.14	mg/Kg	1	✱	6020B	Total/NA
Sodium	147		108	49.4	mg/Kg	1	✱	6020B	Total/NA
Thallium	0.21	J	0.43	0.044	mg/Kg	1	✱	6020B	Total/NA
Vanadium	33.5		2.2	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	100		8.7	3.3	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.13		0.019	0.0087	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248693-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.0023	J	0.0033	0.0019	mg/Kg	1	✱	8260D	Total/NA
1,1'-Biphenyl	0.013	J	0.36	0.0047	mg/Kg	1	✱	8270E	Total/NA
2-Methylnaphthalene	0.045	J	0.36	0.010	mg/Kg	1	✱	8270E	Total/NA
Acenaphthene	0.069	J	0.36	0.010	mg/Kg	1	✱	8270E	Total/NA
Acenaphthylene	0.027	J	0.36	0.0036	mg/Kg	1	✱	8270E	Total/NA
Acetophenone	0.028	J	0.36	0.018	mg/Kg	1	✱	8270E	Total/NA
Anthracene	0.19	J	0.36	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	0.66		0.036	0.012	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	0.66		0.036	0.0095	mg/Kg	1	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-15 (0-0.5) (Continued)

Lab Sample ID: 460-248693-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.88		0.036	0.0092	mg/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	0.34	J	0.36	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	0.38		0.036	0.0070	mg/Kg	1	✱	8270E	Total/NA
Bis(2-ethylhexyl) phthalate	0.036	J	0.36	0.019	mg/Kg	1	✱	8270E	Total/NA
Carbazole	0.058	J	0.36	0.014	mg/Kg	1	✱	8270E	Total/NA
Chrysene	0.61		0.36	0.0060	mg/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	0.068		0.036	0.015	mg/Kg	1	✱	8270E	Total/NA
Dibenzofuran	0.045	J	0.36	0.0050	mg/Kg	1	✱	8270E	Total/NA
Fluoranthene	1.3		0.36	0.012	mg/Kg	1	✱	8270E	Total/NA
Fluorene	0.060	J	0.36	0.0048	mg/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.55		0.036	0.014	mg/Kg	1	✱	8270E	Total/NA
Naphthalene	0.058	J	0.36	0.0062	mg/Kg	1	✱	8270E	Total/NA
Phenanthrene	0.77		0.36	0.0063	mg/Kg	1	✱	8270E	Total/NA
Pyrene	1.2		0.36	0.0089	mg/Kg	1	✱	8270E	Total/NA
Aluminum	4480		20.2	5.5	mg/Kg	1	✱	6020B	Total/NA
Antimony	0.66	J	1.0	0.15	mg/Kg	1	✱	6020B	Total/NA
Arsenic	6.5		1.0	0.10	mg/Kg	1	✱	6020B	Total/NA
Barium	63.7		2.0	0.15	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.28	J	0.40	0.057	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.42	J	1.0	0.11	mg/Kg	1	✱	6020B	Total/NA
Calcium	35000		101	17.9	mg/Kg	1	✱	6020B	Total/NA
Chromium	11.1		2.0	0.27	mg/Kg	1	✱	6020B	Total/NA
Cobalt	5.6		2.0	0.15	mg/Kg	1	✱	6020B	Total/NA
Copper	85.9		2.0	0.37	mg/Kg	1	✱	6020B	Total/NA
Iron	14700		60.5	20.4	mg/Kg	1	✱	6020B	Total/NA
Lead	159		0.61	0.20	mg/Kg	1	✱	6020B	Total/NA
Magnesium	12400		101	10.3	mg/Kg	1	✱	6020B	Total/NA
Manganese	205		4.0	0.41	mg/Kg	1	✱	6020B	Total/NA
Nickel	12.6		2.0	0.47	mg/Kg	1	✱	6020B	Total/NA
Potassium	719		101	12.2	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.40	J	1.3	0.13	mg/Kg	1	✱	6020B	Total/NA
Silver	0.17	J	1.0	0.090	mg/Kg	1	✱	6020B	Total/NA
Sodium	695		101	46.1	mg/Kg	1	✱	6020B	Total/NA
Thallium	0.085	J	0.40	0.041	mg/Kg	1	✱	6020B	Total/NA
Vanadium	26.7		2.0	0.21	mg/Kg	1	✱	6020B	Total/NA
Zinc	161		8.1	3.1	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.49		0.017	0.0081	mg/Kg	1	✱	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248693-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 96.9

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0018	U	0.0018	0.00042	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
1,1,2,2-Tetrachloroethane	0.0018	U	0.0018	0.00039	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0018	U	0.0018	0.00054	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
1,1,2-Trichloroethane	0.0018	U	0.0018	0.00032	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
1,1-Dichloroethane	0.0018	U	0.0018	0.00037	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
1,1-Dichloroethene	0.0018	U	0.0018	0.00041	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
1,2,3-Trichlorobenzene	0.0018	U	0.0018	0.00033	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
1,2,4-Trichlorobenzene	0.0018	U	0.0018	0.00065	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
1,2-Dibromo-3-Chloropropane	0.0018	U	0.0018	0.00083	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
1,2-Dichlorobenzene	0.0018	U	0.0018	0.00065	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
1,2-Dichloroethane	0.0018	U	0.0018	0.00053	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
1,2-Dichloropropane	0.0018	U	0.0018	0.00076	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
1,3-Dichlorobenzene	0.0018	U	0.0018	0.00066	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
1,4-Dichlorobenzene	0.0018	U	0.0018	0.00041	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
2-Butanone (MEK)	0.0090	U	0.0090	0.00066	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
2-Hexanone	0.0090	U	0.0090	0.0031	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
4-Methyl-2-pentanone (MIBK)	0.0090	U	0.0090	0.0028	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Acetone	0.011	U	0.011	0.010	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Benzene	0.0018	U	0.0018	0.00047	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Bromoform	0.0018	U	0.0018	0.00077	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Bromomethane	0.0036	U	0.0036	0.0018	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Carbon disulfide	0.0018	U	0.0018	0.00048	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Carbon tetrachloride	0.0018	U	0.0018	0.00070	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Chlorobenzene	0.0018	U	0.0018	0.00032	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Chlorobromomethane	0.0018	U	0.0018	0.00051	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Chlorodibromomethane	0.0018	U	0.0018	0.00035	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Chloroethane	0.0018	U	0.0018	0.00094	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Chloroform	0.0018	U	0.0018	0.0018	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Chloromethane	0.0018	U	0.0018	0.00078	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
cis-1,2-Dichloroethene	0.0018	U	0.0018	0.00065	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
cis-1,3-Dichloropropene	0.0018	U	0.0018	0.00049	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Cyclohexane	0.0018	U	0.0018	0.00040	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Dichlorobromomethane	0.0018	U	0.0018	0.00046	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Dichlorodifluoromethane	0.0018	U	0.0018	0.00061	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Ethylbenzene	0.0018	U	0.0018	0.00036	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Ethylene Dibromide	0.0018	U	0.0018	0.00032	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Isopropylbenzene	0.0018	U	0.0018	0.00051	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Methyl acetate	0.0090	U	0.0090	0.0078	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Methyl tert-butyl ether	0.0018	U	0.0018	0.00092	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Methylcyclohexane	0.0018	U	0.0018	0.00090	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Methylene Chloride	0.0036	U	0.0036	0.0021	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
m-Xylene & p-Xylene	0.0018	U	0.0018	0.00031	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
o-Xylene	0.0018	U	0.0018	0.00035	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Styrene	0.0018	U	0.0018	0.00050	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Tetrachloroethene	0.0014	J	0.0018	0.00055	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Toluene	0.0018	U	0.0018	0.00042	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
trans-1,2-Dichloroethene	0.0018	U	0.0018	0.00044	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
trans-1,3-Dichloropropene	0.0018	U	0.0018	0.00048	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Trichloroethene	0.0012	J	0.0018	0.00058	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248693-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 96.9

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.0018	U	0.0018	0.00073	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Vinyl chloride	0.0018	U	0.0018	0.00099	mg/Kg	☆	12/09/21 17:47	12/11/21 23:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		77 - 145				12/09/21 17:47	12/11/21 23:22	1
4-Bromofluorobenzene	107		70 - 139				12/09/21 17:47	12/11/21 23:22	1
Dibromofluoromethane (Surr)	108		48 - 150				12/09/21 17:47	12/11/21 23:22	1
Toluene-d8 (Surr)	102		80 - 120				12/09/21 17:47	12/11/21 23:22	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.34	U	0.34	0.0045	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
1,2,4,5-Tetrachlorobenzene	0.34	U	0.34	0.011	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
1,4-Dioxane	0.034	U *	0.034	0.030	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
2,2'-oxybis[1-chloropropane]	0.34	U	0.34	0.0062	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
2,3,4,6-Tetrachlorophenol	0.34	U	0.34	0.023	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
2,4,5-Trichlorophenol	0.34	U	0.34	0.035	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
2,4,6-Trichlorophenol	0.14	U	0.14	0.044	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
2,4-Dichlorophenol	0.14	U	0.14	0.022	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
2,4-Dimethylphenol	0.34	U	0.34	0.015	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
2,4-Dinitrophenol	0.27	U	0.27	0.17	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
2,4-Dinitrotoluene	0.069	U	0.069	0.037	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
2,6-Dinitrotoluene	0.069	U	0.069	0.025	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
2-Chloronaphthalene	0.34	U	0.34	0.016	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
2-Chlorophenol	0.34	U	0.34	0.012	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
2-Methylnaphthalene	0.018	J	0.34	0.0095	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
2-Methylphenol	0.34	U	0.34	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
2-Nitroaniline	0.34	U	0.34	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
2-Nitrophenol	0.34	U	0.34	0.034	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
3,3'-Dichlorobenzidine	0.14	U	0.14	0.052	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
3-Nitroaniline	0.34	U	0.34	0.038	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
4,6-Dinitro-2-methylphenol	0.27	U	0.27	0.14	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
4-Bromophenyl phenyl ether	0.34	U	0.34	0.014	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
4-Chloro-3-methylphenol	0.34	U	0.34	0.019	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
4-Chloroaniline	0.34	U	0.34	0.061	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
4-Chlorophenyl phenyl ether	0.34	U	0.34	0.012	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
4-Methylphenol	0.34	U	0.34	0.021	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
4-Nitroaniline	0.34	U	0.34	0.039	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
4-Nitrophenol	0.69	U	0.69	0.056	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Acenaphthene	0.014	J	0.34	0.0097	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Acenaphthylene	0.018	J	0.34	0.0034	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Acetophenone	0.34	U	0.34	0.017	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Anthracene	0.041	J	0.34	0.010	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Atrazine	0.14	U	0.14	0.020	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Benzaldehyde	0.34	U	0.34	0.056	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Benzo[a]anthracene	0.16		0.034	0.012	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Benzo[a]pyrene	0.14		0.034	0.0091	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Benzo[b]fluoranthene	0.23		0.034	0.0088	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Benzo[g,h,i]perylene	0.094	J	0.34	0.010	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Benzo[k]fluoranthene	0.092		0.034	0.0067	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248693-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 96.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.34	U	0.34	0.027	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Bis(2-chloroethyl)ether	0.034	U	0.034	0.012	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Bis(2-ethylhexyl) phthalate	0.34	U	0.34	0.018	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Butyl benzyl phthalate	0.34	U	0.34	0.016	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Caprolactam	0.34	U	0.34	0.053	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Carbazole	0.020	J	0.34	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Chrysene	0.16	J	0.34	0.0058	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Dibenz(a,h)anthracene	0.022	J	0.034	0.015	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Dibenzofuran	0.017	J	0.34	0.0048	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Diethyl phthalate	0.34	U	0.34	0.0049	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Dimethyl phthalate	0.34	U	0.34	0.078	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Di-n-butyl phthalate	0.34	U	0.34	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Di-n-octyl phthalate	0.34	U	0.34	0.018	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Fluoranthene	0.30	J	0.34	0.012	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Fluorene	0.014	J	0.34	0.0046	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Hexachlorobenzene	0.034	U	0.034	0.016	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Hexachlorobutadiene	0.069	U	0.069	0.0073	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Hexachlorocyclopentadiene	0.34	U	0.34	0.030	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Hexachloroethane	0.034	U	0.034	0.012	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Indeno[1,2,3-cd]pyrene	0.14	J	0.034	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Isophorone	0.14	U	0.14	0.099	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Naphthalene	0.021	J	0.34	0.0059	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Nitrobenzene	0.034	U	0.034	0.0082	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
N-Nitrosodi-n-propylamine	0.034	U	0.034	0.025	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
N-Nitrosodiphenylamine	0.34	U	0.34	0.028	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Pentachlorophenol	0.27	U	0.27	0.070	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Phenanthrene	0.18	J	0.34	0.0060	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Phenol	0.34	U	0.34	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1
Pyrene	0.26	J	0.34	0.0085	mg/Kg	☆	12/10/21 10:04	12/11/21 08:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	72		10 - 123	12/10/21 10:04	12/11/21 08:11	1
2-Fluorobiphenyl	64		14 - 103	12/10/21 10:04	12/11/21 08:11	1
2-Fluorophenol (Surr)	60		10 - 105	12/10/21 10:04	12/11/21 08:11	1
Nitrobenzene-d5 (Surr)	60		11 - 104	12/10/21 10:04	12/11/21 08:11	1
Phenol-d5 (Surr)	61		15 - 100	12/10/21 10:04	12/11/21 08:11	1
Terphenyl-d14 (Surr)	69		12 - 126	12/10/21 10:04	12/11/21 08:11	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0069	U	0.0069	0.0012	mg/Kg	☆	12/10/21 17:51	12/12/21 22:02	1
4,4'-DDE	0.0069	U	0.0069	0.00082	mg/Kg	☆	12/10/21 17:51	12/12/21 22:02	1
4,4'-DDT	0.0028	J	0.0069	0.0013	mg/Kg	☆	12/10/21 17:51	12/12/21 22:02	1
Aldrin	0.0069	U	0.0069	0.0010	mg/Kg	☆	12/10/21 17:51	12/12/21 22:02	1
alpha-BHC	0.0021	U	0.0021	0.00070	mg/Kg	☆	12/10/21 17:51	12/12/21 22:02	1
beta-BHC	0.0021	U	0.0021	0.00077	mg/Kg	☆	12/10/21 17:51	12/12/21 22:02	1
Chlordane (technical)	0.069	U	0.069	0.017	mg/Kg	☆	12/10/21 17:51	12/12/21 22:02	1
delta-BHC	0.0021	U	0.0021	0.00042	mg/Kg	☆	12/10/21 17:51	12/12/21 22:02	1
Dieldrin	0.0021	U	0.0021	0.00090	mg/Kg	☆	12/10/21 17:51	12/12/21 22:02	1
Endosulfan I	0.0069	U	0.0069	0.0011	mg/Kg	☆	12/10/21 17:51	12/12/21 22:02	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248693-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 96.9

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	0.0069	U	0.0069	0.0018	mg/Kg	✱	12/10/21 17:51	12/12/21 22:02	1
Endosulfan sulfate	0.0069	U	0.0069	0.00087	mg/Kg	✱	12/10/21 17:51	12/12/21 22:02	1
Endrin	0.0069	U	0.0069	0.00099	mg/Kg	✱	12/10/21 17:51	12/12/21 22:02	1
Endrin aldehyde	0.0069	U	0.0069	0.0016	mg/Kg	✱	12/10/21 17:51	12/12/21 22:02	1
Endrin ketone	0.0069	U	0.0069	0.0013	mg/Kg	✱	12/10/21 17:51	12/12/21 22:02	1
gamma-BHC (Lindane)	0.0021	U	0.0021	0.00064	mg/Kg	✱	12/10/21 17:51	12/12/21 22:02	1
Heptachlor	0.0069	U	0.0069	0.00082	mg/Kg	✱	12/10/21 17:51	12/12/21 22:02	1
Heptachlor epoxide	0.0069	U	0.0069	0.0010	mg/Kg	✱	12/10/21 17:51	12/12/21 22:02	1
Methoxychlor	0.0069	U	0.0069	0.0016	mg/Kg	✱	12/10/21 17:51	12/12/21 22:02	1
Toxaphene	0.069	U	0.069	0.025	mg/Kg	✱	12/10/21 17:51	12/12/21 22:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	94		10 - 150	12/10/21 17:51	12/12/21 22:02	1
DCB Decachlorobiphenyl	87		10 - 150	12/10/21 17:51	12/12/21 22:02	1
Tetrachloro-m-xylene	91		10 - 133	12/10/21 17:51	12/12/21 22:02	1
Tetrachloro-m-xylene	83		10 - 133	12/10/21 17:51	12/12/21 22:02	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.069	U	0.069	0.018	mg/Kg	✱	12/10/21 17:42	12/12/21 22:04	1
Aroclor 1221	0.069	U	0.069	0.018	mg/Kg	✱	12/10/21 17:42	12/12/21 22:04	1
Aroclor 1232	0.069	U	0.069	0.018	mg/Kg	✱	12/10/21 17:42	12/12/21 22:04	1
Aroclor 1242	0.069	U	0.069	0.018	mg/Kg	✱	12/10/21 17:42	12/12/21 22:04	1
Aroclor 1248	0.069	U	0.069	0.018	mg/Kg	✱	12/10/21 17:42	12/12/21 22:04	1
Aroclor 1254	0.069	U	0.069	0.018	mg/Kg	✱	12/10/21 17:42	12/12/21 22:04	1
Aroclor 1260	0.069	U	0.069	0.018	mg/Kg	✱	12/10/21 17:42	12/12/21 22:04	1
Aroclor-1262	0.069	U	0.069	0.018	mg/Kg	✱	12/10/21 17:42	12/12/21 22:04	1
Aroclor 1268	0.069	U	0.069	0.018	mg/Kg	✱	12/10/21 17:42	12/12/21 22:04	1
Polychlorinated biphenyls, Total	0.069	U	0.069	0.018	mg/Kg	✱	12/10/21 17:42	12/12/21 22:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		37 - 150	12/10/21 17:42	12/12/21 22:04	1
DCB Decachlorobiphenyl	92		37 - 150	12/10/21 17:42	12/12/21 22:04	1
Tetrachloro-m-xylene	55		54 - 150	12/10/21 17:42	12/12/21 22:04	1
Tetrachloro-m-xylene	90		54 - 150	12/10/21 17:42	12/12/21 22:04	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.034	U	0.034	0.0073	mg/Kg	✱	12/10/21 00:41	12/10/21 18:15	1
2,4-D	0.034	U	0.034	0.012	mg/Kg	✱	12/10/21 00:41	12/10/21 18:15	1
Silvex (2,4,5-TP)	0.034	U	0.034	0.0036	mg/Kg	✱	12/10/21 00:41	12/10/21 18:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	124		65 - 150	12/10/21 00:41	12/10/21 18:15	1
2,4-Dichlorophenylacetic acid	132		65 - 150	12/10/21 00:41	12/10/21 18:15	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2250		19.5	5.3	mg/Kg	✱	12/15/21 18:44	12/16/21 17:47	1
Antimony	0.56	J	0.97	0.14	mg/Kg	✱	12/15/21 18:44	12/16/21 17:47	1
Arsenic	4.7		0.97	0.10	mg/Kg	✱	12/15/21 18:44	12/16/21 17:47	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248693-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 96.9

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	34.6		1.9	0.14	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Beryllium	0.25	J	0.39	0.055	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Cadmium	0.18	J	0.97	0.11	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Calcium	8530		97.4	17.2	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Chromium	11.1		1.9	0.26	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Cobalt	2.9		1.9	0.14	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Copper	40.3		1.9	0.36	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Iron	9080		58.4	19.7	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Lead	66.3		0.58	0.19	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Magnesium	1460		97.4	9.9	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Manganese	105		3.9	0.39	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Nickel	6.5		1.9	0.46	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Potassium	639		97.4	11.8	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Selenium	0.19	J	1.2	0.12	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Silver	0.97	U	0.97	0.087	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Sodium	135		97.4	44.5	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Thallium	0.39	U	0.39	0.040	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Vanadium	12.8		1.9	0.20	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1
Zinc	59.7		7.8	3.0	mg/Kg	☆	12/15/21 18:44	12/16/21 17:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.081		0.016	0.0076	mg/Kg	☆	12/13/21 03:29	12/13/21 07:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.1		1.0	1.0	%			12/13/21 01:52	1
Percent Solids	96.9		1.0	1.0	%			12/13/21 01:52	1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 91.4

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0016	U	0.0016	0.00037	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
1,1,2,2-Tetrachloroethane	0.0016	U	0.0016	0.00034	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0016	U	0.0016	0.00047	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
1,1,2-Trichloroethane	0.0016	U	0.0016	0.00028	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
1,1-Dichloroethane	0.0016	U	0.0016	0.00032	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
1,1-Dichloroethene	0.0016	U	0.0016	0.00035	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
1,2,3-Trichlorobenzene	0.0016	U	0.0016	0.00028	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
1,2,4-Trichlorobenzene	0.0016	U	0.0016	0.00056	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
1,2-Dibromo-3-Chloropropane	0.0016	U	0.0016	0.00072	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
1,2-Dichlorobenzene	0.0016	U	0.0016	0.00057	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
1,2-Dichloroethane	0.0016	U	0.0016	0.00047	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
1,2-Dichloropropane	0.0016	U	0.0016	0.00067	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
1,3-Dichlorobenzene	0.0016	U	0.0016	0.00057	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
1,4-Dichlorobenzene	0.0016	U	0.0016	0.00035	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
2-Butanone (MEK)	0.0044	J	0.0079	0.00058	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 91.4

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	0.0079	U	0.0079	0.0027	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
4-Methyl-2-pentanone (MIBK)	0.0079	U	0.0079	0.0024	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Acetone	0.029		0.0094	0.0090	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Benzene	0.0016	U	0.0016	0.00041	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Bromoform	0.0016	U	0.0016	0.00067	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Bromomethane	0.0031	U	0.0031	0.0016	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Carbon disulfide	0.00053	J	0.0016	0.00042	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Carbon tetrachloride	0.0016	U	0.0016	0.00061	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Chlorobenzene	0.0016	U	0.0016	0.00028	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Chlorobromomethane	0.0016	U	0.0016	0.00044	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Chlorodibromomethane	0.0016	U	0.0016	0.00031	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Chloroethane	0.0016	U	0.0016	0.00082	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Chloroform	0.0016	U	0.0016	0.0015	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Chloromethane	0.0016	U	0.0016	0.00068	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
cis-1,2-Dichloroethene	0.0016	U	0.0016	0.00056	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
cis-1,3-Dichloropropene	0.0016	U	0.0016	0.00043	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Cyclohexane	0.0016	U	0.0016	0.00035	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Dichlorobromomethane	0.0016	U	0.0016	0.00040	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Dichlorodifluoromethane	0.0016	U	0.0016	0.00053	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Ethylbenzene	0.0016	U	0.0016	0.00031	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Ethylene Dibromide	0.0016	U	0.0016	0.00028	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Isopropylbenzene	0.0016	U	0.0016	0.00045	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Methyl acetate	0.0079	U	0.0079	0.0068	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Methyl tert-butyl ether	0.0016	U	0.0016	0.00081	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Methylcyclohexane	0.0016	U	0.0016	0.00078	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Methylene Chloride	0.0021	J	0.0031	0.0018	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
m-Xylene & p-Xylene	0.0016	U	0.0016	0.00027	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
o-Xylene	0.0016	U	0.0016	0.00031	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Styrene	0.0016	U	0.0016	0.00044	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Tetrachloroethene	0.0016	U	0.0016	0.00048	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Toluene	0.0016	U	0.0016	0.00037	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
trans-1,2-Dichloroethene	0.0016	U	0.0016	0.00039	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
trans-1,3-Dichloropropene	0.0016	U	0.0016	0.00042	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Trichloroethene	0.0016	U	0.0016	0.00050	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Trichlorofluoromethane	0.0016	U	0.0016	0.00064	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1
Vinyl chloride	0.0016	U	0.0016	0.00086	mg/Kg	☆	12/09/21 17:48	12/11/21 23:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		77 - 145	12/09/21 17:48	12/11/21 23:45	1
4-Bromofluorobenzene	105		70 - 139	12/09/21 17:48	12/11/21 23:45	1
Dibromofluoromethane (Surr)	107		48 - 150	12/09/21 17:48	12/11/21 23:45	1
Toluene-d8 (Surr)	102		80 - 120	12/09/21 17:48	12/11/21 23:45	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.027	J	0.36	0.0048	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
1,4-Dioxane	0.036	U *	0.036	0.032	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0066	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.025	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 91.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.36	U	0.36	0.037	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.046	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
2,4-Dichlorophenol	0.15	U	0.15	0.023	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
2,4-Dinitrotoluene	0.073	U	0.073	0.039	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
2,6-Dinitrotoluene	0.073	U	0.073	0.026	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
2-Methylnaphthalene	0.099	J	0.36	0.010	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
2-Methylphenol	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
2-Nitroaniline	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
2-Nitrophenol	0.36	U	0.36	0.036	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
3,3'-Dichlorobenzidine	0.15	U	0.15	0.055	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
3-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
4-Chloroaniline	0.36	U	0.36	0.064	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
4-Methylphenol	0.36	U	0.36	0.023	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
4-Nitroaniline	0.36	U	0.36	0.042	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
4-Nitrophenol	0.73	U	0.73	0.059	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Acenaphthene	0.14	J	0.36	0.010	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Acenaphthylene	0.047	J	0.36	0.0036	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Acetophenone	0.36	U	0.36	0.018	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Anthracene	0.21	J	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Atrazine	0.15	U	0.15	0.021	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Benzaldehyde	0.36	U	0.36	0.060	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Benzo[a]anthracene	0.57		0.036	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Benzo[a]pyrene	0.52		0.036	0.0096	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Benzo[b]fluoranthene	0.80		0.036	0.0094	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Benzo[g,h,i]perylene	0.24	J	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Benzo[k]fluoranthene	0.30		0.036	0.0071	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Bis(2-ethylhexyl) phthalate	0.076	J	0.36	0.019	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Butyl benzyl phthalate	0.36	U	0.36	0.017	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Caprolactam	0.36	U	0.36	0.056	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Carbazole	0.073	J	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Chrysene	0.56		0.36	0.0061	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Dibenz(a,h)anthracene	0.056		0.036	0.016	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Dibenzofuran	0.11	J	0.36	0.0051	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Diethyl phthalate	0.36	U	0.36	0.0052	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Dimethyl phthalate	0.36	U	0.36	0.082	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Di-n-butyl phthalate	0.014	J	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Di-n-octyl phthalate	0.36	U	0.36	0.019	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Fluoranthene	1.2		0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1
Fluorene	0.13	J	0.36	0.0049	mg/Kg	☆	12/10/21 10:04	12/11/21 08:28	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 91.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	✱	12/10/21 10:04	12/11/21 08:28	1
Hexachlorobutadiene	0.073	U	0.073	0.0077	mg/Kg	✱	12/10/21 10:04	12/11/21 08:28	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.032	mg/Kg	✱	12/10/21 10:04	12/11/21 08:28	1
Hexachloroethane	0.036	U	0.036	0.012	mg/Kg	✱	12/10/21 10:04	12/11/21 08:28	1
Indeno[1,2,3-cd]pyrene	0.38		0.036	0.014	mg/Kg	✱	12/10/21 10:04	12/11/21 08:28	1
Isophorone	0.15	U	0.15	0.10	mg/Kg	✱	12/10/21 10:04	12/11/21 08:28	1
Naphthalene	0.13	J	0.36	0.0063	mg/Kg	✱	12/10/21 10:04	12/11/21 08:28	1
Nitrobenzene	0.036	U	0.036	0.0087	mg/Kg	✱	12/10/21 10:04	12/11/21 08:28	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.026	mg/Kg	✱	12/10/21 10:04	12/11/21 08:28	1
N-Nitrosodiphenylamine	0.36	U	0.36	0.030	mg/Kg	✱	12/10/21 10:04	12/11/21 08:28	1
Pentachlorophenol	0.29	U	0.29	0.074	mg/Kg	✱	12/10/21 10:04	12/11/21 08:28	1
Phenanthrene	0.74		0.36	0.0064	mg/Kg	✱	12/10/21 10:04	12/11/21 08:28	1
Phenol	0.36	U	0.36	0.013	mg/Kg	✱	12/10/21 10:04	12/11/21 08:28	1
Pyrene	1.0		0.36	0.0090	mg/Kg	✱	12/10/21 10:04	12/11/21 08:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	46		10 - 123	12/10/21 10:04	12/11/21 08:28	1
2-Fluorobiphenyl	47		14 - 103	12/10/21 10:04	12/11/21 08:28	1
2-Fluorophenol (Surr)	47		10 - 105	12/10/21 10:04	12/11/21 08:28	1
Nitrobenzene-d5 (Surr)	47		11 - 104	12/10/21 10:04	12/11/21 08:28	1
Phenol-d5 (Surr)	46		15 - 100	12/10/21 10:04	12/11/21 08:28	1
Terphenyl-d14 (Surr)	46		12 - 126	12/10/21 10:04	12/11/21 08:28	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0098		0.0073	0.0012	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
4,4'-DDE	0.0059	J	0.0073	0.00086	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
4,4'-DDT	0.0034	J p	0.0073	0.0013	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
Aldrin	0.0073	U	0.0073	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
alpha-BHC	0.0022	U	0.0022	0.00074	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
beta-BHC	0.0022	U	0.0022	0.00082	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
Chlordane (technical)	0.073	U	0.073	0.018	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
delta-BHC	0.0022	U	0.0022	0.00045	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
Dieldrin	0.0022	U	0.0022	0.00095	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
Endosulfan I	0.0073	U	0.0073	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
Endosulfan II	0.0073	U	0.0073	0.0019	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
Endosulfan sulfate	0.0073	U	0.0073	0.00092	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
Endrin	0.0073	U	0.0073	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
Endrin aldehyde	0.0073	U	0.0073	0.0017	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
Endrin ketone	0.0073	U	0.0073	0.0014	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00068	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
Heptachlor	0.0073	U	0.0073	0.00086	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
Heptachlor epoxide	0.0073	U	0.0073	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
Methoxychlor	0.0073	U	0.0073	0.0017	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1
Toxaphene	0.073	U	0.073	0.026	mg/Kg	✱	12/10/21 17:51	12/12/21 22:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		10 - 150	12/10/21 17:51	12/12/21 22:17	1
DCB Decachlorobiphenyl	88		10 - 150	12/10/21 17:51	12/12/21 22:17	1
Tetrachloro-m-xylene	92		10 - 133	12/10/21 17:51	12/12/21 22:17	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 91.4

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		10 - 133	12/10/21 17:51	12/12/21 22:17	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 22:23	1
Aroclor 1221	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 22:23	1
Aroclor 1232	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 22:23	1
Aroclor 1242	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 22:23	1
Aroclor 1248	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 22:23	1
Aroclor 1254	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 22:23	1
Aroclor 1260	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 22:23	1
Aroclor-1262	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 22:23	1
Aroclor 1268	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 22:23	1
Polychlorinated biphenyls, Total	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 22:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		37 - 150	12/10/21 17:42	12/12/21 22:23	1
DCB Decachlorobiphenyl	96		37 - 150	12/10/21 17:42	12/12/21 22:23	1
Tetrachloro-m-xylene	70		54 - 150	12/10/21 17:42	12/12/21 22:23	1
Tetrachloro-m-xylene	88		54 - 150	12/10/21 17:42	12/12/21 22:23	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.036	U	0.036	0.0077	mg/Kg	✱	12/10/21 00:41	12/10/21 18:28	1
2,4-D	0.036	U	0.036	0.013	mg/Kg	✱	12/10/21 00:41	12/10/21 18:28	1
Silvex (2,4,5-TP)	0.036	U	0.036	0.0038	mg/Kg	✱	12/10/21 00:41	12/10/21 18:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	107		65 - 150	12/10/21 00:41	12/10/21 18:28	1
2,4-Dichlorophenylacetic acid	119		65 - 150	12/10/21 00:41	12/10/21 18:28	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3910		41.3	11.3	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Antimony	1.4	J	2.1	0.30	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Arsenic	10.4		2.1	0.21	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Barium	129		4.1	0.30	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Beryllium	0.31	J	0.83	0.12	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Cadmium	0.49	J	2.1	0.23	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Calcium	13100		207	36.6	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Chromium	16.4		4.1	0.55	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Cobalt	4.8		4.1	0.31	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Copper	108		4.1	0.76	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Iron	21600		124	41.7	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Lead	278		1.2	0.41	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Magnesium	2260		207	21.1	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Manganese	219		8.3	0.83	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Nickel	12.8		4.1	0.97	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Potassium	698		207	25.0	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2
Selenium	0.58	J	2.6	0.26	mg/Kg	✱	12/15/21 18:44	12/16/21 17:49	2

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 91.4

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	2.1	U	2.1	0.18	mg/Kg	☆	12/15/21 18:44	12/16/21 17:49	2
Sodium	159	J	207	94.4	mg/Kg	☆	12/15/21 18:44	12/16/21 17:49	2
Thallium	0.12	J	0.83	0.085	mg/Kg	☆	12/15/21 18:44	12/16/21 17:49	2
Vanadium	18.6		4.1	0.43	mg/Kg	☆	12/15/21 18:44	12/16/21 17:49	2
Zinc	209		16.5	6.3	mg/Kg	☆	12/15/21 18:44	12/16/21 17:49	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.52		0.018	0.0085	mg/Kg	☆	12/13/21 03:29	12/13/21 08:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.6		1.0	1.0	%			12/13/21 01:52	1
Percent Solids	91.4		1.0	1.0	%			12/13/21 01:52	1

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248693-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.6

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0023	U	0.0023	0.00053	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
1,1,2,2-Tetrachloroethane	0.0023	U	0.0023	0.00049	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0023	U	0.0023	0.00069	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
1,1,2-Trichloroethane	0.0023	U	0.0023	0.00041	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
1,1-Dichloroethane	0.0023	U	0.0023	0.00047	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
1,1-Dichloroethene	0.0023	U	0.0023	0.00052	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
1,2,3-Trichlorobenzene	0.0023	U	0.0023	0.00041	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
1,2,4-Trichlorobenzene	0.0023	U	0.0023	0.00082	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
1,2-Dibromo-3-Chloropropane	0.0023	U	0.0023	0.0011	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
1,2-Dichlorobenzene	0.0023	U	0.0023	0.00083	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
1,2-Dichloroethane	0.0023	U	0.0023	0.00068	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
1,2-Dichloropropane	0.0023	U	0.0023	0.00097	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
1,3-Dichlorobenzene	0.0023	U	0.0023	0.00084	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
1,4-Dichlorobenzene	0.0023	U	0.0023	0.00052	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
2-Butanone (MEK)	0.011	U	0.011	0.00084	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
2-Hexanone	0.011	U	0.011	0.0039	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
4-Methyl-2-pentanone (MIBK)	0.011	U	0.011	0.0036	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Acetone	0.019		0.014	0.013	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Benzene	0.0023	U	0.0023	0.00059	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Bromoform	0.0023	U	0.0023	0.00097	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Bromomethane	0.0046	U	0.0046	0.0023	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Carbon disulfide	0.0023	U	0.0023	0.00061	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Carbon tetrachloride	0.0023	U	0.0023	0.00089	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Chlorobenzene	0.0023	U	0.0023	0.00041	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Chlorobromomethane	0.0023	U	0.0023	0.00064	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Chlorodibromomethane	0.0023	U	0.0023	0.00044	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Chloroethane	0.0023	U	0.0023	0.0012	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Chloroform	0.0023	U	0.0023	0.0022	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Chloromethane	0.0023	U	0.0023	0.0010	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248693-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.6

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.0023	U	0.0023	0.00082	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
cis-1,3-Dichloropropene	0.0023	U	0.0023	0.00063	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Cyclohexane	0.0023	U	0.0023	0.00051	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Dichlorobromomethane	0.0023	U	0.0023	0.00059	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Dichlorodifluoromethane	0.0023	U	0.0023	0.00077	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Ethylbenzene	0.0023	U	0.0023	0.00046	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Ethylene Dibromide	0.0023	U	0.0023	0.00041	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Isopropylbenzene	0.0023	U	0.0023	0.00065	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Methyl acetate	0.011	U	0.011	0.0098	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Methyl tert-butyl ether	0.0023	U	0.0023	0.0012	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Methylcyclohexane	0.0023	U	0.0023	0.0011	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Methylene Chloride	0.0046	U	0.0046	0.0026	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
m-Xylene & p-Xylene	0.0023	U	0.0023	0.00040	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
o-Xylene	0.0023	U	0.0023	0.00044	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Styrene	0.0023	U	0.0023	0.00064	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Tetrachloroethene	0.0023	U	0.0023	0.00070	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Toluene	0.0023	U	0.0023	0.00054	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
trans-1,2-Dichloroethene	0.0023	U	0.0023	0.00056	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
trans-1,3-Dichloropropene	0.0023	U	0.0023	0.00061	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Trichloroethene	0.0023	U	0.0023	0.00074	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Trichlorofluoromethane	0.0023	U	0.0023	0.00093	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1
Vinyl chloride	0.0023	U	0.0023	0.0013	mg/Kg	☆	12/09/21 17:49	12/12/21 00:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		77 - 145	12/09/21 17:49	12/12/21 00:08	1
4-Bromofluorobenzene	104		70 - 139	12/09/21 17:49	12/12/21 00:08	1
Dibromofluoromethane (Surr)	101		48 - 150	12/09/21 17:49	12/12/21 00:08	1
Toluene-d8 (Surr)	100		80 - 120	12/09/21 17:49	12/12/21 00:08	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0085	J	0.36	0.0048	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
1,4-Dioxane	0.036	U *	0.036	0.032	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0066	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.025	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
2,4,5-Trichlorophenol	0.36	U	0.36	0.037	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.047	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
2,4-Dichlorophenol	0.15	U	0.15	0.023	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
2,4-Dinitrotoluene	0.074	U	0.074	0.039	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
2,6-Dinitrotoluene	0.074	U	0.074	0.026	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
2-Methylnaphthalene	0.028	J	0.36	0.010	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
2-Methylphenol	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
2-Nitroaniline	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
2-Nitrophenol	0.36	U	0.36	0.037	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
3,3'-Dichlorobenzidine	0.15	U	0.15	0.055	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248693-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.6

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
4-Chloroaniline	0.36	U	0.36	0.065	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
4-Methylphenol	0.36	U	0.36	0.023	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
4-Nitroaniline	0.36	U	0.36	0.042	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
4-Nitrophenol	0.74	U	0.74	0.060	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Acenaphthene	0.025	J	0.36	0.010	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Acenaphthylene	0.015	J	0.36	0.0037	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Acetophenone	0.36	U	0.36	0.018	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Anthracene	0.059	J	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Atrazine	0.15	U	0.15	0.021	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Benzaldehyde	0.36	U	0.36	0.060	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Benzo[a]anthracene	0.18		0.036	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Benzo[a]pyrene	0.16		0.036	0.0097	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Benzo[b]fluoranthene	0.27		0.036	0.0094	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Benzo[g,h,i]perylene	0.11	J	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Benzo[k]fluoranthene	0.11		0.036	0.0072	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Bis(2-ethylhexyl) phthalate	0.22	J	0.36	0.019	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Butyl benzyl phthalate	0.36	U	0.36	0.017	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Caprolactam	0.36	U	0.36	0.057	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Carbazole	0.022	J	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Chrysene	0.18	J	0.36	0.0062	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Dibenz(a,h)anthracene	0.016	J	0.036	0.016	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Dibenzofuran	0.029	J	0.36	0.0051	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Diethyl phthalate	0.36	U	0.36	0.0053	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Dimethyl phthalate	0.36	U	0.36	0.083	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Di-n-butyl phthalate	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Di-n-octyl phthalate	0.36	U	0.36	0.019	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Fluoranthene	0.40		0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Fluorene	0.014	J	0.36	0.0050	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Hexachlorobutadiene	0.074	U	0.074	0.0078	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.032	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Hexachloroethane	0.036	U	0.036	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Indeno[1,2,3-cd]pyrene	0.13		0.036	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Isophorone	0.15	U	0.15	0.11	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Naphthalene	0.041	J	0.36	0.0063	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Nitrobenzene	0.036	U	0.036	0.0088	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.027	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
N-Nitrosodiphenylamine	0.36	U	0.36	0.030	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Pentachlorophenol	0.29	U	0.29	0.075	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Phenanthrene	0.21	J	0.36	0.0064	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Phenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1
Pyrene	0.34	J	0.36	0.0091	mg/Kg	☆	12/10/21 10:04	12/12/21 03:04	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248693-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	13		10 - 123	12/10/21 10:04	12/12/21 03:04	1
2-Fluorobiphenyl	48		14 - 103	12/10/21 10:04	12/12/21 03:04	1
2-Fluorophenol (Surr)	45		10 - 105	12/10/21 10:04	12/12/21 03:04	1
Nitrobenzene-d5 (Surr)	43		11 - 104	12/10/21 10:04	12/12/21 03:04	1
Phenol-d5 (Surr)	47		15 - 100	12/10/21 10:04	12/12/21 03:04	1
Terphenyl-d14 (Surr)	49		12 - 126	12/10/21 10:04	12/12/21 03:04	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0074	U	0.0074	0.0013	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
4,4'-DDE	0.0044	J	0.0074	0.00087	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
4,4'-DDT	0.0074	U	0.0074	0.0014	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
Aldrin	0.0074	U	0.0074	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
alpha-BHC	0.0022	U	0.0022	0.00075	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
beta-BHC	0.0022	U	0.0022	0.00083	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
Chlordane (technical)	0.074	U	0.074	0.018	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
delta-BHC	0.0022	U	0.0022	0.00045	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
Dieldrin	0.0022	U	0.0022	0.00096	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
Endosulfan I	0.0074	U	0.0074	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
Endosulfan II	0.0074	U	0.0074	0.0019	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
Endosulfan sulfate	0.0074	U	0.0074	0.00093	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
Endrin	0.0074	U	0.0074	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
Endrin aldehyde	0.0074	U	0.0074	0.0017	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
Endrin ketone	0.0074	U	0.0074	0.0014	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00068	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
Heptachlor	0.0074	U	0.0074	0.00087	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
Heptachlor epoxide	0.0074	U	0.0074	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
Methoxychlor	0.0074	U	0.0074	0.0017	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1
Toxaphene	0.074	U	0.074	0.027	mg/Kg	✱	12/10/21 17:51	12/12/21 22:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		10 - 150	12/10/21 17:51	12/12/21 22:32	1
DCB Decachlorobiphenyl	78		10 - 150	12/10/21 17:51	12/12/21 22:32	1
Tetrachloro-m-xylene	89		10 - 133	12/10/21 17:51	12/12/21 22:32	1
Tetrachloro-m-xylene	83		10 - 133	12/10/21 17:51	12/12/21 22:32	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 22:43	1
Aroclor 1221	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 22:43	1
Aroclor 1232	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 22:43	1
Aroclor 1242	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 22:43	1
Aroclor 1248	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 22:43	1
Aroclor 1254	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 22:43	1
Aroclor 1260	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 22:43	1
Aroclor-1262	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 22:43	1
Aroclor 1268	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 22:43	1
Polychlorinated biphenyls, Total	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 22:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	74		37 - 150	12/10/21 17:42	12/12/21 22:43	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248693-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	89		37 - 150	12/10/21 17:42	12/12/21 22:43	1
Tetrachloro-m-xylene	52	*	54 - 150	12/10/21 17:42	12/12/21 22:43	1
Tetrachloro-m-xylene	90		54 - 150	12/10/21 17:42	12/12/21 22:43	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.18	U	0.18	0.039	mg/Kg	✱	12/10/21 00:41	12/10/21 19:40	5
2,4-D	0.18	U	0.18	0.067	mg/Kg	✱	12/10/21 00:41	12/10/21 19:40	5
Silvex (2,4,5-TP)	0.18	U	0.18	0.019	mg/Kg	✱	12/10/21 00:41	12/10/21 19:40	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	146		65 - 150	12/10/21 00:41	12/10/21 19:40	5
2,4-Dichlorophenylacetic acid	205	*	65 - 150	12/10/21 00:41	12/10/21 19:40	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6430		20.4	5.6	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Antimony	0.46	J	1.0	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Arsenic	9.9		1.0	0.11	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Barium	67.8		2.0	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Beryllium	0.35	J	0.41	0.058	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Cadmium	0.25	J	1.0	0.12	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Calcium	47400		102	18.1	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Chromium	17.3		2.0	0.27	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Cobalt	8.4		2.0	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Copper	68.2		2.0	0.38	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Iron	22100		61.3	20.6	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Lead	77.4		0.61	0.20	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Magnesium	5380		102	10.4	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Manganese	244		4.1	0.41	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Nickel	19.2		2.0	0.48	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Potassium	764		102	12.4	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Selenium	0.22	J	1.3	0.13	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Silver	0.14	J	1.0	0.091	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Sodium	311		102	46.7	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Thallium	0.055	J	0.41	0.042	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Vanadium	29.9		2.0	0.21	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1
Zinc	157		8.2	3.1	mg/Kg	✱	12/15/21 18:44	12/16/21 17:52	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.093		0.018	0.0084	mg/Kg	✱	12/13/21 03:29	12/13/21 08:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.4		1.0	1.0	%			12/13/21 01:52	1
Percent Solids	90.6		1.0	1.0	%			12/13/21 01:52	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248693-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0021	U	0.0021	0.00048	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
1,1,2,2-Tetrachloroethane	0.0021	U	0.0021	0.00044	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0021	U	0.0021	0.00062	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
1,1,2-Trichloroethane	0.0021	U	0.0021	0.00037	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
1,1-Dichloroethane	0.0021	U	0.0021	0.00042	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
1,1-Dichloroethene	0.0021	U	0.0021	0.00046	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
1,2,3-Trichlorobenzene	0.0021	U	0.0021	0.00037	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
1,2,4-Trichlorobenzene	0.0021	U	0.0021	0.00074	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
1,2-Dibromo-3-Chloropropane	0.0021	U	0.0021	0.00095	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
1,2-Dichlorobenzene	0.0021	U	0.0021	0.00074	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
1,2-Dichloroethane	0.0021	U	0.0021	0.00061	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
1,2-Dichloropropane	0.0021	U	0.0021	0.00087	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
1,3-Dichlorobenzene	0.0021	U	0.0021	0.00075	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
1,4-Dichlorobenzene	0.0021	U	0.0021	0.00046	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
2-Butanone (MEK)	0.010	U	0.010	0.00076	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
2-Hexanone	0.010	U	0.010	0.0035	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
4-Methyl-2-pentanone (MIBK)	0.010	U	0.010	0.0032	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Acetone	0.037		0.012	0.012	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Benzene	0.0021	U	0.0021	0.00053	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Bromoform	0.0021	U	0.0021	0.00087	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Bromomethane	0.0041	U	0.0041	0.0021	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Carbon disulfide	0.0010	J	0.0021	0.00055	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Carbon tetrachloride	0.0021	U	0.0021	0.00080	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Chlorobenzene	0.0021	U	0.0021	0.00036	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Chlorobromomethane	0.0021	U	0.0021	0.00058	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Chlorodibromomethane	0.0021	U	0.0021	0.00040	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Chloroethane	0.0021	U	0.0021	0.0011	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Chloroform	0.0021	U	0.0021	0.0020	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Chloromethane	0.0021	U	0.0021	0.00090	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
cis-1,2-Dichloroethene	0.0021	U	0.0021	0.00074	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
cis-1,3-Dichloropropene	0.0021	U	0.0021	0.00056	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Cyclohexane	0.0021	U	0.0021	0.00045	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Dichlorobromomethane	0.0021	U	0.0021	0.00053	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Dichlorodifluoromethane	0.0021	U	0.0021	0.00070	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Ethylbenzene	0.0021	U	0.0021	0.00041	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Ethylene Dibromide	0.0021	U	0.0021	0.00037	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Isopropylbenzene	0.0021	U	0.0021	0.00059	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Methyl acetate	0.010	U	0.010	0.0088	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Methyl tert-butyl ether	0.0021	U	0.0021	0.0011	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Methylcyclohexane	0.0021	U	0.0021	0.0010	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Methylene Chloride	0.0041	U	0.0041	0.0024	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
m-Xylene & p-Xylene	0.0021	U	0.0021	0.00036	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
o-Xylene	0.0021	U	0.0021	0.00040	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Styrene	0.0021	U	0.0021	0.00057	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Tetrachloroethene	0.0021	U	0.0021	0.00063	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Toluene	0.0021	U	0.0021	0.00048	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
trans-1,2-Dichloroethene	0.0021	U	0.0021	0.00051	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
trans-1,3-Dichloropropene	0.0021	U	0.0021	0.00055	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Trichloroethene	0.0021	U	0.0021	0.00066	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248693-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.0021	U	0.0021	0.00084	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Vinyl chloride	0.0021	U	0.0021	0.0011	mg/Kg	☆	12/09/21 17:50	12/12/21 00:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		77 - 145				12/09/21 17:50	12/12/21 00:31	1
4-Bromofluorobenzene	104		70 - 139				12/09/21 17:50	12/12/21 00:31	1
Dibromofluoromethane (Surr)	108		48 - 150				12/09/21 17:50	12/12/21 00:31	1
Toluene-d8 (Surr)	99		80 - 120				12/09/21 17:50	12/12/21 00:31	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.038	J	0.37	0.0050	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	0.012	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
1,4-Dioxane	0.037	U	0.037	0.033	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
2,2'-oxybis[1-chloropropane]	0.37	U	0.37	0.0068	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
2,3,4,6-Tetrachlorophenol	0.37	U	0.37	0.025	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
2,4,5-Trichlorophenol	0.37	U	0.37	0.038	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.048	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
2,4-Dichlorophenol	0.15	U	0.15	0.024	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
2,4-Dimethylphenol	0.37	U	0.37	0.016	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
2,4-Dinitrophenol	0.30	U	0.30	0.18	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
2,4-Dinitrotoluene	0.076	U	0.076	0.040	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
2,6-Dinitrotoluene	0.076	U	0.076	0.027	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
2-Chloronaphthalene	0.37	U	0.37	0.017	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
2-Chlorophenol	0.37	U	0.37	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
2-Methylnaphthalene	0.077	J	0.37	0.010	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
2-Methylphenol	0.37	U	0.37	0.014	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
2-Nitroaniline	0.37	U	0.37	0.014	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
2-Nitrophenol	0.37	U	0.37	0.037	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
3,3'-Dichlorobenzidine	0.15	U	0.15	0.056	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
3-Nitroaniline	0.37	U	0.37	0.042	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
4,6-Dinitro-2-methylphenol	0.30	U	0.30	0.15	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
4-Bromophenyl phenyl ether	0.37	U	0.37	0.015	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
4-Chloro-3-methylphenol	0.37	U	0.37	0.021	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
4-Chloroaniline	0.37	U	0.37	0.066	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
4-Chlorophenyl phenyl ether	0.37	U	0.37	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
4-Methylphenol	0.37	U	0.37	0.023	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
4-Nitroaniline	0.37	U	0.37	0.043	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
4-Nitrophenol	0.76	U	0.76	0.061	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
Acenaphthene	0.23	J	0.37	0.011	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
Acenaphthylene	0.25	J	0.37	0.0038	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
Acetophenone	0.37	U	0.37	0.018	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
Anthracene	1.7		0.37	0.011	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
Atrazine	0.15	U	0.15	0.022	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
Benzaldehyde	0.37	U	0.37	0.062	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
Benzo[a]anthracene	4.2		0.037	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
Benzo[a]pyrene	3.7		0.037	0.0099	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
Benzo[b]fluoranthene	4.3		0.037	0.0097	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
Benzo[g,h,i]perylene	1.5		0.37	0.011	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1
Benzo[k]fluoranthene	2.2		0.037	0.0073	mg/Kg	☆	12/10/21 10:04	12/11/21 18:15	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248693-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.37	U	0.37	0.029	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Bis(2-chloroethyl)ether	0.037	U	0.037	0.013	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Bis(2-ethylhexyl) phthalate	0.072	J	0.37	0.020	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Butyl benzyl phthalate	0.37	U	0.37	0.017	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Caprolactam	0.37	U	0.37	0.058	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Carbazole	0.15	J	0.37	0.014	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Chrysene	3.9		0.37	0.0063	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Dibenz(a,h)anthracene	0.50		0.037	0.016	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Dibenzofuran	0.20	J	0.37	0.0052	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Diethyl phthalate	0.37	U	0.37	0.0054	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Dimethyl phthalate	0.37	U	0.37	0.085	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Di-n-butyl phthalate	0.37	U	0.37	0.014	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Di-n-octyl phthalate	0.37	U	0.37	0.020	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Fluoranthene	8.3		0.37	0.013	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Fluorene	0.33	J	0.37	0.0051	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Hexachlorobenzene	0.037	U	0.037	0.018	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Hexachlorobutadiene	0.076	U	0.076	0.0079	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Hexachlorocyclopentadiene	0.37	U	0.37	0.033	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Hexachloroethane	0.037	U	0.037	0.013	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Indeno[1,2,3-cd]pyrene	1.9		0.037	0.015	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Isophorone	0.15	U	0.15	0.11	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Naphthalene	0.17	J	0.37	0.0064	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Nitrobenzene	0.037	U	0.037	0.0090	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
N-Nitrosodi-n-propylamine	0.037	U	0.037	0.027	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
N-Nitrosodiphenylamine	0.37	U	0.37	0.031	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Pentachlorophenol	0.30	U	0.30	0.076	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Phenanthrene	4.8		0.37	0.0066	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Phenol	0.37	U	0.37	0.014	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1
Pyrene	8.1		0.37	0.0093	mg/Kg	✱	12/10/21 10:04	12/11/21 18:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	34		10 - 123	12/10/21 10:04	12/11/21 18:15	1
2-Fluorobiphenyl	39		14 - 103	12/10/21 10:04	12/11/21 18:15	1
2-Fluorophenol (Surr)	40		10 - 105	12/10/21 10:04	12/11/21 18:15	1
Nitrobenzene-d5 (Surr)	35		11 - 104	12/10/21 10:04	12/11/21 18:15	1
Phenol-d5 (Surr)	41		15 - 100	12/10/21 10:04	12/11/21 18:15	1
Terphenyl-d14 (Surr)	40		12 - 126	12/10/21 10:04	12/11/21 18:15	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0076	U	0.0076	0.0013	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
4,4'-DDE	0.0076	U	0.0076	0.00089	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
4,4'-DDT	0.0076	U	0.0076	0.0014	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
Aldrin	0.0076	U	0.0076	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
alpha-BHC	0.0023	U	0.0023	0.00077	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
beta-BHC	0.0023	U	0.0023	0.00085	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
Chlordane (technical)	0.076	U	0.076	0.018	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
delta-BHC	0.0023	U	0.0023	0.00046	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
Dieldrin	0.0023	U	0.0023	0.00098	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
Endosulfan I	0.0076	U	0.0076	0.0012	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248693-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	0.0076	U	0.0076	0.0019	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
Endosulfan sulfate	0.0076	U	0.0076	0.00095	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
Endrin	0.0076	U	0.0076	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
Endrin aldehyde	0.0076	U	0.0076	0.0018	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
Endrin ketone	0.0076	U	0.0076	0.0015	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
gamma-BHC (Lindane)	0.0023	U	0.0023	0.00070	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
Heptachlor	0.0076	U	0.0076	0.00089	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
Heptachlor epoxide	0.0076	U	0.0076	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
Methoxychlor	0.0076	U	0.0076	0.0017	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1
Toxaphene	0.076	U	0.076	0.027	mg/Kg	✱	12/10/21 17:51	12/12/21 22:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	177	*	10 - 150	12/10/21 17:51	12/12/21 22:46	1
DCB Decachlorobiphenyl	158	*	10 - 150	12/10/21 17:51	12/12/21 22:46	1
Tetrachloro-m-xylene	170	*	10 - 133	12/10/21 17:51	12/12/21 22:46	1
Tetrachloro-m-xylene	156	*	10 - 133	12/10/21 17:51	12/12/21 22:46	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.076	U	0.076	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 23:02	1
Aroclor 1221	0.076	U	0.076	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 23:02	1
Aroclor 1232	0.076	U	0.076	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 23:02	1
Aroclor 1242	0.076	U	0.076	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 23:02	1
Aroclor 1248	0.076	U	0.076	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 23:02	1
Aroclor 1254	0.076	U	0.076	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 23:02	1
Aroclor 1260	0.076	U	0.076	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 23:02	1
Aroclor-1262	0.076	U	0.076	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 23:02	1
Aroclor 1268	0.076	U	0.076	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 23:02	1
Polychlorinated biphenyls, Total	0.076	U	0.076	0.020	mg/Kg	✱	12/10/21 17:42	12/12/21 23:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	170	*	37 - 150	12/10/21 17:42	12/12/21 23:02	1
DCB Decachlorobiphenyl	203	*	37 - 150	12/10/21 17:42	12/12/21 23:02	1
Tetrachloro-m-xylene	103	*	54 - 150	12/10/21 17:42	12/12/21 23:02	1
Tetrachloro-m-xylene	168	*	54 - 150	12/10/21 17:42	12/12/21 23:02	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.19	U	0.19	0.040	mg/Kg	✱	12/10/21 00:41	12/10/21 19:54	5
2,4-D	0.19	U	0.19	0.068	mg/Kg	✱	12/10/21 00:41	12/10/21 19:54	5
Silvex (2,4,5-TP)	0.19	U	0.19	0.020	mg/Kg	✱	12/10/21 00:41	12/10/21 19:54	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	135	*	65 - 150	12/10/21 00:41	12/10/21 19:54	5
2,4-Dichlorophenylacetic acid	191	*	65 - 150	12/10/21 00:41	12/10/21 19:54	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5200		21.1	5.8	mg/Kg	✱	12/15/21 18:44	12/16/21 17:54	1
Antimony	1.2		1.1	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 17:54	1
Arsenic	11.0		1.1	0.11	mg/Kg	✱	12/15/21 18:44	12/16/21 17:54	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248693-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	145		2.1	0.15	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Beryllium	0.55		0.42	0.060	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Cadmium	0.65	J	1.1	0.12	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Calcium	29500		105	18.7	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Chromium	19.7		2.1	0.28	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Cobalt	7.2		2.1	0.16	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Copper	179		2.1	0.39	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Iron	18300		63.2	21.3	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Lead	682		0.63	0.21	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Magnesium	6940		105	10.7	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Manganese	220		4.2	0.42	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Nickel	20.2		2.1	0.50	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Potassium	785		105	12.8	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Selenium	1.0	J	1.3	0.13	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Silver	0.46	J	1.1	0.094	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Sodium	952		105	48.2	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Thallium	0.10	J	0.42	0.043	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Vanadium	27.2		2.1	0.22	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1
Zinc	511		8.4	3.2	mg/Kg	☆	12/15/21 18:44	12/16/21 17:54	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.0		0.055	0.026	mg/Kg	☆	12/13/21 03:29	12/13/21 09:52	3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.3		1.0	1.0	%			12/13/21 01:52	1
Percent Solids	88.7		1.0	1.0	%			12/13/21 01:52	1

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248693-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.5

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0017	U	0.0017	0.00039	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
1,1,2,2-Tetrachloroethane	0.0017	U	0.0017	0.00036	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0017	U	0.0017	0.00050	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
1,1,2-Trichloroethane	0.0017	U	0.0017	0.00030	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
1,1-Dichloroethane	0.0017	U	0.0017	0.00034	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
1,1-Dichloroethene	0.0017	U	0.0017	0.00038	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
1,2,3-Trichlorobenzene	0.0017	U	0.0017	0.00030	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
1,2,4-Trichlorobenzene	0.0017	U	0.0017	0.00060	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
1,2-Dibromo-3-Chloropropane	0.0017	U	0.0017	0.00077	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
1,2-Dichlorobenzene	0.0017	U	0.0017	0.00060	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
1,2-Dichloroethane	0.0017	U	0.0017	0.00050	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
1,2-Dichloropropane	0.0017	U	0.0017	0.00071	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
1,3-Dichlorobenzene	0.0017	U	0.0017	0.00061	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
1,4-Dichlorobenzene	0.0017	U	0.0017	0.00038	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
2-Butanone (MEK)	0.0084	U	0.0084	0.00062	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248693-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.5

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	0.0084	U	0.0084	0.0029	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
4-Methyl-2-pentanone (MIBK)	0.0084	U	0.0084	0.0026	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Acetone	0.010	U	0.010	0.0096	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Benzene	0.0017	U	0.0017	0.00043	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Bromoform	0.0017	U	0.0017	0.00071	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Bromomethane	0.0033	U	0.0033	0.0017	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Carbon disulfide	0.0017	U	0.0017	0.00044	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Carbon tetrachloride	0.0017	U	0.0017	0.00065	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Chlorobenzene	0.0017	U	0.0017	0.00030	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Chlorobromomethane	0.0017	U	0.0017	0.00047	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Chlorodibromomethane	0.0017	U	0.0017	0.00032	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Chloroethane	0.0017	U	0.0017	0.00087	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Chloroform	0.0017	U	0.0017	0.0016	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Chloromethane	0.0017	U	0.0017	0.00073	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
cis-1,2-Dichloroethene	0.0017	U	0.0017	0.00060	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
cis-1,3-Dichloropropene	0.0017	U	0.0017	0.00046	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Cyclohexane	0.0017	U	0.0017	0.00037	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Dichlorobromomethane	0.0017	U	0.0017	0.00043	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Dichlorodifluoromethane	0.0017	U	0.0017	0.00057	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Ethylbenzene	0.0017	U	0.0017	0.00033	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Ethylene Dibromide	0.0017	U	0.0017	0.00030	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Isopropylbenzene	0.0017	U	0.0017	0.00048	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Methyl acetate	0.0084	U	0.0084	0.0072	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Methyl tert-butyl ether	0.0017	U	0.0017	0.00086	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Methylcyclohexane	0.0017	U	0.0017	0.00083	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Methylene Chloride	0.0033	U	0.0033	0.0019	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
m-Xylene & p-Xylene	0.0017	U	0.0017	0.00029	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
o-Xylene	0.0017	U	0.0017	0.00032	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Styrene	0.0017	U	0.0017	0.00047	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Tetrachloroethene	0.0017	U	0.0017	0.00051	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Toluene	0.0017	U	0.0017	0.00039	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
trans-1,2-Dichloroethene	0.0017	U	0.0017	0.00041	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
trans-1,3-Dichloropropene	0.0017	U	0.0017	0.00044	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Trichloroethene	0.0017	U	0.0017	0.00054	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Trichlorofluoromethane	0.0017	U	0.0017	0.00068	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1
Vinyl chloride	0.0017	U	0.0017	0.00091	mg/Kg	☆	12/09/21 17:51	12/12/21 00:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		77 - 145	12/09/21 17:51	12/12/21 00:53	1
4-Bromofluorobenzene	111		70 - 139	12/09/21 17:51	12/12/21 00:53	1
Dibromofluoromethane (Surr)	110		48 - 150	12/09/21 17:51	12/12/21 00:53	1
Toluene-d8 (Surr)	104		80 - 120	12/09/21 17:51	12/12/21 00:53	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.034	J	0.36	0.0047	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
1,4-Dioxane	0.036	U *	0.036	0.031	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0065	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.024	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248693-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.5

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.36	U	0.36	0.036	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
2,4,6-Trichlorophenol	0.14	U	0.14	0.046	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
2,4-Dichlorophenol	0.14	U	0.14	0.023	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
2,4-Dinitrotoluene	0.072	U	0.072	0.038	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
2,6-Dinitrotoluene	0.072	U	0.072	0.026	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
2-Methylnaphthalene	0.25	J	0.36	0.010	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
2-Methylphenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
2-Nitroaniline	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
2-Nitrophenol	0.36	U	0.36	0.036	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
3,3'-Dichlorobenzidine	0.14	U	0.14	0.054	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
3-Nitroaniline	0.36	U	0.36	0.040	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
4-Chloroaniline	0.36	U	0.36	0.063	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
4-Methylphenol	0.36	U	0.36	0.022	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
4-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
4-Nitrophenol	0.72	U	0.72	0.058	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Acenaphthene	0.18	J	0.36	0.010	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Acenaphthylene	0.014	J	0.36	0.0036	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Acetophenone	0.36	U	0.36	0.018	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Anthracene	0.18	J	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Atrazine	0.14	U	0.14	0.021	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Benzaldehyde	0.36	U	0.36	0.059	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Benzo[a]anthracene	0.41		0.036	0.012	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Benzo[a]pyrene	0.37		0.036	0.0095	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Benzo[b]fluoranthene	0.55		0.036	0.0092	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Benzo[g,h,i]perylene	0.21	J	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Benzo[k]fluoranthene	0.25		0.036	0.0070	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.012	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Bis(2-ethylhexyl) phthalate	0.36	U	0.36	0.019	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Butyl benzyl phthalate	0.36	U	0.36	0.017	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Caprolactam	0.36	U	0.36	0.056	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Carbazole	0.085	J	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Chrysene	0.40		0.36	0.0060	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Dibenz(a,h)anthracene	0.046		0.036	0.015	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Dibenzofuran	0.12	J	0.36	0.0050	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Diethyl phthalate	0.36	U	0.36	0.0052	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Dimethyl phthalate	0.36	U	0.36	0.081	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Di-n-butyl phthalate	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Di-n-octyl phthalate	0.36	U	0.36	0.019	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Fluoranthene	0.84		0.36	0.012	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Fluorene	0.13	J	0.36	0.0049	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248693-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.5

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Hexachlorobutadiene	0.072	U	0.072	0.0076	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.031	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Hexachloroethane	0.036	U	0.036	0.012	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Indeno[1,2,3-cd]pyrene	0.30		0.036	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Isophorone	0.14	U	0.14	0.10	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Naphthalene	0.097	J	0.36	0.0062	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Nitrobenzene	0.036	U	0.036	0.0086	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.026	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
N-Nitrosodiphenylamine	0.36	U	0.36	0.029	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Pentachlorophenol	0.29	U	0.29	0.073	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Phenanthrene	0.68		0.36	0.0063	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Phenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1
Pyrene	0.70		0.36	0.0089	mg/Kg	☆	12/10/21 10:04	12/12/21 01:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	54		10 - 123	12/10/21 10:04	12/12/21 01:55	1
2-Fluorobiphenyl	52		14 - 103	12/10/21 10:04	12/12/21 01:55	1
2-Fluorophenol (Surr)	53		10 - 105	12/10/21 10:04	12/12/21 01:55	1
Nitrobenzene-d5 (Surr)	53		11 - 104	12/10/21 10:04	12/12/21 01:55	1
Phenol-d5 (Surr)	53		15 - 100	12/10/21 10:04	12/12/21 01:55	1
Terphenyl-d14 (Surr)	51		12 - 126	12/10/21 10:04	12/12/21 01:55	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0072	U	0.0072	0.0012	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
4,4'-DDE	0.0072	U	0.0072	0.00085	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
4,4'-DDT	0.0072	U	0.0072	0.0013	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
Aldrin	0.0072	U	0.0072	0.0011	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
alpha-BHC	0.0022	U	0.0022	0.00073	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
beta-BHC	0.0022	U	0.0022	0.00081	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
Chlordane (technical)	0.072	U	0.072	0.018	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
delta-BHC	0.0022	U	0.0022	0.00044	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
Dieldrin	0.0022	U	0.0022	0.00094	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
Endosulfan I	0.0072	U	0.0072	0.0011	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
Endosulfan II	0.0072	U	0.0072	0.0019	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
Endosulfan sulfate	0.0072	U	0.0072	0.00091	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
Endrin	0.0072	U	0.0072	0.0010	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
Endrin aldehyde	0.0072	U	0.0072	0.0017	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
Endrin ketone	0.0072	U	0.0072	0.0014	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00067	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
Heptachlor	0.0072	U	0.0072	0.00085	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
Heptachlor epoxide	0.0072	U	0.0072	0.0011	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
Methoxychlor	0.0072	U	0.0072	0.0017	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1
Toxaphene	0.072	U	0.072	0.026	mg/Kg	☆	12/10/21 17:51	12/12/21 23:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	94		10 - 150	12/10/21 17:51	12/12/21 23:01	1
DCB Decachlorobiphenyl	81		10 - 150	12/10/21 17:51	12/12/21 23:01	1
Tetrachloro-m-xylene	91		10 - 133	12/10/21 17:51	12/12/21 23:01	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248693-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.5

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		10 - 133	12/10/21 17:51	12/12/21 23:01	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 23:22	1
Aroclor 1221	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 23:22	1
Aroclor 1232	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 23:22	1
Aroclor 1242	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 23:22	1
Aroclor 1248	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 23:22	1
Aroclor 1254	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 23:22	1
Aroclor 1260	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 23:22	1
Aroclor-1262	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 23:22	1
Aroclor 1268	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 23:22	1
Polychlorinated biphenyls, Total	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/12/21 23:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	75		37 - 150	12/10/21 17:42	12/12/21 23:22	1
DCB Decachlorobiphenyl	90		37 - 150	12/10/21 17:42	12/12/21 23:22	1
Tetrachloro-m-xylene	60		54 - 150	12/10/21 17:42	12/12/21 23:22	1
Tetrachloro-m-xylene	96		54 - 150	12/10/21 17:42	12/12/21 23:22	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.18	U	0.18	0.038	mg/Kg	✱	12/10/21 00:41	12/10/21 20:07	5
2,4-D	0.18	U	0.18	0.065	mg/Kg	✱	12/10/21 00:41	12/10/21 20:07	5
Silvex (2,4,5-TP)	0.18	U	0.18	0.019	mg/Kg	✱	12/10/21 00:41	12/10/21 20:07	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	143		65 - 150	12/10/21 00:41	12/10/21 20:07	5
2,4-Dichlorophenylacetic acid	202	*	65 - 150	12/10/21 00:41	12/10/21 20:07	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3330		20.6	5.7	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Antimony	0.49	J	1.0	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Arsenic	4.3		1.0	0.11	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Barium	41.5		2.1	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Beryllium	0.25	J	0.41	0.059	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Cadmium	0.28	J	1.0	0.12	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Calcium	29200		103	18.2	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Chromium	10.2		2.1	0.27	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Cobalt	3.4		2.1	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Copper	54.0		2.1	0.38	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Iron	11100		61.8	20.8	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Lead	119		0.62	0.21	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Magnesium	9340		103	10.5	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Manganese	169		4.1	0.41	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Nickel	11.1		2.1	0.48	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Potassium	490		103	12.5	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1
Selenium	0.21	J	1.3	0.13	mg/Kg	✱	12/15/21 18:44	12/16/21 14:36	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248693-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.5

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.11	J	1.0	0.092	mg/Kg	☆	12/15/21 18:44	12/16/21 14:36	1
Sodium	98.8	J	103	47.0	mg/Kg	☆	12/15/21 18:44	12/16/21 14:36	1
Thallium	0.045	J	0.41	0.042	mg/Kg	☆	12/15/21 18:44	12/16/21 14:36	1
Vanadium	28.8		2.1	0.21	mg/Kg	☆	12/15/21 18:44	12/16/21 14:36	1
Zinc	107		8.2	3.1	mg/Kg	☆	12/15/21 18:44	12/16/21 14:36	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.24		0.017	0.0081	mg/Kg	☆	12/13/21 03:29	12/13/21 09:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.5		1.0	1.0	%			12/13/21 01:52	1
Percent Solids	92.5		1.0	1.0	%			12/13/21 01:52	1

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248693-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.2

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0024	U	0.0024	0.00057	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
1,1,2,2-Tetrachloroethane	0.0024	U	0.0024	0.00052	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0024	U	0.0024	0.00074	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
1,1,2-Trichloroethane	0.0024	U	0.0024	0.00044	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
1,1-Dichloroethane	0.0024	U	0.0024	0.00050	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
1,1-Dichloroethene	0.0024	U	0.0024	0.00055	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
1,2,3-Trichlorobenzene	0.0024	U	0.0024	0.00044	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
1,2,4-Trichlorobenzene	0.0024	U	0.0024	0.00088	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
1,2-Dibromo-3-Chloropropane	0.0024	U	0.0024	0.0011	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
1,2-Dichlorobenzene	0.0024	U	0.0024	0.00088	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
1,2-Dichloroethane	0.0024	U	0.0024	0.00072	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
1,2-Dichloropropane	0.0024	U	0.0024	0.0010	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
1,3-Dichlorobenzene	0.0024	U	0.0024	0.00089	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
1,4-Dichlorobenzene	0.0024	U	0.0024	0.00055	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
2-Butanone (MEK)	0.012	U	0.012	0.00090	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
2-Hexanone	0.012	U	0.012	0.0042	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
4-Methyl-2-pentanone (MIBK)	0.012	U	0.012	0.0038	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Acetone	0.015	U	0.015	0.014	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Benzene	0.0024	U	0.0024	0.00063	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Bromoform	0.0024	U	0.0024	0.0010	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Bromomethane	0.0049	U	0.0049	0.0024	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Carbon disulfide	0.0024	U	0.0024	0.00065	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Carbon tetrachloride	0.0024	U	0.0024	0.00095	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Chlorobenzene	0.0024	U	0.0024	0.00043	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Chlorobromomethane	0.0024	U	0.0024	0.00069	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Chlorodibromomethane	0.0024	U	0.0024	0.00047	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Chloroethane	0.0024	U	0.0024	0.0013	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Chloroform	0.0024	U	0.0024	0.0024	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Chloromethane	0.0024	U	0.0024	0.0011	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248693-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.0024	U	0.0024	0.00088	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
cis-1,3-Dichloropropene	0.0024	U	0.0024	0.00067	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Cyclohexane	0.0024	U	0.0024	0.00054	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Dichlorobromomethane	0.0024	U	0.0024	0.00063	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Dichlorodifluoromethane	0.0024	U	0.0024	0.00083	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Ethylbenzene	0.0024	U	0.0024	0.00049	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Ethylene Dibromide	0.0024	U	0.0024	0.00044	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Isopropylbenzene	0.0024	U	0.0024	0.00070	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Methyl acetate	0.012	U	0.012	0.011	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Methyl tert-butyl ether	0.0024	U	0.0024	0.0013	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Methylcyclohexane	0.0024	U	0.0024	0.0012	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Methylene Chloride	0.0049	U	0.0049	0.0028	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
m-Xylene & p-Xylene	0.0024	U	0.0024	0.00043	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
o-Xylene	0.0024	U	0.0024	0.00047	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Styrene	0.0024	U	0.0024	0.00068	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Tetrachloroethene	0.0024	U	0.0024	0.00075	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Toluene	0.0024	U	0.0024	0.00057	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
trans-1,2-Dichloroethene	0.0024	U	0.0024	0.00060	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
trans-1,3-Dichloropropene	0.0024	U	0.0024	0.00065	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Trichloroethene	0.0024	U	0.0024	0.00079	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Trichlorofluoromethane	0.0024	U	0.0024	0.00099	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1
Vinyl chloride	0.0024	U	0.0024	0.0013	mg/Kg	☆	12/09/21 17:52	12/12/21 01:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		77 - 145	12/09/21 17:52	12/12/21 01:16	1
4-Bromofluorobenzene	108		70 - 139	12/09/21 17:52	12/12/21 01:16	1
Dibromofluoromethane (Surr)	102		48 - 150	12/09/21 17:52	12/12/21 01:16	1
Toluene-d8 (Surr)	100		80 - 120	12/09/21 17:52	12/12/21 01:16	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0073	J	0.37	0.0049	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	0.012	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
1,4-Dioxane	0.037	U *	0.037	0.032	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
2,2'-oxybis[1-chloropropane]	0.37	U	0.37	0.0067	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
2,3,4,6-Tetrachlorophenol	0.37	U	0.37	0.025	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
2,4,5-Trichlorophenol	0.37	U	0.37	0.038	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.048	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
2,4-Dichlorophenol	0.15	U	0.15	0.024	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
2,4-Dimethylphenol	0.37	U	0.37	0.016	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
2,4-Dinitrophenol	0.30	U	0.30	0.18	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
2,4-Dinitrotoluene	0.075	U	0.075	0.040	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
2,6-Dinitrotoluene	0.075	U	0.075	0.027	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
2-Chloronaphthalene	0.37	U	0.37	0.017	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
2-Chlorophenol	0.37	U	0.37	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
2-Methylnaphthalene	0.024	J	0.37	0.010	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
2-Methylphenol	0.37	U	0.37	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
2-Nitroaniline	0.37	U	0.37	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
2-Nitrophenol	0.37	U	0.37	0.037	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
3,3'-Dichlorobenzidine	0.15	U	0.15	0.056	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248693-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.2

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	0.37	U	0.37	0.042	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
4,6-Dinitro-2-methylphenol	0.30	U	0.30	0.15	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
4-Bromophenyl phenyl ether	0.37	U	0.37	0.015	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
4-Chloro-3-methylphenol	0.37	U	0.37	0.021	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
4-Chloroaniline	0.37	U	0.37	0.066	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
4-Chlorophenyl phenyl ether	0.37	U	0.37	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
4-Methylphenol	0.37	U	0.37	0.023	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
4-Nitroaniline	0.37	U	0.37	0.043	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
4-Nitrophenol	0.75	U	0.75	0.060	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Acenaphthene	0.032	J	0.37	0.011	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Acenaphthylene	0.022	J	0.37	0.0037	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Acetophenone	0.37	U	0.37	0.018	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Anthracene	0.079	J	0.37	0.011	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Atrazine	0.15	U	0.15	0.022	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Benzaldehyde	0.37	U	0.37	0.061	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Benzo[a]anthracene	0.33		0.037	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Benzo[a]pyrene	0.32		0.037	0.0099	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Benzo[b]fluoranthene	0.47		0.037	0.0096	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Benzo[g,h,i]perylene	0.18	J	0.37	0.011	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Benzo[k]fluoranthene	0.17		0.037	0.0073	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Bis(2-chloroethoxy)methane	0.37	U	0.37	0.029	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Bis(2-chloroethyl)ether	0.037	U	0.037	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Bis(2-ethylhexyl) phthalate	0.042	J	0.37	0.020	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Butyl benzyl phthalate	0.021	J	0.37	0.017	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Caprolactam	0.37	U	0.37	0.058	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Carbazole	0.033	J	0.37	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Chrysene	0.34	J	0.37	0.0063	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Dibenz(a,h)anthracene	0.035	J	0.037	0.016	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Dibenzofuran	0.031	J	0.37	0.0052	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Diethyl phthalate	0.37	U	0.37	0.0054	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Dimethyl phthalate	0.37	U	0.37	0.084	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Di-n-butyl phthalate	0.015	J	0.37	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Di-n-octyl phthalate	0.37	U	0.37	0.020	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Fluoranthene	0.63		0.37	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Fluorene	0.033	J	0.37	0.0050	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Hexachlorobenzene	0.037	U	0.037	0.018	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Hexachlorobutadiene	0.075	U	0.075	0.0079	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Hexachlorocyclopentadiene	0.37	U	0.37	0.033	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Hexachloroethane	0.037	U	0.037	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Indeno[1,2,3-cd]pyrene	0.26		0.037	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Isophorone	0.15	U	0.15	0.11	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Naphthalene	0.041	J	0.37	0.0064	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Nitrobenzene	0.037	U	0.037	0.0089	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
N-Nitrosodi-n-propylamine	0.037	U	0.037	0.027	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
N-Nitrosodiphenylamine	0.37	U	0.37	0.030	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Pentachlorophenol	0.30	U	0.30	0.076	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Phenanthrene	0.37		0.37	0.0065	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Phenol	0.37	U	0.37	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1
Pyrene	0.56		0.37	0.0092	mg/Kg	☆	12/10/21 10:04	12/12/21 02:12	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248693-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	51		10 - 123	12/10/21 10:04	12/12/21 02:12	1
2-Fluorobiphenyl	48		14 - 103	12/10/21 10:04	12/12/21 02:12	1
2-Fluorophenol (Surr)	46		10 - 105	12/10/21 10:04	12/12/21 02:12	1
Nitrobenzene-d5 (Surr)	45		11 - 104	12/10/21 10:04	12/12/21 02:12	1
Phenol-d5 (Surr)	48		15 - 100	12/10/21 10:04	12/12/21 02:12	1
Terphenyl-d14 (Surr)	49		12 - 126	12/10/21 10:04	12/12/21 02:12	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0075	U	0.0075	0.0013	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
4,4'-DDE	0.0023	J	0.0075	0.00089	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
4,4'-DDT	0.0075	U	0.0075	0.0014	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
Aldrin	0.0075	U	0.0075	0.0011	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
alpha-BHC	0.0022	U	0.0022	0.00076	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
beta-BHC	0.0022	U	0.0022	0.00084	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
Chlordane (technical)	0.075	U	0.075	0.018	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
delta-BHC	0.0022	U	0.0022	0.00046	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
Dieldrin	0.0022	U	0.0022	0.00098	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
Endosulfan I	0.0075	U	0.0075	0.0011	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
Endosulfan II	0.0075	U	0.0075	0.0019	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
Endosulfan sulfate	0.0075	U	0.0075	0.00094	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
Endrin	0.0075	U	0.0075	0.0011	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
Endrin aldehyde	0.0075	U	0.0075	0.0018	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
Endrin ketone	0.0075	U	0.0075	0.0015	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00069	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
Heptachlor	0.0075	U	0.0075	0.00089	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
Heptachlor epoxide	0.0075	U	0.0075	0.0011	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
Methoxychlor	0.0075	U	0.0075	0.0017	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1
Toxaphene	0.075	U	0.075	0.027	mg/Kg	☆	12/10/21 17:51	12/12/21 23:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		10 - 150	12/10/21 17:51	12/12/21 23:15	1
DCB Decachlorobiphenyl	79		10 - 150	12/10/21 17:51	12/12/21 23:15	1
Tetrachloro-m-xylene	86		10 - 133	12/10/21 17:51	12/12/21 23:15	1
Tetrachloro-m-xylene	80		10 - 133	12/10/21 17:51	12/12/21 23:15	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/12/21 23:41	1
Aroclor 1221	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/12/21 23:41	1
Aroclor 1232	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/12/21 23:41	1
Aroclor 1242	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/12/21 23:41	1
Aroclor 1248	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/12/21 23:41	1
Aroclor 1254	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/12/21 23:41	1
Aroclor 1260	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/12/21 23:41	1
Aroclor-1262	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/12/21 23:41	1
Aroclor 1268	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/12/21 23:41	1
Polychlorinated biphenyls, Total	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/12/21 23:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		37 - 150	12/10/21 17:42	12/12/21 23:41	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248693-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		37 - 150	12/10/21 17:42	12/12/21 23:41	1
Tetrachloro-m-xylene	73		54 - 150	12/10/21 17:42	12/12/21 23:41	1
Tetrachloro-m-xylene	100		54 - 150	12/10/21 17:42	12/12/21 23:41	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.19	U	0.19	0.040	mg/Kg	✱	12/10/21 00:41	12/10/21 20:21	5
2,4-D	0.19	U	0.19	0.068	mg/Kg	✱	12/10/21 00:41	12/10/21 20:21	5
Silvex (2,4,5-TP)	0.19	U	0.19	0.019	mg/Kg	✱	12/10/21 00:41	12/10/21 20:21	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	137		65 - 150	12/10/21 00:41	12/10/21 20:21	5
2,4-Dichlorophenylacetic acid	192	*	65 - 150	12/10/21 00:41	12/10/21 20:21	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5060		20.9	5.8	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Antimony	0.43	J	1.0	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Arsenic	5.1		1.0	0.11	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Barium	69.3		2.1	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Beryllium	0.34	J	0.42	0.060	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Cadmium	0.26	J	1.0	0.12	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Calcium	34800		105	18.5	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Chromium	12.8		2.1	0.28	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Cobalt	4.6		2.1	0.16	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Copper	132		2.1	0.39	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Iron	9740		62.8	21.2	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Lead	99.7		0.63	0.21	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Magnesium	5990		105	10.7	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Manganese	153		4.2	0.42	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Nickel	11.8		2.1	0.49	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Potassium	656		105	12.7	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Selenium	0.20	J	1.3	0.13	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Silver	0.15	J	1.0	0.093	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Sodium	134		105	47.9	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Thallium	0.060	J	0.42	0.043	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Vanadium	21.9		2.1	0.22	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1
Zinc	105		8.4	3.2	mg/Kg	✱	12/15/21 18:44	12/16/21 14:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.4		0.053	0.025	mg/Kg	✱	12/13/21 03:29	12/13/21 09:56	3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.8		1.0	1.0	%			12/13/21 14:59	1
Percent Solids	89.2		1.0	1.0	%			12/13/21 14:59	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248693-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0018	U	0.0018	0.00042	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
1,1,2,2-Tetrachloroethane	0.0018	U	0.0018	0.00039	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0018	U	0.0018	0.00055	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
1,1,2-Trichloroethane	0.0018	U	0.0018	0.00032	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
1,1-Dichloroethane	0.0018	U	0.0018	0.00037	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
1,1-Dichloroethene	0.0018	U	0.0018	0.00041	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
1,2,3-Trichlorobenzene	0.0018	U	0.0018	0.00033	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
1,2,4-Trichlorobenzene	0.0018	U	0.0018	0.00065	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
1,2-Dibromo-3-Chloropropane	0.0018	U	0.0018	0.00083	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
1,2-Dichlorobenzene	0.0018	U	0.0018	0.00066	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
1,2-Dichloroethane	0.0018	U	0.0018	0.00054	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
1,2-Dichloropropane	0.0018	U	0.0018	0.00077	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
1,3-Dichlorobenzene	0.0018	U	0.0018	0.00066	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
1,4-Dichlorobenzene	0.0018	U	0.0018	0.00041	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
2-Butanone (MEK)	0.0091	U	0.0091	0.00067	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
2-Hexanone	0.0091	U	0.0091	0.0031	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
4-Methyl-2-pentanone (MIBK)	0.0091	U	0.0091	0.0028	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Acetone	0.011	U	0.011	0.010	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Benzene	0.0018	U	0.0018	0.00047	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Bromoform	0.0018	U	0.0018	0.00077	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Bromomethane	0.0036	U	0.0036	0.0018	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Carbon disulfide	0.0018	U	0.0018	0.00048	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Carbon tetrachloride	0.0018	U	0.0018	0.00070	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Chlorobenzene	0.0018	U	0.0018	0.00032	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Chlorobromomethane	0.0018	U	0.0018	0.00051	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Chlorodibromomethane	0.0018	U	0.0018	0.00035	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Chloroethane	0.0018	U	0.0018	0.00095	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Chloroform	0.0018	U	0.0018	0.0018	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Chloromethane	0.0018	U	0.0018	0.00079	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
cis-1,2-Dichloroethene	0.0018	U	0.0018	0.00065	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
cis-1,3-Dichloropropene	0.0018	U	0.0018	0.00050	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Cyclohexane	0.0018	U	0.0018	0.00040	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Dichlorobromomethane	0.0018	U	0.0018	0.00047	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Dichlorodifluoromethane	0.0018	U	0.0018	0.00061	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Ethylbenzene	0.0018	U	0.0018	0.00036	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Ethylene Dibromide	0.0018	U	0.0018	0.00033	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Isopropylbenzene	0.0018	U	0.0018	0.00052	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Methyl acetate	0.0091	U	0.0091	0.0078	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Methyl tert-butyl ether	0.0018	U	0.0018	0.00093	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Methylcyclohexane	0.0018	U	0.0018	0.00091	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Methylene Chloride	0.0036	U	0.0036	0.0021	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
m-Xylene & p-Xylene	0.0018	U	0.0018	0.00032	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
o-Xylene	0.0018	U	0.0018	0.00035	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Styrene	0.0018	U	0.0018	0.00050	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Tetrachloroethene	0.0018	U	0.0018	0.00055	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Toluene	0.0018	U	0.0018	0.00042	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
trans-1,2-Dichloroethene	0.0018	U	0.0018	0.00045	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
trans-1,3-Dichloropropene	0.0018	U	0.0018	0.00048	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Trichloroethene	0.0018	U	0.0018	0.00058	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248693-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.0018	U	0.0018	0.00074	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Vinyl chloride	0.0018	U	0.0018	0.00099	mg/Kg	☆	12/09/21 17:53	12/12/21 01:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		77 - 145				12/09/21 17:53	12/12/21 01:39	1
4-Bromofluorobenzene	104		70 - 139				12/09/21 17:53	12/12/21 01:39	1
Dibromofluoromethane (Surr)	108		48 - 150				12/09/21 17:53	12/12/21 01:39	1
Toluene-d8 (Surr)	103		80 - 120				12/09/21 17:53	12/12/21 01:39	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0093	J	0.36	0.0048	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
1,4-Dioxane	0.036	U *	0.036	0.032	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0066	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.025	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
2,4,5-Trichlorophenol	0.36	U	0.36	0.037	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.047	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
2,4-Dichlorophenol	0.15	U	0.15	0.023	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
2,4-Dinitrotoluene	0.074	U	0.074	0.039	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
2,6-Dinitrotoluene	0.074	U	0.074	0.026	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
2-Methylnaphthalene	0.037	J	0.36	0.010	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
2-Methylphenol	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
2-Nitroaniline	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
2-Nitrophenol	0.36	U	0.36	0.036	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
3,3'-Dichlorobenzidine	0.15	U	0.15	0.055	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
3-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
4-Chloroaniline	0.36	U	0.36	0.065	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
4-Methylphenol	0.36	U	0.36	0.023	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
4-Nitroaniline	0.36	U	0.36	0.042	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
4-Nitrophenol	0.74	U	0.74	0.059	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Acenaphthene	0.033	J	0.36	0.010	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Acenaphthylene	0.027	J	0.36	0.0037	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Acetophenone	0.36	U	0.36	0.018	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Anthracene	0.099	J	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Atrazine	0.15	U	0.15	0.021	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Benzaldehyde	0.36	U	0.36	0.060	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Benzo[a]anthracene	0.34		0.036	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Benzo[a]pyrene	0.32		0.036	0.0097	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Benzo[b]fluoranthene	0.47		0.036	0.0094	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Benzo[g,h,i]perylene	0.16	J	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Benzo[k]fluoranthene	0.19		0.036	0.0071	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248693-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Bis(2-ethylhexyl) phthalate	0.36	U	0.36	0.019	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Butyl benzyl phthalate	0.36	U	0.36	0.017	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Caprolactam	0.36	U	0.36	0.057	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Carbazole	0.033	J	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Chrysene	0.34	J	0.36	0.0061	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Dibenz(a,h)anthracene	0.032	J	0.036	0.016	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Dibenzofuran	0.036	J	0.36	0.0051	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Diethyl phthalate	0.36	U	0.36	0.0053	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Dimethyl phthalate	0.36	U	0.36	0.083	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Di-n-butyl phthalate	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Di-n-octyl phthalate	0.36	U	0.36	0.019	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Fluoranthene	0.68		0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Fluorene	0.030	J	0.36	0.0049	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Hexachlorobutadiene	0.074	U	0.074	0.0077	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.032	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Hexachloroethane	0.036	U	0.036	0.012	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Indeno[1,2,3-cd]pyrene	0.25		0.036	0.014	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Isophorone	0.15	U	0.15	0.11	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Naphthalene	0.047	J	0.36	0.0063	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Nitrobenzene	0.036	U	0.036	0.0087	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.026	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
N-Nitrosodiphenylamine	0.36	U	0.36	0.030	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Pentachlorophenol	0.29	U	0.29	0.075	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Phenanthrene	0.43		0.36	0.0064	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Phenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1
Pyrene	0.63		0.36	0.0090	mg/Kg	☆	12/10/21 10:04	12/12/21 02:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	37		10 - 123	12/10/21 10:04	12/12/21 02:29	1
2-Fluorobiphenyl	34		14 - 103	12/10/21 10:04	12/12/21 02:29	1
2-Fluorophenol (Surr)	31		10 - 105	12/10/21 10:04	12/12/21 02:29	1
Nitrobenzene-d5 (Surr)	30		11 - 104	12/10/21 10:04	12/12/21 02:29	1
Phenol-d5 (Surr)	33		15 - 100	12/10/21 10:04	12/12/21 02:29	1
Terphenyl-d14 (Surr)	36		12 - 126	12/10/21 10:04	12/12/21 02:29	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0074	U	0.0074	0.0013	mg/Kg	☆	12/10/21 17:51	12/12/21 23:30	1
4,4'-DDE	0.0031	J	0.0074	0.00087	mg/Kg	☆	12/10/21 17:51	12/12/21 23:30	1
4,4'-DDT	0.0036	J p	0.0074	0.0014	mg/Kg	☆	12/10/21 17:51	12/12/21 23:30	1
Aldrin	0.0074	U	0.0074	0.0011	mg/Kg	☆	12/10/21 17:51	12/12/21 23:30	1
alpha-BHC	0.0022	U	0.0022	0.00075	mg/Kg	☆	12/10/21 17:51	12/12/21 23:30	1
beta-BHC	0.0022	U	0.0022	0.00082	mg/Kg	☆	12/10/21 17:51	12/12/21 23:30	1
Chlordane (technical)	0.074	U	0.074	0.018	mg/Kg	☆	12/10/21 17:51	12/12/21 23:30	1
delta-BHC	0.0022	U	0.0022	0.00045	mg/Kg	☆	12/10/21 17:51	12/12/21 23:30	1
Dieldrin	0.0022	U	0.0022	0.00096	mg/Kg	☆	12/10/21 17:51	12/12/21 23:30	1
Endosulfan I	0.0074	U	0.0074	0.0011	mg/Kg	☆	12/10/21 17:51	12/12/21 23:30	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248693-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	0.0074	U	0.0074	0.0019	mg/Kg	✱	12/10/21 17:51	12/12/21 23:30	1
Endosulfan sulfate	0.0074	U	0.0074	0.00092	mg/Kg	✱	12/10/21 17:51	12/12/21 23:30	1
Endrin	0.0074	U	0.0074	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 23:30	1
Endrin aldehyde	0.0074	U	0.0074	0.0017	mg/Kg	✱	12/10/21 17:51	12/12/21 23:30	1
Endrin ketone	0.0074	U	0.0074	0.0014	mg/Kg	✱	12/10/21 17:51	12/12/21 23:30	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00068	mg/Kg	✱	12/10/21 17:51	12/12/21 23:30	1
Heptachlor	0.0074	U	0.0074	0.00087	mg/Kg	✱	12/10/21 17:51	12/12/21 23:30	1
Heptachlor epoxide	0.0074	U	0.0074	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 23:30	1
Methoxychlor	0.0074	U	0.0074	0.0017	mg/Kg	✱	12/10/21 17:51	12/12/21 23:30	1
Toxaphene	0.074	U	0.074	0.027	mg/Kg	✱	12/10/21 17:51	12/12/21 23:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		10 - 150	12/10/21 17:51	12/12/21 23:30	1
DCB Decachlorobiphenyl	92		10 - 150	12/10/21 17:51	12/12/21 23:30	1
Tetrachloro-m-xylene	95		10 - 133	12/10/21 17:51	12/12/21 23:30	1
Tetrachloro-m-xylene	88		10 - 133	12/10/21 17:51	12/12/21 23:30	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/13/21 00:01	1
Aroclor 1221	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/13/21 00:01	1
Aroclor 1232	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/13/21 00:01	1
Aroclor 1242	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/13/21 00:01	1
Aroclor 1248	0.27		0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/13/21 00:01	1
Aroclor 1254	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/13/21 00:01	1
Aroclor 1260	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/13/21 00:01	1
Aroclor-1262	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/13/21 00:01	1
Aroclor 1268	0.074	U	0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/13/21 00:01	1
Polychlorinated biphenyls, Total	0.27		0.074	0.020	mg/Kg	✱	12/10/21 17:42	12/13/21 00:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		37 - 150	12/10/21 17:42	12/13/21 00:01	1
DCB Decachlorobiphenyl	107		37 - 150	12/10/21 17:42	12/13/21 00:01	1
Tetrachloro-m-xylene	110		54 - 150	12/10/21 17:42	12/13/21 00:01	1
Tetrachloro-m-xylene	111		54 - 150	12/10/21 17:42	12/13/21 00:01	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.18	U	0.18	0.039	mg/Kg	✱	12/10/21 00:41	12/10/21 20:34	5
2,4-D	0.18	U	0.18	0.067	mg/Kg	✱	12/10/21 00:41	12/10/21 20:34	5
Silvex (2,4,5-TP)	0.18	U	0.18	0.019	mg/Kg	✱	12/10/21 00:41	12/10/21 20:34	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	129		65 - 150	12/10/21 00:41	12/10/21 20:34	5
2,4-Dichlorophenylacetic acid	155	*	65 - 150	12/10/21 00:41	12/10/21 20:34	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3970		20.7	5.7	mg/Kg	✱	12/15/21 18:44	12/16/21 14:41	1
Antimony	1.3		1.0	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 14:41	1
Arsenic	8.1		1.0	0.11	mg/Kg	✱	12/15/21 18:44	12/16/21 14:41	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248693-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	85.6		2.1	0.15	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Beryllium	0.33	J	0.41	0.059	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Cadmium	0.50	J	1.0	0.12	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Calcium	26500		104	18.4	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Chromium	16.6		2.1	0.28	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Cobalt	5.1		2.1	0.15	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Copper	144		2.1	0.38	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Iron	16500		62.2	21.0	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Lead	241		0.62	0.21	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Magnesium	10400		104	10.6	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Manganese	188		4.1	0.42	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Nickel	13.5		2.1	0.49	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Potassium	604		104	12.6	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Selenium	0.83	J	1.3	0.13	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Silver	0.27	J	1.0	0.092	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Sodium	733		104	47.4	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Thallium	0.10	J	0.41	0.043	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Vanadium	22.5		2.1	0.21	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1
Zinc	200		8.3	3.2	mg/Kg	☆	12/15/21 18:44	12/16/21 14:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.52		0.018	0.0085	mg/Kg	☆	12/13/21 03:29	12/13/21 09:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.1		1.0	1.0	%			12/13/21 01:52	1
Percent Solids	90.9		1.0	1.0	%			12/13/21 01:52	1

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248693-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.6

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0014	U	0.0014	0.00033	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
1,1,2,2-Tetrachloroethane	0.0014	U	0.0014	0.00030	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0014	U	0.0014	0.00043	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
1,1,2-Trichloroethane	0.0014	U	0.0014	0.00025	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
1,1-Dichloroethane	0.0014	U	0.0014	0.00029	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
1,1-Dichloroethene	0.0014	U	0.0014	0.00032	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
1,2,3-Trichlorobenzene	0.0014	U	0.0014	0.00026	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
1,2,4-Trichlorobenzene	0.0014	U	0.0014	0.00051	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
1,2-Dibromo-3-Chloropropane	0.0014	U	0.0014	0.00065	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
1,2-Dichlorobenzene	0.0014	U	0.0014	0.00051	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
1,2-Dichloroethane	0.0014	U	0.0014	0.00042	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
1,2-Dichloropropane	0.0014	U	0.0014	0.00060	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
1,3-Dichlorobenzene	0.0014	U	0.0014	0.00052	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
1,4-Dichlorobenzene	0.0014	U	0.0014	0.00032	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
2-Butanone (MEK)	0.0071	U	0.0071	0.00052	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248693-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.6

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	0.0071	U	0.0071	0.0024	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
4-Methyl-2-pentanone (MIBK)	0.0071	U	0.0071	0.0022	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Acetone	0.0085	U	0.0085	0.0081	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Benzene	0.0014	U	0.0014	0.00037	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Bromoform	0.0014	U	0.0014	0.00060	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Bromomethane	0.0028	U	0.0028	0.0014	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Carbon disulfide	0.0014	U	0.0014	0.00038	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Carbon tetrachloride	0.0014	U	0.0014	0.00055	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Chlorobenzene	0.0014	U	0.0014	0.00025	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Chlorobromomethane	0.0014	U	0.0014	0.00040	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Chlorodibromomethane	0.0014	U	0.0014	0.00028	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Chloroethane	0.0014	U	0.0014	0.00074	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Chloroform	0.0014	U	0.0014	0.0014	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Chloromethane	0.0014	U	0.0014	0.00062	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
cis-1,2-Dichloroethene	0.0014	U	0.0014	0.00051	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
cis-1,3-Dichloropropene	0.0014	U	0.0014	0.00039	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Cyclohexane	0.0014	U	0.0014	0.00031	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Dichlorobromomethane	0.0014	U	0.0014	0.00037	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Dichlorodifluoromethane	0.0014	U	0.0014	0.00048	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Ethylbenzene	0.0014	U	0.0014	0.00028	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Ethylene Dibromide	0.0014	U	0.0014	0.00026	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Isopropylbenzene	0.0014	U	0.0014	0.00041	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Methyl acetate	0.0071	U	0.0071	0.0061	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Methyl tert-butyl ether	0.0014	U	0.0014	0.00073	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Methylcyclohexane	0.0014	U	0.0014	0.00071	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Methylene Chloride	0.0028	U	0.0028	0.0016	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
m-Xylene & p-Xylene	0.0014	U	0.0014	0.00025	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
o-Xylene	0.0014	U	0.0014	0.00028	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Styrene	0.0014	U	0.0014	0.00040	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Tetrachloroethene	0.0014	U	0.0014	0.00043	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Toluene	0.0014	U	0.0014	0.00033	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
trans-1,2-Dichloroethene	0.0014	U	0.0014	0.00035	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
trans-1,3-Dichloropropene	0.0014	U	0.0014	0.00038	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Trichloroethene	0.0014	U	0.0014	0.00046	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Trichlorofluoromethane	0.0014	U	0.0014	0.00058	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1
Vinyl chloride	0.0014	U	0.0014	0.00078	mg/Kg	☆	12/09/21 17:54	12/12/21 02:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		77 - 145	12/09/21 17:54	12/12/21 02:01	1
4-Bromofluorobenzene	103		70 - 139	12/09/21 17:54	12/12/21 02:01	1
Dibromofluoromethane (Surr)	103		48 - 150	12/09/21 17:54	12/12/21 02:01	1
Toluene-d8 (Surr)	101		80 - 120	12/09/21 17:54	12/12/21 02:01	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0081	J	0.36	0.0047	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
1,4-Dioxane	0.036	U *	0.036	0.031	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0065	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.024	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248693-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.6

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.36	U	0.36	0.036	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
2,4,6-Trichlorophenol	0.14	U	0.14	0.046	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
2,4-Dichlorophenol	0.14	U	0.14	0.023	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
2,4-Dinitrotoluene	0.072	U	0.072	0.038	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
2,6-Dinitrotoluene	0.072	U	0.072	0.026	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
2-Methylnaphthalene	0.048	J	0.36	0.010	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
2-Methylphenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
2-Nitroaniline	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
2-Nitrophenol	0.36	U	0.36	0.036	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
3,3'-Dichlorobenzidine	0.14	U	0.14	0.054	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
3-Nitroaniline	0.36	U	0.36	0.040	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
4-Chloroaniline	0.36	U	0.36	0.063	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
4-Methylphenol	0.36	U	0.36	0.022	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
4-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
4-Nitrophenol	0.72	U	0.72	0.058	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Acenaphthene	0.020	J	0.36	0.010	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Acenaphthylene	0.024	J	0.36	0.0036	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Acetophenone	0.36	U	0.36	0.018	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Anthracene	0.052	J	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Atrazine	0.14	U	0.14	0.021	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Benzaldehyde	0.36	U	0.36	0.059	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Benzo[a]anthracene	0.31		0.036	0.012	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Benzo[a]pyrene	0.31		0.036	0.0095	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Benzo[b]fluoranthene	0.48		0.036	0.0092	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Benzo[g,h,i]perylene	0.18	J	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Benzo[k]fluoranthene	0.17		0.036	0.0070	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.012	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Bis(2-ethylhexyl) phthalate	0.36	U	0.36	0.019	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Butyl benzyl phthalate	0.36	U	0.36	0.017	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Caprolactam	0.36	U	0.36	0.056	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Carbazole	0.022	J	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Chrysene	0.32	J	0.36	0.0060	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Dibenz(a,h)anthracene	0.052		0.036	0.015	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Dibenzofuran	0.019	J	0.36	0.0050	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Diethyl phthalate	0.36	U	0.36	0.0052	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Dimethyl phthalate	0.36	U	0.36	0.081	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Di-n-butyl phthalate	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Di-n-octyl phthalate	0.36	U	0.36	0.019	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Fluoranthene	0.51		0.36	0.012	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1
Fluorene	0.015	J	0.36	0.0048	mg/Kg	☆	12/10/21 10:04	12/11/21 09:55	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248693-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.6

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	✱	12/10/21 10:04	12/11/21 09:55	1
Hexachlorobutadiene	0.072	U	0.072	0.0076	mg/Kg	✱	12/10/21 10:04	12/11/21 09:55	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.031	mg/Kg	✱	12/10/21 10:04	12/11/21 09:55	1
Hexachloroethane	0.036	U	0.036	0.012	mg/Kg	✱	12/10/21 10:04	12/11/21 09:55	1
Indeno[1,2,3-cd]pyrene	0.26		0.036	0.014	mg/Kg	✱	12/10/21 10:04	12/11/21 09:55	1
Isophorone	0.14	U	0.14	0.10	mg/Kg	✱	12/10/21 10:04	12/11/21 09:55	1
Naphthalene	0.030	J	0.36	0.0062	mg/Kg	✱	12/10/21 10:04	12/11/21 09:55	1
Nitrobenzene	0.036	U	0.036	0.0086	mg/Kg	✱	12/10/21 10:04	12/11/21 09:55	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.026	mg/Kg	✱	12/10/21 10:04	12/11/21 09:55	1
N-Nitrosodiphenylamine	0.36	U	0.36	0.029	mg/Kg	✱	12/10/21 10:04	12/11/21 09:55	1
Pentachlorophenol	0.29	U	0.29	0.073	mg/Kg	✱	12/10/21 10:04	12/11/21 09:55	1
Phenanthrene	0.26	J	0.36	0.0063	mg/Kg	✱	12/10/21 10:04	12/11/21 09:55	1
Phenol	0.36	U	0.36	0.013	mg/Kg	✱	12/10/21 10:04	12/11/21 09:55	1
Pyrene	0.48		0.36	0.0089	mg/Kg	✱	12/10/21 10:04	12/11/21 09:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	46		10 - 123	12/10/21 10:04	12/11/21 09:55	1
2-Fluorobiphenyl	46		14 - 103	12/10/21 10:04	12/11/21 09:55	1
2-Fluorophenol (Surr)	45		10 - 105	12/10/21 10:04	12/11/21 09:55	1
Nitrobenzene-d5 (Surr)	46		11 - 104	12/10/21 10:04	12/11/21 09:55	1
Phenol-d5 (Surr)	44		15 - 100	12/10/21 10:04	12/11/21 09:55	1
Terphenyl-d14 (Surr)	44		12 - 126	12/10/21 10:04	12/11/21 09:55	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0072	U	0.0072	0.0012	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
4,4'-DDE	0.0072	U	0.0072	0.00085	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
4,4'-DDT	0.0072	U	0.0072	0.0013	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
Aldrin	0.0072	U	0.0072	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
alpha-BHC	0.0022	U	0.0022	0.00073	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
beta-BHC	0.0022	U	0.0022	0.00081	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
Chlordane (technical)	0.072	U	0.072	0.017	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
delta-BHC	0.0022	U	0.0022	0.00044	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
Dieldrin	0.0022	U	0.0022	0.00094	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
Endosulfan I	0.0072	U	0.0072	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
Endosulfan II	0.0072	U	0.0072	0.0019	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
Endosulfan sulfate	0.0072	U	0.0072	0.00091	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
Endrin	0.0072	U	0.0072	0.0010	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
Endrin aldehyde	0.0072	U	0.0072	0.0017	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
Endrin ketone	0.0072	U	0.0072	0.0014	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00067	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
Heptachlor	0.0072	U	0.0072	0.00085	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
Heptachlor epoxide	0.0072	U	0.0072	0.0011	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
Methoxychlor	0.0072	U	0.0072	0.0017	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1
Toxaphene	0.072	U	0.072	0.026	mg/Kg	✱	12/10/21 17:51	12/12/21 23:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		10 - 150	12/10/21 17:51	12/12/21 23:45	1
DCB Decachlorobiphenyl	93		10 - 150	12/10/21 17:51	12/12/21 23:45	1
Tetrachloro-m-xylene	95		10 - 133	12/10/21 17:51	12/12/21 23:45	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248693-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.6

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		10 - 133	12/10/21 17:51	12/12/21 23:45	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:20	1
Aroclor 1221	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:20	1
Aroclor 1232	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:20	1
Aroclor 1242	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:20	1
Aroclor 1248	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:20	1
Aroclor 1254	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:20	1
Aroclor 1260	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:20	1
Aroclor-1262	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:20	1
Aroclor 1268	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:20	1
Polychlorinated biphenyls, Total	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	83		37 - 150	12/10/21 17:42	12/13/21 00:20	1
DCB Decachlorobiphenyl	96		37 - 150	12/10/21 17:42	12/13/21 00:20	1
Tetrachloro-m-xylene	69		54 - 150	12/10/21 17:42	12/13/21 00:20	1
Tetrachloro-m-xylene	103		54 - 150	12/10/21 17:42	12/13/21 00:20	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.18	U	0.18	0.038	mg/Kg	✱	12/10/21 00:41	12/10/21 20:48	5
2,4-D	0.18	U	0.18	0.065	mg/Kg	✱	12/10/21 00:41	12/10/21 20:48	5
Silvex (2,4,5-TP)	0.18	U	0.18	0.019	mg/Kg	✱	12/10/21 00:41	12/10/21 20:48	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	135		65 - 150	12/10/21 00:41	12/10/21 20:48	5
2,4-Dichlorophenylacetic acid	179	*	65 - 150	12/10/21 00:41	12/10/21 20:48	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	4120		20.6	5.6	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Antimony	0.54	J	1.0	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Arsenic	6.1		1.0	0.11	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Barium	58.0		2.1	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Beryllium	0.31	J	0.41	0.059	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Cadmium	0.37	J	1.0	0.12	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Calcium	9720		103	18.2	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Chromium	12.6		2.1	0.27	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Cobalt	10.3		2.1	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Copper	81.8		2.1	0.38	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Iron	12700		61.7	20.8	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Lead	194		0.62	0.21	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Magnesium	2810		103	10.5	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Manganese	175		4.1	0.41	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Nickel	13.0		2.1	0.48	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Potassium	536		103	12.4	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1
Selenium	0.35	J	1.3	0.13	mg/Kg	✱	12/15/21 18:44	12/16/21 14:43	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248693-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.6

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.14	J	1.0	0.092	mg/Kg	☆	12/15/21 18:44	12/16/21 14:43	1
Sodium	596		103	47.0	mg/Kg	☆	12/15/21 18:44	12/16/21 14:43	1
Thallium	0.073	J	0.41	0.042	mg/Kg	☆	12/15/21 18:44	12/16/21 14:43	1
Vanadium	16.7		2.1	0.21	mg/Kg	☆	12/15/21 18:44	12/16/21 14:43	1
Zinc	200		8.2	3.1	mg/Kg	☆	12/15/21 18:44	12/16/21 14:43	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.9		0.052	0.025	mg/Kg	☆	12/13/21 03:29	12/13/21 10:00	3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.4		1.0	1.0	%			12/13/21 01:52	1
Percent Solids	92.6		1.0	1.0	%			12/13/21 01:52	1

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248693-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0018	U	0.0018	0.00041	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
1,1,2,2-Tetrachloroethane	0.0018	U	0.0018	0.00038	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0018	U	0.0018	0.00053	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
1,1,2-Trichloroethane	0.0018	U	0.0018	0.00031	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
1,1-Dichloroethane	0.0018	U	0.0018	0.00036	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
1,1-Dichloroethene	0.0018	U	0.0018	0.00040	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
1,2,3-Trichlorobenzene	0.0018	U	0.0018	0.00032	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
1,2,4-Trichlorobenzene	0.0018	U	0.0018	0.00063	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
1,2-Dibromo-3-Chloropropane	0.0018	U	0.0018	0.00081	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
1,2-Dichlorobenzene	0.0018	U	0.0018	0.00064	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
1,2-Dichloroethane	0.0018	U	0.0018	0.00052	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
1,2-Dichloropropane	0.0018	U	0.0018	0.00075	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
1,3-Dichlorobenzene	0.0018	U	0.0018	0.00064	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
1,4-Dichlorobenzene	0.0018	U	0.0018	0.00040	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
2-Butanone (MEK)	0.0088	U	0.0088	0.00065	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
2-Hexanone	0.0088	U	0.0088	0.0030	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
4-Methyl-2-pentanone (MIBK)	0.0088	U	0.0088	0.0027	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Acetone	0.012		0.011	0.010	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Benzene	0.0018	U	0.0018	0.00045	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Bromoform	0.0018	U	0.0018	0.00075	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Bromomethane	0.0035	U	0.0035	0.0018	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Carbon disulfide	0.0018	U	0.0018	0.00047	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Carbon tetrachloride	0.0018	U	0.0018	0.00068	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Chlorobenzene	0.0018	U	0.0018	0.00031	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Chlorobromomethane	0.0018	U	0.0018	0.00050	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Chlorodibromomethane	0.0018	U	0.0018	0.00034	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Chloroethane	0.0018	U	0.0018	0.00092	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Chloroform	0.0018	U	0.0018	0.0017	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Chloromethane	0.0018	U	0.0018	0.00077	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248693-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.0018	U	0.0018	0.00063	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
cis-1,3-Dichloropropene	0.0018	U	0.0018	0.00048	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Cyclohexane	0.0018	U	0.0018	0.00039	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Dichlorobromomethane	0.0018	U	0.0018	0.00045	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Dichlorodifluoromethane	0.0018	U	0.0018	0.00060	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Ethylbenzene	0.0018	U	0.0018	0.00035	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Ethylene Dibromide	0.0018	U	0.0018	0.00032	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Isopropylbenzene	0.0018	U	0.0018	0.00050	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Methyl acetate	0.0088	U	0.0088	0.0076	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Methyl tert-butyl ether	0.0018	U	0.0018	0.00090	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Methylcyclohexane	0.0018	U	0.0018	0.00088	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Methylene Chloride	0.0035	U	0.0035	0.0020	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
m-Xylene & p-Xylene	0.0018	U	0.0018	0.00031	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
o-Xylene	0.0018	U	0.0018	0.00034	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Styrene	0.0018	U	0.0018	0.00049	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Tetrachloroethene	0.0018	U	0.0018	0.00054	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Toluene	0.00045	J	0.0018	0.00041	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
trans-1,2-Dichloroethene	0.0018	U	0.0018	0.00043	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
trans-1,3-Dichloropropene	0.0018	U	0.0018	0.00047	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Trichloroethene	0.0018	U	0.0018	0.00057	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Trichlorofluoromethane	0.0018	U	0.0018	0.00072	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1
Vinyl chloride	0.0018	U	0.0018	0.00096	mg/Kg	☆	12/09/21 17:55	12/12/21 02:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		77 - 145	12/09/21 17:55	12/12/21 02:24	1
4-Bromofluorobenzene	105		70 - 139	12/09/21 17:55	12/12/21 02:24	1
Dibromofluoromethane (Surr)	107		48 - 150	12/09/21 17:55	12/12/21 02:24	1
Toluene-d8 (Surr)	100		80 - 120	12/09/21 17:55	12/12/21 02:24	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.013	J	0.37	0.0049	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	0.012	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
1,4-Dioxane	0.037	U *	0.037	0.033	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
2,2'-oxybis[1-chloropropane]	0.37	U	0.37	0.0067	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
2,3,4,6-Tetrachlorophenol	0.37	U	0.37	0.025	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
2,4,5-Trichlorophenol	0.37	U	0.37	0.038	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.048	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
2,4-Dichlorophenol	0.15	U	0.15	0.024	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
2,4-Dimethylphenol	0.37	U	0.37	0.016	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
2,4-Dinitrophenol	0.30	U	0.30	0.18	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
2,4-Dinitrotoluene	0.075	U	0.075	0.040	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
2,6-Dinitrotoluene	0.075	U	0.075	0.027	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
2-Chloronaphthalene	0.37	U	0.37	0.017	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
2-Chlorophenol	0.37	U	0.37	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
2-Methylnaphthalene	0.046	J	0.37	0.010	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
2-Methylphenol	0.37	U	0.37	0.014	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
2-Nitroaniline	0.37	U	0.37	0.014	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
2-Nitrophenol	0.37	U	0.37	0.037	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1
3,3'-Dichlorobenzidine	0.15	U	0.15	0.056	mg/Kg	☆	12/10/21 10:04	12/11/21 07:54	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248693-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	0.37	U	0.37	0.042	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
4,6-Dinitro-2-methylphenol	0.30	U	0.30	0.15	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
4-Bromophenyl phenyl ether	0.37	U	0.37	0.015	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
4-Chloro-3-methylphenol	0.37	U	0.37	0.021	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
4-Chloroaniline	0.37	U	0.37	0.066	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
4-Chlorophenyl phenyl ether	0.37	U	0.37	0.013	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
4-Methylphenol	0.37	U	0.37	0.023	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
4-Nitroaniline	0.37	U	0.37	0.043	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
4-Nitrophenol	0.75	U	0.75	0.061	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Acenaphthene	0.079	J	0.37	0.011	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Acenaphthylene	0.021	J	0.37	0.0037	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Acetophenone	0.053	J	0.37	0.018	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Anthracene	0.25	J	0.37	0.011	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Atrazine	0.15	U	0.15	0.022	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Benzaldehyde	0.37	U	0.37	0.062	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Benzo[a]anthracene	0.72		0.037	0.013	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Benzo[a]pyrene	0.62		0.037	0.0099	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Benzo[b]fluoranthene	0.86		0.037	0.0096	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Benzo[g,h,i]perylene	0.29	J	0.37	0.011	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Benzo[k]fluoranthene	0.35		0.037	0.0073	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Bis(2-chloroethoxy)methane	0.37	U	0.37	0.029	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Bis(2-chloroethyl)ether	0.037	U	0.037	0.013	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Bis(2-ethylhexyl) phthalate	0.33	J	0.37	0.020	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Butyl benzyl phthalate	0.018	J	0.37	0.017	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Caprolactam	0.37	U	0.37	0.058	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Carbazole	0.073	J	0.37	0.014	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Chrysene	0.66		0.37	0.0063	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Dibenz(a,h)anthracene	0.082		0.037	0.016	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Dibenzofuran	0.056	J	0.37	0.0052	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Diethyl phthalate	0.37	U	0.37	0.0054	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Dimethyl phthalate	0.37	U	0.37	0.085	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Di-n-butyl phthalate	3.4		0.37	0.014	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Di-n-octyl phthalate	0.37	U	0.37	0.020	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Fluoranthene	1.4		0.37	0.013	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Fluorene	0.082	J	0.37	0.0050	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Hexachlorobenzene	0.037	U	0.037	0.018	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Hexachlorobutadiene	0.075	U	0.075	0.0079	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Hexachlorocyclopentadiene	0.37	U	0.37	0.033	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Hexachloroethane	0.037	U	0.037	0.013	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Indeno[1,2,3-cd]pyrene	0.45		0.037	0.015	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Isophorone	0.15	U	0.15	0.11	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Naphthalene	0.054	J	0.37	0.0064	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Nitrobenzene	0.037	U	0.037	0.0089	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
N-Nitrosodi-n-propylamine	0.037	U	0.037	0.027	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
N-Nitrosodiphenylamine	0.37	U	0.37	0.031	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Pentachlorophenol	0.30	U	0.30	0.076	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Phenanthrene	0.87		0.37	0.0065	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Phenol	0.37	U	0.37	0.014	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1
Pyrene	1.2		0.37	0.0093	mg/Kg	✱	12/10/21 10:04	12/11/21 07:54	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248693-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	43		10 - 123	12/10/21 10:04	12/11/21 07:54	1
2-Fluorobiphenyl	52		14 - 103	12/10/21 10:04	12/11/21 07:54	1
2-Fluorophenol (Surr)	50		10 - 105	12/10/21 10:04	12/11/21 07:54	1
Nitrobenzene-d5 (Surr)	50		11 - 104	12/10/21 10:04	12/11/21 07:54	1
Phenol-d5 (Surr)	52		15 - 100	12/10/21 10:04	12/11/21 07:54	1
Terphenyl-d14 (Surr)	52		12 - 126	12/10/21 10:04	12/11/21 07:54	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0075	U	0.0075	0.0013	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
4,4'-DDE	0.0075	U	0.0075	0.00089	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
4,4'-DDT	0.0075	U	0.0075	0.0014	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
Aldrin	0.0075	U	0.0075	0.0011	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
alpha-BHC	0.0023	U	0.0023	0.00077	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
beta-BHC	0.0023	U	0.0023	0.00084	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
Chlordane (technical)	0.075	U	0.075	0.018	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
delta-BHC	0.0023	U	0.0023	0.00046	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
Dieldrin	0.0023	U	0.0023	0.00098	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
Endosulfan I	0.0075	U	0.0075	0.0011	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
Endosulfan II	0.0075	U	0.0075	0.0019	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
Endosulfan sulfate	0.0075	U	0.0075	0.00095	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
Endrin	0.0075	U	0.0075	0.0011	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
Endrin aldehyde	0.0075	U	0.0075	0.0018	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
Endrin ketone	0.0075	U	0.0075	0.0015	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
gamma-BHC (Lindane)	0.0023	U	0.0023	0.00070	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
Heptachlor	0.0075	U	0.0075	0.00089	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
Heptachlor epoxide	0.0075	U	0.0075	0.0011	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
Methoxychlor	0.0075	U	0.0075	0.0017	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1
Toxaphene	0.075	U	0.075	0.027	mg/Kg	☆	12/10/21 17:51	12/13/21 23:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	93		10 - 150	12/10/21 17:51	12/13/21 23:59	1
DCB Decachlorobiphenyl	94		10 - 150	12/10/21 17:51	12/13/21 23:59	1
Tetrachloro-m-xylene	91		10 - 133	12/10/21 17:51	12/13/21 23:59	1
Tetrachloro-m-xylene	85		10 - 133	12/10/21 17:51	12/13/21 23:59	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/13/21 00:39	1
Aroclor 1221	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/13/21 00:39	1
Aroclor 1232	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/13/21 00:39	1
Aroclor 1242	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/13/21 00:39	1
Aroclor 1248	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/13/21 00:39	1
Aroclor 1254	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/13/21 00:39	1
Aroclor 1260	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/13/21 00:39	1
Aroclor-1262	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/13/21 00:39	1
Aroclor 1268	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/13/21 00:39	1
Polychlorinated biphenyls, Total	0.075	U	0.075	0.020	mg/Kg	☆	12/10/21 17:42	12/13/21 00:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	77		37 - 150	12/10/21 17:42	12/13/21 00:39	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248693-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	88		37 - 150	12/10/21 17:42	12/13/21 00:39	1
Tetrachloro-m-xylene	75		54 - 150	12/10/21 17:42	12/13/21 00:39	1
Tetrachloro-m-xylene	86		54 - 150	12/10/21 17:42	12/13/21 00:39	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.19	U	0.19	0.040	mg/Kg	✱	12/10/21 00:41	12/10/21 21:01	5
2,4-D	0.19	U	0.19	0.068	mg/Kg	✱	12/10/21 00:41	12/10/21 21:01	5
Silvex (2,4,5-TP)	0.19	U	0.19	0.020	mg/Kg	✱	12/10/21 00:41	12/10/21 21:01	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	148		65 - 150	12/10/21 00:41	12/10/21 21:01	5
2,4-Dichlorophenylacetic acid	186	*	65 - 150	12/10/21 00:41	12/10/21 21:01	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8700		21.6	5.9	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Antimony	0.34	J	1.1	0.16	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Arsenic	4.5		1.1	0.11	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Barium	123		2.2	0.16	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Beryllium	0.34	J	0.43	0.062	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Cadmium	0.27	J	1.1	0.12	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Calcium	57500		1080	191	mg/Kg	✱	12/15/21 18:44	12/16/21 18:32	10
Chromium	33.9		2.2	0.29	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Cobalt	6.3		2.2	0.16	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Copper	39.5		2.2	0.40	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Iron	16500		64.9	21.9	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Lead	56.5		0.65	0.22	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Magnesium	8730		108	11.0	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Manganese	245		4.3	0.44	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Nickel	16.4		2.2	0.51	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Potassium	3300		108	13.1	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Selenium	0.21	J	1.4	0.14	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Silver	1.1	U	1.1	0.096	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Sodium	147		108	49.4	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Thallium	0.21	J	0.43	0.044	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Vanadium	33.5		2.2	0.22	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1
Zinc	100		8.7	3.3	mg/Kg	✱	12/15/21 18:44	12/16/21 14:46	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.019	0.0087	mg/Kg	✱	12/13/21 03:29	12/13/21 10:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.1		1.0	1.0	%			12/13/21 01:52	1
Percent Solids	88.9		1.0	1.0	%			12/13/21 01:52	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248693-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.7

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0017	U	0.0017	0.00039	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
1,1,2,2-Tetrachloroethane	0.0017	U	0.0017	0.00035	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0017	U	0.0017	0.00050	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
1,1,2-Trichloroethane	0.0017	U	0.0017	0.00029	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
1,1-Dichloroethane	0.0017	U	0.0017	0.00034	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
1,1-Dichloroethene	0.0017	U	0.0017	0.00037	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
1,2,3-Trichlorobenzene	0.0017	U	0.0017	0.00030	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
1,2,4-Trichlorobenzene	0.0017	U	0.0017	0.00059	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
1,2-Dibromo-3-Chloropropane	0.0017	U	0.0017	0.00076	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
1,2-Dichlorobenzene	0.0017	U	0.0017	0.00060	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
1,2-Dichloroethane	0.0017	U	0.0017	0.00049	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
1,2-Dichloropropane	0.0017	U	0.0017	0.00070	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
1,3-Dichlorobenzene	0.0017	U	0.0017	0.00060	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
1,4-Dichlorobenzene	0.0017	U	0.0017	0.00037	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
2-Butanone (MEK)	0.0083	U	0.0083	0.00061	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
2-Hexanone	0.0083	U	0.0083	0.0028	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
4-Methyl-2-pentanone (MIBK)	0.0083	U	0.0083	0.0026	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Acetone	0.0099	U	0.0099	0.0095	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Benzene	0.0017	U	0.0017	0.00043	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Bromoform	0.0017	U	0.0017	0.00070	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Bromomethane	0.0033	U	0.0033	0.0017	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Carbon disulfide	0.0017	U	0.0017	0.00044	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Carbon tetrachloride	0.0017	U	0.0017	0.00064	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Chlorobenzene	0.0017	U	0.0017	0.00029	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Chlorobromomethane	0.0017	U	0.0017	0.00047	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Chlorodibromomethane	0.0017	U	0.0017	0.00032	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Chloroethane	0.0017	U	0.0017	0.00086	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Chloroform	0.0017	U	0.0017	0.0016	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Chloromethane	0.0017	U	0.0017	0.00072	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
cis-1,2-Dichloroethene	0.0017	U	0.0017	0.00059	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
cis-1,3-Dichloropropene	0.0017	U	0.0017	0.00045	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Cyclohexane	0.0017	U	0.0017	0.00037	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Dichlorobromomethane	0.0017	U	0.0017	0.00043	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Dichlorodifluoromethane	0.0017	U	0.0017	0.00056	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Ethylbenzene	0.0017	U	0.0017	0.00033	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Ethylene Dibromide	0.0017	U	0.0017	0.00030	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Isopropylbenzene	0.0017	U	0.0017	0.00047	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Methyl acetate	0.0083	U	0.0083	0.0071	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Methyl tert-butyl ether	0.0017	U	0.0017	0.00085	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Methylcyclohexane	0.0017	U	0.0017	0.00083	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Methylene Chloride	0.0023	J	0.0033	0.0019	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
m-Xylene & p-Xylene	0.0017	U	0.0017	0.00029	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
o-Xylene	0.0017	U	0.0017	0.00032	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Styrene	0.0017	U	0.0017	0.00046	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Tetrachloroethene	0.0017	U	0.0017	0.00050	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Toluene	0.0017	U	0.0017	0.00039	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
trans-1,2-Dichloroethene	0.0017	U	0.0017	0.00041	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
trans-1,3-Dichloropropene	0.0017	U	0.0017	0.00044	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Trichloroethene	0.0017	U	0.0017	0.00053	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248693-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.7

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.0017	U	0.0017	0.00067	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Vinyl chloride	0.0017	U	0.0017	0.00090	mg/Kg	☆	12/09/21 17:56	12/12/21 02:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		77 - 145				12/09/21 17:56	12/12/21 02:47	1
4-Bromofluorobenzene	111		70 - 139				12/09/21 17:56	12/12/21 02:47	1
Dibromofluoromethane (Surr)	113		48 - 150				12/09/21 17:56	12/12/21 02:47	1
Toluene-d8 (Surr)	106		80 - 120				12/09/21 17:56	12/12/21 02:47	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.013	J	0.36	0.0047	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
1,4-Dioxane	0.036	U *	0.036	0.031	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0065	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.024	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
2,4,5-Trichlorophenol	0.36	U	0.36	0.036	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
2,4,6-Trichlorophenol	0.14	U	0.14	0.046	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
2,4-Dichlorophenol	0.14	U	0.14	0.023	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
2,4-Dinitrotoluene	0.072	U	0.072	0.038	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
2,6-Dinitrotoluene	0.072	U	0.072	0.026	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
2-Methylnaphthalene	0.045	J	0.36	0.010	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
2-Methylphenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
2-Nitroaniline	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
2-Nitrophenol	0.36	U	0.36	0.036	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
3,3'-Dichlorobenzidine	0.14	U	0.14	0.054	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
3-Nitroaniline	0.36	U	0.36	0.040	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
4-Chloroaniline	0.36	U	0.36	0.063	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
4-Methylphenol	0.36	U	0.36	0.022	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
4-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
4-Nitrophenol	0.72	U	0.72	0.058	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Acenaphthene	0.069	J	0.36	0.010	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Acenaphthylene	0.027	J	0.36	0.0036	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Acetophenone	0.028	J	0.36	0.018	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Anthracene	0.19	J	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Atrazine	0.14	U	0.14	0.021	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Benzaldehyde	0.36	U	0.36	0.059	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Benzo[a]anthracene	0.66		0.036	0.012	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Benzo[a]pyrene	0.66		0.036	0.0095	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Benzo[b]fluoranthene	0.88		0.036	0.0092	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Benzo[g,h,i]perylene	0.34	J	0.36	0.011	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Benzo[k]fluoranthene	0.38		0.036	0.0070	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248693-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.012	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Bis(2-ethylhexyl) phthalate	0.036	J	0.36	0.019	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Butyl benzyl phthalate	0.36	U	0.36	0.017	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Caprolactam	0.36	U	0.36	0.056	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Carbazole	0.058	J	0.36	0.014	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Chrysene	0.61		0.36	0.0060	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Dibenz(a,h)anthracene	0.068		0.036	0.015	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Dibenzofuran	0.045	J	0.36	0.0050	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Diethyl phthalate	0.36	U	0.36	0.0052	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Dimethyl phthalate	0.36	U	0.36	0.081	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Di-n-butyl phthalate	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Di-n-octyl phthalate	0.36	U	0.36	0.019	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Fluoranthene	1.3		0.36	0.012	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Fluorene	0.060	J	0.36	0.0048	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Hexachlorobutadiene	0.072	U	0.072	0.0076	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.031	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Hexachloroethane	0.036	U	0.036	0.012	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Indeno[1,2,3-cd]pyrene	0.55		0.036	0.014	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Isophorone	0.14	U	0.14	0.10	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Naphthalene	0.058	J	0.36	0.0062	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Nitrobenzene	0.036	U	0.036	0.0086	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.026	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
N-Nitrosodiphenylamine	0.36	U	0.36	0.029	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Pentachlorophenol	0.29	U	0.29	0.073	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Phenanthrene	0.77		0.36	0.0063	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Phenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1
Pyrene	1.2		0.36	0.0089	mg/Kg	☆	12/10/21 10:04	12/11/21 07:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	57		10 - 123	12/10/21 10:04	12/11/21 07:37	1
2-Fluorobiphenyl	54		14 - 103	12/10/21 10:04	12/11/21 07:37	1
2-Fluorophenol (Surr)	56		10 - 105	12/10/21 10:04	12/11/21 07:37	1
Nitrobenzene-d5 (Surr)	54		11 - 104	12/10/21 10:04	12/11/21 07:37	1
Phenol-d5 (Surr)	54		15 - 100	12/10/21 10:04	12/11/21 07:37	1
Terphenyl-d14 (Surr)	50		12 - 126	12/10/21 10:04	12/11/21 07:37	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0072	U	0.0072	0.0012	mg/Kg	☆	12/10/21 17:51	12/13/21 05:30	1
4,4'-DDE	0.0072	U	0.0072	0.00085	mg/Kg	☆	12/10/21 17:51	12/13/21 05:30	1
4,4'-DDT	0.0072	U	0.0072	0.0013	mg/Kg	☆	12/10/21 17:51	12/13/21 05:30	1
Aldrin	0.0072	U	0.0072	0.0011	mg/Kg	☆	12/10/21 17:51	12/13/21 05:30	1
alpha-BHC	0.0022	U	0.0022	0.00073	mg/Kg	☆	12/10/21 17:51	12/13/21 05:30	1
beta-BHC	0.0022	U	0.0022	0.00081	mg/Kg	☆	12/10/21 17:51	12/13/21 05:30	1
Chlordane (technical)	0.072	U	0.072	0.017	mg/Kg	☆	12/10/21 17:51	12/13/21 05:30	1
delta-BHC	0.0022	U	0.0022	0.00044	mg/Kg	☆	12/10/21 17:51	12/13/21 05:30	1
Dieldrin	0.0022	U	0.0022	0.00094	mg/Kg	☆	12/10/21 17:51	12/13/21 05:30	1
Endosulfan I	0.0072	U	0.0072	0.0011	mg/Kg	☆	12/10/21 17:51	12/13/21 05:30	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248693-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.7

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	0.0072	U	0.0072	0.0019	mg/Kg	✱	12/10/21 17:51	12/13/21 05:30	1
Endosulfan sulfate	0.0072	U	0.0072	0.00091	mg/Kg	✱	12/10/21 17:51	12/13/21 05:30	1
Endrin	0.0072	U	0.0072	0.0010	mg/Kg	✱	12/10/21 17:51	12/13/21 05:30	1
Endrin aldehyde	0.0072	U	0.0072	0.0017	mg/Kg	✱	12/10/21 17:51	12/13/21 05:30	1
Endrin ketone	0.0072	U	0.0072	0.0014	mg/Kg	✱	12/10/21 17:51	12/13/21 05:30	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00067	mg/Kg	✱	12/10/21 17:51	12/13/21 05:30	1
Heptachlor	0.0072	U	0.0072	0.00085	mg/Kg	✱	12/10/21 17:51	12/13/21 05:30	1
Heptachlor epoxide	0.0072	U	0.0072	0.0011	mg/Kg	✱	12/10/21 17:51	12/13/21 05:30	1
Methoxychlor	0.0072	U	0.0072	0.0017	mg/Kg	✱	12/10/21 17:51	12/13/21 05:30	1
Toxaphene	0.072	U	0.072	0.026	mg/Kg	✱	12/10/21 17:51	12/13/21 05:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	99		10 - 150	12/10/21 17:51	12/13/21 05:30	1
DCB Decachlorobiphenyl	96		10 - 150	12/10/21 17:51	12/13/21 05:30	1
Tetrachloro-m-xylene	100		10 - 133	12/10/21 17:51	12/13/21 05:30	1
Tetrachloro-m-xylene	94		10 - 133	12/10/21 17:51	12/13/21 05:30	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:59	1
Aroclor 1221	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:59	1
Aroclor 1232	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:59	1
Aroclor 1242	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:59	1
Aroclor 1248	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:59	1
Aroclor 1254	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:59	1
Aroclor 1260	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:59	1
Aroclor-1262	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:59	1
Aroclor 1268	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:59	1
Polychlorinated biphenyls, Total	0.072	U	0.072	0.019	mg/Kg	✱	12/10/21 17:42	12/13/21 00:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	89		37 - 150	12/10/21 17:42	12/13/21 00:59	1
DCB Decachlorobiphenyl	101		37 - 150	12/10/21 17:42	12/13/21 00:59	1
Tetrachloro-m-xylene	66		54 - 150	12/10/21 17:42	12/13/21 00:59	1
Tetrachloro-m-xylene	105		54 - 150	12/10/21 17:42	12/13/21 00:59	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.18	U	0.18	0.038	mg/Kg	✱	12/10/21 00:41	12/10/21 21:15	5
2,4-D	0.18	U	0.18	0.065	mg/Kg	✱	12/10/21 00:41	12/10/21 21:15	5
Silvex (2,4,5-TP)	0.18	U	0.18	0.019	mg/Kg	✱	12/10/21 00:41	12/10/21 21:15	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	140		65 - 150	12/10/21 00:41	12/10/21 21:15	5
2,4-Dichlorophenylacetic acid	197	*	65 - 150	12/10/21 00:41	12/10/21 21:15	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	4480		20.2	5.5	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Antimony	0.66	J	1.0	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Arsenic	6.5		1.0	0.10	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248693-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.7

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	63.7		2.0	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Beryllium	0.28	J	0.40	0.057	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Cadmium	0.42	J	1.0	0.11	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Calcium	35000		101	17.9	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Chromium	11.1		2.0	0.27	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Cobalt	5.6		2.0	0.15	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Copper	85.9		2.0	0.37	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Iron	14700		60.5	20.4	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Lead	159		0.61	0.20	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Magnesium	12400		101	10.3	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Manganese	205		4.0	0.41	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Nickel	12.6		2.0	0.47	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Potassium	719		101	12.2	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Selenium	0.40	J	1.3	0.13	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Silver	0.17	J	1.0	0.090	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Sodium	695		101	46.1	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Thallium	0.085	J	0.40	0.041	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Vanadium	26.7		2.0	0.21	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1
Zinc	161		8.1	3.1	mg/Kg	✱	12/15/21 18:44	12/16/21 14:48	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.49		0.017	0.0081	mg/Kg	✱	12/13/21 03:29	12/13/21 08:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.3		1.0	1.0	%			12/13/21 01:52	1
Percent Solids	92.7		1.0	1.0	%			12/13/21 01:52	1

Surrogate Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-248693-1	TRC-SB-01 (0-0.5)	92	107	108	102
460-248693-2	TRC-SB-05 (0-0.5)	90	105	107	102
460-248693-3	TRC-SB-06 (0-0.5)	89	104	101	100
460-248693-4	TRC-SB-09 (0-0.5)	90	104	108	99
460-248693-5	TRC-SB-12 (0-0.5)	93	111	110	104
460-248693-6	TRC-SB-13 (0-0.5)	86	108	102	100
460-248693-7	TRC-SB-10 (0-0.5)	92	104	108	103
460-248693-8	TRC-SB-14 (0-0.5)	87	103	103	101
460-248693-9	TRC-SB-11 (0-0.5)	90	105	107	100
460-248693-10	TRC-SB-15 (0-0.5)	94	111	113	106
LCS 460-818339/4	Lab Control Sample	88	102	102	101
LCSD 460-818339/5	Lab Control Sample Dup	87	111	103	106
MB 460-818339/9	Method Blank	88	104	106	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-123)	FBP (14-103)	2FP (10-105)	NBZ (11-104)	PHL (15-100)	TPHL (12-126)
460-248693-1	TRC-SB-01 (0-0.5)	72	64	60	60	61	69
460-248693-2	TRC-SB-05 (0-0.5)	46	47	47	47	46	46
460-248693-3	TRC-SB-06 (0-0.5)	13	48	45	43	47	49
460-248693-4	TRC-SB-09 (0-0.5)	34	39	40	35	41	40
460-248693-5	TRC-SB-12 (0-0.5)	54	52	53	53	53	51
460-248693-6	TRC-SB-13 (0-0.5)	51	48	46	45	48	49
460-248693-7	TRC-SB-10 (0-0.5)	37	34	31	30	33	36
460-248693-8	TRC-SB-14 (0-0.5)	46	46	45	46	44	44
460-248693-9	TRC-SB-11 (0-0.5)	43	52	50	50	52	52
460-248693-10	TRC-SB-15 (0-0.5)	57	54	56	54	54	50
460-248701-E-3-A MS	Matrix Spike	53	46	45	43	46	48
460-248701-E-3-B MSD	Matrix Spike Duplicate	48	43	41	40	41	45
LCS 460-818114/2-A	Lab Control Sample	75	69	65	66	66	70
LCSD 460-818114/3-A	Lab Control Sample Dup	78	70	66	69	67	69
MB 460-818114/1-A	Method Blank	82	76	72	77	74	82

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

Eurofins TestAmerica, Edison

Surrogate Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-248664-F-1-E MS	Matrix Spike	94	98	88	95
460-248664-F-1-F MSD	Matrix Spike Duplicate	84	97	87	95
460-248693-1	TRC-SB-01 (0-0.5)	87	94	83	91
460-248693-2	TRC-SB-05 (0-0.5)	88	95	86	92
460-248693-3	TRC-SB-06 (0-0.5)	78	91	83	89
460-248693-4	TRC-SB-09 (0-0.5)	158 *	177 *	156 *	170 *
460-248693-5	TRC-SB-12 (0-0.5)	81	94	86	91
460-248693-6	TRC-SB-13 (0-0.5)	79	85	80	86
460-248693-7	TRC-SB-10 (0-0.5)	92	97	88	95
460-248693-8	TRC-SB-14 (0-0.5)	93	95	88	95
460-248693-9	TRC-SB-11 (0-0.5)	94	93	85	91
460-248693-10	TRC-SB-15 (0-0.5)	96	99	94	100
LCS 460-818190/2-A	Lab Control Sample	80	77	73	75
LCSD 460-818190/3-A	Lab Control Sample Dup	70	78	73	77
MB 460-818190/1-A	Method Blank	66	65	62	66

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-248664-F-1-B MS	Matrix Spike	99	74	94	99
460-248664-F-1-C MSD	Matrix Spike Duplicate	99	85	88	57
460-248693-1	TRC-SB-01 (0-0.5)	92	81	90	55
460-248693-2	TRC-SB-05 (0-0.5)	96	81	88	70
460-248693-3	TRC-SB-06 (0-0.5)	89	74	90	52 *
460-248693-4	TRC-SB-09 (0-0.5)	203 *	170 *	168 *	103
460-248693-5	TRC-SB-12 (0-0.5)	90	75	96	60
460-248693-6	TRC-SB-13 (0-0.5)	95	87	100	73
460-248693-7	TRC-SB-10 (0-0.5)	107	87	111	110
460-248693-8	TRC-SB-14 (0-0.5)	96	83	103	69
460-248693-9	TRC-SB-11 (0-0.5)	88	77	86	75
460-248693-10	TRC-SB-15 (0-0.5)	101	89	105	66
LCS 460-818188/2-A	Lab Control Sample	104	79	98	53 *
LCSD 460-818188/3-A	Lab Control Sample Dup	118	86	108	61
MB 460-818188/1-A	Method Blank	117	94	106	78

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (65-150)	DCPAA2 (65-150)
460-248693-1	TRC-SB-01 (0-0.5)	132	124
460-248693-2	TRC-SB-05 (0-0.5)	119	107
460-248693-3	TRC-SB-06 (0-0.5)	205 *	146
460-248693-4	TRC-SB-09 (0-0.5)	191 *	135
460-248693-5	TRC-SB-12 (0-0.5)	202 *	143
460-248693-6	TRC-SB-13 (0-0.5)	192 *	137
460-248693-7	TRC-SB-10 (0-0.5)	155 *	129
460-248693-8	TRC-SB-14 (0-0.5)	179 *	135
460-248693-9	TRC-SB-11 (0-0.5)	186 *	148
460-248693-10	TRC-SB-15 (0-0.5)	197 *	140
LCS 460-818020/2-A	Lab Control Sample	126	128
LCSD 460-818020/3-A	Lab Control Sample Dup	131	129
MB 460-818020/1-A	Method Blank	129	119

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-818339/9

Matrix: Solid

Analysis Batch: 818339

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0010	U	0.0010	0.00023	mg/Kg			12/11/21 22:14	1
1,1,2,2-Tetrachloroethane	0.0010	U	0.0010	0.00021	mg/Kg			12/11/21 22:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0010	U	0.0010	0.00030	mg/Kg			12/11/21 22:14	1
1,1,2-Trichloroethane	0.0010	U	0.0010	0.00018	mg/Kg			12/11/21 22:14	1
1,1-Dichloroethane	0.0010	U	0.0010	0.00021	mg/Kg			12/11/21 22:14	1
1,1-Dichloroethene	0.0010	U	0.0010	0.00023	mg/Kg			12/11/21 22:14	1
1,2,3-Trichlorobenzene	0.0010	U	0.0010	0.00018	mg/Kg			12/11/21 22:14	1
1,2,4-Trichlorobenzene	0.0010	U	0.0010	0.00036	mg/Kg			12/11/21 22:14	1
1,2-Dibromo-3-Chloropropane	0.0010	U	0.0010	0.00046	mg/Kg			12/11/21 22:14	1
1,2-Dichlorobenzene	0.0010	U	0.0010	0.00036	mg/Kg			12/11/21 22:14	1
1,2-Dichloroethane	0.0010	U	0.0010	0.00030	mg/Kg			12/11/21 22:14	1
1,2-Dichloropropane	0.0010	U	0.0010	0.00042	mg/Kg			12/11/21 22:14	1
1,3-Dichlorobenzene	0.0010	U	0.0010	0.00037	mg/Kg			12/11/21 22:14	1
1,4-Dichlorobenzene	0.0010	U	0.0010	0.00023	mg/Kg			12/11/21 22:14	1
2-Butanone (MEK)	0.0050	U	0.0050	0.00037	mg/Kg			12/11/21 22:14	1
2-Hexanone	0.0050	U	0.0050	0.0017	mg/Kg			12/11/21 22:14	1
4-Methyl-2-pentanone (MIBK)	0.0050	U	0.0050	0.0016	mg/Kg			12/11/21 22:14	1
Acetone	0.0060	U	0.0060	0.0057	mg/Kg			12/11/21 22:14	1
Benzene	0.0010	U	0.0010	0.00026	mg/Kg			12/11/21 22:14	1
Bromoform	0.0010	U	0.0010	0.00043	mg/Kg			12/11/21 22:14	1
Bromomethane	0.0020	U	0.0020	0.0010	mg/Kg			12/11/21 22:14	1
Carbon disulfide	0.0010	U	0.0010	0.00027	mg/Kg			12/11/21 22:14	1
Carbon tetrachloride	0.0010	U	0.0010	0.00039	mg/Kg			12/11/21 22:14	1
Chlorobenzene	0.0010	U	0.0010	0.00018	mg/Kg			12/11/21 22:14	1
Chlorobromomethane	0.0010	U	0.0010	0.00028	mg/Kg			12/11/21 22:14	1
Chlorodibromomethane	0.0010	U	0.0010	0.00019	mg/Kg			12/11/21 22:14	1
Chloroethane	0.0010	U	0.0010	0.00052	mg/Kg			12/11/21 22:14	1
Chloroform	0.0010	U	0.0010	0.00097	mg/Kg			12/11/21 22:14	1
Chloromethane	0.0010	U	0.0010	0.00044	mg/Kg			12/11/21 22:14	1
cis-1,2-Dichloroethene	0.0010	U	0.0010	0.00036	mg/Kg			12/11/21 22:14	1
cis-1,3-Dichloropropene	0.0010	U	0.0010	0.00027	mg/Kg			12/11/21 22:14	1
Cyclohexane	0.0010	U	0.0010	0.00022	mg/Kg			12/11/21 22:14	1
Dichlorobromomethane	0.0010	U	0.0010	0.00026	mg/Kg			12/11/21 22:14	1
Dichlorodifluoromethane	0.0010	U	0.0010	0.00034	mg/Kg			12/11/21 22:14	1
Ethylbenzene	0.0010	U	0.0010	0.00020	mg/Kg			12/11/21 22:14	1
Ethylene Dibromide	0.0010	U	0.0010	0.00018	mg/Kg			12/11/21 22:14	1
Isopropylbenzene	0.0010	U	0.0010	0.00029	mg/Kg			12/11/21 22:14	1
Methyl acetate	0.0050	U	0.0050	0.0043	mg/Kg			12/11/21 22:14	1
Methyl tert-butyl ether	0.0010	U	0.0010	0.00051	mg/Kg			12/11/21 22:14	1
Methylcyclohexane	0.0010	U	0.0010	0.00050	mg/Kg			12/11/21 22:14	1
Methylene Chloride	0.0020	U	0.0020	0.0011	mg/Kg			12/11/21 22:14	1
m-Xylene & p-Xylene	0.0010	U	0.0010	0.00017	mg/Kg			12/11/21 22:14	1
o-Xylene	0.0010	U	0.0010	0.00019	mg/Kg			12/11/21 22:14	1
Styrene	0.0010	U	0.0010	0.00028	mg/Kg			12/11/21 22:14	1
Tetrachloroethene	0.0010	U	0.0010	0.00031	mg/Kg			12/11/21 22:14	1
Toluene	0.0010	U	0.0010	0.00023	mg/Kg			12/11/21 22:14	1
trans-1,2-Dichloroethene	0.0010	U	0.0010	0.00025	mg/Kg			12/11/21 22:14	1
trans-1,3-Dichloropropene	0.0010	U	0.0010	0.00027	mg/Kg			12/11/21 22:14	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-818339/9

Matrix: Solid

Analysis Batch: 818339

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	0.0010	U	0.0010	0.00032	mg/Kg			12/11/21 22:14	1
Trichlorofluoromethane	0.0010	U	0.0010	0.00041	mg/Kg			12/11/21 22:14	1
Vinyl chloride	0.0010	U	0.0010	0.00055	mg/Kg			12/11/21 22:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		77 - 145		12/11/21 22:14	1
4-Bromofluorobenzene	104		70 - 139		12/11/21 22:14	1
Dibromofluoromethane (Surr)	106		48 - 150		12/11/21 22:14	1
Toluene-d8 (Surr)	103		80 - 120		12/11/21 22:14	1

Lab Sample ID: LCS 460-818339/4

Matrix: Solid

Analysis Batch: 818339

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.0200	0.0191		mg/Kg		96	78 - 132
1,1,2,2-Tetrachloroethane	0.0200	0.0198		mg/Kg		99	69 - 123
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0200	0.0227		mg/Kg		114	78 - 136
1,1,2-Trichloroethane	0.0200	0.0203		mg/Kg		102	75 - 120
1,1-Dichloroethane	0.0200	0.0216		mg/Kg		108	76 - 129
1,1-Dichloroethene	0.0200	0.0223		mg/Kg		112	77 - 132
1,2,3-Trichlorobenzene	0.0200	0.0195		mg/Kg		98	65 - 144
1,2,4-Trichlorobenzene	0.0200	0.0189		mg/Kg		95	75 - 120
1,2-Dibromo-3-Chloropropane	0.0200	0.0185		mg/Kg		92	60 - 126
1,2-Dichlorobenzene	0.0200	0.0195		mg/Kg		98	80 - 120
1,2-Dichloroethane	0.0200	0.0183		mg/Kg		91	70 - 132
1,2-Dichloropropane	0.0200	0.0220		mg/Kg		110	73 - 124
1,3-Dichlorobenzene	0.0200	0.0206		mg/Kg		103	80 - 120
1,4-Dichlorobenzene	0.0200	0.0199		mg/Kg		99	80 - 120
2-Butanone (MEK)	0.100	0.0931		mg/Kg		93	75 - 120
2-Hexanone	0.100	0.105		mg/Kg		105	78 - 120
4-Methyl-2-pentanone (MIBK)	0.100	0.102		mg/Kg		102	80 - 122
Acetone	0.100	0.0823		mg/Kg		82	63 - 131
Benzene	0.0200	0.0207		mg/Kg		104	80 - 123
Bromoform	0.0200	0.0202		mg/Kg		101	48 - 142
Bromomethane	0.0200	0.0245		mg/Kg		123	46 - 150
Carbon disulfide	0.0200	0.0227		mg/Kg		113	67 - 136
Carbon tetrachloride	0.0200	0.0194		mg/Kg		97	72 - 136
Chlorobenzene	0.0200	0.0200		mg/Kg		100	80 - 120
Chlorobromomethane	0.0200	0.0211		mg/Kg		105	76 - 127
Chlorodibromomethane	0.0200	0.0202		mg/Kg		101	62 - 128
Chloroethane	0.0200	0.0207		mg/Kg		104	49 - 150
Chloroform	0.0200	0.0200		mg/Kg		100	79 - 126
Chloromethane	0.0200	0.0211		mg/Kg		106	48 - 150
cis-1,2-Dichloroethene	0.0200	0.0216		mg/Kg		108	80 - 123
cis-1,3-Dichloropropene	0.0200	0.0205		mg/Kg		102	72 - 120
Cyclohexane	0.0200	0.0225		mg/Kg		112	80 - 132
Dichlorobromomethane	0.0200	0.0202		mg/Kg		101	73 - 124

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-818339/4

Matrix: Solid

Analysis Batch: 818339

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	0.0200	0.0183		mg/Kg		92	40 - 146
Ethylbenzene	0.0200	0.0207		mg/Kg		104	80 - 120
Ethylene Dibromide	0.0200	0.0192		mg/Kg		96	79 - 120
Isopropylbenzene	0.0200	0.0207		mg/Kg		103	80 - 120
Methyl acetate	0.0400	0.0440		mg/Kg		110	58 - 143
Methyl tert-butyl ether	0.0200	0.0206		mg/Kg		103	80 - 125
Methylcyclohexane	0.0200	0.0224		mg/Kg		112	79 - 133
Methylene Chloride	0.0200	0.0201		mg/Kg		100	76 - 127
m-Xylene & p-Xylene	0.0200	0.0209		mg/Kg		104	80 - 120
o-Xylene	0.0200	0.0218		mg/Kg		109	80 - 120
Styrene	0.0200	0.0211		mg/Kg		106	80 - 120
Tetrachloroethene	0.0200	0.0198		mg/Kg		99	78 - 123
Toluene	0.0200	0.0192		mg/Kg		96	80 - 120
trans-1,2-Dichloroethene	0.0200	0.0216		mg/Kg		108	78 - 128
trans-1,3-Dichloropropene	0.0200	0.0198		mg/Kg		99	68 - 120
Trichloroethene	0.0200	0.0205		mg/Kg		102	79 - 120
Trichlorofluoromethane	0.0200	0.0209		mg/Kg		104	67 - 142
Vinyl chloride	0.0200	0.0217		mg/Kg		109	56 - 147

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		77 - 145
4-Bromofluorobenzene	102		70 - 139
Dibromofluoromethane (Surr)	102		48 - 150
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: LCSD 460-818339/5

Matrix: Solid

Analysis Batch: 818339

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.0200	0.0191		mg/Kg		96	78 - 132	0	30
1,1,2,2-Tetrachloroethane	0.0200	0.0215		mg/Kg		108	69 - 123	8	30
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0200	0.0222		mg/Kg		111	78 - 136	2	30
1,1,2-Trichloroethane	0.0200	0.0213		mg/Kg		106	75 - 120	5	30
1,1-Dichloroethane	0.0200	0.0218		mg/Kg		109	76 - 129	1	30
1,1-Dichloroethene	0.0200	0.0223		mg/Kg		112	77 - 132	0	30
1,2,3-Trichlorobenzene	0.0200	0.0199		mg/Kg		100	65 - 144	2	30
1,2,4-Trichlorobenzene	0.0200	0.0198		mg/Kg		99	75 - 120	5	30
1,2-Dibromo-3-Chloropropane	0.0200	0.0201		mg/Kg		100	60 - 126	8	30
1,2-Dichlorobenzene	0.0200	0.0201		mg/Kg		101	80 - 120	3	30
1,2-Dichloroethane	0.0200	0.0185		mg/Kg		92	70 - 132	1	30
1,2-Dichloropropane	0.0200	0.0225		mg/Kg		113	73 - 124	2	30
1,3-Dichlorobenzene	0.0200	0.0216		mg/Kg		108	80 - 120	5	30
1,4-Dichlorobenzene	0.0200	0.0209		mg/Kg		105	80 - 120	5	30
2-Butanone (MEK)	0.100	0.0979		mg/Kg		98	75 - 120	5	30
2-Hexanone	0.100	0.106		mg/Kg		106	78 - 120	1	30
4-Methyl-2-pentanone (MIBK)	0.100	0.107		mg/Kg		107	80 - 122	4	30
Acetone	0.100	0.0870		mg/Kg		87	63 - 131	6	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-818339/5

Matrix: Solid

Analysis Batch: 818339

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0200	0.0219		mg/Kg		110	80 - 123	6	30
Bromoform	0.0200	0.0215		mg/Kg		108	48 - 142	6	30
Bromomethane	0.0200	0.0244		mg/Kg		122	46 - 150	1	30
Carbon disulfide	0.0200	0.0224		mg/Kg		112	67 - 136	1	30
Carbon tetrachloride	0.0200	0.0196		mg/Kg		98	72 - 136	1	30
Chlorobenzene	0.0200	0.0206		mg/Kg		103	80 - 120	3	30
Chlorobromomethane	0.0200	0.0221		mg/Kg		111	76 - 127	5	30
Chlorodibromomethane	0.0200	0.0204		mg/Kg		102	62 - 128	1	30
Chloroethane	0.0200	0.0201		mg/Kg		101	49 - 150	3	30
Chloroform	0.0200	0.0198		mg/Kg		99	79 - 126	1	30
Chloromethane	0.0200	0.0196		mg/Kg		98	48 - 150	7	30
cis-1,2-Dichloroethene	0.0200	0.0215		mg/Kg		107	80 - 123	0	30
cis-1,3-Dichloropropene	0.0200	0.0218		mg/Kg		109	72 - 120	6	30
Cyclohexane	0.0200	0.0220		mg/Kg		110	80 - 132	2	30
Dichlorobromomethane	0.0200	0.0202		mg/Kg		101	73 - 124	0	30
Dichlorodifluoromethane	0.0200	0.0175		mg/Kg		88	40 - 146	4	30
Ethylbenzene	0.0200	0.0213		mg/Kg		106	80 - 120	3	30
Ethylene Dibromide	0.0200	0.0206		mg/Kg		103	79 - 120	7	30
Isopropylbenzene	0.0200	0.0214		mg/Kg		107	80 - 120	4	30
Methyl acetate	0.0400	0.0453		mg/Kg		113	58 - 143	3	30
Methyl tert-butyl ether	0.0200	0.0212		mg/Kg		106	80 - 125	3	30
Methylcyclohexane	0.0200	0.0220		mg/Kg		110	79 - 133	2	30
Methylene Chloride	0.0200	0.0204		mg/Kg		102	76 - 127	1	30
m-Xylene & p-Xylene	0.0200	0.0211		mg/Kg		105	80 - 120	1	30
o-Xylene	0.0200	0.0222		mg/Kg		111	80 - 120	2	30
Styrene	0.0200	0.0210		mg/Kg		105	80 - 120	0	30
Tetrachloroethene	0.0200	0.0209		mg/Kg		105	78 - 123	6	30
Toluene	0.0200	0.0200		mg/Kg		100	80 - 120	4	30
trans-1,2-Dichloroethene	0.0200	0.0217		mg/Kg		109	78 - 128	1	30
trans-1,3-Dichloropropene	0.0200	0.0206		mg/Kg		103	68 - 120	4	30
Trichloroethene	0.0200	0.0205		mg/Kg		102	79 - 120	0	30
Trichlorofluoromethane	0.0200	0.0201		mg/Kg		101	67 - 142	4	30
Vinyl chloride	0.0200	0.0216		mg/Kg		108	56 - 147	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		77 - 145
4-Bromofluorobenzene	111		70 - 139
Dibromofluoromethane (Surr)	103		48 - 150
Toluene-d8 (Surr)	106		80 - 120

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-818114/1-A

Matrix: Solid

Analysis Batch: 818224

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818114

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.33	U	0.33	0.0044	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
1,2,4,5-Tetrachlorobenzene	0.33	U	0.33	0.010	mg/Kg		12/10/21 10:04	12/10/21 22:41	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-818114/1-A

Matrix: Solid

Analysis Batch: 818224

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818114

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.033	U	0.033	0.029	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
2,2'-oxybis[1-chloropropane]	0.33	U	0.33	0.0060	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
2,3,4,6-Tetrachlorophenol	0.33	U	0.33	0.022	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
2,4,5-Trichlorophenol	0.33	U	0.33	0.034	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
2,4,6-Trichlorophenol	0.13	U	0.13	0.042	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
2,4-Dichlorophenol	0.13	U	0.13	0.021	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
2,4-Dimethylphenol	0.33	U	0.33	0.015	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
2,4-Dinitrophenol	0.27	U	0.27	0.16	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
2,4-Dinitrotoluene	0.067	U	0.067	0.036	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
2,6-Dinitrotoluene	0.067	U	0.067	0.024	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
2-Chloronaphthalene	0.33	U	0.33	0.015	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
2-Chlorophenol	0.33	U	0.33	0.012	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
2-Methylnaphthalene	0.33	U	0.33	0.0093	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
2-Methylphenol	0.33	U	0.33	0.012	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
2-Nitroaniline	0.33	U	0.33	0.012	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
2-Nitrophenol	0.33	U	0.33	0.033	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
3,3'-Dichlorobenzidine	0.13	U	0.13	0.050	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
3-Nitroaniline	0.33	U	0.33	0.037	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
4,6-Dinitro-2-methylphenol	0.27	U	0.27	0.14	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
4-Bromophenyl phenyl ether	0.33	U	0.33	0.013	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
4-Chloro-3-methylphenol	0.33	U	0.33	0.019	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
4-Chloroaniline	0.33	U	0.33	0.059	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
4-Chlorophenyl phenyl ether	0.33	U	0.33	0.012	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
4-Methylphenol	0.33	U	0.33	0.021	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
4-Nitroaniline	0.33	U	0.33	0.038	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
4-Nitrophenol	0.67	U	0.67	0.054	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Acenaphthene	0.33	U	0.33	0.0094	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Acenaphthylene	0.33	U	0.33	0.0033	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Acetophenone	0.33	U	0.33	0.016	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Anthracene	0.33	U	0.33	0.010	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Atrazine	0.13	U	0.13	0.019	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Benzaldehyde	0.33	U	0.33	0.055	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Benzo[a]anthracene	0.033	U	0.033	0.012	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Benzo[a]pyrene	0.033	U	0.033	0.0088	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Benzo[b]fluoranthene	0.033	U	0.033	0.0086	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Benzo[g,h,i]perylene	0.33	U	0.33	0.0098	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Benzo[k]fluoranthene	0.033	U	0.033	0.0065	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Bis(2-chloroethoxy)methane	0.33	U	0.33	0.026	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Bis(2-chloroethyl)ether	0.033	U	0.033	0.012	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Bis(2-ethylhexyl) phthalate	0.33	U	0.33	0.017	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Butyl benzyl phthalate	0.33	U	0.33	0.016	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Caprolactam	0.33	U	0.33	0.051	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Carbazole	0.33	U	0.33	0.013	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Chrysene	0.33	U	0.33	0.0056	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Dibenz(a,h)anthracene	0.033	U	0.033	0.014	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Dibenzofuran	0.33	U	0.33	0.0046	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Diethyl phthalate	0.33	U	0.33	0.0048	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Dimethyl phthalate	0.33	U	0.33	0.075	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Di-n-butyl phthalate	0.33	U	0.33	0.012	mg/Kg		12/10/21 10:04	12/10/21 22:41	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-818114/1-A

Matrix: Solid

Analysis Batch: 818224

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818114

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	0.33	U	0.33	0.018	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Fluoranthene	0.33	U	0.33	0.012	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Fluorene	0.33	U	0.33	0.0045	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Hexachlorobenzene	0.033	U	0.033	0.016	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Hexachlorobutadiene	0.067	U	0.067	0.0070	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Hexachlorocyclopentadiene	0.33	U	0.33	0.029	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Hexachloroethane	0.033	U	0.033	0.011	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Indeno[1,2,3-cd]pyrene	0.033	U	0.033	0.013	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Isophorone	0.13	U	0.13	0.096	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Naphthalene	0.33	U	0.33	0.0057	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Nitrobenzene	0.033	U	0.033	0.0079	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
N-Nitrosodi-n-propylamine	0.033	U	0.033	0.024	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
N-Nitrosodiphenylamine	0.33	U	0.33	0.027	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Pentachlorophenol	0.27	U	0.27	0.068	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Phenanthrene	0.33	U	0.33	0.0058	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Phenol	0.33	U	0.33	0.012	mg/Kg		12/10/21 10:04	12/10/21 22:41	1
Pyrene	0.33	U	0.33	0.0082	mg/Kg		12/10/21 10:04	12/10/21 22:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	82		10 - 123	12/10/21 10:04	12/10/21 22:41	1
2-Fluorobiphenyl	76		14 - 103	12/10/21 10:04	12/10/21 22:41	1
2-Fluorophenol (Surr)	72		10 - 105	12/10/21 10:04	12/10/21 22:41	1
Nitrobenzene-d5 (Surr)	77		11 - 104	12/10/21 10:04	12/10/21 22:41	1
Phenol-d5 (Surr)	74		15 - 100	12/10/21 10:04	12/10/21 22:41	1
Terphenyl-d14 (Surr)	82		12 - 126	12/10/21 10:04	12/10/21 22:41	1

Lab Sample ID: LCS 460-818114/2-A

Matrix: Solid

Analysis Batch: 818224

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818114

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	3.33	2.81		mg/Kg		84	65 - 110
1,2,4,5-Tetrachlorobenzene	3.33	2.81		mg/Kg		84	64 - 110
1,4-Dioxane	3.33	2.75	*	mg/Kg		82	31 - 81
2,2'-oxybis[1-chloropropane]	3.33	2.49		mg/Kg		75	49 - 109
2,3,4,6-Tetrachlorophenol	3.33	3.01		mg/Kg		90	58 - 113
2,4,5-Trichlorophenol	3.33	2.84		mg/Kg		85	64 - 112
2,4,6-Trichlorophenol	3.33	2.84		mg/Kg		85	63 - 113
2,4-Dichlorophenol	3.33	2.83		mg/Kg		85	66 - 113
2,4-Dimethylphenol	3.33	2.77		mg/Kg		83	63 - 107
2,4-Dinitrophenol	6.67	6.16		mg/Kg		92	25 - 150
2,4-Dinitrotoluene	3.33	3.16		mg/Kg		95	65 - 124
2,6-Dinitrotoluene	3.33	3.04		mg/Kg		91	67 - 121
2-Chloronaphthalene	3.33	2.76		mg/Kg		83	65 - 109
2-Chlorophenol	3.33	2.76		mg/Kg		83	63 - 106
2-Methylnaphthalene	3.33	2.68		mg/Kg		80	64 - 108
2-Methylphenol	3.33	2.71		mg/Kg		81	63 - 108
2-Nitroaniline	3.33	2.76		mg/Kg		83	59 - 119

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-818114/2-A

Matrix: Solid

Analysis Batch: 818224

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818114

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Nitrophenol	3.33	2.91		mg/Kg		87	64 - 112
3,3'-Dichlorobenzidine	3.33	2.86		mg/Kg		86	17 - 101
3-Nitroaniline	3.33	2.98		mg/Kg		90	31 - 102
4,6-Dinitro-2-methylphenol	6.67	6.56		mg/Kg		98	44 - 136
4-Bromophenyl phenyl ether	3.33	2.80		mg/Kg		84	67 - 113
4-Chloro-3-methylphenol	3.33	2.77		mg/Kg		83	66 - 114
4-Chloroaniline	3.33	2.68		mg/Kg		80	20 - 98
4-Chlorophenyl phenyl ether	3.33	2.89		mg/Kg		87	66 - 110
4-Methylphenol	3.33	2.70		mg/Kg		81	61 - 108
4-Nitroaniline	3.33	2.92		mg/Kg		88	50 - 110
4-Nitrophenol	6.67	5.48		mg/Kg		82	47 - 123
Acenaphthene	3.33	2.88		mg/Kg		87	53 - 110
Acenaphthylene	3.33	2.77		mg/Kg		83	64 - 108
Acetophenone	3.33	2.60		mg/Kg		78	61 - 103
Anthracene	3.33	2.85		mg/Kg		86	67 - 114
Atrazine	1.33	1.16		mg/Kg		87	44 - 145
Benzaldehyde	1.33	0.969		mg/Kg		73	43 - 150
Benzo[a]anthracene	3.33	2.86		mg/Kg		86	67 - 115
Benzo[a]pyrene	3.33	2.99		mg/Kg		90	73 - 123
Benzo[b]fluoranthene	3.33	3.12		mg/Kg		94	70 - 125
Benzo[g,h,i]perylene	3.33	2.91		mg/Kg		87	61 - 113
Benzo[k]fluoranthene	3.33	3.06		mg/Kg		92	67 - 115
Bis(2-chloroethoxy)methane	3.33	2.70		mg/Kg		81	62 - 107
Bis(2-chloroethyl)ether	3.33	2.65		mg/Kg		80	60 - 107
Bis(2-ethylhexyl) phthalate	3.33	2.97		mg/Kg		89	59 - 111
Butyl benzyl phthalate	3.33	3.01		mg/Kg		90	62 - 113
Caprolactam	1.33	0.964		mg/Kg		72	59 - 140
Carbazole	3.33	2.82		mg/Kg		85	64 - 113
Chrysene	3.33	2.83		mg/Kg		85	71 - 122
Dibenz(a,h)anthracene	3.33	3.34		mg/Kg		100	66 - 119
Dibenzofuran	3.33	2.87		mg/Kg		86	65 - 108
Diethyl phthalate	3.33	2.90		mg/Kg		87	63 - 109
Dimethyl phthalate	3.33	2.92		mg/Kg		87	65 - 109
Di-n-butyl phthalate	3.33	2.86		mg/Kg		86	66 - 114
Di-n-octyl phthalate	3.33	3.06		mg/Kg		92	65 - 122
Fluoranthene	3.33	2.90		mg/Kg		87	61 - 106
Fluorene	3.33	2.92		mg/Kg		88	65 - 109
Hexachlorobenzene	3.33	2.81		mg/Kg		84	61 - 113
Hexachlorobutadiene	3.33	2.74		mg/Kg		82	62 - 109
Hexachlorocyclopentadiene	3.33	2.53		mg/Kg		76	42 - 118
Hexachloroethane	3.33	2.68		mg/Kg		80	61 - 102
Indeno[1,2,3-cd]pyrene	3.33	2.90		mg/Kg		87	62 - 121
Isophorone	3.33	2.76		mg/Kg		83	63 - 107
Naphthalene	3.33	2.75		mg/Kg		82	63 - 106
Nitrobenzene	3.33	2.87		mg/Kg		86	63 - 110
N-Nitrosodi-n-propylamine	3.33	2.74		mg/Kg		82	61 - 108
N-Nitrosodiphenylamine	3.33	2.83		mg/Kg		85	67 - 113
Pentachlorophenol	6.67	5.98		mg/Kg		90	44 - 126
Phenanthrene	3.33	2.83		mg/Kg		85	66 - 112

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-818114/2-A

Matrix: Solid

Analysis Batch: 818224

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818114

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	3.33	2.64		mg/Kg		79	63 - 110
Pyrene	3.33	2.90		mg/Kg		87	61 - 111

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	75		10 - 123
2-Fluorobiphenyl	69		14 - 103
2-Fluorophenol (Surr)	65		10 - 105
Nitrobenzene-d5 (Surr)	66		11 - 104
Phenol-d5 (Surr)	66		15 - 100
Terphenyl-d14 (Surr)	70		12 - 126

Lab Sample ID: LCSD 460-818114/3-A

Matrix: Solid

Analysis Batch: 818224

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818114

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	3.33	2.89		mg/Kg		87	65 - 110	3	30
1,2,4,5-Tetrachlorobenzene	3.33	2.85		mg/Kg		86	64 - 110	2	30
1,4-Dioxane	3.33	2.76	*	mg/Kg		83	31 - 81	0	30
2,2'-oxybis[1-chloropropane]	3.33	2.55		mg/Kg		76	49 - 109	2	30
2,3,4,6-Tetrachlorophenol	3.33	2.99		mg/Kg		90	58 - 113	1	30
2,4,5-Trichlorophenol	3.33	2.89		mg/Kg		87	64 - 112	2	30
2,4,6-Trichlorophenol	3.33	2.87		mg/Kg		86	63 - 113	1	30
2,4-Dichlorophenol	3.33	2.84		mg/Kg		85	66 - 113	0	30
2,4-Dimethylphenol	3.33	2.84		mg/Kg		85	63 - 107	3	30
2,4-Dinitrophenol	6.67	6.33		mg/Kg		95	25 - 150	3	30
2,4-Dinitrotoluene	3.33	3.18		mg/Kg		95	65 - 124	1	30
2,6-Dinitrotoluene	3.33	3.08		mg/Kg		92	67 - 121	1	30
2-Chloronaphthalene	3.33	2.83		mg/Kg		85	65 - 109	3	30
2-Chlorophenol	3.33	2.81		mg/Kg		84	63 - 106	2	30
2-Methylnaphthalene	3.33	2.73		mg/Kg		82	64 - 108	2	30
2-Methylphenol	3.33	2.76		mg/Kg		83	63 - 108	2	30
2-Nitroaniline	3.33	2.76		mg/Kg		83	59 - 119	0	30
2-Nitrophenol	3.33	2.95		mg/Kg		88	64 - 112	1	30
3,3'-Dichlorobenzidine	3.33	2.85		mg/Kg		85	17 - 101	1	30
3-Nitroaniline	3.33	3.00		mg/Kg		90	31 - 102	1	30
4,6-Dinitro-2-methylphenol	6.67	6.57		mg/Kg		99	44 - 136	0	30
4-Bromophenyl phenyl ether	3.33	2.82		mg/Kg		85	67 - 113	1	30
4-Chloro-3-methylphenol	3.33	2.85		mg/Kg		86	66 - 114	3	30
4-Chloroaniline	3.33	2.76		mg/Kg		83	20 - 98	3	30
4-Chlorophenyl phenyl ether	3.33	2.93		mg/Kg		88	66 - 110	1	30
4-Methylphenol	3.33	2.73		mg/Kg		82	61 - 108	1	30
4-Nitroaniline	3.33	2.93		mg/Kg		88	50 - 110	0	30
4-Nitrophenol	6.67	5.44		mg/Kg		82	47 - 123	1	30
Acenaphthene	3.33	2.90		mg/Kg		87	53 - 110	1	30
Acenaphthylene	3.33	2.80		mg/Kg		84	64 - 108	1	30
Acetophenone	3.33	2.62		mg/Kg		79	61 - 103	1	30
Anthracene	3.33	2.81		mg/Kg		84	67 - 114	2	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-818114/3-A

Matrix: Solid

Analysis Batch: 818224

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818114

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Atrazine	1.33	1.20		mg/Kg		90	44 - 145	4	30
Benzaldehyde	1.33	1.02		mg/Kg		77	43 - 150	5	30
Benzo[a]anthracene	3.33	2.82		mg/Kg		85	67 - 115	1	30
Benzo[a]pyrene	3.33	2.95		mg/Kg		89	73 - 123	1	30
Benzo[b]fluoranthene	3.33	3.16		mg/Kg		95	70 - 125	1	30
Benzo[g,h,i]perylene	3.33	2.92		mg/Kg		88	61 - 113	0	30
Benzo[k]fluoranthene	3.33	3.08		mg/Kg		92	67 - 115	1	30
Bis(2-chloroethoxy)methane	3.33	2.75		mg/Kg		82	62 - 107	2	30
Bis(2-chloroethyl)ether	3.33	2.66		mg/Kg		80	60 - 107	0	30
Bis(2-ethylhexyl) phthalate	3.33	2.94		mg/Kg		88	59 - 111	1	30
Butyl benzyl phthalate	3.33	2.96		mg/Kg		89	62 - 113	2	30
Caprolactam	1.33	0.999		mg/Kg		75	59 - 140	4	30
Carbazole	3.33	2.83		mg/Kg		85	64 - 113	0	30
Chrysene	3.33	2.79		mg/Kg		84	71 - 122	1	30
Dibenz(a,h)anthracene	3.33	3.40		mg/Kg		102	66 - 119	2	30
Dibenzofuran	3.33	2.92		mg/Kg		87	65 - 108	2	30
Diethyl phthalate	3.33	2.91		mg/Kg		87	63 - 109	1	30
Dimethyl phthalate	3.33	2.94		mg/Kg		88	65 - 109	1	30
Di-n-butyl phthalate	3.33	2.88		mg/Kg		86	66 - 114	1	30
Di-n-octyl phthalate	3.33	3.06		mg/Kg		92	65 - 122	0	30
Fluoranthene	3.33	2.90		mg/Kg		87	61 - 106	0	30
Fluorene	3.33	2.97		mg/Kg		89	65 - 109	2	30
Hexachlorobenzene	3.33	2.81		mg/Kg		84	61 - 113	0	30
Hexachlorobutadiene	3.33	2.80		mg/Kg		84	62 - 109	2	30
Hexachlorocyclopentadiene	3.33	2.63		mg/Kg		79	42 - 118	4	30
Hexachloroethane	3.33	2.72		mg/Kg		81	61 - 102	1	30
Indeno[1,2,3-cd]pyrene	3.33	3.14		mg/Kg		94	62 - 121	8	30
Isophorone	3.33	2.81		mg/Kg		84	63 - 107	2	30
Naphthalene	3.33	2.81		mg/Kg		84	63 - 106	2	30
Nitrobenzene	3.33	2.92		mg/Kg		87	63 - 110	2	30
N-Nitrosodi-n-propylamine	3.33	2.75		mg/Kg		83	61 - 108	0	30
N-Nitrosodiphenylamine	3.33	2.84		mg/Kg		85	67 - 113	1	30
Pentachlorophenol	6.67	5.91		mg/Kg		89	44 - 126	1	30
Phenanthrene	3.33	2.84		mg/Kg		85	66 - 112	0	30
Phenol	3.33	2.71		mg/Kg		81	63 - 110	3	30
Pyrene	3.33	2.85		mg/Kg		85	61 - 111	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	78		10 - 123
2-Fluorobiphenyl	70		14 - 103
2-Fluorophenol (Surr)	66		10 - 105
Nitrobenzene-d5 (Surr)	69		11 - 104
Phenol-d5 (Surr)	67		15 - 100
Terphenyl-d14 (Surr)	69		12 - 126

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-248701-E-3-A MS

Matrix: Solid

Analysis Batch: 818224

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 818114

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	0.37	U	3.77	1.89	*	mg/Kg	✖	50	65 - 110
1,2,4,5-Tetrachlorobenzene	0.37	U	3.77	1.81	*	mg/Kg	✖	48	64 - 110
1,4-Dioxane	0.037	U *	3.77	1.26		mg/Kg	✖	34	31 - 81
2,2'-oxybis[1-chloropropane]	0.37	U	3.77	1.62	*	mg/Kg	✖	43	49 - 109
2,3,4,6-Tetrachlorophenol	0.37	U	3.77	2.09	*	mg/Kg	✖	55	58 - 113
2,4,5-Trichlorophenol	0.37	U	3.77	1.97	*	mg/Kg	✖	52	64 - 112
2,4,6-Trichlorophenol	0.15	U	3.77	2.03	*	mg/Kg	✖	54	63 - 113
2,4-Dichlorophenol	0.15	U	3.77	1.99	*	mg/Kg	✖	53	66 - 113
2,4-Dimethylphenol	0.37	U	3.77	1.89	*	mg/Kg	✖	50	63 - 107
2,4-Dinitrophenol	0.30	U	7.54	1.70	*	mg/Kg	✖	23	25 - 150
2,4-Dinitrotoluene	0.076	U	3.77	2.13	*	mg/Kg	✖	57	65 - 124
2,6-Dinitrotoluene	0.076	U	3.77	2.15	*	mg/Kg	✖	57	67 - 121
2-Chloronaphthalene	0.37	U	3.77	1.87	*	mg/Kg	✖	50	65 - 109
2-Chlorophenol	0.37	U	3.77	1.84	*	mg/Kg	✖	49	63 - 106
2-Methylnaphthalene	0.37	U	3.77	1.76	*	mg/Kg	✖	47	64 - 108
2-Methylphenol	0.37	U	3.77	1.84	*	mg/Kg	✖	49	63 - 108
2-Nitroaniline	0.37	U	3.77	1.88	*	mg/Kg	✖	50	59 - 119
2-Nitrophenol	0.37	U	3.77	1.84	*	mg/Kg	✖	49	64 - 112
3,3'-Dichlorobenzidine	0.15	U	3.77	1.75		mg/Kg	✖	46	17 - 101
3-Nitroaniline	0.37	U	3.77	2.02		mg/Kg	✖	54	31 - 102
4,6-Dinitro-2-methylphenol	0.30	U	7.54	2.30	*	mg/Kg	✖	30	44 - 136
4-Bromophenyl phenyl ether	0.37	U	3.77	2.00	*	mg/Kg	✖	53	67 - 113
4-Chloro-3-methylphenol	0.37	U	3.77	2.01	*	mg/Kg	✖	53	66 - 114
4-Chloroaniline	0.37	U	3.77	1.71		mg/Kg	✖	45	20 - 98
4-Chlorophenyl phenyl ether	0.37	U	3.77	2.01	*	mg/Kg	✖	53	66 - 110
4-Methylphenol	0.37	U	3.77	1.85	*	mg/Kg	✖	49	61 - 108
4-Nitroaniline	0.37	U	3.77	1.84	*	mg/Kg	✖	49	50 - 110
4-Nitrophenol	0.76	U	7.54	3.66		mg/Kg	✖	49	47 - 123
Acenaphthene	0.37	U	3.77	1.97	*	mg/Kg	✖	52	53 - 110
Acenaphthylene	0.015	J	3.77	1.92	*	mg/Kg	✖	51	64 - 108
Acetophenone	0.37	U	3.77	1.70	*	mg/Kg	✖	45	61 - 103
Anthracene	0.37	U	3.77	1.96	*	mg/Kg	✖	52	67 - 114
Atrazine	0.15	U	1.51	1.24		mg/Kg	✖	82	44 - 145
Benzaldehyde	0.37	U	1.51	1.00		mg/Kg	✖	66	43 - 150
Benzo[a]anthracene	0.037	U	3.77	1.93	*	mg/Kg	✖	51	67 - 115
Benzo[a]pyrene	0.037	U	3.77	1.96	*	mg/Kg	✖	52	73 - 123
Benzo[b]fluoranthene	0.011	J	3.77	2.07	*	mg/Kg	✖	55	70 - 125
Benzo[g,h,i]perylene	0.038	J	3.77	1.75	*	mg/Kg	✖	45	61 - 113
Benzo[k]fluoranthene	0.037	U	3.77	2.00	*	mg/Kg	✖	53	67 - 115
Bis(2-chloroethoxy)methane	0.37	U	3.77	1.71	*	mg/Kg	✖	45	62 - 107
Bis(2-chloroethyl)ether	0.037	U	3.77	1.71	*	mg/Kg	✖	45	60 - 107
Bis(2-ethylhexyl) phthalate	0.37	U	3.77	2.01	*	mg/Kg	✖	53	59 - 111
Butyl benzyl phthalate	0.37	U	3.77	2.04	*	mg/Kg	✖	54	62 - 113
Caprolactam	0.16	J	1.51	0.986	*	mg/Kg	✖	55	59 - 140
Carbazole	0.37	U	3.77	1.97	*	mg/Kg	✖	52	64 - 113
Chrysene	0.37	U	3.77	1.88	*	mg/Kg	✖	50	71 - 122
Dibenz(a,h)anthracene	0.037	U	3.77	2.12	*	mg/Kg	✖	56	66 - 119
Dibenzofuran	0.37	U	3.77	2.00	*	mg/Kg	✖	53	65 - 108

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-248701-E-3-A MS

Matrix: Solid

Analysis Batch: 818224

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 818114

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diethyl phthalate	0.37	U	3.77	2.00	*	mg/Kg	☼	53	63 - 109
Dimethyl phthalate	0.37	U	3.77	2.01	*	mg/Kg	☼	53	65 - 109
Di-n-butyl phthalate	0.37	U	3.77	2.00	*	mg/Kg	☼	53	66 - 114
Di-n-octyl phthalate	0.37	U	3.77	2.05	*	mg/Kg	☼	54	65 - 122
Fluoranthene	0.37	U	3.77	1.99	*	mg/Kg	☼	53	61 - 106
Fluorene	0.37	U	3.77	2.02	*	mg/Kg	☼	54	65 - 109
Hexachlorobenzene	0.037	U	3.77	1.84	*	mg/Kg	☼	49	61 - 113
Hexachlorobutadiene	0.076	U	3.77	1.73	*	mg/Kg	☼	46	62 - 109
Hexachlorocyclopentadiene	0.37	U	3.77	0.879	*	mg/Kg	☼	23	42 - 118
Hexachloroethane	0.037	U	3.77	1.57	*	mg/Kg	☼	42	61 - 102
Indeno[1,2,3-cd]pyrene	0.044		3.77	1.98	*	mg/Kg	☼	51	62 - 121
Isophorone	0.15	U	3.77	1.80	*	mg/Kg	☼	48	63 - 107
Naphthalene	0.37	U	3.77	1.76	*	mg/Kg	☼	47	63 - 106
Nitrobenzene	0.037	U	3.77	1.86	*	mg/Kg	☼	49	63 - 110
N-Nitrosodi-n-propylamine	0.037	U	3.77	1.79	*	mg/Kg	☼	48	61 - 108
N-Nitrosodiphenylamine	0.37	U	3.77	1.97	*	mg/Kg	☼	52	67 - 113
Pentachlorophenol	0.30	U	7.54	3.93		mg/Kg	☼	52	44 - 126
Phenanthrene	0.37	U	3.77	1.96	*	mg/Kg	☼	52	66 - 112
Phenol	0.37	U	3.77	1.81	*	mg/Kg	☼	48	63 - 110
Pyrene	0.37	U	3.77	1.94	*	mg/Kg	☼	51	61 - 111

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	53		10 - 123
2-Fluorobiphenyl	46		14 - 103
2-Fluorophenol (Surr)	45		10 - 105
Nitrobenzene-d5 (Surr)	43		11 - 104
Phenol-d5 (Surr)	46		15 - 100
Terphenyl-d14 (Surr)	48		12 - 126

Lab Sample ID: 460-248701-E-3-B MSD

Matrix: Solid

Analysis Batch: 818224

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 818114

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	0.37	U	3.77	1.76	*	mg/Kg	☼	47	65 - 110	7	30
1,2,4,5-Tetrachlorobenzene	0.37	U	3.77	1.72	*	mg/Kg	☼	46	64 - 110	5	30
1,4-Dioxane	0.037	U *	3.77	1.09	*	mg/Kg	☼	29	31 - 81	15	30
2,2'-oxybis[1-chloropropane]	0.37	U	3.77	1.55	*	mg/Kg	☼	41	49 - 109	5	30
2,3,4,6-Tetrachlorophenol	0.37	U	3.77	1.93	*	mg/Kg	☼	51	58 - 113	8	30
2,4,5-Trichlorophenol	0.37	U	3.77	1.89	*	mg/Kg	☼	50	64 - 112	4	30
2,4,6-Trichlorophenol	0.15	U	3.77	1.83	*	mg/Kg	☼	48	63 - 113	11	30
2,4-Dichlorophenol	0.15	U	3.77	1.87	*	mg/Kg	☼	50	66 - 113	7	30
2,4-Dimethylphenol	0.37	U	3.77	1.76	*	mg/Kg	☼	47	63 - 107	8	30
2,4-Dinitrophenol	0.30	U	7.54	1.55	*	mg/Kg	☼	21	25 - 150	9	30
2,4-Dinitrotoluene	0.076	U	3.77	1.97	*	mg/Kg	☼	52	65 - 124	8	30
2,6-Dinitrotoluene	0.076	U	3.77	2.06	*	mg/Kg	☼	55	67 - 121	5	30
2-Chloronaphthalene	0.37	U	3.77	1.73	*	mg/Kg	☼	46	65 - 109	8	30
2-Chlorophenol	0.37	U	3.77	1.70	*	mg/Kg	☼	45	63 - 106	8	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-248701-E-3-B MSD

Matrix: Solid

Analysis Batch: 818224

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 818114

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Methylnaphthalene	0.37	U	3.77	1.68	*	mg/Kg	☼	45	64 - 108	5	30
2-Methylphenol	0.37	U	3.77	1.75	*	mg/Kg	☼	46	63 - 108	5	30
2-Nitroaniline	0.37	U	3.77	1.77	*	mg/Kg	☼	47	59 - 119	6	30
2-Nitrophenol	0.37	U	3.77	1.77	*	mg/Kg	☼	47	64 - 112	4	30
3,3'-Dichlorobenzidine	0.15	U	3.77	1.73		mg/Kg	☼	46	17 - 101	1	30
3-Nitroaniline	0.37	U	3.77	1.90		mg/Kg	☼	50	31 - 102	6	30
4,6-Dinitro-2-methylphenol	0.30	U	7.54	2.11	*	mg/Kg	☼	28	44 - 136	9	30
4-Bromophenyl phenyl ether	0.37	U	3.77	1.86	*	mg/Kg	☼	49	67 - 113	7	30
4-Chloro-3-methylphenol	0.37	U	3.77	1.85	*	mg/Kg	☼	49	66 - 114	8	30
4-Chloroaniline	0.37	U	3.77	1.61		mg/Kg	☼	43	20 - 98	6	30
4-Chlorophenyl phenyl ether	0.37	U	3.77	1.90	*	mg/Kg	☼	51	66 - 110	6	30
4-Methylphenol	0.37	U	3.77	1.75	*	mg/Kg	☼	46	61 - 108	6	30
4-Nitroaniline	0.37	U	3.77	1.73	*	mg/Kg	☼	46	50 - 110	6	30
4-Nitrophenol	0.76	U	7.54	3.48	*	mg/Kg	☼	46	47 - 123	5	30
Acenaphthene	0.37	U	3.77	1.82	*	mg/Kg	☼	48	53 - 110	8	30
Acenaphthylene	0.015	J	3.77	1.79	*	mg/Kg	☼	47	64 - 108	7	30
Acetophenone	0.37	U	3.77	1.61	*	mg/Kg	☼	43	61 - 103	5	30
Anthracene	0.37	U	3.77	1.84	*	mg/Kg	☼	49	67 - 114	7	30
Atrazine	0.15	U	1.51	1.31		mg/Kg	☼	87	44 - 145	6	30
Benzaldehyde	0.37	U	1.51	0.891		mg/Kg	☼	59	43 - 150	12	30
Benzo[a]anthracene	0.037	U	3.77	1.86	*	mg/Kg	☼	49	67 - 115	4	30
Benzo[a]pyrene	0.037	U	3.77	1.91	*	mg/Kg	☼	51	73 - 123	3	30
Benzo[b]fluoranthene	0.011	J	3.77	2.07	*	mg/Kg	☼	55	70 - 125	0	30
Benzo[g,h,i]perylene	0.038	J	3.77	1.70	*	mg/Kg	☼	44	61 - 113	3	30
Benzo[k]fluoranthene	0.037	U	3.77	1.86	*	mg/Kg	☼	49	67 - 115	7	30
Bis(2-chloroethoxy)methane	0.37	U	3.77	1.66	*	mg/Kg	☼	44	62 - 107	3	30
Bis(2-chloroethyl)ether	0.037	U	3.77	1.61	*	mg/Kg	☼	43	60 - 107	6	30
Bis(2-ethylhexyl) phthalate	0.37	U	3.77	1.95	*	mg/Kg	☼	52	59 - 111	3	30
Butyl benzyl phthalate	0.37	U	3.77	1.97	*	mg/Kg	☼	52	62 - 113	3	30
Caprolactam	0.16	J	1.51	0.969	*	mg/Kg	☼	54	59 - 140	2	30
Carbazole	0.37	U	3.77	1.85	*	mg/Kg	☼	49	64 - 113	6	30
Chrysene	0.37	U	3.77	1.82	*	mg/Kg	☼	48	71 - 122	3	30
Dibenz(a,h)anthracene	0.037	U	3.77	2.05	*	mg/Kg	☼	54	66 - 119	3	30
Dibenzofuran	0.37	U	3.77	1.87	*	mg/Kg	☼	49	65 - 108	7	30
Diethyl phthalate	0.37	U	3.77	1.88	*	mg/Kg	☼	50	63 - 109	6	30
Dimethyl phthalate	0.37	U	3.77	1.88	*	mg/Kg	☼	50	65 - 109	7	30
Di-n-butyl phthalate	0.37	U	3.77	1.93	*	mg/Kg	☼	51	66 - 114	4	30
Di-n-octyl phthalate	0.37	U	3.77	2.00	*	mg/Kg	☼	53	65 - 122	2	30
Fluoranthene	0.37	U	3.77	1.89	*	mg/Kg	☼	50	61 - 106	5	30
Fluorene	0.37	U	3.77	1.87	*	mg/Kg	☼	50	65 - 109	8	30
Hexachlorobenzene	0.037	U	3.77	1.81	*	mg/Kg	☼	48	61 - 113	2	30
Hexachlorobutadiene	0.076	U	3.77	1.65	*	mg/Kg	☼	44	62 - 109	5	30
Hexachlorocyclopentadiene	0.37	U	3.77	0.750	*	mg/Kg	☼	20	42 - 118	16	30
Hexachloroethane	0.037	U	3.77	1.54	*	mg/Kg	☼	41	61 - 102	2	30
Indeno[1,2,3-cd]pyrene	0.044		3.77	1.86	*	mg/Kg	☼	48	62 - 121	6	30
Isophorone	0.15	U	3.77	1.69	*	mg/Kg	☼	45	63 - 107	6	30
Naphthalene	0.37	U	3.77	1.68	*	mg/Kg	☼	45	63 - 106	4	30
Nitrobenzene	0.037	U	3.77	1.78	*	mg/Kg	☼	47	63 - 110	5	30
N-Nitrosodi-n-propylamine	0.037	U	3.77	1.67	*	mg/Kg	☼	44	61 - 108	7	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-248701-E-3-B MSD

Matrix: Solid

Analysis Batch: 818224

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 818114

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Nitrosodiphenylamine	0.37	U	3.77	1.85	*	mg/Kg	☼	49	67 - 113	6	30
Pentachlorophenol	0.30	U	7.54	3.60		mg/Kg	☼	48	44 - 126	9	30
Phenanthrene	0.37	U	3.77	1.85	*	mg/Kg	☼	49	66 - 112	6	30
Phenol	0.37	U	3.77	1.68	*	mg/Kg	☼	45	63 - 110	7	30
Pyrene	0.37	U	3.77	1.86	*	mg/Kg	☼	49	61 - 111	4	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	48		10 - 123
2-Fluorobiphenyl	43		14 - 103
2-Fluorophenol (Surr)	41		10 - 105
Nitrobenzene-d5 (Surr)	40		11 - 104
Phenol-d5 (Surr)	41		15 - 100
Terphenyl-d14 (Surr)	45		12 - 126

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-818190/1-A

Matrix: Solid

Analysis Batch: 818463

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818190

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0067	U	0.0067	0.0011	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
4,4'-DDD	0.0067	U	0.0067	0.0011	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
4,4'-DDE	0.0067	U	0.0067	0.00079	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
4,4'-DDE	0.0067	U	0.0067	0.00079	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
4,4'-DDT	0.0067	U	0.0067	0.0012	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
4,4'-DDT	0.0067	U	0.0067	0.0012	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Aldrin	0.0067	U	0.0067	0.0010	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Aldrin	0.0067	U	0.0067	0.0010	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
alpha-BHC	0.0020	U	0.0020	0.00068	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
alpha-BHC	0.0020	U	0.0020	0.00068	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
beta-BHC	0.0020	U	0.0020	0.00075	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
beta-BHC	0.0020	U	0.0020	0.00075	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Chlordane (technical)	0.067	U	0.067	0.016	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Chlordane (technical)	0.067	U	0.067	0.016	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
delta-BHC	0.0020	U	0.0020	0.00041	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
delta-BHC	0.0020	U	0.0020	0.00041	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Dieldrin	0.0020	U	0.0020	0.00087	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Dieldrin	0.0020	U	0.0020	0.00087	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Endosulfan I	0.0067	U	0.0067	0.0010	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Endosulfan I	0.0067	U	0.0067	0.0010	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Endosulfan II	0.0067	U	0.0067	0.0017	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Endosulfan II	0.0067	U	0.0067	0.0017	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Endosulfan sulfate	0.0067	U	0.0067	0.00084	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Endosulfan sulfate	0.0067	U	0.0067	0.00084	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Endrin	0.0067	U	0.0067	0.00096	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Endrin	0.0067	U	0.0067	0.00096	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Endrin aldehyde	0.0067	U	0.0067	0.0016	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Endrin aldehyde	0.0067	U	0.0067	0.0016	mg/Kg		12/10/21 17:51	12/12/21 20:20	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-818190/1-A

Matrix: Solid

Analysis Batch: 818463

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818190

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin ketone	0.0067	U	0.0067	0.0013	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Endrin ketone	0.0067	U	0.0067	0.0013	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
gamma-BHC (Lindane)	0.0020	U	0.0020	0.00062	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
gamma-BHC (Lindane)	0.0020	U	0.0020	0.00062	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Heptachlor	0.0067	U	0.0067	0.00079	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Heptachlor	0.0067	U	0.0067	0.00079	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Heptachlor epoxide	0.0067	U	0.0067	0.0010	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Heptachlor epoxide	0.0067	U	0.0067	0.0010	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Methoxychlor	0.0067	U	0.0067	0.0015	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Methoxychlor	0.0067	U	0.0067	0.0015	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Toxaphene	0.067	U	0.067	0.024	mg/Kg		12/10/21 17:51	12/12/21 20:20	1
Toxaphene	0.067	U	0.067	0.024	mg/Kg		12/10/21 17:51	12/12/21 20:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	65		10 - 150	12/10/21 17:51	12/12/21 20:20	1
DCB Decachlorobiphenyl	66		10 - 150	12/10/21 17:51	12/12/21 20:20	1
Tetrachloro-m-xylene	66		10 - 133	12/10/21 17:51	12/12/21 20:20	1
Tetrachloro-m-xylene	62		10 - 133	12/10/21 17:51	12/12/21 20:20	1

Lab Sample ID: LCS 460-818190/2-A

Matrix: Solid

Analysis Batch: 818491

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818190

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.133	0.117		mg/Kg		87	70 - 140
4,4'-DDD	0.133	0.103		mg/Kg		78	70 - 140
4,4'-DDE	0.133	0.116		mg/Kg		87	71 - 137
4,4'-DDE	0.133	0.107		mg/Kg		81	71 - 137
4,4'-DDT	0.133	0.0935		mg/Kg		70	63 - 131
4,4'-DDT	0.133	0.0996		mg/Kg		75	63 - 131
Aldrin	0.133	0.114		mg/Kg		86	74 - 140
Aldrin	0.133	0.105		mg/Kg		79	74 - 140
alpha-BHC	0.133	0.112		mg/Kg		84	72 - 142
alpha-BHC	0.133	0.113		mg/Kg		85	72 - 142
beta-BHC	0.133	0.116		mg/Kg		87	65 - 137
beta-BHC	0.133	0.112		mg/Kg		84	65 - 137
delta-BHC	0.133	0.113		mg/Kg		84	70 - 143
delta-BHC	0.133	0.110		mg/Kg		82	70 - 143
Dieldrin	0.133	0.116		mg/Kg		87	70 - 135
Dieldrin	0.133	0.104		mg/Kg		78	70 - 135
Endosulfan I	0.133	0.108		mg/Kg		81	68 - 135
Endosulfan I	0.133	0.104		mg/Kg		78	68 - 135
Endosulfan II	0.133	0.111		mg/Kg		83	64 - 130
Endosulfan II	0.133	0.105		mg/Kg		79	64 - 130
Endosulfan sulfate	0.133	0.112		mg/Kg		84	66 - 143
Endosulfan sulfate	0.133	0.104		mg/Kg		78	66 - 143
Endrin	0.133	0.111		mg/Kg		83	68 - 136
Endrin	0.133	0.102		mg/Kg		76	68 - 136

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-818190/2-A

Matrix: Solid

Analysis Batch: 818491

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818190

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Endrin aldehyde	0.133	0.111		mg/Kg		83	68 - 132
Endrin aldehyde	0.133	0.0993		mg/Kg		74	68 - 132
Endrin ketone	0.133	0.108		mg/Kg		81	60 - 150
Endrin ketone	0.133	0.0979		mg/Kg		73	60 - 150
gamma-BHC (Lindane)	0.133	0.114		mg/Kg		86	70 - 134
gamma-BHC (Lindane)	0.133	0.112		mg/Kg		84	70 - 134
Heptachlor	0.133	0.105		mg/Kg		79	69 - 134
Heptachlor	0.133	0.104		mg/Kg		78	69 - 134
Heptachlor epoxide	0.133	0.112		mg/Kg		84	70 - 135
Heptachlor epoxide	0.133	0.104		mg/Kg		78	70 - 135
Methoxychlor	0.133	0.0853		mg/Kg		64	57 - 135
Methoxychlor	0.133	0.0904		mg/Kg		68	57 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	77		10 - 150
DCB Decachlorobiphenyl	80		10 - 150
Tetrachloro-m-xylene	75		10 - 133
Tetrachloro-m-xylene	73		10 - 133

Lab Sample ID: LCSD 460-818190/3-A

Matrix: Solid

Analysis Batch: 818463

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818190

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	0.133	0.119		mg/Kg		89	70 - 140	14	30
4,4'-DDD	0.133	0.104		mg/Kg		78	70 - 140	12	30
4,4'-DDE	0.133	0.121		mg/Kg		91	71 - 137	12	30
4,4'-DDE	0.133	0.108		mg/Kg		81	71 - 137	7	30
4,4'-DDT	0.133	0.116		mg/Kg		87	63 - 131	15	30
4,4'-DDT	0.133	0.104		mg/Kg		78	63 - 131	11	30
Aldrin	0.133	0.117		mg/Kg		88	74 - 140	11	30
Aldrin	0.133	0.107		mg/Kg		81	74 - 140	6	30
alpha-BHC	0.133	0.117		mg/Kg		88	72 - 142	4	30
alpha-BHC	0.133	0.114		mg/Kg		85	72 - 142	1	30
beta-BHC	0.133	0.122		mg/Kg		91	65 - 137	8	30
beta-BHC	0.133	0.114		mg/Kg		85	65 - 137	2	30
delta-BHC	0.133	0.116		mg/Kg		87	70 - 143	6	30
delta-BHC	0.133	0.112		mg/Kg		84	70 - 143	1	30
Dieldrin	0.133	0.120		mg/Kg		90	70 - 135	15	30
Dieldrin	0.133	0.104		mg/Kg		78	70 - 135	10	30
Endosulfan I	0.133	0.116		mg/Kg		87	68 - 135	11	30
Endosulfan I	0.133	0.104		mg/Kg		78	68 - 135	3	30
Endosulfan II	0.133	0.117		mg/Kg		88	64 - 130	11	30
Endosulfan II	0.133	0.106		mg/Kg		80	64 - 130	5	30
Endosulfan sulfate	0.133	0.116		mg/Kg		87	66 - 143	11	30
Endosulfan sulfate	0.133	0.104		mg/Kg		78	66 - 143	7	30
Endrin	0.133	0.113		mg/Kg		85	68 - 136	10	30
Endrin	0.133	0.102		mg/Kg		76	68 - 136	9	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-818190/3-A

Matrix: Solid

Analysis Batch: 818463

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818190

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endrin aldehyde	0.133	0.115		mg/Kg		86	68 - 132	15	30
Endrin aldehyde	0.133	0.101		mg/Kg		76	68 - 132	9	30
Endrin ketone	0.133	0.121		mg/Kg		91	60 - 150	21	30
Endrin ketone	0.133	0.100		mg/Kg		75	60 - 150	8	30
gamma-BHC (Lindane)	0.133	0.119		mg/Kg		90	70 - 134	7	30
gamma-BHC (Lindane)	0.133	0.113		mg/Kg		85	70 - 134	1	30
Heptachlor	0.133	0.112		mg/Kg		84	69 - 134	8	30
Heptachlor	0.133	0.106		mg/Kg		80	69 - 134	1	30
Heptachlor epoxide	0.133	0.116		mg/Kg		87	70 - 135	11	30
Heptachlor epoxide	0.133	0.106		mg/Kg		80	70 - 135	5	30
Methoxychlor	0.133	0.111		mg/Kg		83	57 - 135	20	30
Methoxychlor	0.133	0.0950		mg/Kg		71	57 - 135	11	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
DCB Decachlorobiphenyl	78		10 - 150
DCB Decachlorobiphenyl	70		10 - 150
Tetrachloro-m-xylene	77		10 - 133
Tetrachloro-m-xylene	73		10 - 133

Lab Sample ID: 460-248664-F-1-E MS

Matrix: Solid

Analysis Batch: 818463

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 818190

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.0088	U	0.175	0.167		mg/Kg	✱	96	70 - 140
4,4'-DDD	0.0088	U	0.175	0.144		mg/Kg	✱	83	70 - 140
4,4'-DDE	0.0088	U	0.175	0.169		mg/Kg	✱	96	71 - 137
4,4'-DDE	0.0088	U	0.175	0.149		mg/Kg	✱	85	71 - 137
4,4'-DDT	0.0088	U	0.175	0.161		mg/Kg	✱	92	63 - 131
4,4'-DDT	0.0088	U	0.175	0.145		mg/Kg	✱	83	63 - 131
Aldrin	0.0088	U	0.175	0.163		mg/Kg	✱	94	74 - 140
Aldrin	0.0088	U	0.175	0.147		mg/Kg	✱	84	74 - 140
alpha-BHC	0.0026	U	0.175	0.162		mg/Kg	✱	93	72 - 142
alpha-BHC	0.0026	U	0.175	0.155		mg/Kg	✱	89	72 - 142
beta-BHC	0.0026	U	0.175	0.168		mg/Kg	✱	96	65 - 137
beta-BHC	0.0026	U	0.175	0.156		mg/Kg	✱	89	65 - 137
delta-BHC	0.0026	U	0.175	0.160		mg/Kg	✱	92	70 - 143
delta-BHC	0.0026	U	0.175	0.154		mg/Kg	✱	88	70 - 143
Dieldrin	0.0026	U	0.175	0.169		mg/Kg	✱	96	70 - 135
Dieldrin	0.0026	U	0.175	0.144		mg/Kg	✱	82	70 - 135
Endosulfan I	0.0088	U	0.175	0.161		mg/Kg	✱	92	68 - 135
Endosulfan I	0.0088	U	0.175	0.144		mg/Kg	✱	83	68 - 135
Endosulfan II	0.0088	U	0.175	0.165		mg/Kg	✱	94	64 - 130
Endosulfan II	0.0088	U	0.175	0.149		mg/Kg	✱	85	64 - 130
Endosulfan sulfate	0.0088	U	0.175	0.164		mg/Kg	✱	94	66 - 143
Endosulfan sulfate	0.0088	U	0.175	0.145		mg/Kg	✱	83	66 - 143
Endrin	0.0088	U	0.175	0.160		mg/Kg	✱	92	68 - 136
Endrin	0.0088	U	0.175	0.143		mg/Kg	✱	82	68 - 136

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-248664-F-1-E MS

Matrix: Solid

Analysis Batch: 818463

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 818190

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Endrin aldehyde	0.0088	U	0.175	0.158		mg/Kg	✱	90	68 - 132
Endrin aldehyde	0.0088	U	0.175	0.138		mg/Kg	✱	79	68 - 132
Endrin ketone	0.0088	U	0.175	0.172		mg/Kg	✱	98	60 - 150
Endrin ketone	0.0088	U	0.175	0.140		mg/Kg	✱	80	60 - 150
gamma-BHC (Lindane)	0.0026	U	0.175	0.165		mg/Kg	✱	95	70 - 134
gamma-BHC (Lindane)	0.0026	U	0.175	0.154		mg/Kg	✱	88	70 - 134
Heptachlor	0.0088	U	0.175	0.154		mg/Kg	✱	88	69 - 134
Heptachlor	0.0088	U	0.175	0.144		mg/Kg	✱	83	69 - 134
Heptachlor epoxide	0.0088	U	0.175	0.163		mg/Kg	✱	93	70 - 135
Heptachlor epoxide	0.0088	U	0.175	0.146		mg/Kg	✱	84	70 - 135
Methoxychlor	0.0088	U	0.175	0.155		mg/Kg	✱	89	57 - 135
Methoxychlor	0.0088	U	0.175	0.133		mg/Kg	✱	76	57 - 135
Surrogate	MS %Recovery	MS Qualifier	MS Limits						
DCB Decachlorobiphenyl	98		10 - 150						
DCB Decachlorobiphenyl	94		10 - 150						
Tetrachloro-m-xylene	95		10 - 133						
Tetrachloro-m-xylene	88		10 - 133						

Lab Sample ID: 460-248664-F-1-F MSD

Matrix: Solid

Analysis Batch: 818463

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 818190

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	0.0088	U	0.175	0.165		mg/Kg	✱	95	70 - 140	1	30
4,4'-DDD	0.0088	U	0.175	0.141		mg/Kg	✱	81	70 - 140	2	30
4,4'-DDE	0.0088	U	0.175	0.166		mg/Kg	✱	95	71 - 137	1	30
4,4'-DDE	0.0088	U	0.175	0.147		mg/Kg	✱	84	71 - 137	1	30
4,4'-DDT	0.0088	U	0.175	0.159		mg/Kg	✱	91	63 - 131	1	30
4,4'-DDT	0.0088	U	0.175	0.142		mg/Kg	✱	81	63 - 131	2	30
Aldrin	0.0088	U	0.175	0.161		mg/Kg	✱	92	74 - 140	1	30
Aldrin	0.0088	U	0.175	0.145		mg/Kg	✱	83	74 - 140	1	30
alpha-BHC	0.0026	U	0.175	0.161		mg/Kg	✱	92	72 - 142	1	30
alpha-BHC	0.0026	U	0.175	0.154		mg/Kg	✱	88	72 - 142	1	30
beta-BHC	0.0026	U	0.175	0.168		mg/Kg	✱	96	65 - 137	0	30
beta-BHC	0.0026	U	0.175	0.155		mg/Kg	✱	89	65 - 137	1	30
delta-BHC	0.0026	U	0.175	0.160		mg/Kg	✱	92	70 - 143	0	30
delta-BHC	0.0026	U	0.175	0.153		mg/Kg	✱	87	70 - 143	1	30
Dieldrin	0.0026	U	0.175	0.165		mg/Kg	✱	95	70 - 135	2	30
Dieldrin	0.0026	U	0.175	0.142		mg/Kg	✱	81	70 - 135	2	30
Endosulfan I	0.0088	U	0.175	0.160		mg/Kg	✱	91	68 - 135	1	30
Endosulfan I	0.0088	U	0.175	0.142		mg/Kg	✱	81	68 - 135	1	30
Endosulfan II	0.0088	U	0.175	0.162		mg/Kg	✱	92	64 - 130	2	30
Endosulfan II	0.0088	U	0.175	0.145		mg/Kg	✱	83	64 - 130	3	30
Endosulfan sulfate	0.0088	U	0.175	0.161		mg/Kg	✱	92	66 - 143	2	30
Endosulfan sulfate	0.0088	U	0.175	0.142		mg/Kg	✱	81	66 - 143	2	30
Endrin	0.0088	U	0.175	0.157		mg/Kg	✱	90	68 - 136	2	30
Endrin	0.0088	U	0.175	0.140		mg/Kg	✱	80	68 - 136	2	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-248664-F-1-F MSD

Matrix: Solid

Analysis Batch: 818463

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 818190

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endrin aldehyde	0.0088	U	0.175	0.156		mg/Kg	✱	89	68 - 132	1	30
Endrin aldehyde	0.0088	U	0.175	0.136		mg/Kg	✱	78	68 - 132	2	30
Endrin ketone	0.0088	U	0.175	0.169		mg/Kg	✱	97	60 - 150	2	30
Endrin ketone	0.0088	U	0.175	0.137		mg/Kg	✱	78	60 - 150	2	30
gamma-BHC (Lindane)	0.0026	U	0.175	0.164		mg/Kg	✱	94	70 - 134	1	30
gamma-BHC (Lindane)	0.0026	U	0.175	0.153		mg/Kg	✱	88	70 - 134	1	30
Heptachlor	0.0088	U	0.175	0.152		mg/Kg	✱	87	69 - 134	1	30
Heptachlor	0.0088	U	0.175	0.144		mg/Kg	✱	82	69 - 134	0	30
Heptachlor epoxide	0.0088	U	0.175	0.161		mg/Kg	✱	92	70 - 135	1	30
Heptachlor epoxide	0.0088	U	0.175	0.144		mg/Kg	✱	83	70 - 135	1	30
Methoxychlor	0.0088	U	0.175	0.151		mg/Kg	✱	87	57 - 135	2	30
Methoxychlor	0.0088	U	0.175	0.131		mg/Kg	✱	75	57 - 135	2	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	97		10 - 150
DCB Decachlorobiphenyl	84		10 - 150
Tetrachloro-m-xylene	95		10 - 133
Tetrachloro-m-xylene	87		10 - 133

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-818188/1-A

Matrix: Solid

Analysis Batch: 818456

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818188

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor 1016	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor 1221	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor 1221	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor 1232	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor 1232	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor 1242	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor 1242	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor 1248	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor 1248	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor 1254	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor 1254	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor 1260	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor 1260	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor-1262	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor-1262	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor 1268	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Aroclor 1268	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Polychlorinated biphenyls, Total	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1
Polychlorinated biphenyls, Total	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:42	12/12/21 20:07	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-818188/1-A

Matrix: Solid

Analysis Batch: 818456

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818188

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	94		37 - 150	12/10/21 17:42	12/12/21 20:07	1
DCB Decachlorobiphenyl	117		37 - 150	12/10/21 17:42	12/12/21 20:07	1
Tetrachloro-m-xylene	78		54 - 150	12/10/21 17:42	12/12/21 20:07	1
Tetrachloro-m-xylene	106		54 - 150	12/10/21 17:42	12/12/21 20:07	1

Lab Sample ID: LCS 460-818188/2-A

Matrix: Solid

Analysis Batch: 818456

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818188

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	0.333	0.329		mg/Kg		99	65 - 133
Aroclor 1016	0.333	0.336		mg/Kg		101	65 - 133
Aroclor 1260	0.333	0.328		mg/Kg		98	71 - 150
Aroclor 1260	0.333	0.352		mg/Kg		106	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	79		37 - 150
DCB Decachlorobiphenyl	104		37 - 150
Tetrachloro-m-xylene	53 *		54 - 150
Tetrachloro-m-xylene	98		54 - 150

Lab Sample ID: LCSD 460-818188/3-A

Matrix: Solid

Analysis Batch: 818456

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818188

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aroclor 1016	0.333	0.338		mg/Kg		101	65 - 133	3	30
Aroclor 1016	0.333	0.332		mg/Kg		100	65 - 133	1	30
Aroclor 1260	0.333	0.332		mg/Kg		100	71 - 150	1	30
Aroclor 1260	0.333	0.349		mg/Kg		105	71 - 150	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	86		37 - 150
DCB Decachlorobiphenyl	118		37 - 150
Tetrachloro-m-xylene	61		54 - 150
Tetrachloro-m-xylene	108		54 - 150

Lab Sample ID: 460-248664-F-1-B MS

Matrix: Solid

Analysis Batch: 818456

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 818188

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	0.088	U	0.437	0.383		mg/Kg	☼	88	65 - 133
Aroclor 1016	0.088	U	0.437	0.416		mg/Kg	☼	95	65 - 133
Aroclor 1260	0.088	U	0.437	0.411		mg/Kg	☼	94	71 - 150
Aroclor 1260	0.088	U	0.437	0.445		mg/Kg	☼	102	71 - 150

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 460-248664-F-1-B MS

Matrix: Solid

Analysis Batch: 818456

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 818188

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	74		37 - 150
DCB Decachlorobiphenyl	99		37 - 150
Tetrachloro-m-xylene	99		54 - 150
Tetrachloro-m-xylene	94		54 - 150

Lab Sample ID: 460-248664-F-1-C MSD

Matrix: Solid

Analysis Batch: 818456

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 818188

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	0.088	U	0.437	0.422		mg/Kg	⊛	97	65 - 133	10	30
Aroclor 1016	0.088	U	0.437	0.428		mg/Kg	⊛	98	65 - 133	3	30
Aroclor 1260	0.088	U	0.437	0.467		mg/Kg	⊛	107	71 - 150	13	30
Aroclor 1260	0.088	U	0.437	0.449		mg/Kg	⊛	103	71 - 150	1	30

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	85		37 - 150
DCB Decachlorobiphenyl	99		37 - 150
Tetrachloro-m-xylene	57		54 - 150
Tetrachloro-m-xylene	88		54 - 150

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-818020/1-A

Matrix: Solid

Analysis Batch: 818109

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818020

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.033	U	0.033	0.0071	mg/Kg		12/10/21 00:41	12/10/21 18:01	1
2,4,5-T	0.033	U	0.033	0.0071	mg/Kg		12/10/21 00:41	12/10/21 18:01	1
2,4-D	0.033	U	0.033	0.012	mg/Kg		12/10/21 00:41	12/10/21 18:01	1
2,4-D	0.033	U	0.033	0.012	mg/Kg		12/10/21 00:41	12/10/21 18:01	1
Silvex (2,4,5-TP)	0.033	U	0.033	0.0035	mg/Kg		12/10/21 00:41	12/10/21 18:01	1
Silvex (2,4,5-TP)	0.033	U	0.033	0.0035	mg/Kg		12/10/21 00:41	12/10/21 18:01	1

	MB	MB					Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits						
2,4-Dichlorophenylacetic acid	129		65 - 150				12/10/21 00:41	12/10/21 18:01	1
2,4-Dichlorophenylacetic acid	119		65 - 150				12/10/21 00:41	12/10/21 18:01	1

Lab Sample ID: LCS 460-818020/2-A

Matrix: Solid

Analysis Batch: 818109

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818020

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	0.0417	0.0542		mg/Kg		130	59 - 150
2,4,5-T	0.0417	0.0504		mg/Kg		121	59 - 150
2,4-D	0.167	0.170		mg/Kg		102	50 - 130
2,4-D	0.167	0.177		mg/Kg		106	50 - 130

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 460-818020/2-A

Matrix: Solid

Analysis Batch: 818109

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818020

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP)	0.0417	0.0495		mg/Kg		119	58 - 150
Silvex (2,4,5-TP)	0.0417	0.0576		mg/Kg		138	58 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	126		65 - 150
2,4-Dichlorophenylacetic acid	128		65 - 150

Lab Sample ID: LCSD 460-818020/3-A

Matrix: Solid

Analysis Batch: 818109

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818020

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
2,4,5-T	0.0417	0.0565		mg/Kg		136	59 - 150	4	30
2,4,5-T	0.0417	0.0513		mg/Kg		123	59 - 150	2	30
2,4-D	0.167	0.176		mg/Kg		105	50 - 130	3	30
2,4-D	0.167	0.183		mg/Kg		110	50 - 130	3	30
Silvex (2,4,5-TP)	0.0417	0.0501		mg/Kg		120	58 - 150	1	30
Silvex (2,4,5-TP)	0.0417	0.0587		mg/Kg		141	58 - 150	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	131		65 - 150
2,4-Dichlorophenylacetic acid	129		65 - 150

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-819071/1-A

Matrix: Solid

Analysis Batch: 819195

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 819071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	100	U	100	12.1	mg/Kg		12/15/21 18:44	12/16/21 13:43	1

Lab Sample ID: MB 460-819071/1-A

Matrix: Solid

Analysis Batch: 819195

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 819071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	20.0	U	20.0	5.5	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Antimony	1.0	U	1.0	0.15	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Barium	2.0	U	2.0	0.15	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Calcium	100	U	100	17.7	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Chromium	2.0	U	2.0	0.27	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Cobalt	2.0	U	2.0	0.15	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Copper	2.0	U	2.0	0.37	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Iron	60.0	U	60.0	20.2	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Lead	0.60	U	0.60	0.20	mg/Kg		12/15/21 18:44	12/16/21 17:14	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-819071/1-A
Matrix: Solid
Analysis Batch: 819195

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 819071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	100	U	100	10.2	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Manganese	4.0	U	4.0	0.40	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Nickel	2.0	U	2.0	0.47	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Selenium	1.3	U	1.3	0.13	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Silver	1.0	U	1.0	0.089	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Sodium	100	U	100	45.7	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Thallium	0.40	U	0.40	0.041	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Vanadium	2.0	U	2.0	0.21	mg/Kg		12/15/21 18:44	12/16/21 17:14	1
Zinc	8.0	U	8.0	3.1	mg/Kg		12/15/21 18:44	12/16/21 17:14	1

Lab Sample ID: LCSSRM 460-819071/2-A
Matrix: Solid
Analysis Batch: 819195

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 819071

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	129	500	U	mg/Kg		96.6	70.7 - 129.5

Lab Sample ID: LCSSRM 460-819071/2-A ^5
Matrix: Solid
Analysis Batch: 819195

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 819071

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	7970	6360		mg/Kg		79.8	47.2 - 153.1
Antimony	99.5	47.39		mg/Kg		47.6	1.0 - 209.0
Arsenic	140	139.7		mg/Kg		99.8	82.9 - 117.9
Barium	202	176.1		mg/Kg		87.2	81.2 - 118.3
Beryllium	42.6	39.49		mg/Kg		92.7	81.0 - 119.0
Cadmium	97.9	88.66		mg/Kg		90.6	80.0 - 119.5
Calcium	4190	3896		mg/Kg		93.0	79.2 - 121.0
Chromium	60.4	53.43		mg/Kg		88.5	80.3 - 119.7
Cobalt	86.4	78.18		mg/Kg		90.5	80.8 - 119.2
Copper	122	112.3		mg/Kg		92.1	82.8 - 117.2
Iron	13800	12120		mg/Kg		87.8	59.2 - 140.6
Lead	56.7	51.24		mg/Kg		90.4	82.9 - 116.9
Magnesium	2260	1951		mg/Kg		86.3	75.2 - 124.8
Manganese	457	394.6		mg/Kg		86.4	79.6 - 120.6
Nickel	151	137.2		mg/Kg		90.9	79.5 - 121.2

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSSRM 460-819071/2-A ^5

Matrix: Solid

Analysis Batch: 819195

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 819071

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	2030	1702		mg/Kg		83.8	70.0 - 130.0
Selenium	35.5	34.72		mg/Kg		97.8	77.5 - 122.3
Silver	33.6	19.47		mg/Kg		57.9	48.2 - 73.5
Thallium	69.3	62.49		mg/Kg		90.2	79.4 - 120.6
Vanadium	44.9	39.51		mg/Kg		88.0	78.0 - 121.8
Zinc	186	169.0		mg/Kg		90.8	79.0 - 121.0

Lab Sample ID: 460-248403-F-8-N MS

Matrix: Solid

Analysis Batch: 819195

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 819071

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	11000		563	9715	4	mg/Kg	✖	-227	75 - 125
Antimony	0.32	J	5.63	3.31	N	mg/Kg	✖	53	75 - 125
Arsenic	5.2		11.3	16.83		mg/Kg	✖	103	75 - 125
Barium	310		11.3	856.1	4	mg/Kg	✖	4851	75 - 125
Beryllium	0.75		5.63	6.40		mg/Kg	✖	100	75 - 125
Cadmium	0.36	J	5.63	5.81		mg/Kg	✖	97	75 - 125
Calcium	23300		563	18060	4	mg/Kg	✖	-923	75 - 125
Chromium	31.5		11.3	35.69	N	mg/Kg	✖	37	75 - 125
Cobalt	21.8		5.63	15.18	N	mg/Kg	✖	-118	75 - 125
Copper	73.4		11.3	64.88	4	mg/Kg	✖	-76	75 - 125
Iron	15800		563	15290	4	mg/Kg	✖	-92	75 - 125
Lead	350		5.63	386.4	4	mg/Kg	✖	649	75 - 125
Magnesium	6520		563	6353	4	mg/Kg	✖	-29	75 - 125
Manganese	652		56.3	413.3	4	mg/Kg	✖	-424	75 - 125
Nickel	14.6		11.3	27.69		mg/Kg	✖	116	75 - 125
Potassium	947		563	1398		mg/Kg	✖	80	75 - 125
Selenium	0.70	J	11.3	11.12		mg/Kg	✖	93	75 - 125
Silver	0.13	J	5.63	5.62		mg/Kg	✖	97	75 - 125
Sodium	309		563	757.5		mg/Kg	✖	80	75 - 125
Thallium	0.16	J	4.51	4.27		mg/Kg	✖	91	75 - 125
Vanadium	29.5		11.3	36.25	N	mg/Kg	✖	60	75 - 125
Zinc	454		56.3	312.3	4	mg/Kg	✖	-251	75 - 125

Lab Sample ID: 460-248403-A-8-E DU

Matrix: Solid

Analysis Batch: 819195

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 819071

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Aluminum	11000		10810		mg/Kg	✖	2	20
Antimony	0.32	J	0.337	J	mg/Kg	✖	5	20
Arsenic	5.2		5.25		mg/Kg	✖	0	20
Barium	310		310.7		mg/Kg	✖	0.3	20
Beryllium	0.75		0.750		mg/Kg	✖	0	20

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-248403-A-8-E DU
Matrix: Solid
Analysis Batch: 819195

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 819071

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cadmium	0.36	J	0.376	J	mg/Kg	✱	3	20
Calcium	23300		24040		mg/Kg	✱	3	20
Chromium	31.5		31.05		mg/Kg	✱	1	20
Cobalt	21.8		21.48		mg/Kg	✱	2	20
Copper	73.4		73.19		mg/Kg	✱	0.3	20
Iron	15800		16260		mg/Kg	✱	3	20
Lead	350		351.5		mg/Kg	✱	0.5	20
Magnesium	6520		6588		mg/Kg	✱	1	20
Manganese	652		641.3		mg/Kg	✱	2	20
Nickel	14.6		14.66		mg/Kg	✱	0.1	20
Potassium	947		932.2		mg/Kg	✱	2	20
Selenium	0.70	J	0.782	J	mg/Kg	✱	11	20
Silver	0.13	J	0.136	J	mg/Kg	✱	7	20
Sodium	309		308.6		mg/Kg	✱	0.06	20
Thallium	0.16	J	0.180	J	mg/Kg	✱	10	20
Vanadium	29.5		28.84		mg/Kg	✱	2	20
Zinc	454		449.9		mg/Kg	✱	0.8	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-818494/1-A
Matrix: Solid
Analysis Batch: 818548

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 818494

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0080	mg/Kg		12/13/21 03:29	12/13/21 07:30	1

Lab Sample ID: LCSSRM 460-818494/2-A ^40
Matrix: Solid
Analysis Batch: 818548

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 818494

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	16.5	17.64		mg/Kg		106.9	74.5 - 124.8

Lab Sample ID: 460-248664-F-1-K MS
Matrix: Solid
Analysis Batch: 818548

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 818494

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.022	U	0.106	0.115		mg/Kg	✱	109	80 - 120

Lab Sample ID: 460-248664-F-1-J DU
Matrix: Solid
Analysis Batch: 818548

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 818494

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.022	U	0.022	U	mg/Kg	✱	NC	20

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QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method: Moisture - Percent Moisture

Lab Sample ID: 460-248696-A-7 DU

Matrix: Solid

Analysis Batch: 818482

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	15.7		16.3		%		4	20
Percent Solids	84.3		83.7		%		0.7	20

Lab Sample ID: 460-248727-A-60 DU

Matrix: Solid

Analysis Batch: 818578

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	14.8		15.6		%		5	20
Percent Solids	85.2		84.4		%		0.9	20

QC Association Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

GC/MS VOA

Prep Batch: 817986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	5035	
460-248693-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	5035	
460-248693-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	5035	
460-248693-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	5035	
460-248693-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	5035	
460-248693-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	5035	
460-248693-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	5035	
460-248693-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	5035	
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	5035	
460-248693-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	5035	

Analysis Batch: 818339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	8260D	817986
460-248693-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	8260D	817986
460-248693-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	8260D	817986
460-248693-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	8260D	817986
460-248693-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	8260D	817986
460-248693-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	8260D	817986
460-248693-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	8260D	817986
460-248693-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	8260D	817986
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	8260D	817986
460-248693-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	8260D	817986
MB 460-818339/9	Method Blank	Total/NA	Solid	8260D	
LCS 460-818339/4	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-818339/5	Lab Control Sample Dup	Total/NA	Solid	8260D	

GC/MS Semi VOA

Prep Batch: 818114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	3546	
460-248693-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	3546	
460-248693-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	3546	
460-248693-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	3546	
460-248693-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	3546	
460-248693-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	3546	
460-248693-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	3546	
460-248693-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	3546	
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	3546	
460-248693-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	3546	
MB 460-818114/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-818114/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-818114/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-248701-E-3-A MS	Matrix Spike	Total/NA	Solid	3546	
460-248701-E-3-B MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 818224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	8270E	818114
460-248693-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	8270E	818114

Eurofins TestAmerica, Edison

QC Association Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

GC/MS Semi VOA (Continued)

Analysis Batch: 818224 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	8270E	818114
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	8270E	818114
460-248693-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	8270E	818114
MB 460-818114/1-A	Method Blank	Total/NA	Solid	8270E	818114
LCS 460-818114/2-A	Lab Control Sample	Total/NA	Solid	8270E	818114
LCSD 460-818114/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	818114
460-248701-E-3-A MS	Matrix Spike	Total/NA	Solid	8270E	818114
460-248701-E-3-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8270E	818114

Analysis Batch: 818269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	8270E	818114

Analysis Batch: 818345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	8270E	818114
460-248693-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	8270E	818114
460-248693-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	8270E	818114
460-248693-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	8270E	818114

GC Semi VOA

Prep Batch: 818020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	8151A	
460-248693-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	8151A	
460-248693-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	8151A	
460-248693-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	8151A	
460-248693-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	8151A	
460-248693-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	8151A	
460-248693-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	8151A	
460-248693-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	8151A	
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	8151A	
460-248693-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	8151A	
MB 460-818020/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-818020/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-818020/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Analysis Batch: 818108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	8151A	818020
460-248693-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	8151A	818020
460-248693-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	8151A	818020
460-248693-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	8151A	818020
460-248693-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	8151A	818020
460-248693-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	8151A	818020
460-248693-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	8151A	818020
460-248693-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	8151A	818020
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	8151A	818020
460-248693-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	8151A	818020

QC Association Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

GC Semi VOA

Analysis Batch: 818109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-818020/1-A	Method Blank	Total/NA	Solid	8151A	818020
LCS 460-818020/2-A	Lab Control Sample	Total/NA	Solid	8151A	818020
LCSD 460-818020/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	818020

Prep Batch: 818188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	3546	
460-248693-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	3546	
460-248693-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	3546	
460-248693-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	3546	
460-248693-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	3546	
460-248693-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	3546	
460-248693-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	3546	
460-248693-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	3546	
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	3546	
460-248693-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	3546	
MB 460-818188/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-818188/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-818188/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-248664-F-1-B MS	Matrix Spike	Total/NA	Solid	3546	
460-248664-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Prep Batch: 818190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	3546	
460-248693-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	3546	
460-248693-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	3546	
460-248693-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	3546	
460-248693-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	3546	
460-248693-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	3546	
460-248693-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	3546	
460-248693-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	3546	
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	3546	
460-248693-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	3546	
MB 460-818190/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-818190/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-818190/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-248664-F-1-E MS	Matrix Spike	Total/NA	Solid	3546	
460-248664-F-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 818456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	8082A	818188
460-248693-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	8082A	818188
460-248693-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	8082A	818188
460-248693-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	8082A	818188
460-248693-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	8082A	818188
460-248693-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	8082A	818188
460-248693-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	8082A	818188
460-248693-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	8082A	818188
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	8082A	818188

Eurofins TestAmerica, Edison

QC Association Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

GC Semi VOA (Continued)

Analysis Batch: 818456 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	8082A	818188
MB 460-818188/1-A	Method Blank	Total/NA	Solid	8082A	818188
LCS 460-818188/2-A	Lab Control Sample	Total/NA	Solid	8082A	818188
LCSD 460-818188/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	818188
460-248664-F-1-B MS	Matrix Spike	Total/NA	Solid	8082A	818188
460-248664-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	818188

Analysis Batch: 818463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	8081B	818190
460-248693-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	8081B	818190
460-248693-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	8081B	818190
460-248693-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	8081B	818190
460-248693-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	8081B	818190
460-248693-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	8081B	818190
460-248693-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	8081B	818190
460-248693-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	8081B	818190
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	8081B	818190
MB 460-818190/1-A	Method Blank	Total/NA	Solid	8081B	818190
LCSD 460-818190/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	818190
460-248664-F-1-E MS	Matrix Spike	Total/NA	Solid	8081B	818190
460-248664-F-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8081B	818190

Analysis Batch: 818491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	8081B	818190
LCS 460-818190/2-A	Lab Control Sample	Total/NA	Solid	8081B	818190

Metals

Prep Batch: 818494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	7471B	
460-248693-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	7471B	
460-248693-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	7471B	
460-248693-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	7471B	
460-248693-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	7471B	
460-248693-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	7471B	
460-248693-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	7471B	
460-248693-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	7471B	
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	7471B	
460-248693-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	7471B	
MB 460-818494/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-818494/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	
460-248664-F-1-K MS	Matrix Spike	Total/NA	Solid	7471B	
460-248664-F-1-J DU	Duplicate	Total/NA	Solid	7471B	

Analysis Batch: 818548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	7471B	818494
460-248693-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	7471B	818494

Eurofins TestAmerica, Edison

QC Association Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Metals (Continued)

Analysis Batch: 818548 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	7471B	818494
460-248693-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	7471B	818494
460-248693-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	7471B	818494
460-248693-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	7471B	818494
460-248693-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	7471B	818494
460-248693-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	7471B	818494
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	7471B	818494
460-248693-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	7471B	818494
MB 460-818494/1-A	Method Blank	Total/NA	Solid	7471B	818494
LCSSRM 460-818494/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	818494
460-248664-F-1-K MS	Matrix Spike	Total/NA	Solid	7471B	818494
460-248664-F-1-J DU	Duplicate	Total/NA	Solid	7471B	818494

Prep Batch: 819071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	3050B	
460-248693-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	3050B	
460-248693-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	3050B	
460-248693-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	3050B	
460-248693-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	3050B	
460-248693-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	3050B	
460-248693-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	3050B	
460-248693-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	3050B	
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	3050B	
460-248693-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	3050B	
MB 460-819071/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-819071/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 460-819071/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
460-248403-F-8-N MS	Matrix Spike	Total/NA	Solid	3050B	
460-248403-A-8-E DU	Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 819195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	6020B	819071
460-248693-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	6020B	819071
460-248693-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	6020B	819071
460-248693-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	6020B	819071
460-248693-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	6020B	819071
460-248693-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	6020B	819071
460-248693-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	6020B	819071
460-248693-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	6020B	819071
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	6020B	819071
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	6020B	819071
460-248693-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	6020B	819071
MB 460-819071/1-A	Method Blank	Total/NA	Solid	6020B	819071
MB 460-819071/1-A	Method Blank	Total/NA	Solid	6020B	819071
LCSSRM 460-819071/2-A	Lab Control Sample	Total/NA	Solid	6020B	819071
LCSSRM 460-819071/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	819071
460-248403-F-8-N MS	Matrix Spike	Total/NA	Solid	6020B	819071
460-248403-A-8-E DU	Duplicate	Total/NA	Solid	6020B	819071

Eurofins TestAmerica, Edison

QC Association Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

General Chemistry

Analysis Batch: 818482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-1	TRC-SB-01 (0-0.5)	Total/NA	Solid	Moisture	
460-248693-2	TRC-SB-05 (0-0.5)	Total/NA	Solid	Moisture	
460-248693-3	TRC-SB-06 (0-0.5)	Total/NA	Solid	Moisture	
460-248693-4	TRC-SB-09 (0-0.5)	Total/NA	Solid	Moisture	
460-248693-5	TRC-SB-12 (0-0.5)	Total/NA	Solid	Moisture	
460-248693-7	TRC-SB-10 (0-0.5)	Total/NA	Solid	Moisture	
460-248693-8	TRC-SB-14 (0-0.5)	Total/NA	Solid	Moisture	
460-248693-9	TRC-SB-11 (0-0.5)	Total/NA	Solid	Moisture	
460-248693-10	TRC-SB-15 (0-0.5)	Total/NA	Solid	Moisture	
460-248701-F-3 MS	Matrix Spike	Total/NA	Solid	Moisture	
460-248701-F-3 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	
460-248696-A-7 DU	Duplicate	Total/NA	Solid	Moisture	

Analysis Batch: 818578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248693-6	TRC-SB-13 (0-0.5)	Total/NA	Solid	Moisture	
460-249014-A-4 MS	Matrix Spike	Total/NA	Solid	Moisture	
460-249014-A-4 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	
460-248727-A-60 DU	Duplicate	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248693-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818482	12/13/21 01:52	MIE	TAL EDI

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248693-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 96.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			817986	12/09/21 17:47	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818339	12/11/21 23:22	VBP	TAL EDI
Total/NA	Prep	3546			818114	12/10/21 10:04	OTS	TAL EDI
Total/NA	Analysis	8270E		1	818224	12/11/21 08:11	YAH	TAL EDI
Total/NA	Prep	3546			818190	12/10/21 17:51	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818463	12/12/21 22:02	FAM	TAL EDI
Total/NA	Prep	3546			818188	12/10/21 17:42	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818456	12/12/21 22:04	JHP	TAL EDI
Total/NA	Prep	8151A			818020	12/10/21 00:41	AFR	TAL EDI
Total/NA	Analysis	8151A		1	818108	12/10/21 18:15	JHP	TAL EDI
Total/NA	Prep	3050B			819071	12/15/21 18:44	GMC	TAL EDI
Total/NA	Analysis	6020B		1	819195	12/16/21 17:47	YZH	TAL EDI
Total/NA	Prep	7471B			818494	12/13/21 03:29	TJS	TAL EDI
Total/NA	Analysis	7471B		1	818548	12/13/21 07:58	TJS	TAL EDI

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818482	12/13/21 01:52	MIE	TAL EDI

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			817986	12/09/21 17:48	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818339	12/11/21 23:45	VBP	TAL EDI
Total/NA	Prep	3546			818114	12/10/21 10:04	OTS	TAL EDI
Total/NA	Analysis	8270E		1	818224	12/11/21 08:28	YAH	TAL EDI
Total/NA	Prep	3546			818190	12/10/21 17:51	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818463	12/12/21 22:17	FAM	TAL EDI
Total/NA	Prep	3546			818188	12/10/21 17:42	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818456	12/12/21 22:23	JHP	TAL EDI
Total/NA	Prep	8151A			818020	12/10/21 00:41	AFR	TAL EDI
Total/NA	Analysis	8151A		1	818108	12/10/21 18:28	JHP	TAL EDI

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			819071	12/15/21 18:44	GMC	TAL EDI
Total/NA	Analysis	6020B		2	819195	12/16/21 17:49	YZH	TAL EDI
Total/NA	Prep	7471B			818494	12/13/21 03:29	TJS	TAL EDI
Total/NA	Analysis	7471B		1	818548	12/13/21 08:03	TJS	TAL EDI

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248693-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818482	12/13/21 01:52	MIE	TAL EDI

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248693-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			817986	12/09/21 17:49	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818339	12/12/21 00:08	VBP	TAL EDI
Total/NA	Prep	3546			818114	12/10/21 10:04	OTS	TAL EDI
Total/NA	Analysis	8270E		1	818345	12/12/21 03:04	YAH	TAL EDI
Total/NA	Prep	3546			818190	12/10/21 17:51	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818463	12/12/21 22:32	FAM	TAL EDI
Total/NA	Prep	3546			818188	12/10/21 17:42	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818456	12/12/21 22:43	JHP	TAL EDI
Total/NA	Prep	8151A			818020	12/10/21 00:41	AFR	TAL EDI
Total/NA	Analysis	8151A		5	818108	12/10/21 19:40	JHP	TAL EDI
Total/NA	Prep	3050B			819071	12/15/21 18:44	GMC	TAL EDI
Total/NA	Analysis	6020B		1	819195	12/16/21 17:52	YZH	TAL EDI
Total/NA	Prep	7471B			818494	12/13/21 03:29	TJS	TAL EDI
Total/NA	Analysis	7471B		1	818548	12/13/21 08:05	TJS	TAL EDI

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248693-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818482	12/13/21 01:52	MIE	TAL EDI

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248693-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			817986	12/09/21 17:50	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818339	12/12/21 00:31	VBP	TAL EDI

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Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248693-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			818114	12/10/21 10:04	OTS	TAL EDI
Total/NA	Analysis	8270E		1	818269	12/11/21 18:15	YAH	TAL EDI
Total/NA	Prep	3546			818190	12/10/21 17:51	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818463	12/12/21 22:46	FAM	TAL EDI
Total/NA	Prep	3546			818188	12/10/21 17:42	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818456	12/12/21 23:02	JHP	TAL EDI
Total/NA	Prep	8151A			818020	12/10/21 00:41	AFR	TAL EDI
Total/NA	Analysis	8151A		5	818108	12/10/21 19:54	JHP	TAL EDI
Total/NA	Prep	3050B			819071	12/15/21 18:44	GMC	TAL EDI
Total/NA	Analysis	6020B		1	819195	12/16/21 17:54	YZH	TAL EDI
Total/NA	Prep	7471B			818494	12/13/21 03:29	TJS	TAL EDI
Total/NA	Analysis	7471B		3	818548	12/13/21 09:52	TJS	TAL EDI

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248693-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818482	12/13/21 01:52	MIE	TAL EDI

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248693-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			817986	12/09/21 17:51	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818339	12/12/21 00:53	VBP	TAL EDI
Total/NA	Prep	3546			818114	12/10/21 10:04	OTS	TAL EDI
Total/NA	Analysis	8270E		1	818345	12/12/21 01:55	YAH	TAL EDI
Total/NA	Prep	3546			818190	12/10/21 17:51	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818463	12/12/21 23:01	FAM	TAL EDI
Total/NA	Prep	3546			818188	12/10/21 17:42	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818456	12/12/21 23:22	JHP	TAL EDI
Total/NA	Prep	8151A			818020	12/10/21 00:41	AFR	TAL EDI
Total/NA	Analysis	8151A		5	818108	12/10/21 20:07	JHP	TAL EDI
Total/NA	Prep	3050B			819071	12/15/21 18:44	GMC	TAL EDI
Total/NA	Analysis	6020B		1	819195	12/16/21 14:36	YZH	TAL EDI
Total/NA	Prep	7471B			818494	12/13/21 03:29	TJS	TAL EDI
Total/NA	Analysis	7471B		1	818548	12/13/21 09:54	TJS	TAL EDI

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248693-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818578	12/13/21 14:59	MIE	TAL EDI

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248693-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			817986	12/09/21 17:52	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818339	12/12/21 01:16	VBP	TAL EDI
Total/NA	Prep	3546			818114	12/10/21 10:04	OTS	TAL EDI
Total/NA	Analysis	8270E		1	818345	12/12/21 02:12	YAH	TAL EDI
Total/NA	Prep	3546			818190	12/10/21 17:51	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818463	12/12/21 23:15	FAM	TAL EDI
Total/NA	Prep	3546			818188	12/10/21 17:42	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818456	12/12/21 23:41	JHP	TAL EDI
Total/NA	Prep	8151A			818020	12/10/21 00:41	AFR	TAL EDI
Total/NA	Analysis	8151A		5	818108	12/10/21 20:21	JHP	TAL EDI
Total/NA	Prep	3050B			819071	12/15/21 18:44	GMC	TAL EDI
Total/NA	Analysis	6020B		1	819195	12/16/21 14:39	YZH	TAL EDI
Total/NA	Prep	7471B			818494	12/13/21 03:29	TJS	TAL EDI
Total/NA	Analysis	7471B		3	818548	12/13/21 09:56	TJS	TAL EDI

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248693-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818482	12/13/21 01:52	MIE	TAL EDI

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248693-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			817986	12/09/21 17:53	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818339	12/12/21 01:39	VBP	TAL EDI
Total/NA	Prep	3546			818114	12/10/21 10:04	OTS	TAL EDI
Total/NA	Analysis	8270E		1	818345	12/12/21 02:29	YAH	TAL EDI
Total/NA	Prep	3546			818190	12/10/21 17:51	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818463	12/12/21 23:30	FAM	TAL EDI
Total/NA	Prep	3546			818188	12/10/21 17:42	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818456	12/13/21 00:01	JHP	TAL EDI
Total/NA	Prep	8151A			818020	12/10/21 00:41	AFR	TAL EDI
Total/NA	Analysis	8151A		5	818108	12/10/21 20:34	JHP	TAL EDI

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248693-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			819071	12/15/21 18:44	GMC	TAL EDI
Total/NA	Analysis	6020B		1	819195	12/16/21 14:41	YZH	TAL EDI
Total/NA	Prep	7471B			818494	12/13/21 03:29	TJS	TAL EDI
Total/NA	Analysis	7471B		1	818548	12/13/21 09:58	TJS	TAL EDI

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248693-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818482	12/13/21 01:52	MIE	TAL EDI

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248693-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			817986	12/09/21 17:54	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818339	12/12/21 02:01	VBP	TAL EDI
Total/NA	Prep	3546			818114	12/10/21 10:04	OTS	TAL EDI
Total/NA	Analysis	8270E		1	818224	12/11/21 09:55	YAH	TAL EDI
Total/NA	Prep	3546			818190	12/10/21 17:51	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818463	12/12/21 23:45	FAM	TAL EDI
Total/NA	Prep	3546			818188	12/10/21 17:42	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818456	12/13/21 00:20	JHP	TAL EDI
Total/NA	Prep	8151A			818020	12/10/21 00:41	AFR	TAL EDI
Total/NA	Analysis	8151A		5	818108	12/10/21 20:48	JHP	TAL EDI
Total/NA	Prep	3050B			819071	12/15/21 18:44	GMC	TAL EDI
Total/NA	Analysis	6020B		1	819195	12/16/21 14:43	YZH	TAL EDI
Total/NA	Prep	7471B			818494	12/13/21 03:29	TJS	TAL EDI
Total/NA	Analysis	7471B		3	818548	12/13/21 10:00	TJS	TAL EDI

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248693-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818482	12/13/21 01:52	MIE	TAL EDI

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248693-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			817986	12/09/21 17:55	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818339	12/12/21 02:24	VBP	TAL EDI

Eurofins TestAmerica, Edison

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248693-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			818114	12/10/21 10:04	OTS	TAL EDI
Total/NA	Analysis	8270E		1	818224	12/11/21 07:54	YAH	TAL EDI
Total/NA	Prep	3546			818190	12/10/21 17:51	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818463	12/13/21 23:59	FAM	TAL EDI
Total/NA	Prep	3546			818188	12/10/21 17:42	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818456	12/13/21 00:39	JHP	TAL EDI
Total/NA	Prep	8151A			818020	12/10/21 00:41	AFR	TAL EDI
Total/NA	Analysis	8151A		5	818108	12/10/21 21:01	JHP	TAL EDI
Total/NA	Prep	3050B			819071	12/15/21 18:44	GMC	TAL EDI
Total/NA	Analysis	6020B		1	819195	12/16/21 14:46	YZH	TAL EDI
Total/NA	Prep	3050B			819071	12/15/21 18:44	GMC	TAL EDI
Total/NA	Analysis	6020B		10	819195	12/16/21 18:32	YZH	TAL EDI
Total/NA	Prep	7471B			818494	12/13/21 03:29	TJS	TAL EDI
Total/NA	Analysis	7471B		1	818548	12/13/21 10:01	TJS	TAL EDI

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248693-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818482	12/13/21 01:52	MIE	TAL EDI

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248693-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			817986	12/09/21 17:56	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818339	12/12/21 02:47	VBP	TAL EDI
Total/NA	Prep	3546			818114	12/10/21 10:04	OTS	TAL EDI
Total/NA	Analysis	8270E		1	818224	12/11/21 07:37	YAH	TAL EDI
Total/NA	Prep	3546			818190	12/10/21 17:51	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818491	12/13/21 05:30	FAM	TAL EDI
Total/NA	Prep	3546			818188	12/10/21 17:42	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818456	12/13/21 00:59	JHP	TAL EDI
Total/NA	Prep	8151A			818020	12/10/21 00:41	AFR	TAL EDI
Total/NA	Analysis	8151A		5	818108	12/10/21 21:15	JHP	TAL EDI
Total/NA	Prep	3050B			819071	12/15/21 18:44	GMC	TAL EDI
Total/NA	Analysis	6020B		1	819195	12/16/21 14:48	YZH	TAL EDI
Total/NA	Prep	7471B			818494	12/13/21 03:29	TJS	TAL EDI
Total/NA	Analysis	7471B		1	818548	12/13/21 08:18	TJS	TAL EDI

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Eurofins TestAmerica, Edison

Accreditation/Certification Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Laboratory: Eurofins TestAmerica, Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8081B	Organochlorine Pesticides (GC)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
8151A	Herbicides (GC)	SW846	TAL EDI
6020B	Metals (ICP/MS)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
8151A	Extraction (Herbicides)	SW846	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-248693-1	TRC-SB-01 (0-0.5)	Solid	12/08/21 09:15	12/08/21 18:00
460-248693-2	TRC-SB-05 (0-0.5)	Solid	12/08/21 10:10	12/08/21 18:00
460-248693-3	TRC-SB-06 (0-0.5)	Solid	12/08/21 11:00	12/08/21 18:00
460-248693-4	TRC-SB-09 (0-0.5)	Solid	12/08/21 11:35	12/08/21 18:00
460-248693-5	TRC-SB-12 (0-0.5)	Solid	12/08/21 12:15	12/08/21 18:00
460-248693-6	TRC-SB-13 (0-0.5)	Solid	12/08/21 12:35	12/08/21 18:00
460-248693-7	TRC-SB-10 (0-0.5)	Solid	12/08/21 13:15	12/08/21 18:00
460-248693-8	TRC-SB-14 (0-0.5)	Solid	12/08/21 13:40	12/08/21 18:00
460-248693-9	TRC-SB-11 (0-0.5)	Solid	12/08/21 14:10	12/08/21 18:00
460-248693-10	TRC-SB-15 (0-0.5)	Solid	12/08/21 15:00	12/08/21 18:00

NYC

222

Chain of Custody Record

578455



Environment Testing
TestAmerica

Address: 218 Jackson Ave
Queens, NY 11101

Regulatory Program:

☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact		Project Manager: Emily Ebert		Site Contact: Brian Schlaff		Date: 12/8/21		COC No: 1 of 1	
Company Name: TRC Companies Inc.		Tel/Email: Ebert@trccompanies.com		Carrier:				COCs	
Address: 1430 Broadway 10th Floor									
City/State/Zip: NY, NY 10018									
Phone: (212) 221-7821									
Fax:									
Project Name: LIRR Arin Street Yard									
Site: LIRR Arin Street Yard									
PO # 414444-0000-0000-0000-0000									



Sample Identification	Sample Date	Sample Time	Sample Type (C-Comp, G-Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Sample Specific Notes
TRC-SB-01 (8"-14")	12/8/21	0915	G	S	5	N	N	1
TRC-SB-05 (1.5'-2')		1010						2
TRC-SB-06 (8"-14")		1100						3
TRC-SB-04 (5"-11")		1135						4
TRC-SB-12 (1'-1.5')		1215						5
TRC-SB-13 (3'-9")		1235						6
TRC-SB-10 (3'-9")		1315						7
TRC-SB-14 (4"-10")		1340						8
TRC-SB-11 (14"-20")		1410						9
TRC-SB-15 (5"-11")		1500						10



Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Special Instructions/QC Requirements & Comments: Edus EDO E. category B deliverable required

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Custody Seal No.:	Cooler Temp. (°C):	Obs'd:	Corr'd:	Therm ID No.:
Company: TRC	Date/Time: 12/8/21	Received by: [Signature]	Company: [Signature]	Date/Time: 12/8/21 1530
Company: [Signature]	Date/Time: 12/8/21 1800	Received by: [Signature]	Company: [Signature]	Date/Time: 12/8/21 1800
Company: [Signature]	Date/Time:	Received by:	Company:	Date/Time:

3-635729



248693

3

Cooler Temperatures

	CORRECTED		RAW	
	RAW	CORRECTED	RAW	CORRECTED
Cooler #1:	36	35	Cooler #4:	℃
Cooler #2:	℃	℃	Cooler #5:	℃
Cooler #3:	℃	℃	Cooler #6:	℃
			Cooler #7:	℃
			Cooler #8:	℃
			Cooler #9:	℃

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.: _____

Lot # of Preservative(s): _____

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

* Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

EDS-WI-038, Rev 4.1
10/22/2019

Initials: Kane

Date: 12821

Login Sample Receipt Checklist

Client: TRC Environmental Corporation

Job Number: 460-248693-1

Login Number: 248693

List Number: 1

Creator: Meyers, Gary

List Source: Eurofins TestAmerica, Edison

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

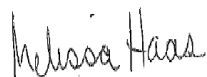
Laboratory Job ID: 460-248770-1

Client Project/Site: MTA LIRR Arch St Yard Supplemental RI

For:

TRC Environmental Corporation
1430 Broadway
10 Floor
New York, New York 10018

Attn: Emily Ebert



Authorized for release by:
12/17/2021 3:30:25 PM

Melissa Haas, Senior Project Manager
(203)308-0880
Melissa.Haas@Eurofinset.com

LINKS

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Job ID: 460-248770-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

CASE NARRATIVE

Client: TRC Environmental Corporation

Project: MTA LIRR Arch St Yard Supplemental RI

Report Number: 460-248770-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 12/09/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.8 C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The client requested the change in sample ID depths to 0-0.5.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples TRC-SB-02 (0-0.5) (460-248770-1), TRC-DUP-1 (460-248770-2), TRC-SB-04 (0-0.5) (460-248770-3), TRC-SB-03 (0-0.5) (460-248770-4), TRC-SB-07 (0-0.5) (460-248770-5) and TRC-SB-08 (0-0.5) (460-248770-6) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with Method 537 (modified). The samples were prepared on 12/15/2021 and analyzed on 12/16/2021.

Sample TRC-EB-12092021 (460-248770-7) was analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with Method 537 (modified). The samples were prepared on 12/13/2021 and analyzed on 12/14/2021.

The "I" qualifier associated with sample TRC-EB-12092021 (460-248770-7) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

M2-8:2 FTS Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: TRC-SB-02 (0-0.5) (460-248770-1[MSJ]), TRC-SB-02 (0-0.5) (460-248770-1[MSD]) and TRC-DUP-1 (460-248770-2). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

The "I" qualifier associated with samples TRC-DUP-1 (460-248770-2), TRC-SB-03 (0-0.5) (460-248770-4) and TRC-SB-08 (0-0.5)

Case Narrative

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Job ID: 460-248770-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

(460-248770-6) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

No other difficulties were encountered during the PFAS analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples TRC-SB-02 (0-0.5) (460-248770-1), TRC-DUP-1 (460-248770-2), TRC-SB-04 (0-0.5) (460-248770-3), TRC-SB-03 (0-0.5) (460-248770-4), TRC-SB-07 (0-0.5) (460-248770-5) and TRC-SB-08 (0-0.5) (460-248770-6) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 12/13/2021.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248770-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.050	J	0.21	0.024	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.052	J	0.21	0.021	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.48		0.21	0.027	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.063	J	0.21	0.019	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.13	J	0.21	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.10	J	0.21	0.021	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.10	J	0.21	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.055	J	0.21	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.056	J	0.21	0.025	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.089	J	0.21	0.015	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.021	J	0.21	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.26		0.21	0.017	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.063	J	0.21	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	0.033	J	0.21	0.018	ug/Kg	1	✱	537 (modified)	Total/NA
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.066	J	2.14	0.040	ug/Kg	1	✱	537 (modified)	Total/NA

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248770-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.055	J	0.21	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.042	J	0.21	0.021	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.45		0.21	0.027	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.079	J	0.21	0.019	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.12	J	0.21	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.11	J	0.21	0.021	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.11	J	0.21	0.022	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.054	J	0.21	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.043	J	0.21	0.024	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.080	J	0.21	0.015	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.025	J	0.21	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.22		0.21	0.017	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.058	J	0.21	0.013	ug/Kg	1	✱	537 (modified)	Total/NA
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.064	J	2.12	0.039	ug/Kg	1	✱	537 (modified)	Total/NA

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248770-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.029	J	0.23	0.025	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.072	J	0.23	0.028	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.030	J	0.23	0.020	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.081	J	0.23	0.014	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.057	J	0.23	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.061	J	0.23	0.024	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.034	J	0.23	0.017	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.027	J	0.23	0.026	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.019	J	0.23	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.35		0.23	0.018	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.029	J	0.23	0.014	ug/Kg	1	✱	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-04 (0-0.5) (Continued)

Lab Sample ID: 460-248770-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.20	J	2.25	0.042	ug/Kg	1	✱	537 (modified)	Total/NA

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248770-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.027	J	0.23	0.026	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.024	J	0.23	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.21	J	0.23	0.029	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.058	J	0.23	0.021	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.11	J	0.23	0.014	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.11	J	0.23	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.11	J	0.23	0.024	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.067	J	0.23	0.017	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.054	J	0.23	0.027	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.058	J	0.23	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.71	J	0.23	0.019	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.070	J	0.23	0.014	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	0.11	J	0.23	0.020	ug/Kg	1	✱	537 (modified)	Total/NA
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.13	J	2.32	0.043	ug/Kg	1	✱	537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.26	J	2.32	0.053	ug/Kg	1	✱	537 (modified)	Total/NA

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248770-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.032	J	0.23	0.025	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.050	J	0.23	0.029	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.021	J	0.23	0.021	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.068	J	0.23	0.014	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.066	J	0.23	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.12	J	0.23	0.024	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.065	J	0.23	0.017	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.072	J	0.23	0.026	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.023	J	0.23	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.29	J	0.23	0.018	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.032	J	0.23	0.014	ug/Kg	1	✱	537 (modified)	Total/NA
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.042	J	2.28	0.042	ug/Kg	1	✱	537 (modified)	Total/NA

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248770-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	0.029	J	0.23	0.029	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.040	J	0.23	0.014	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.060	J	0.23	0.023	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.090	J	0.23	0.025	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.047	J	0.23	0.018	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.049	J	0.23	0.027	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.016	J	0.23	0.016	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.14	J	0.23	0.019	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.060	J	0.23	0.014	ug/Kg	1	✱	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-08 (0-0.5) (Continued)

Lab Sample ID: 460-248770-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.094	J	2.34	0.043	ug/Kg	1	✱	537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.061	J	2.34	0.054	ug/Kg	1	✱	537 (modified)	Total/NA

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248770-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	0.63	J	1.70	0.25	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248770-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.3

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.17	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluoropentanoic acid (PFPeA)	0.21	U	0.21	0.042	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorohexanoic acid (PFHxA)	0.050	J	0.21	0.024	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluoroheptanoic acid (PFHpA)	0.052	J	0.21	0.021	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorooctanoic acid (PFOA)	0.48		0.21	0.027	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorononanoic acid (PFNA)	0.063	J	0.21	0.019	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorodecanoic acid (PFDA)	0.13	J	0.21	0.013	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluoroundecanoic acid (PFUnA)	0.10	J	0.21	0.021	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorododecanoic acid (PFDoA)	0.10	J	0.21	0.022	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorotridecanoic acid (PFTriA)	0.055	J	0.21	0.016	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorotetradecanoic acid (PFTeA)	0.056	J	0.21	0.025	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.010	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorohexanesulfonic acid (PFHxS)	0.089	J	0.21	0.015	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.021	J	0.21	0.016	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorooctanesulfonic acid (PFOS)	2.26		0.21	0.017	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorodecanesulfonic acid (PFDS)	0.063	J	0.21	0.013	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorooctanesulfonamide (PFOSA)	0.033	J	0.21	0.018	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.066	J	2.14	0.040	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.14	U	2.14	0.049	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.14	U	2.14	0.033	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.14	U	2.14	0.017	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	75		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C4 PFHpA	87		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C4 PFOA	90		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C4 PFOS	74		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C5 PFNA	92		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C4 PFBA	93		25 - 150	12/15/21 10:51	12/16/21 13:38	1
13C2 PFHxA	87		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C2 PFDA	90		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C2 PFUnA	96		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C2 PFDoA	82		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C8 FOSA	63		25 - 150	12/15/21 10:51	12/16/21 13:38	1
13C5 PFPeA	88		25 - 150	12/15/21 10:51	12/16/21 13:38	1
13C2 PFTeDA	92		50 - 150	12/15/21 10:51	12/16/21 13:38	1
d3-NMeFOSAA	109		50 - 150	12/15/21 10:51	12/16/21 13:38	1
d5-NEtFOSAA	128		50 - 150	12/15/21 10:51	12/16/21 13:38	1
M2-6:2 FTS	98		25 - 150	12/15/21 10:51	12/16/21 13:38	1
M2-8:2 FTS	137		25 - 150	12/15/21 10:51	12/16/21 13:38	1
13C3 PFBS	81		50 - 150	12/15/21 10:51	12/16/21 13:38	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248770-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	91.3		0.3	0.3	%			12/13/21 14:33	1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248770-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.5

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.53	U	0.53	0.17	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluoropentanoic acid (PFPeA)	0.21	U	0.21	0.041	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluorohexanoic acid (PFHxA)	0.055	J	0.21	0.023	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluoroheptanoic acid (PFHpA)	0.042	J	0.21	0.021	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluorooctanoic acid (PFOA)	0.45		0.21	0.027	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluorononanoic acid (PFNA)	0.079	J	0.21	0.019	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluorodecanoic acid (PFDA)	0.12	J	0.21	0.013	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluoroundecanoic acid (PFUnA)	0.11	J	0.21	0.021	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluorododecanoic acid (PFDoA)	0.11	J	0.21	0.022	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluorotridecanoic acid (PFTriA)	0.054	J	0.21	0.016	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluorotetradecanoic acid (PFTeA)	0.043	J	0.21	0.024	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.0099	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluorohexanesulfonic acid (PFHxS)	0.080	J	0.21	0.015	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.025	J	0.21	0.016	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluorooctanesulfonic acid (PFOS)	2.22		0.21	0.017	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluorodecanesulfonic acid (PFDS)	0.058	J	0.21	0.013	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.018	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.064	J	2.12	0.039	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.12	U	2.12	0.049	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.12	U	2.12	0.033	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.12	U	2.12	0.017	ug/Kg	✱	12/15/21 10:51	12/16/21 14:02	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	74		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C4 PFHpA	89		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C4 PFOA	87		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C4 PFOS	72		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C5 PFNA	88		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C4 PFBA	83		25 - 150				12/15/21 10:51	12/16/21 14:02	1
13C2 PFHxA	80		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C2 PFDA	87		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C2 PFUnA	92		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C2 PFDoA	81		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C8 FOSA	59		25 - 150				12/15/21 10:51	12/16/21 14:02	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248770-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.5

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFPeA	85		25 - 150	12/15/21 10:51	12/16/21 14:02	1
13C2 PFTeDA	87		50 - 150	12/15/21 10:51	12/16/21 14:02	1
d3-NMeFOSAA	115		50 - 150	12/15/21 10:51	12/16/21 14:02	1
d5-NEtFOSAA	127		50 - 150	12/15/21 10:51	12/16/21 14:02	1
M2-6:2 FTS	102		25 - 150	12/15/21 10:51	12/16/21 14:02	1
M2-8:2 FTS	153 *		25 - 150	12/15/21 10:51	12/16/21 14:02	1
13C3 PFBS	71		50 - 150	12/15/21 10:51	12/16/21 14:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	91.5		0.3	0.3	%			12/13/21 14:33	1

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248770-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.8

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.56	U	0.56	0.18	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluoropentanoic acid (PFPeA)	0.23	U	0.23	0.044	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorohexanoic acid (PFHxA)	0.029	J	0.23	0.025	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluoroheptanoic acid (PFHpA)	0.23	U	0.23	0.023	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorooctanoic acid (PFOA)	0.072	J	0.23	0.028	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorononanoic acid (PFNA)	0.030	J	0.23	0.020	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorodecanoic acid (PFDA)	0.081	J	0.23	0.014	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluoroundecanoic acid (PFUnA)	0.057	J	0.23	0.023	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorododecanoic acid (PFDoA)	0.061	J	0.23	0.024	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorotridecanoic acid (PFTriA)	0.034	J	0.23	0.017	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorotetradecanoic acid (PFTeA)	0.027	J	0.23	0.026	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorobutanesulfonic acid (PFBS)	0.23	U	0.23	0.010	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorohexanesulfonic acid (PFHxS)	0.019	J	0.23	0.016	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.23	U	0.23	0.017	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorooctanesulfonic acid (PFOS)	0.35		0.23	0.018	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorodecanesulfonic acid (PFDS)	0.029	J	0.23	0.014	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorooctanesulfonamide (PFOSA)	0.23	U	0.23	0.019	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.20	J	2.25	0.042	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.25	U	2.25	0.052	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.25	U	2.25	0.035	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.25	U	2.25	0.018	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	79		50 - 150				12/15/21 10:51	12/16/21 14:10	1
13C4 PFHpA	84		50 - 150				12/15/21 10:51	12/16/21 14:10	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248770-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.8

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	82		50 - 150	12/15/21 10:51	12/16/21 14:10	1
13C4 PFOS	71		50 - 150	12/15/21 10:51	12/16/21 14:10	1
13C5 PFNA	85		50 - 150	12/15/21 10:51	12/16/21 14:10	1
13C4 PFBA	85		25 - 150	12/15/21 10:51	12/16/21 14:10	1
13C2 PFHxA	84		50 - 150	12/15/21 10:51	12/16/21 14:10	1
13C2 PFDA	82		50 - 150	12/15/21 10:51	12/16/21 14:10	1
13C2 PFUnA	88		50 - 150	12/15/21 10:51	12/16/21 14:10	1
13C2 PFDoA	84		50 - 150	12/15/21 10:51	12/16/21 14:10	1
13C8 FOSA	63		25 - 150	12/15/21 10:51	12/16/21 14:10	1
13C5 PFPeA	85		25 - 150	12/15/21 10:51	12/16/21 14:10	1
13C2 PFTeDA	90		50 - 150	12/15/21 10:51	12/16/21 14:10	1
d3-NMeFOSAA	81		50 - 150	12/15/21 10:51	12/16/21 14:10	1
d5-NEtFOSAA	103		50 - 150	12/15/21 10:51	12/16/21 14:10	1
M2-6:2 FTS	78		25 - 150	12/15/21 10:51	12/16/21 14:10	1
M2-8:2 FTS	92		25 - 150	12/15/21 10:51	12/16/21 14:10	1
13C3 PFBS	79		50 - 150	12/15/21 10:51	12/16/21 14:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85.8		0.3	0.3	%			12/13/21 14:33	1

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248770-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.5

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.58	U	0.58	0.19	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluoropentanoic acid (PFPeA)	0.23	U	0.23	0.045	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluorohexanoic acid (PFHxA)	0.027	J	0.23	0.026	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluoroheptanoic acid (PFHpA)	0.024	J	0.23	0.023	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluorooctanoic acid (PFOA)	0.21	J	0.23	0.029	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluorononanoic acid (PFNA)	0.058	J	0.23	0.021	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluorodecanoic acid (PFDA)	0.11	J	0.23	0.014	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluoroundecanoic acid (PFUnA)	0.11	J	0.23	0.023	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluorododecanoic acid (PFDoA)	0.11	J	0.23	0.024	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluorotridecanoic acid (PFTriA)	0.067	J	0.23	0.017	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluorotetradecanoic acid (PFTeA)	0.054	J	0.23	0.027	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluorobutanesulfonic acid (PFBS)	0.23	U	0.23	0.011	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluorohexanesulfonic acid (PFHxS)	0.058	J	0.23	0.016	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.23	U	0.23	0.017	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluorooctanesulfonic acid (PFOS)	1.71		0.23	0.019	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluorodecanesulfonic acid (PFDS)	0.070	J	0.23	0.014	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1
Perfluorooctanesulfonamide (PFOSA)	0.11	J	0.23	0.020	ug/Kg	✱	12/15/21 10:51	12/16/21 14:19	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248770-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.5

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.13	J	2.32	0.043	ug/Kg	☆	12/15/21 10:51	12/16/21 14:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.26	J	2.32	0.053	ug/Kg	☆	12/15/21 10:51	12/16/21 14:19	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.32	U	2.32	0.036	ug/Kg	☆	12/15/21 10:51	12/16/21 14:19	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.32	U	2.32	0.019	ug/Kg	☆	12/15/21 10:51	12/16/21 14:19	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	64		50 - 150				12/15/21 10:51	12/16/21 14:19	1
13C4 PFHpA	81		50 - 150				12/15/21 10:51	12/16/21 14:19	1
13C4 PFOA	80		50 - 150				12/15/21 10:51	12/16/21 14:19	1
13C4 PFOS	61		50 - 150				12/15/21 10:51	12/16/21 14:19	1
13C5 PFNA	83		50 - 150				12/15/21 10:51	12/16/21 14:19	1
13C4 PFBA	79		25 - 150				12/15/21 10:51	12/16/21 14:19	1
13C2 PFHxA	77		50 - 150				12/15/21 10:51	12/16/21 14:19	1
13C2 PFDA	83		50 - 150				12/15/21 10:51	12/16/21 14:19	1
13C2 PFUnA	90		50 - 150				12/15/21 10:51	12/16/21 14:19	1
13C2 PFDoA	79		50 - 150				12/15/21 10:51	12/16/21 14:19	1
13C8 FOSA	63		25 - 150				12/15/21 10:51	12/16/21 14:19	1
13C5 PFPeA	75		25 - 150				12/15/21 10:51	12/16/21 14:19	1
13C2 PFTeDA	89		50 - 150				12/15/21 10:51	12/16/21 14:19	1
d3-NMeFOSAA	82		50 - 150				12/15/21 10:51	12/16/21 14:19	1
d5-NEtFOSAA	96		50 - 150				12/15/21 10:51	12/16/21 14:19	1
M2-6:2 FTS	72		25 - 150				12/15/21 10:51	12/16/21 14:19	1
M2-8:2 FTS	83		25 - 150				12/15/21 10:51	12/16/21 14:19	1
13C3 PFBS	63		50 - 150				12/15/21 10:51	12/16/21 14:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85.5		0.3	0.3	%			12/13/21 14:33	1

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248770-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 87.2

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.57	U	0.57	0.18	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Perfluoropentanoic acid (PFPeA)	0.23	U	0.23	0.044	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Perfluorohexanoic acid (PFHxA)	0.032	J	0.23	0.025	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Perfluoroheptanoic acid (PFHpA)	0.23	U	0.23	0.023	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Perfluorooctanoic acid (PFOA)	0.050	J	0.23	0.029	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Perfluorononanoic acid (PFNA)	0.021	J	0.23	0.021	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Perfluorodecanoic acid (PFDA)	0.068	J	0.23	0.014	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Perfluoroundecanoic acid (PFUnA)	0.066	J	0.23	0.023	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Perfluorododecanoic acid (PFDoA)	0.12	J	0.23	0.024	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Perfluorotridecanoic acid (PFTriA)	0.065	J	0.23	0.017	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Perfluorotetradecanoic acid (PFTeA)	0.072	J	0.23	0.026	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248770-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 87.2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	0.23	U	0.23	0.011	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Perfluorohexanesulfonic acid (PFHxS)	0.023	J	0.23	0.016	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.23	U	0.23	0.017	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Perfluorooctanesulfonic acid (PFOS)	0.29		0.23	0.018	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Perfluorodecanesulfonic acid (PFDS)	0.032	J	0.23	0.014	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Perfluorooctanesulfonamide (PFOSA)	0.23	U	0.23	0.019	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.042	J	2.28	0.042	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.28	U	2.28	0.052	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.28	U	2.28	0.035	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.28	U	2.28	0.018	ug/Kg	☆	12/15/21 10:51	12/16/21 14:27	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	80		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C4 PFHpA	81		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C4 PFOA	84		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C4 PFOS	75		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C5 PFNA	92		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C4 PFBA	88		25 - 150				12/15/21 10:51	12/16/21 14:27	1
13C2 PFHxA	87		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C2 PFDA	80		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C2 PFUnA	91		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C2 PFDoA	91		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C8 FOSA	67		25 - 150				12/15/21 10:51	12/16/21 14:27	1
13C5 PFPeA	87		25 - 150				12/15/21 10:51	12/16/21 14:27	1
13C2 PFTeDA	104		50 - 150				12/15/21 10:51	12/16/21 14:27	1
d3-NMeFOSAA	82		50 - 150				12/15/21 10:51	12/16/21 14:27	1
d5-NEtFOSAA	96		50 - 150				12/15/21 10:51	12/16/21 14:27	1
M2-6:2 FTS	78		25 - 150				12/15/21 10:51	12/16/21 14:27	1
M2-8:2 FTS	92		25 - 150				12/15/21 10:51	12/16/21 14:27	1
13C3 PFBS	83		50 - 150				12/15/21 10:51	12/16/21 14:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	87.2		0.3	0.3	%			12/13/21 14:33	1

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248770-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 82.9

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.58	U	0.58	0.19	ug/Kg	☆	12/15/21 10:51	12/16/21 14:35	1
Perfluoropentanoic acid (PFPeA)	0.23	U	0.23	0.046	ug/Kg	☆	12/15/21 10:51	12/16/21 14:35	1
Perfluorohexanoic acid (PFHxA)	0.23	U	0.23	0.026	ug/Kg	☆	12/15/21 10:51	12/16/21 14:35	1
Perfluoroheptanoic acid (PFHpA)	0.23	U	0.23	0.023	ug/Kg	☆	12/15/21 10:51	12/16/21 14:35	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248770-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 82.9

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	0.029	J	0.23	0.029	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
Perfluorononanoic acid (PFNA)	0.23	U	0.23	0.021	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
Perfluorodecanoic acid (PFDA)	0.040	J	0.23	0.014	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
Perfluoroundecanoic acid (PFUnA)	0.060	J	0.23	0.023	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
Perfluorododecanoic acid (PFDoA)	0.090	J	0.23	0.025	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
Perfluorotridecanoic acid (PFTriA)	0.047	J	0.23	0.018	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
Perfluorotetradecanoic acid (PFTeA)	0.049	J	0.23	0.027	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
Perfluorobutanesulfonic acid (PFBS)	0.23	U	0.23	0.011	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
Perfluorohexanesulfonic acid (PFHxS)	0.016	J	0.23	0.016	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.23	U	0.23	0.018	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
Perfluorooctanesulfonic acid (PFOS)	0.14	J	0.23	0.019	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
Perfluorodecanesulfonic acid (PFDS)	0.060	J	0.23	0.014	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
Perfluorooctanesulfonamide (PFOSA)	0.23	U	0.23	0.020	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.094	J	2.34	0.043	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.061	J	2.34	0.054	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.34	U	2.34	0.036	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.34	U	2.34	0.019	ug/Kg	✱	12/15/21 10:51	12/16/21 14:35	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	89		50 - 150	12/15/21 10:51	12/16/21 14:35	1
13C4 PFHpA	91		50 - 150	12/15/21 10:51	12/16/21 14:35	1
13C4 PFOA	90		50 - 150	12/15/21 10:51	12/16/21 14:35	1
13C4 PFOS	82		50 - 150	12/15/21 10:51	12/16/21 14:35	1
13C5 PFNA	89		50 - 150	12/15/21 10:51	12/16/21 14:35	1
13C4 PFBA	92		25 - 150	12/15/21 10:51	12/16/21 14:35	1
13C2 PFHxA	87		50 - 150	12/15/21 10:51	12/16/21 14:35	1
13C2 PFDA	91		50 - 150	12/15/21 10:51	12/16/21 14:35	1
13C2 PFUnA	93		50 - 150	12/15/21 10:51	12/16/21 14:35	1
13C2 PFDoA	87		50 - 150	12/15/21 10:51	12/16/21 14:35	1
13C8 FOSA	81		25 - 150	12/15/21 10:51	12/16/21 14:35	1
13C5 PFPeA	89		25 - 150	12/15/21 10:51	12/16/21 14:35	1
13C2 PFTeDA	102		50 - 150	12/15/21 10:51	12/16/21 14:35	1
d3-NMeFOSAA	78		50 - 150	12/15/21 10:51	12/16/21 14:35	1
d5-NEtFOSAA	97		50 - 150	12/15/21 10:51	12/16/21 14:35	1
M2-6:2 FTS	83		25 - 150	12/15/21 10:51	12/16/21 14:35	1
M2-8:2 FTS	95		25 - 150	12/15/21 10:51	12/16/21 14:35	1
13C3 PFBS	86		50 - 150	12/15/21 10:51	12/16/21 14:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	82.9		0.3	0.3	%	-		12/13/21 14:33	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248770-7

Date Collected: 12/09/21 11:00

Matrix: Water

Date Received: 12/09/21 19:00

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.24	U	4.24	0.76	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluoropentanoic acid (PFPeA)	1.70	U	1.70	0.40	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorohexanoic acid (PFHxA)	1.70	U	1.70	0.38	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluoroheptanoic acid (PFHpA)	1.70	U	1.70	0.20	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorooctanoic acid (PFOA)	1.70	U	1.70	0.36	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorononanoic acid (PFNA)	1.70	U	1.70	0.24	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorodecanoic acid (PFDA)	1.70	U	1.70	0.26	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluoroundecanoic acid (PFUnA)	1.70	U	1.70	0.29	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorododecanoic acid (PFDoA)	1.70	U	1.70	0.33	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorotridecanoic acid (PFTriA)	1.70	U	1.70	0.37	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorotetradecanoic acid (PFTeA)	1.70	U	1.70	0.54	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorobutanesulfonic acid (PFBS)	1.70	U	1.70	0.21	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorohexanesulfonic acid (PFHxS)	1.70	U	1.70	0.26	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.70	U	1.70	0.20	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorooctanesulfonic acid (PFOS)	0.63	J	1.70	0.25	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorodecanesulfonic acid (PFDS)	1.70	U	1.70	0.26	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorooctanesulfonamide (PFOSA)	1.70	U	1.70	0.49	ng/L		12/13/21 13:06	12/14/21 16:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.24	U	4.24	0.77	ng/L		12/13/21 13:06	12/14/21 16:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.24	U	4.24	0.63	ng/L		12/13/21 13:06	12/14/21 16:25	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.24	U	4.24	0.93	ng/L		12/13/21 13:06	12/14/21 16:25	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.70	U	1.70	0.33	ng/L		12/13/21 13:06	12/14/21 16:25	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	99		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C4 PFHpA	94		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C4 PFOA	98		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C4 PFOS	96		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C5 PFNA	105		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C4 PFBA	91		25 - 150				12/13/21 13:06	12/14/21 16:25	1
13C2 PFHxA	97		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C2 PFDA	96		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C2 PFUnA	104		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C2 PFDoA	82		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C8 FOSA	79		25 - 150				12/13/21 13:06	12/14/21 16:25	1
13C5 PFPeA	94		25 - 150				12/13/21 13:06	12/14/21 16:25	1
13C2 PFTeDA	80		50 - 150				12/13/21 13:06	12/14/21 16:25	1
d3-NMeFOSAA	83		50 - 150				12/13/21 13:06	12/14/21 16:25	1
d5-NEtFOSAA	91		50 - 150				12/13/21 13:06	12/14/21 16:25	1
M2-6:2 FTS	89		25 - 150				12/13/21 13:06	12/14/21 16:25	1
M2-8:2 FTS	93		25 - 150				12/13/21 13:06	12/14/21 16:25	1
13C3 PFBS	96		50 - 150				12/13/21 13:06	12/14/21 16:25	1

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Isotope Dilution Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (50-150)	C4PFHA (50-150)	PFOA (50-150)	PFOS (50-150)	PFNA (50-150)	PFBA (25-150)	PFHxA (50-150)	PFDA (50-150)
460-248770-1	TRC-SB-02 (0-0.5)	75	87	90	74	92	93	87	90
460-248770-1 MS	TRC-SB-02 (0-0.5)	75	87	88	75	98	87	82	89
460-248770-1 MSD	TRC-SB-02 (0-0.5)	82	88	84	79	99	93	92	94
460-248770-2	TRC-DUP-1	74	89	87	72	88	83	80	87
460-248770-3	TRC-SB-04 (0-0.5)	79	84	82	71	85	85	84	82
460-248770-4	TRC-SB-03 (0-0.5)	64	81	80	61	83	79	77	83
460-248770-5	TRC-SB-07 (0-0.5)	80	81	84	75	92	88	87	80
460-248770-6	TRC-SB-08 (0-0.5)	89	91	90	82	89	92	87	91
LCS 200-174963/2-A	Lab Control Sample	84	88	88	76	90	93	87	72
MB 200-174963/1-A	Method Blank	93	96	87	88	92	92	89	89

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDoA (50-150)	PFOSA (25-150)	PFPeA (25-150)	PFTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (25-150)
460-248770-1	TRC-SB-02 (0-0.5)	96	82	63	88	92	109	128	98
460-248770-1 MS	TRC-SB-02 (0-0.5)	102	84	63	83	92	128	149	117
460-248770-1 MSD	TRC-SB-02 (0-0.5)	104	90	65	92	93	127	139	105
460-248770-2	TRC-DUP-1	92	81	59	85	87	115	127	102
460-248770-3	TRC-SB-04 (0-0.5)	88	84	63	85	90	81	103	78
460-248770-4	TRC-SB-03 (0-0.5)	90	79	63	75	89	82	96	72
460-248770-5	TRC-SB-07 (0-0.5)	91	91	67	87	104	82	96	78
460-248770-6	TRC-SB-08 (0-0.5)	93	87	81	89	102	78	97	83
LCS 200-174963/2-A	Lab Control Sample	74	63	70	90	79	76	69	82
MB 200-174963/1-A	Method Blank	78	74	80	95	84	82	85	82

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (25-150)	C3PFBS (50-150)
460-248770-1	TRC-SB-02 (0-0.5)	137	81
460-248770-1 MS	TRC-SB-02 (0-0.5)	164 *	78
460-248770-1 MSD	TRC-SB-02 (0-0.5)	163 *	83
460-248770-2	TRC-DUP-1	153 *	71
460-248770-3	TRC-SB-04 (0-0.5)	92	79
460-248770-4	TRC-SB-03 (0-0.5)	83	63
460-248770-5	TRC-SB-07 (0-0.5)	92	83
460-248770-6	TRC-SB-08 (0-0.5)	95	86
LCS 200-174963/2-A	Lab Control Sample	75	87
MB 200-174963/1-A	Method Blank	80	91

Surrogate Legend

PFHxS = 18O2 PFHxS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFOSA = 13C8 FOSA

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Isotope Dilution Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
C3PFBS = 13C3 PFBS

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (50-150)	C4PFHA (50-150)	PFOA (50-150)	PFOS (50-150)	PFNA (50-150)	PFBA (25-150)	PFHxA (50-150)	PFDA (50-150)
460-248770-7	TRC-EB-12092021	99	94	98	96	105	91	97	96
LCS 200-174859/2-A	Lab Control Sample	95	87	92	96	94	88	95	90
LCSD 200-174859/3-A	Lab Control Sample Dup	98	87	94	92	95	88	87	89
MB 200-174859/1-A	Method Blank	102	98	95	98	101	93	99	95

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDaA (50-150)	PFOSA (25-150)	PFPeA (25-150)	PFTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (25-150)
460-248770-7	TRC-EB-12092021	104	82	79	94	80	83	91	89
LCS 200-174859/2-A	Lab Control Sample	99	88	86	90	93	91	88	81
LCSD 200-174859/3-A	Lab Control Sample Dup	79	76	80	89	79	82	79	83
MB 200-174859/1-A	Method Blank	93	83	83	95	91	92	90	88

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (25-150)	C3PFBS (50-150)
460-248770-7	TRC-EB-12092021	93	96
LCS 200-174859/2-A	Lab Control Sample	87	90
LCSD 200-174859/3-A	Lab Control Sample Dup	84	92
MB 200-174859/1-A	Method Blank	91	92

Surrogate Legend

PFHxS = 18O2 PFHxS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDaA = 13C2 PFDaA
PFOSA = 13C8 FOSA
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
C3PFBS = 13C3 PFBS

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-174859/1-A

Matrix: Water

Analysis Batch: 174910

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 174859

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.00	U	5.00	0.89	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluoropentanoic acid (PFPeA)	2.00	U	2.00	0.47	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluorohexanoic acid (PFHxA)	2.00	U	2.00	0.45	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00	0.24	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluorooctanoic acid (PFOA)	2.00	U	2.00	0.42	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluorononanoic acid (PFNA)	2.00	U	2.00	0.28	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluorodecanoic acid (PFDA)	2.00	U	2.00	0.30	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluoroundecanoic acid (PFUnA)	2.00	U	2.00	0.34	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluorododecanoic acid (PFDoA)	2.00	U	2.00	0.39	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluorotridecanoic acid (PFTriA)	2.00	U	2.00	0.43	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluorotetradecanoic acid (PFTeA)	2.00	U	2.00	0.63	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00	0.25	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluorohexanesulfonic acid (PFHxS)	2.00	U	2.00	0.30	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.00	U	2.00	0.23	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	0.29	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluorodecanesulfonic acid (PFDS)	2.00	U	2.00	0.31	ng/L		12/13/21 13:06	12/14/21 13:58	1
Perfluorooctanesulfonamide (PFOSA)	2.00	U	2.00	0.58	ng/L		12/13/21 13:06	12/14/21 13:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.00	U	5.00	0.90	ng/L		12/13/21 13:06	12/14/21 13:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.00	U	5.00	0.74	ng/L		12/13/21 13:06	12/14/21 13:58	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.00	U	5.00	1.10	ng/L		12/13/21 13:06	12/14/21 13:58	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.39	ng/L		12/13/21 13:06	12/14/21 13:58	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	102		50 - 150	12/13/21 13:06	12/14/21 13:58	1
13C4 PFHpA	98		50 - 150	12/13/21 13:06	12/14/21 13:58	1
13C4 PFOA	95		50 - 150	12/13/21 13:06	12/14/21 13:58	1
13C4 PFOS	98		50 - 150	12/13/21 13:06	12/14/21 13:58	1
13C5 PFNA	101		50 - 150	12/13/21 13:06	12/14/21 13:58	1
13C4 PFBA	93		25 - 150	12/13/21 13:06	12/14/21 13:58	1
13C2 PFHxA	99		50 - 150	12/13/21 13:06	12/14/21 13:58	1
13C2 PFDA	95		50 - 150	12/13/21 13:06	12/14/21 13:58	1
13C2 PFUnA	93		50 - 150	12/13/21 13:06	12/14/21 13:58	1
13C2 PFDoA	83		50 - 150	12/13/21 13:06	12/14/21 13:58	1
13C8 FOSA	83		25 - 150	12/13/21 13:06	12/14/21 13:58	1
13C5 PFPeA	95		25 - 150	12/13/21 13:06	12/14/21 13:58	1
13C2 PFTeDA	91		50 - 150	12/13/21 13:06	12/14/21 13:58	1
d3-NMeFOSAA	92		50 - 150	12/13/21 13:06	12/14/21 13:58	1
d5-NEtFOSAA	90		50 - 150	12/13/21 13:06	12/14/21 13:58	1
M2-6:2 FTS	88		25 - 150	12/13/21 13:06	12/14/21 13:58	1
M2-8:2 FTS	91		25 - 150	12/13/21 13:06	12/14/21 13:58	1
13C3 PFBS	92		50 - 150	12/13/21 13:06	12/14/21 13:58	1

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QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-174859/2-A

Matrix: Water

Analysis Batch: 174910

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 174859

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	38.61		ng/L		97	70 - 130
Perfluoropentanoic acid (PFPeA)	40.0	40.26		ng/L		101	70 - 130
Perfluorohexanoic acid (PFHxA)	40.0	38.93		ng/L		97	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	44.79		ng/L		112	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	38.94		ng/L		97	70 - 130
Perfluorononanoic acid (PFNA)	40.0	40.83		ng/L		102	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	42.21		ng/L		106	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	37.77		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	41.91		ng/L		105	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	40.79		ng/L		102	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	42.17		ng/L		105	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	36.51		ng/L		103	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	36.32		ng/L		100	70 - 130
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.68		ng/L		102	70 - 130
Perfluorooctanesulfonic acid (PFOS)	37.1	37.32		ng/L		101	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	36.74		ng/L		95	70 - 130
Perfluorooctanesulfonamide (PFOSA)	40.0	40.37		ng/L		101	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	41.17		ng/L		103	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	41.83		ng/L		105	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	38.77		ng/L		102	60 - 140
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	39.93		ng/L		104	70 - 130

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
18O2 PFHxS	95		50 - 150
13C4 PFHpA	87		50 - 150
13C4 PFOA	92		50 - 150
13C4 PFOS	96		50 - 150
13C5 PFNA	94		50 - 150
13C4 PFBA	88		25 - 150
13C2 PFHxA	95		50 - 150
13C2 PFDA	90		50 - 150
13C2 PFUnA	99		50 - 150
13C2 PFDoA	88		50 - 150
13C8 FOSA	86		25 - 150
13C5 PFPeA	90		25 - 150
13C2 PFTeDA	93		50 - 150
d3-NMeFOSAA	91		50 - 150
d5-NEtFOSAA	88		50 - 150

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-174859/2-A

Matrix: Water

Analysis Batch: 174910

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 174859

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
M2-6:2 FTS	81		25 - 150
M2-8:2 FTS	87		25 - 150
13C3 PFBS	90		50 - 150

Lab Sample ID: LCSD 200-174859/3-A

Matrix: Water

Analysis Batch: 174910

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 174859

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits	RPD	Limit	
Perfluorobutanoic acid (PFBA)	40.0	39.68		ng/L		99	70 - 130	3	30	
Perfluoropentanoic acid (PFPeA)	40.0	40.32		ng/L		101	70 - 130	0	30	
Perfluorohexanoic acid (PFHxA)	40.0	41.86		ng/L		105	70 - 130	7	30	
Perfluoroheptanoic acid (PFHpA)	40.0	42.44		ng/L		106	70 - 130	5	30	
Perfluorooctanoic acid (PFOA)	40.0	38.46		ng/L		96	70 - 130	1	30	
Perfluorononanoic acid (PFNA)	40.0	39.71		ng/L		99	70 - 130	3	30	
Perfluorodecanoic acid (PFDA)	40.0	42.34		ng/L		106	70 - 130	0	30	
Perfluoroundecanoic acid (PFUnA)	40.0	45.87		ng/L		115	70 - 130	19	30	
Perfluorododecanoic acid (PFDoA)	40.0	43.81		ng/L		110	70 - 130	4	30	
Perfluorotridecanoic acid (PFTriA)	40.0	43.52		ng/L		109	70 - 130	6	30	
Perfluorotetradecanoic acid (PFTeA)	40.0	40.86		ng/L		102	70 - 130	3	30	
Perfluorobutanesulfonic acid (PFBS)	35.4	35.32		ng/L		100	70 - 130	3	30	
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.62		ng/L		95	70 - 130	5	30	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.70		ng/L		102	70 - 130	0	30	
Perfluorooctanesulfonic acid (PFOS)	37.1	37.85		ng/L		102	70 - 130	1	30	
Perfluorodecanesulfonic acid (PFDS)	38.6	32.09		ng/L		83	70 - 130	14	30	
Perfluorooctanesulfonamide (PFOSA)	40.0	39.09		ng/L		98	70 - 130	3	30	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	42.55		ng/L		106	70 - 130	3	30	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	46.12		ng/L		115	70 - 130	10	30	
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	37.66		ng/L		99	60 - 140	3	30	
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	38.72		ng/L		101	70 - 130	3	30	

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
18O2 PFHxS	98		50 - 150
13C4 PFHpA	87		50 - 150
13C4 PFOA	94		50 - 150
13C4 PFOS	92		50 - 150
13C5 PFNA	95		50 - 150
13C4 PFBA	88		25 - 150

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 200-174859/3-A

Matrix: Water

Analysis Batch: 174910

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 174859

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
13C2 PFHxA	87		50 - 150
13C2 PFDA	89		50 - 150
13C2 PFUnA	79		50 - 150
13C2 PFDoA	76		50 - 150
13C8 FOSA	80		25 - 150
13C5 PFPeA	89		25 - 150
13C2 PFTeDA	79		50 - 150
d3-NMeFOSAA	82		50 - 150
d5-NEtFOSAA	79		50 - 150
M2-6:2 FTS	83		25 - 150
M2-8:2 FTS	84		25 - 150
13C3 PFBS	92		50 - 150

Lab Sample ID: MB 200-174963/1-A

Matrix: Solid

Analysis Batch: 175019

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 174963

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	0.50	U	0.50	0.16	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluoropentanoic acid (PFPeA)	0.20	U	0.20	0.039	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluorohexanoic acid (PFHxA)	0.20	U	0.20	0.022	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluoroheptanoic acid (PFHpA)	0.20	U	0.20	0.020	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluorooctanoic acid (PFOA)	0.20	U	0.20	0.025	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluorononanoic acid (PFNA)	0.20	U	0.20	0.018	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluorodecanoic acid (PFDA)	0.20	U	0.20	0.012	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluoroundecanoic acid (PFUnA)	0.20	U	0.20	0.020	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluorododecanoic acid (PFDoA)	0.20	U	0.20	0.021	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluorotridecanoic acid (PFTriA)	0.20	U	0.20	0.015	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluorotetradecanoic acid (PFTeA)	0.20	U	0.20	0.023	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.0093	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluorohexanesulfonic acid (PFHxS)	0.20	U	0.20	0.014	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.20	U	0.20	0.015	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluorooctanesulfonic acid (PFOS)	0.20	U	0.20	0.016	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.012	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.017	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	U	2.00	0.037	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	U	2.00	0.046	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.00	U	2.00	0.031	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.016	ug/Kg		12/15/21 10:51	12/16/21 13:13	1
	MB MB								
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	93		50 - 150				12/15/21 10:51	12/16/21 13:13	1
13C4 PFHpA	96		50 - 150				12/15/21 10:51	12/16/21 13:13	1
13C4 PFOA	87		50 - 150				12/15/21 10:51	12/16/21 13:13	1
13C4 PFOS	88		50 - 150				12/15/21 10:51	12/16/21 13:13	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 200-174963/1-A

Matrix: Solid

Analysis Batch: 175019

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 174963

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	92		50 - 150	12/15/21 10:51	12/16/21 13:13	1
13C4 PFBA	92		25 - 150	12/15/21 10:51	12/16/21 13:13	1
13C2 PFHxA	89		50 - 150	12/15/21 10:51	12/16/21 13:13	1
13C2 PFDA	89		50 - 150	12/15/21 10:51	12/16/21 13:13	1
13C2 PFUnA	78		50 - 150	12/15/21 10:51	12/16/21 13:13	1
13C2 PFDaA	74		50 - 150	12/15/21 10:51	12/16/21 13:13	1
13C8 FOSA	80		25 - 150	12/15/21 10:51	12/16/21 13:13	1
13C5 PFPeA	95		25 - 150	12/15/21 10:51	12/16/21 13:13	1
13C2 PFTeDA	84		50 - 150	12/15/21 10:51	12/16/21 13:13	1
d3-NMeFOSAA	82		50 - 150	12/15/21 10:51	12/16/21 13:13	1
d5-NEtFOSAA	85		50 - 150	12/15/21 10:51	12/16/21 13:13	1
M2-6:2 FTS	82		25 - 150	12/15/21 10:51	12/16/21 13:13	1
M2-8:2 FTS	80		25 - 150	12/15/21 10:51	12/16/21 13:13	1
13C3 PFBS	91		50 - 150	12/15/21 10:51	12/16/21 13:13	1

Lab Sample ID: LCS 200-174963/2-A

Matrix: Solid

Analysis Batch: 175019

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 174963

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	2.00	2.044		ug/Kg		102	60 - 140
Perfluoropentanoic acid (PFPeA)	2.00	2.137		ug/Kg		107	60 - 140
Perfluorohexanoic acid (PFHxA)	2.00	2.165		ug/Kg		108	60 - 140
Perfluoroheptanoic acid (PFHpA)	2.00	2.079		ug/Kg		104	60 - 140
Perfluorooctanoic acid (PFOA)	2.00	2.041		ug/Kg		102	60 - 140
Perfluorononanoic acid (PFNA)	2.00	1.941		ug/Kg		97	60 - 140
Perfluorodecanoic acid (PFDA)	2.00	2.304		ug/Kg		115	60 - 140
Perfluoroundecanoic acid (PFUnA)	2.00	2.136		ug/Kg		107	60 - 140
Perfluorododecanoic acid (PFDaA)	2.00	2.321		ug/Kg		116	60 - 140
Perfluorotridecanoic acid (PFTriA)	2.00	2.309		ug/Kg		115	60 - 140
Perfluorotetradecanoic acid (PFTeA)	2.00	1.974		ug/Kg		99	60 - 140
Perfluorobutanesulfonic acid (PFBS)	1.77	1.919		ug/Kg		109	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.885		ug/Kg		104	60 - 140
Perfluoroheptanesulfonic Acid (PFHpS)	1.90	2.235		ug/Kg		117	60 - 140
Perfluorooctanesulfonic acid (PFOS)	1.86	1.869		ug/Kg		101	60 - 140
Perfluorodecanesulfonic acid (PFDS)	1.93	1.721		ug/Kg		89	60 - 140
Perfluorooctanesulfonamide (PFOSA)	2.00	2.174		ug/Kg		109	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.141		ug/Kg		107	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.190		ug/Kg		109	60 - 140

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-174963/2-A

Matrix: Solid

Analysis Batch: 175019

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 174963

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.90	2.052		ug/Kg		108	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.92	2.060		ug/Kg		108	60 - 140

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
18O2 PFHxS	84		50 - 150
13C4 PFHpA	88		50 - 150
13C4 PFOA	88		50 - 150
13C4 PFOS	76		50 - 150
13C5 PFNA	90		50 - 150
13C4 PFBA	93		25 - 150
13C2 PFHxA	87		50 - 150
13C2 PFDA	72		50 - 150
13C2 PFUnA	74		50 - 150
13C2 PFDoA	63		50 - 150
13C8 FOSA	70		25 - 150
13C5 PFPeA	90		25 - 150
13C2 PFTeDA	79		50 - 150
d3-NMeFOSAA	76		50 - 150
d5-NEtFOSAA	69		50 - 150
M2-6:2 FTS	82		25 - 150
M2-8:2 FTS	75		25 - 150
13C3 PFBS	87		50 - 150

Lab Sample ID: 460-248770-1 MS

Matrix: Solid

Analysis Batch: 175019

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 174963

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	0.54	U	2.14	2.294		ug/Kg	☼	107	60 - 140
Perfluoropentanoic acid (PFPeA)	0.21	U	2.14	2.493		ug/Kg	☼	116	60 - 140
Perfluorohexanoic acid (PFHxA)	0.050	J	2.14	2.299		ug/Kg	☼	105	60 - 140
Perfluoroheptanoic acid (PFHpA)	0.052	J	2.14	2.203		ug/Kg	☼	100	60 - 140
Perfluorooctanoic acid (PFOA)	0.48		2.14	2.677		ug/Kg	☼	103	60 - 140
Perfluorononanoic acid (PFNA)	0.063	J	2.14	2.235		ug/Kg	☼	101	60 - 140
Perfluorodecanoic acid (PFDA)	0.13	J	2.14	2.584		ug/Kg	☼	115	60 - 140
Perfluoroundecanoic acid (PFUnA)	0.10	J	2.14	2.182		ug/Kg	☼	97	60 - 140
Perfluorododecanoic acid (PFDoA)	0.10	J	2.14	2.619		ug/Kg	☼	117	60 - 140
Perfluorotridecanoic acid (PFTriA)	0.055	J	2.14	2.568		ug/Kg	☼	117	60 - 140
Perfluorotetradecanoic acid (PFTeA)	0.056	J	2.14	2.181		ug/Kg	☼	99	60 - 140
Perfluorobutanesulfonic acid (PFBS)	0.21	U	1.89	2.032		ug/Kg	☼	107	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	0.089	J	1.95	2.116		ug/Kg	☼	104	60 - 140
Perfluoroheptanesulfonic Acid (PFHpS)	0.021	J	2.04	2.186		ug/Kg	☼	106	60 - 140

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QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-248770-1 MS

Matrix: Solid

Analysis Batch: 175019

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 174963

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanesulfonic acid (PFOS)	2.26		1.99	4.285		ug/Kg	☼	102	60 - 140
Perfluorodecanesulfonic acid (PFDS)	0.063	J	2.07	2.169		ug/Kg	☼	102	60 - 140
Perfluorooctanesulfonamide (PFOSA)	0.033	J	2.14	2.257		ug/Kg	☼	104	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.066	J	2.14	2.273		ug/Kg	☼	103	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.14	U	2.14	2.158		ug/Kg	☼	101	60 - 140
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.14	U	2.03	2.274		ug/Kg	☼	112	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.14	U	2.05	2.240		ug/Kg	☼	109	60 - 140

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
18O2 PFHxS	75		50 - 150
13C4 PFHpA	87		50 - 150
13C4 PFOA	88		50 - 150
13C4 PFOS	75		50 - 150
13C5 PFNA	98		50 - 150
13C4 PFBA	87		25 - 150
13C2 PFHxA	82		50 - 150
13C2 PFDA	89		50 - 150
13C2 PFUnA	102		50 - 150
13C2 PFDoA	84		50 - 150
13C8 FOSA	63		25 - 150
13C5 PFPeA	83		25 - 150
13C2 PFTeDA	92		50 - 150
d3-NMeFOSAA	128		50 - 150
d5-NEtFOSAA	149		50 - 150
M2-6:2 FTS	117		25 - 150
M2-8:2 FTS	164	*	25 - 150
13C3 PFBS	78		50 - 150

Lab Sample ID: 460-248770-1 MSD

Matrix: Solid

Analysis Batch: 175019

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 174963

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	0.54	U	2.12	2.300		ug/Kg	☼	108	60 - 140	0	30
Perfluoropentanoic acid (PFPeA)	0.21	U	2.12	2.335		ug/Kg	☼	110	60 - 140	7	30
Perfluorohexanoic acid (PFHxA)	0.050	J	2.12	2.237		ug/Kg	☼	103	60 - 140	3	30
Perfluoroheptanoic acid (PFHpA)	0.052	J	2.12	2.322		ug/Kg	☼	107	60 - 140	5	30
Perfluorooctanoic acid (PFOA)	0.48		2.12	2.819		ug/Kg	☼	110	60 - 140	5	30
Perfluorononanoic acid (PFNA)	0.063	J	2.12	2.248		ug/Kg	☼	103	60 - 140	1	30
Perfluorodecanoic acid (PFDA)	0.13	J	2.12	2.682		ug/Kg	☼	120	60 - 140	4	30
Perfluoroundecanoic acid (PFUnA)	0.10	J	2.12	2.242		ug/Kg	☼	101	60 - 140	3	30
Perfluorododecanoic acid (PFDoA)	0.10	J	2.12	2.465		ug/Kg	☼	111	60 - 140	6	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-248770-1 MSD

Matrix: Solid

Analysis Batch: 175019

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 174963

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorotridecanoic acid (PFTriA)	0.055	J	2.12	2.410		ug/Kg	☼	111	60 - 140	6	30
Perfluorotetradecanoic acid (PFTeA)	0.056	J	2.12	2.255		ug/Kg	☼	104	60 - 140	3	30
Perfluorobutanesulfonic acid (PFBS)	0.21	U	1.88	2.025		ug/Kg	☼	108	60 - 140	0	30
Perfluorohexanesulfonic acid (PFHxS)	0.089	J	1.93	2.026		ug/Kg	☼	100	60 - 140	4	30
Perfluoroheptanesulfonic Acid (PFHpS)	0.021	J	2.02	2.186		ug/Kg	☼	107	60 - 140	0	30
Perfluorooctanesulfonic acid (PFOS)	2.26		1.97	4.199		ug/Kg	☼	99	60 - 140	2	30
Perfluorodecanesulfonic acid (PFDS)	0.063	J	2.05	2.052		ug/Kg	☼	97	60 - 140	6	30
Perfluorooctanesulfonamide (PFOSA)	0.033	J	2.12	2.314		ug/Kg	☼	108	60 - 140	3	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.066	J	2.12	2.289		ug/Kg	☼	105	60 - 140	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.14	U	2.12	2.365		ug/Kg	☼	111	60 - 140	9	30
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.14	U	2.01	2.323		ug/Kg	☼	116	50 - 150	2	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.14	U	2.03	2.348		ug/Kg	☼	116	60 - 140	5	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
18O2 PFHxS	82		50 - 150
13C4 PFHpA	88		50 - 150
13C4 PFOA	84		50 - 150
13C4 PFOS	79		50 - 150
13C5 PFNA	99		50 - 150
13C4 PFBA	93		25 - 150
13C2 PFHxA	92		50 - 150
13C2 PFDA	94		50 - 150
13C2 PFUnA	104		50 - 150
13C2 PFDoA	90		50 - 150
13C8 FOSA	65		25 - 150
13C5 PFPeA	92		25 - 150
13C2 PFTeDA	93		50 - 150
d3-NMeFOSAA	127		50 - 150
d5-NEtFOSAA	139		50 - 150
M2-6:2 FTS	105		25 - 150
M2-8:2 FTS	163	*	25 - 150
13C3 PFBS	83		50 - 150

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Method: Moisture - Percent Moisture

Lab Sample ID: 460-248770-6 DU

Matrix: Solid

Analysis Batch: 174862

Client Sample ID: TRC-SB-08 (0-0.5)

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	82.9		84.8		%		2	20

QC Association Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

LCMS

Prep Batch: 174859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248770-7	TRC-EB-12092021	Total/NA	Water	3535	
MB 200-174859/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-174859/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 200-174859/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 174910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248770-7	TRC-EB-12092021	Total/NA	Water	537 (modified)	174859
MB 200-174859/1-A	Method Blank	Total/NA	Water	537 (modified)	174859
LCS 200-174859/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	174859
LCSD 200-174859/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	174859

Prep Batch: 174963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248770-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	SHAKE	
460-248770-2	TRC-DUP-1	Total/NA	Solid	SHAKE	
460-248770-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	SHAKE	
460-248770-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	SHAKE	
460-248770-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	SHAKE	
460-248770-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	SHAKE	
MB 200-174963/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 200-174963/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
460-248770-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	SHAKE	
460-248770-1 MSD	TRC-SB-02 (0-0.5)	Total/NA	Solid	SHAKE	

Analysis Batch: 175019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248770-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	537 (modified)	174963
460-248770-2	TRC-DUP-1	Total/NA	Solid	537 (modified)	174963
460-248770-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	537 (modified)	174963
460-248770-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	537 (modified)	174963
460-248770-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	537 (modified)	174963
460-248770-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	537 (modified)	174963
MB 200-174963/1-A	Method Blank	Total/NA	Solid	537 (modified)	174963
LCS 200-174963/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	174963
460-248770-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	537 (modified)	174963
460-248770-1 MSD	TRC-SB-02 (0-0.5)	Total/NA	Solid	537 (modified)	174963

General Chemistry

Analysis Batch: 174862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248770-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	Moisture	
460-248770-2	TRC-DUP-1	Total/NA	Solid	Moisture	
460-248770-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	Moisture	
460-248770-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	Moisture	
460-248770-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	Moisture	
460-248770-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	Moisture	
460-248770-6 DU	TRC-SB-08 (0-0.5)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248770-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248770-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174963	12/15/21 10:51	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	175019	12/16/21 13:38	ND	TAL BUR

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248770-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248770-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174963	12/15/21 10:51	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	175019	12/16/21 14:02	ND	TAL BUR

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248770-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248770-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174963	12/15/21 10:51	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	175019	12/16/21 14:10	ND	TAL BUR

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248770-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Eurofins TestAmerica, Edison

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248770-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174963	12/15/21 10:51	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	175019	12/16/21 14:19	ND	TAL BUR

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248770-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248770-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 87.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174963	12/15/21 10:51	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	175019	12/16/21 14:27	ND	TAL BUR

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248770-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	174862	12/13/21 14:33	LEE	TAL BUR

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248770-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 82.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			174963	12/15/21 10:51	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	175019	12/16/21 14:35	ND	TAL BUR

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248770-7

Date Collected: 12/09/21 11:00

Matrix: Water

Date Received: 12/09/21 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			174859	12/13/21 13:06	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	174910	12/14/21 16:25	ND	TAL BUR

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Eurofins TestAmerica, Edison

Accreditation/Certification Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-21 *
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-17-22
Florida	NELAP	E87467	06-30-22
Minnesota	NELAP	050-999-436	12-31-22
New Hampshire	NELAP	2006	12-18-21
New Jersey	NELAP	VT972	06-30-22
New York	NELAP	10391	04-01-22
Pennsylvania	NELAP	68-00489	04-30-22
Rhode Island	State	LAO00298	12-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-17-00272	10-30-23
Vermont	State	VT4000	02-10-22
Virginia	NELAP	460209	12-14-22
Wisconsin	State	399133350	08-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Edison

Method Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
Moisture	Percent Moisture	EPA	TAL BUR
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-248770-1	TRC-SB-02 (0-0.5)	Solid	12/09/21 08:45	12/09/21 19:00
460-248770-2	TRC-DUP-1	Solid	12/09/21 08:45	12/09/21 19:00
460-248770-3	TRC-SB-04 (0-0.5)	Solid	12/09/21 09:10	12/09/21 19:00
460-248770-4	TRC-SB-03 (0-0.5)	Solid	12/09/21 09:30	12/09/21 19:00
460-248770-5	TRC-SB-07 (0-0.5)	Solid	12/09/21 10:00	12/09/21 19:00
460-248770-6	TRC-SB-08 (0-0.5)	Solid	12/09/21 10:20	12/09/21 19:00
460-248770-7	TRC-EB-12092021	Water	12/09/21 11:00	12/09/21 19:00

Chain of Custody Record 578459 eurofins

Environment Testing
TestAmerica

Address: 218 Jackson Ave.
Queens, NY 11011

Regulatory Program: ☒ RCRA ☐ NPDES ☐ Other:
 Project Manager: Emily Ebert
 Tel/Email: EEbert@rccompanies.com

TAL-8210

Company Name: TRC Companies Inc.		Client Contact		Site Contact: Brian Simat		Date: 12/9/21		COC No: 1 of 1 COCs	
Address: 1430 Broadway 10th Floor		Project Name: LIRR Arch St. Yd.		Lab Contact:		Carrier:		Sampler:	
City/State/Zip: NY, NY 10018		Site: LIRR Arch St. Yd.		Analysis Turnaround Time		For Lab Use Only:		Walk-in Client:	
Phone: (212) 221-7821		PO # 174980		CALENDAR DAYS ☒ WORKING DAYS		Lab Sampling:		Job / SDG No.:	
Fax:				TAT if different from Below					
				2 weeks					
				1 week					
				2 days					
				1 day					

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Sample Specific Notes:
TRC-SB-02 (2"-8")	12/9/21	0845	G	S	1	N	X	
TRC-SB-02 (2"-8")-MS		0845				Y		
TRC-DUP-1		0845				Y		
TRC-SB-04 (4"-10")		0910				Y		
TRC-SB-03 (7"-13")		0930				Y		
TRC-SB-07 (3"-9")		1000				Y		
TRC-SB-08 (6"-12")		1020				Y		
TRC-EB-12092021		1100				Y		
TRC-TB-12092021		1105				Y		
TRC-SB-02 (2"-8")-MSD		0845				Y		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification: Please List any EPA Hazardous Waste for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Special Instructions/QC Requirements & Comments: Equis EDD & Category B deliverable required

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C):	Obs'd:	Cor'd:	Therm ID No.:
Relinquished by: [Signature]	Company: TRC	Date/Time: 12/9/21 13:30	Received by: [Signature]	Company: TA NYC	Date/Time: 12/09/21 1:50 PM
Relinquished by: [Signature]	Company: TA NYC	Date/Time: 12/09/21 17:00	Received by: [Signature]	Company: TA NYC	Date/Time: 12/9/21 17:00
Relinquished by: [Signature]	Company: TA NYC	Date/Time: 12/9/21 19:00	Received by: [Signature]	Company: TA NYC	Date/Time: 12/9/21 19:00

Job Number:

248770

IR Gun #

Number of Coolers:

Cooler Temperatures

	RAW		CORRECTED	
	RAW	CORRECTED	RAW	CORRECTED
Cooler #1:	29	38		
Cooler #2:				
Cooler #3:				
Cooler #4:				
Cooler #5:				
Cooler #6:				
Cooler #7:				
Cooler #8:				
Cooler #9:				

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.:

Volume of Preservative used (ml):

Lot # of Preservative(s):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

EDS-WI-038, Rev 4.1
10/22/2019

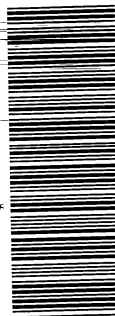
Initials: Lease

Date: 12-9-21

Chain of Custody Record

fins

**Environment Testing
America**



460-248770 Chain of Custody

Client Information (Sub Contract Lab)						Lab PM:		Haas, Melissa		Page: 8.1					
Client Contact:						E-Mail:		Melissa.Haas@Eurofinset.com		State of Origin: New York					
Shipping/Receiving Company:										Page 1 of 1					
Address:						Accreditations Required (See note):		NELAP - New York		Job #:					
530 Community Drive, Suite 11,										460-248770-1					
City:										Preservation Codes:					
South Burlington										A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO ₄ F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO ₂ P - Na ₂ O ₄ S Q - Na ₂ SO ₃ R - Na ₂ SO ₄ S - H ₂ SO ₄ T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)					
State, Zip:															
VT, 05403															
Phone:															
802-660-1990(Tel) 802-660-1919(Fax)															
Email:															
Project Name:															
MITA LIRR Arch St Yard Supplemental RI															
Site:															
SSOW#:															
Sample Identification - Client ID (Lab ID)						Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Whisker, Straddle, Overstation) BT=Tissue, A=Air	PFC_IDA/Shake_Bath_14D PFAAS, Standard List (21) (see sample log for analysis)	Motileure analyses)	PFC_IDA/3535 JVMT PFAAS, Standard List (21) (see sample log for analysis)	Analysis Requested	Special Instructions/Note:	
TRC-SB-02 (0-0.5) (460-248770-1)						12/9/21	08:45 Eastern		Solid	X					
TRC-SB-02 (0-0.5) (460-248770-1MS)						12/9/21	08:45 Eastern	MS	Solid	X					
TRC-SB-02 (0-0.5) (460-248770-1MSD)						12/9/21	08:45 Eastern	MSD	Solid	X					
TRC-DUP-1 (460-248770-2)						12/9/21	08:45 Eastern		Solid	X					
TRC-SB-04 (0-0.5) (460-248770-3)						12/9/21	09:10 Eastern		Solid	X					
TRC-SB-03 (0-0.5) (460-248770-4)						12/9/21	09:30 Eastern		Solid	X					
TRC-SB-07 (0-0.5) (460-248770-5)						12/9/21	10:00 Eastern		Solid	X					
TRC-SB-08 (0-0.5) (460-248770-6)						12/9/21	10:20 Eastern		Solid	X					
TRC-EB-12092021 (460-248770-7)						12/9/21	11:00 Eastern		Water		X				
Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.															
Possible Hazard Identification															
Unconfirmed															
Deliverable Requested: I, II, III, IV, Other (specify)															
Primary Deliverable Rank: 1															
Date: _____															
Empty Kit Relinquished by: _____															
Relinquished by: _____															
Relinquished by: _____															
Relinquished by: _____															
Custody Seals Intact: Δ Yes Δ No															
Custody Seal No.: _____															
Cooler Temperature(s) °C and Other Remarks: _____															
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months															
Special Instructions/QC Requirements:															
Method of Shipment: _____															
Received by: Date/Time: 12/10/21 1900 Company: ET-AEL															
Received by: Date/Time: 12/13/21 Company: TABWOR															
Received by: _____ Date/Time: _____ Company: _____															

ORIGIN ID:LDJA (732) 549-3900
SAMPLE RECEIVING
EUROFINS TESTAMERICA EDISON
777 NEW DURHAM ROAD

EDISON, NJ 08817
UNITED STATES US

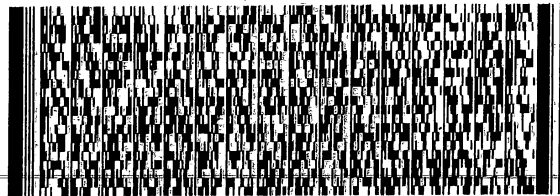
SHIP DATE: 10DEC21
ACTWGT: 36.70 LB
CAD: 0358159/CAFE3507

BILL SENDER

TO SHIPPING/RECEIVING
TESTAMERICA LABORATORIES, INC.
530 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

(802) 660-1990
PO: YES

REF: 8460-150358



FedEx
Express



J211020121101uv

TRK# 1161 6405 8630
0201

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO BTVA

05403
VT-US BTV



Login Sample Receipt Checklist

Client: TRC Environmental Corporation

Job Number: 460-248770-1

Login Number: 248770

List Number: 1

Creator: Sgro, Angela M

List Source: Eurofins TestAmerica, Edison

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: TRC Environmental Corporation

Job Number: 460-248770-1

Login Number: 248770

List Number: 2

Creator: Khudaier, Zahraa

List Source: Eurofins TestAmerica, Burlington

List Creation: 12/13/21 11:42 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1487903
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.7°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

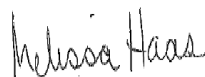
Laboratory Job ID: 460-248782-1

Client Project/Site: MTA LIRR Arch St Yard Supplemental RI

For:

TRC Environmental Corporation
1430 Broadway
10 Floor
New York, New York 10018

Attn: Emily Ebert



Authorized for release by:
12/20/2021 11:34:25 AM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
*	Duplicate RPD exceeds control limits
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
*	Duplicate RPD exceeds control limits
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*	MS or MSD is outside acceptance limits.
*	Duplicate RPD exceeds control limits
E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
J	Indicates an estimated value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
*	Duplicate analysis not within control limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number

Definitions/Glossary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Job ID: 460-248782-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

CASE NARRATIVE

Client: TRC Environmental Corporation

Project: MTA LIRR Arch St Yard Supplemental RI

Report Number: 460-248782-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 12/09/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.6 C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. TRC-SB-02 (0-0.5) (460-248782-1), TRC-SB-02 (0-0.5) (460-248782-1[MS]), TRC-SB-02 (0-0.5) (460-248782-1[MSD]), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5), TRC-SB-08 (0-0.5) (460-248782-6) and TRC-EB-12092021 (460-248782-7) Cyanide container was received for Field Blank but test is not listed on the COC. Cyanide was placed on hold for all samples.

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The client requested the change in sample ID depths to 0-0.5.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 12/10/2021 and analyzed on 12/12/2021 and 12/13/2021.

Samples TRC-EB-12092021 (460-248782-7) and TRC-TB-12092021 (460-248782-8) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 12/10/2021.

The continuing calibration verification (CCV) analyzed in batch 460-818505 was outside the method criteria for the following analyte(s): Dichlorodifluoromethane (biased low) ; 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, Bromoform and Methyl acetate (biased high). A

Case Narrative

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Job ID: 460-248782-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The laboratory control sample (LCS) for analytical batch 460-818505 recovered outside control limits for the following analytes: 1,1,2,2-Tetrachloroethane, 4-Methyl-2-pentanone (MIBK), 2-Hexanone, 1,4-Dioxane, 1,2,4-Trichlorobenzene and 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene failed the recovery criteria low for the MS of sample TRC-SB-02 (0-0.5)MS (460-248782-1) in batch 460-818505. Several analytes failed the recovery criteria high.

For the MSD of sample TRC-SB-02 (0-0.5)MSD (460-248782-1) in batch 460-818505, Several analytes failed the recovery criteria low. 4-Methyl-2-pentanone (MIBK) failed the recovery criteria high. Also, Several analytes exceeded the RPD limit.

No other difficulties were encountered during the Volatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 12/10/2021 and analyzed on 12/11/2021.

Sample TRC-EB-12092021 (460-248782-7) was analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared and analyzed on 12/11/2021.

The continuing calibration verification (CCV) analyzed in batch 460-818324 was outside the method criteria for the following analyte(s): Di-n-octyl phthalate. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) associated with batch 460-818279 recovered above the upper control limit for 2,2'-oxybis[1-chloropropane] and Di-n-octyl phthalate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 460-818202 and analytical batch 460-818279 recovered outside control limits for the following analytes: 1,4-Dioxane, 3,3'-Dichlorobenzidine, Di-n-octyl phthalate and Bis(2-ethylhexyl) phthalate. The data have been reported.

2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol and Hexachlorocyclopentadiene failed the recovery criteria low for the MS of sample TRC-SB-02 (0-0.5)MS (460-248782-1) in batch 460-818279. 2,2'-oxybis[1-chloropropane], 3-Nitroaniline and Di-n-octyl phthalate failed the recovery criteria high.

For the MSD of sample TRC-SB-02 (0-0.5)MSD (460-248782-1) in batch 460-818279, 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol and Hexachlorocyclopentadiene failed the recovery criteria low. 2,2'-oxybis[1-chloropropane], 3-Nitroaniline, Benzo[k]fluoranthene and Di-n-octyl phthalate failed the recovery criteria high. Also, 4,6-Dinitro-2-methylphenol and Hexachlorocyclopentadiene exceeded the RPD limit.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM) - ISOTOPE DILUTION - 1,4 DIOXANE

Sample TRC-EB-12092021 (460-248782-7) was analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) - Isotope

Case Narrative

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Job ID: 460-248782-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

Dilution - 1,4 Dioxane in accordance with EPA SW-846 Method 8270E SIM 1,4Dioxane. The samples were prepared and analyzed on 12/11/2021.

No difficulties were encountered during the 1,4 Dioxane analysis.

All quality control parameters were within the acceptance limits.

PESTICIDES

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 12/10/2021 and analyzed on 12/12/2021 and 12/13/2021.

Sample TRC-EB-12092021 (460-248782-7) was analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 12/11/2021 and analyzed on 12/13/2021.

The %RPD between the primary and confirmation column exceeded 40% for 4,4'-DDT for the following samples: TRC-DUP-1 (460-248782-2), TRC-SB-03 (0-0.5) (460-248782-4) and TRC-SB-07 (0-0.5) (460-248782-5). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

No other difficulties were encountered during the Pesticides analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 12/10/2021 and analyzed on 12/12/2021 and 12/13/2021.

Sample TRC-EB-12092021 (460-248782-7) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The samples were prepared on 12/11/2021 and analyzed on 12/13/2021.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 12/11/2021 and analyzed on 12/12/2021 and 12/13/2021.

Sample TRC-EB-12092021 (460-248782-7) was analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 12/10/2021 and analyzed on 12/12/2021.

2,4-D exceeded the RPD limit for the MSD of sample TRC-SB-02 (0-0.5) MSD (460-248782-1) in batch 460-818466.

The closing continuing calibration verification (CCVC) associated with batch 460-818466 recovered above the upper control limit for 2,4,5-T on the secondary column. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. (CCV 460-818466/31)

No other difficulties were encountered during the herbicides analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5)

Case Narrative

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Job ID: 460-248782-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

(460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 12/15/2021 and 12/16/2021 and analyzed on 12/16/2021 and 12/17/2021.

Sample TRC-EB-12092021 (460-248782-7) was analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 12/15/2021 and analyzed on 12/16/2021.

Chromium failed the recovery criteria low for the MS of sample 460-248302-23 in batch 460-819195. Several analytes failed the recovery criteria high.

Aluminum and Vanadium exceeded the RPD limit for the duplicate of sample 460-248302-23.

The method blank for preparation batch 460-819072 and analytical batch 460-819195 contained Potassium above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction and re-analysis of samples was not performed.

The equipment blank TRC-EB-12092021 (460-248782-7) contained Calcium and Sodium above the method detection limit (MDL). The result was confirmed by the analysis of the undigested sample.

Several analytes failed the recovery criteria low for the MS of sample TRC-SB-02 (0-0.5)MS (460-248782-1) in batch 460-819195. Calcium and Iron failed the recovery criteria high.

Several analytes failed the recovery criteria low for the MS of sample 460-248860-13 in batch 460-819484. Aluminum and Vanadium failed the recovery criteria high.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 12/15/2021.

Sample TRC-EB-12092021 (460-248782-7) was analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 12/14/2021.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 12/14/2021.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248782-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.0031		0.0027	0.00082	mg/Kg	1	✱	8260D	Total/NA
1,1'-Biphenyl	0.0052	J	0.36	0.0048	mg/Kg	1	✱	8270E	Total/NA
2-Methylnaphthalene	0.015	J	0.36	0.010	mg/Kg	1	✱	8270E	Total/NA
Acenaphthene	0.016	J	0.36	0.010	mg/Kg	1	✱	8270E	Total/NA
Acenaphthylene	0.034	J	0.36	0.0036	mg/Kg	1	✱	8270E	Total/NA
Anthracene	0.065	J	0.36	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	0.22		0.036	0.013	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	0.22		0.036	0.0096	mg/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	0.37		0.036	0.0093	mg/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	0.11	J	0.36	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	0.11		0.036	0.0071	mg/Kg	1	✱	8270E	Total/NA
Bis(2-ethylhexyl) phthalate	0.17	J *	0.36	0.019	mg/Kg	1	✱	8270E	Total/NA
Butyl benzyl phthalate	0.085	J	0.36	0.017	mg/Kg	1	✱	8270E	Total/NA
Carbazole	0.027	J	0.36	0.014	mg/Kg	1	✱	8270E	Total/NA
Chrysene	0.21	J	0.36	0.0061	mg/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	0.032	J	0.036	0.016	mg/Kg	1	✱	8270E	Total/NA
Dibenzofuran	0.014	J	0.36	0.0051	mg/Kg	1	✱	8270E	Total/NA
Fluoranthene	0.36		0.36	0.013	mg/Kg	1	✱	8270E	Total/NA
Fluorene	0.026	J	0.36	0.0049	mg/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.13		0.036	0.014	mg/Kg	1	✱	8270E	Total/NA
Naphthalene	0.016	J	0.36	0.0062	mg/Kg	1	✱	8270E	Total/NA
Phenanthrene	0.20	J	0.36	0.0063	mg/Kg	1	✱	8270E	Total/NA
Pyrene	0.35	J	0.36	0.0090	mg/Kg	1	✱	8270E	Total/NA
Aluminum	6160		21.8	6.0	mg/Kg	1	✱	6020B	Total/NA
Antimony	0.46	J	1.1	0.16	mg/Kg	1	✱	6020B	Total/NA
Arsenic	6.8		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	72.5		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.33	J	0.44	0.062	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.52	J	1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Calcium	49000		109	19.3	mg/Kg	1	✱	6020B	Total/NA
Chromium	15.7		2.2	0.29	mg/Kg	1	✱	6020B	Total/NA
Cobalt	5.5		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Copper	64.3		2.2	0.40	mg/Kg	1	✱	6020B	Total/NA
Iron	15200		65.4	22.0	mg/Kg	1	✱	6020B	Total/NA
Lead	129		0.65	0.22	mg/Kg	1	✱	6020B	Total/NA
Magnesium	15600		109	11.1	mg/Kg	1	✱	6020B	Total/NA
Manganese	205		4.4	0.44	mg/Kg	1	✱	6020B	Total/NA
Nickel	15.2		2.2	0.51	mg/Kg	1	✱	6020B	Total/NA
Potassium	969	B	109	13.2	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.35	J	1.4	0.14	mg/Kg	1	✱	6020B	Total/NA
Silver	0.13	J	1.1	0.097	mg/Kg	1	✱	6020B	Total/NA
Sodium	591		109	49.8	mg/Kg	1	✱	6020B	Total/NA
Thallium	0.083	J	0.44	0.045	mg/Kg	1	✱	6020B	Total/NA
Vanadium	33.8		2.2	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	180		8.7	3.3	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.15		0.017	0.0080	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.0017	J	0.0023	0.00071	mg/Kg	1	✱	8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-DUP-1 (Continued)

Lab Sample ID: 460-248782-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1'-Biphenyl	0.010	J	0.36	0.0048	mg/Kg	1	✱		8270E	Total/NA
2-Methylnaphthalene	0.019	J	0.36	0.010	mg/Kg	1	✱		8270E	Total/NA
Acenaphthene	0.020	J	0.36	0.010	mg/Kg	1	✱		8270E	Total/NA
Acenaphthylene	0.071	J	0.36	0.0036	mg/Kg	1	✱		8270E	Total/NA
Anthracene	0.097	J	0.36	0.011	mg/Kg	1	✱		8270E	Total/NA
Benzo[a]anthracene	0.35		0.036	0.013	mg/Kg	1	✱		8270E	Total/NA
Benzo[a]pyrene	0.37		0.036	0.0096	mg/Kg	1	✱		8270E	Total/NA
Benzo[b]fluoranthene	0.60		0.036	0.0093	mg/Kg	1	✱		8270E	Total/NA
Benzo[g,h,i]perylene	0.20	J	0.36	0.011	mg/Kg	1	✱		8270E	Total/NA
Benzo[k]fluoranthene	0.29		0.036	0.0071	mg/Kg	1	✱		8270E	Total/NA
Bis(2-ethylhexyl) phthalate	0.21	J *	0.36	0.019	mg/Kg	1	✱		8270E	Total/NA
Butyl benzyl phthalate	0.12	J	0.36	0.017	mg/Kg	1	✱		8270E	Total/NA
Carbazole	0.042	J	0.36	0.014	mg/Kg	1	✱		8270E	Total/NA
Chrysene	0.34	J	0.36	0.0061	mg/Kg	1	✱		8270E	Total/NA
Dibenz(a,h)anthracene	0.051		0.036	0.016	mg/Kg	1	✱		8270E	Total/NA
Dibenzofuran	0.020	J	0.36	0.0051	mg/Kg	1	✱		8270E	Total/NA
Fluoranthene	0.60		0.36	0.013	mg/Kg	1	✱		8270E	Total/NA
Fluorene	0.022	J	0.36	0.0049	mg/Kg	1	✱		8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.24		0.036	0.014	mg/Kg	1	✱		8270E	Total/NA
Naphthalene	0.023	J	0.36	0.0062	mg/Kg	1	✱		8270E	Total/NA
Phenanthrene	0.29	J	0.36	0.0063	mg/Kg	1	✱		8270E	Total/NA
Pyrene	0.58		0.36	0.0090	mg/Kg	1	✱		8270E	Total/NA
4,4'-DDE	0.0026	J	0.0073	0.00086	mg/Kg	1	✱		8081B	Total/NA
4,4'-DDT	0.0036	J p	0.0073	0.0013	mg/Kg	1	✱		8081B	Total/NA
Aluminum	6090		20.8	5.7	mg/Kg	1	✱		6020B	Total/NA
Antimony	0.44	J	1.0	0.15	mg/Kg	1	✱		6020B	Total/NA
Arsenic	5.8		1.0	0.11	mg/Kg	1	✱		6020B	Total/NA
Barium	86.6		2.1	0.15	mg/Kg	1	✱		6020B	Total/NA
Beryllium	0.31	J	0.42	0.059	mg/Kg	1	✱		6020B	Total/NA
Cadmium	0.54	J	1.0	0.12	mg/Kg	1	✱		6020B	Total/NA
Calcium	36700		104	18.4	mg/Kg	1	✱		6020B	Total/NA
Chromium	16.0		2.1	0.28	mg/Kg	1	✱		6020B	Total/NA
Cobalt	5.6		2.1	0.15	mg/Kg	1	✱		6020B	Total/NA
Copper	68.0		2.1	0.38	mg/Kg	1	✱		6020B	Total/NA
Iron	15800		62.3	21.0	mg/Kg	1	✱		6020B	Total/NA
Lead	129		0.62	0.21	mg/Kg	1	✱		6020B	Total/NA
Magnesium	10200		104	10.6	mg/Kg	1	✱		6020B	Total/NA
Manganese	202		4.2	0.42	mg/Kg	1	✱		6020B	Total/NA
Nickel	15.8		2.1	0.49	mg/Kg	1	✱		6020B	Total/NA
Potassium	942		104	12.6	mg/Kg	1	✱		6020B	Total/NA
Selenium	0.29	J	1.3	0.13	mg/Kg	1	✱		6020B	Total/NA
Silver	0.12	J	1.0	0.092	mg/Kg	1	✱		6020B	Total/NA
Sodium	636		104	47.5	mg/Kg	1	✱		6020B	Total/NA
Thallium	0.094	J	0.42	0.043	mg/Kg	1	✱		6020B	Total/NA
Vanadium	30.2		2.1	0.21	mg/Kg	1	✱		6020B	Total/NA
Zinc	193		8.3	3.2	mg/Kg	1	✱		6020B	Total/NA
Mercury	0.15		0.016	0.0077	mg/Kg	1	✱		7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248782-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.0095		0.0094	0.0089	mg/Kg	1	✖		8260D	Total/NA
m-Xylene & p-Xylene	0.00044	J	0.0016	0.00027	mg/Kg	1	✖		8260D	Total/NA
Tetrachloroethene	0.00050	J	0.0016	0.00048	mg/Kg	1	✖		8260D	Total/NA
Toluene	0.00061	J	0.0016	0.00036	mg/Kg	1	✖		8260D	Total/NA
1,1'-Biphenyl	0.0068	J	0.38	0.0051	mg/Kg	1	✖		8270E	Total/NA
2-Methylnaphthalene	0.026	J	0.38	0.011	mg/Kg	1	✖		8270E	Total/NA
Acenaphthene	0.037	J	0.38	0.011	mg/Kg	1	✖		8270E	Total/NA
Acenaphthylene	0.038	J	0.38	0.0039	mg/Kg	1	✖		8270E	Total/NA
Anthracene	0.13	J	0.38	0.012	mg/Kg	1	✖		8270E	Total/NA
Benzo[a]anthracene	0.55		0.038	0.013	mg/Kg	1	✖		8270E	Total/NA
Benzo[a]pyrene	0.51		0.038	0.010	mg/Kg	1	✖		8270E	Total/NA
Benzo[b]fluoranthene	0.74		0.038	0.0099	mg/Kg	1	✖		8270E	Total/NA
Benzo[g,h,i]perylene	0.22	J	0.38	0.011	mg/Kg	1	✖		8270E	Total/NA
Benzo[k]fluoranthene	0.36		0.038	0.0075	mg/Kg	1	✖		8270E	Total/NA
Bis(2-ethylhexyl) phthalate	0.62	*	0.38	0.020	mg/Kg	1	✖		8270E	Total/NA
Butyl benzyl phthalate	1.7		0.38	0.018	mg/Kg	1	✖		8270E	Total/NA
Carbazole	0.045	J	0.38	0.015	mg/Kg	1	✖		8270E	Total/NA
Chrysene	0.52		0.38	0.0065	mg/Kg	1	✖		8270E	Total/NA
Dibenz(a,h)anthracene	0.073		0.038	0.017	mg/Kg	1	✖		8270E	Total/NA
Dibenzofuran	0.026	J	0.38	0.0054	mg/Kg	1	✖		8270E	Total/NA
Fluoranthene	0.85		0.38	0.013	mg/Kg	1	✖		8270E	Total/NA
Fluorene	0.033	J	0.38	0.0052	mg/Kg	1	✖		8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.29		0.038	0.015	mg/Kg	1	✖		8270E	Total/NA
Naphthalene	0.035	J	0.38	0.0066	mg/Kg	1	✖		8270E	Total/NA
Phenanthrene	0.44		0.38	0.0067	mg/Kg	1	✖		8270E	Total/NA
Pyrene	1.0		0.38	0.0095	mg/Kg	1	✖		8270E	Total/NA
4,4'-DDE	0.0058	J	0.0078	0.00092	mg/Kg	1	✖		8081B	Total/NA
Chlordane (technical)	0.059	J	0.078	0.019	mg/Kg	1	✖		8081B	Total/NA
Aluminum	5940		22.3	6.1	mg/Kg	1	✖		6020B	Total/NA
Antimony	0.50	J	1.1	0.16	mg/Kg	1	✖		6020B	Total/NA
Arsenic	6.0		1.1	0.11	mg/Kg	1	✖		6020B	Total/NA
Barium	73.9		2.2	0.16	mg/Kg	1	✖		6020B	Total/NA
Beryllium	0.58		0.45	0.064	mg/Kg	1	✖		6020B	Total/NA
Cadmium	0.28	J	1.1	0.13	mg/Kg	1	✖		6020B	Total/NA
Calcium	46100		112	19.7	mg/Kg	1	✖		6020B	Total/NA
Chromium	23.2		2.2	0.30	mg/Kg	1	✖		6020B	Total/NA
Cobalt	6.9		2.2	0.17	mg/Kg	1	✖		6020B	Total/NA
Copper	304		2.2	0.41	mg/Kg	1	✖		6020B	Total/NA
Iron	15500		66.9	22.5	mg/Kg	1	✖		6020B	Total/NA
Lead	121		0.67	0.22	mg/Kg	1	✖		6020B	Total/NA
Magnesium	8260		112	11.4	mg/Kg	1	✖		6020B	Total/NA
Manganese	188		4.5	0.45	mg/Kg	1	✖		6020B	Total/NA
Nickel	18.7		2.2	0.52	mg/Kg	1	✖		6020B	Total/NA
Potassium	1020		112	13.5	mg/Kg	1	✖		6020B	Total/NA
Selenium	0.27	J	1.4	0.14	mg/Kg	1	✖		6020B	Total/NA
Silver	0.19	J	1.1	0.099	mg/Kg	1	✖		6020B	Total/NA
Sodium	335		112	51.0	mg/Kg	1	✖		6020B	Total/NA
Thallium	0.089	J	0.45	0.046	mg/Kg	1	✖		6020B	Total/NA
Vanadium	29.7		2.2	0.23	mg/Kg	1	✖		6020B	Total/NA
Zinc	709		8.9	3.4	mg/Kg	1	✖		6020B	Total/NA
Mercury	0.13		0.019	0.0091	mg/Kg	1	✖		7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248782-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
2-Butanone (MEK)	0.0071	J	0.0099	0.00073	mg/Kg	1	✖		8260D	Total/NA
Acetone	0.041		0.012	0.011	mg/Kg	1	✖		8260D	Total/NA
Carbon disulfide	0.00091	J	0.0020	0.00052	mg/Kg	1	✖		8260D	Total/NA
m-Xylene & p-Xylene	0.00038	J	0.0020	0.00034	mg/Kg	1	✖		8260D	Total/NA
1,1'-Biphenyl	0.017	J	0.39	0.0052	mg/Kg	1	✖		8270E	Total/NA
2-Methylnaphthalene	0.057	J	0.39	0.011	mg/Kg	1	✖		8270E	Total/NA
Acenaphthene	0.12	J	0.39	0.011	mg/Kg	1	✖		8270E	Total/NA
Acenaphthylene	0.035	J	0.39	0.0039	mg/Kg	1	✖		8270E	Total/NA
Anthracene	0.30	J	0.39	0.012	mg/Kg	1	✖		8270E	Total/NA
Benzo[a]anthracene	0.66		0.039	0.014	mg/Kg	1	✖		8270E	Total/NA
Benzo[a]pyrene	0.61		0.039	0.010	mg/Kg	1	✖		8270E	Total/NA
Benzo[b]fluoranthene	0.80		0.039	0.010	mg/Kg	1	✖		8270E	Total/NA
Benzo[g,h,i]perylene	0.28	J	0.39	0.011	mg/Kg	1	✖		8270E	Total/NA
Benzo[k]fluoranthene	0.28		0.039	0.0076	mg/Kg	1	✖		8270E	Total/NA
Bis(2-ethylhexyl) phthalate	0.12	J *	0.39	0.021	mg/Kg	1	✖		8270E	Total/NA
Butyl benzyl phthalate	2.4		0.39	0.018	mg/Kg	1	✖		8270E	Total/NA
Carbazole	0.10	J	0.39	0.015	mg/Kg	1	✖		8270E	Total/NA
Chrysene	0.61		0.39	0.0066	mg/Kg	1	✖		8270E	Total/NA
Dibenz(a,h)anthracene	0.077		0.039	0.017	mg/Kg	1	✖		8270E	Total/NA
Dibenzofuran	0.080	J	0.39	0.0055	mg/Kg	1	✖		8270E	Total/NA
Fluoranthene	1.3		0.39	0.014	mg/Kg	1	✖		8270E	Total/NA
Fluorene	0.13	J	0.39	0.0053	mg/Kg	1	✖		8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.36		0.039	0.015	mg/Kg	1	✖		8270E	Total/NA
Naphthalene	0.084	J	0.39	0.0067	mg/Kg	1	✖		8270E	Total/NA
Phenanthrene	1.1		0.39	0.0068	mg/Kg	1	✖		8270E	Total/NA
Pyrene	1.3		0.39	0.0097	mg/Kg	1	✖		8270E	Total/NA
4,4'-DDD	0.025		0.0079	0.0013	mg/Kg	1	✖		8081B	Total/NA
4,4'-DDE	0.020		0.0079	0.00093	mg/Kg	1	✖		8081B	Total/NA
4,4'-DDT	0.0048	J p	0.0079	0.0014	mg/Kg	1	✖		8081B	Total/NA
Chlordane (technical)	0.14		0.079	0.019	mg/Kg	1	✖		8081B	Total/NA
Aluminum	6540		22.6	6.2	mg/Kg	1	✖		6020B	Total/NA
Antimony	0.98	J	1.1	0.17	mg/Kg	1	✖		6020B	Total/NA
Arsenic	6.6		1.1	0.12	mg/Kg	1	✖		6020B	Total/NA
Barium	92.2		2.3	0.16	mg/Kg	1	✖		6020B	Total/NA
Beryllium	0.36	J	0.45	0.064	mg/Kg	1	✖		6020B	Total/NA
Cadmium	0.69	J	1.1	0.13	mg/Kg	1	✖		6020B	Total/NA
Calcium	32500		113	20.0	mg/Kg	1	✖		6020B	Total/NA
Chromium	21.3		2.3	0.30	mg/Kg	1	✖		6020B	Total/NA
Cobalt	5.3		2.3	0.17	mg/Kg	1	✖		6020B	Total/NA
Copper	82.8		2.3	0.42	mg/Kg	1	✖		6020B	Total/NA
Iron	15600		67.8	22.8	mg/Kg	1	✖		6020B	Total/NA
Lead	153		0.68	0.23	mg/Kg	1	✖		6020B	Total/NA
Magnesium	5610		113	11.5	mg/Kg	1	✖		6020B	Total/NA
Manganese	226		4.5	0.46	mg/Kg	1	✖		6020B	Total/NA
Nickel	17.8		2.3	0.53	mg/Kg	1	✖		6020B	Total/NA
Potassium	1290		113	13.7	mg/Kg	1	✖		6020B	Total/NA
Selenium	0.58	J	1.4	0.14	mg/Kg	1	✖		6020B	Total/NA
Silver	0.25	J	1.1	0.10	mg/Kg	1	✖		6020B	Total/NA
Sodium	707		113	51.7	mg/Kg	1	✖		6020B	Total/NA
Thallium	0.11	J	0.45	0.046	mg/Kg	1	✖		6020B	Total/NA
Vanadium	28.3		2.3	0.23	mg/Kg	1	✖		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-03 (0-0.5) (Continued)

Lab Sample ID: 460-248782-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	167		9.0	3.4	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.26		0.020	0.0094	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248782-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.015	J	0.38	0.0051	mg/Kg	1	✱	8270E	Total/NA
2-Methylnaphthalene	0.048	J	0.38	0.011	mg/Kg	1	✱	8270E	Total/NA
Acenaphthene	0.036	J	0.38	0.011	mg/Kg	1	✱	8270E	Total/NA
Acenaphthylene	0.039	J	0.38	0.0038	mg/Kg	1	✱	8270E	Total/NA
Anthracene	0.16	J	0.38	0.012	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	0.34		0.038	0.013	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	0.33		0.038	0.010	mg/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	0.42		0.038	0.0099	mg/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	0.17	J	0.38	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	0.14		0.038	0.0075	mg/Kg	1	✱	8270E	Total/NA
Bis(2-ethylhexyl) phthalate	0.095	J *	0.38	0.020	mg/Kg	1	✱	8270E	Total/NA
Butyl benzyl phthalate	0.026	J	0.38	0.018	mg/Kg	1	✱	8270E	Total/NA
Carbazole	0.037	J	0.38	0.015	mg/Kg	1	✱	8270E	Total/NA
Chrysene	0.30	J	0.38	0.0064	mg/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	0.039		0.038	0.017	mg/Kg	1	✱	8270E	Total/NA
Dibenzofuran	0.035	J	0.38	0.0054	mg/Kg	1	✱	8270E	Total/NA
Fluoranthene	0.62		0.38	0.013	mg/Kg	1	✱	8270E	Total/NA
Fluorene	0.070	J	0.38	0.0052	mg/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.20		0.038	0.015	mg/Kg	1	✱	8270E	Total/NA
Naphthalene	0.069	J	0.38	0.0066	mg/Kg	1	✱	8270E	Total/NA
Phenanthrene	0.52		0.38	0.0067	mg/Kg	1	✱	8270E	Total/NA
Pyrene	0.67		0.38	0.0095	mg/Kg	1	✱	8270E	Total/NA
4,4'-DDE	0.0041	J	0.0077	0.00091	mg/Kg	1	✱	8081B	Total/NA
4,4'-DDT	0.0031	J p	0.0077	0.0014	mg/Kg	1	✱	8081B	Total/NA
Aluminum	5190		22.6	6.2	mg/Kg	1	✱	6020B	Total/NA
Antimony	0.35	J	1.1	0.16	mg/Kg	1	✱	6020B	Total/NA
Arsenic	4.7		1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	68.8		2.3	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.30	J	0.45	0.064	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.29	J	1.1	0.13	mg/Kg	1	✱	6020B	Total/NA
Calcium	50300		113	20.0	mg/Kg	1	✱	6020B	Total/NA
Chromium	15.9		2.3	0.30	mg/Kg	1	✱	6020B	Total/NA
Cobalt	4.2		2.3	0.17	mg/Kg	1	✱	6020B	Total/NA
Copper	45.3		2.3	0.42	mg/Kg	1	✱	6020B	Total/NA
Iron	12400		67.8	22.8	mg/Kg	1	✱	6020B	Total/NA
Lead	74.0		0.68	0.23	mg/Kg	1	✱	6020B	Total/NA
Magnesium	8650		113	11.5	mg/Kg	1	✱	6020B	Total/NA
Manganese	176		4.5	0.46	mg/Kg	1	✱	6020B	Total/NA
Nickel	13.3		2.3	0.53	mg/Kg	1	✱	6020B	Total/NA
Potassium	906		113	13.7	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.27	J	1.4	0.14	mg/Kg	1	✱	6020B	Total/NA
Silver	0.15	J	1.1	0.10	mg/Kg	1	✱	6020B	Total/NA
Sodium	187		113	51.6	mg/Kg	1	✱	6020B	Total/NA
Thallium	0.079	J	0.45	0.046	mg/Kg	1	✱	6020B	Total/NA
Vanadium	20.3		2.3	0.23	mg/Kg	1	✱	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-07 (0-0.5) (Continued)

Lab Sample ID: 460-248782-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	122		9.0	3.4	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.14		0.017	0.0081	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248782-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.026		0.017	0.016	mg/Kg	1	✱	8260D	Total/NA
Acenaphthene	0.029	J	0.38	0.011	mg/Kg	1	✱	8270E	Total/NA
Acenaphthylene	0.018	J	0.38	0.0039	mg/Kg	1	✱	8270E	Total/NA
Anthracene	0.093	J	0.38	0.012	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	0.35		0.038	0.013	mg/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	0.30		0.038	0.010	mg/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	0.38		0.038	0.010	mg/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	0.19	J	0.38	0.011	mg/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	0.14		0.038	0.0076	mg/Kg	1	✱	8270E	Total/NA
Bis(2-ethylhexyl) phthalate	0.060	J *	0.38	0.020	mg/Kg	1	✱	8270E	Total/NA
Carbazole	0.028	J	0.38	0.015	mg/Kg	1	✱	8270E	Total/NA
Chrysene	0.31	J	0.38	0.0065	mg/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	0.054		0.038	0.017	mg/Kg	1	✱	8270E	Total/NA
Dibenzofuran	0.015	J	0.38	0.0054	mg/Kg	1	✱	8270E	Total/NA
Fluoranthene	0.57		0.38	0.013	mg/Kg	1	✱	8270E	Total/NA
Fluorene	0.028	J	0.38	0.0052	mg/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.21		0.038	0.015	mg/Kg	1	✱	8270E	Total/NA
Naphthalene	0.011	J	0.38	0.0067	mg/Kg	1	✱	8270E	Total/NA
Phenanthrene	0.38		0.38	0.0068	mg/Kg	1	✱	8270E	Total/NA
Pyrene	0.68		0.38	0.0096	mg/Kg	1	✱	8270E	Total/NA
4,4'-DDE	0.0090		0.0078	0.00092	mg/Kg	1	✱	8081B	Total/NA
Aluminum	5690		22.6	6.2	mg/Kg	1	✱	6020B	Total/NA
Antimony	0.26	J	1.1	0.17	mg/Kg	1	✱	6020B	Total/NA
Arsenic	5.8		1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	97.3		2.3	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.31	J	0.45	0.064	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.31	J	1.1	0.13	mg/Kg	1	✱	6020B	Total/NA
Calcium	45100		113	20.0	mg/Kg	1	✱	6020B	Total/NA
Chromium	20.0		2.3	0.30	mg/Kg	1	✱	6020B	Total/NA
Cobalt	4.7		2.3	0.17	mg/Kg	1	✱	6020B	Total/NA
Copper	25.2		2.3	0.42	mg/Kg	1	✱	6020B	Total/NA
Iron	31400		67.8	22.8	mg/Kg	1	✱	6020B	Total/NA
Lead	83.3		0.68	0.23	mg/Kg	1	✱	6020B	Total/NA
Magnesium	7940		113	11.5	mg/Kg	1	✱	6020B	Total/NA
Manganese	207		4.5	0.46	mg/Kg	1	✱	6020B	Total/NA
Nickel	15.8		2.3	0.53	mg/Kg	1	✱	6020B	Total/NA
Potassium	638		113	13.7	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.24	J	1.4	0.14	mg/Kg	1	✱	6020B	Total/NA
Silver	0.19	J	1.1	0.10	mg/Kg	1	✱	6020B	Total/NA
Sodium	156		113	51.6	mg/Kg	1	✱	6020B	Total/NA
Thallium	0.13	J	0.45	0.046	mg/Kg	1	✱	6020B	Total/NA
Vanadium	20.7		2.3	0.23	mg/Kg	1	✱	6020B	Total/NA
Zinc	180		9.0	3.4	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.44		0.019	0.0090	mg/Kg	1	✱	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248782-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	62.6	J	500	53.6	ug/L	1		6020B	Total/NA
Sodium	410	J	500	163	ug/L	1		6020B	Total/NA

Client Sample ID: TRC-TB-12092021

Lab Sample ID: 460-248782-8

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248782-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.8

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0027	U	0.0027	0.00063	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
1,1,2,2-Tetrachloroethane	0.0027	U *	0.0027	0.00058	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0027	U	0.0027	0.00081	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
1,1,2-Trichloroethane	0.0027	U	0.0027	0.00048	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
1,1-Dichloroethane	0.0027	U	0.0027	0.00056	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
1,1-Dichloroethene	0.0027	U	0.0027	0.00061	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
1,2,3-Trichlorobenzene	0.0027	U	0.0027	0.00049	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
1,2,4-Trichlorobenzene	0.0027	U *	0.0027	0.00097	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
1,2-Dibromo-3-Chloropropane	0.0027	U *	0.0027	0.0012	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
1,2-Dichlorobenzene	0.0027	U	0.0027	0.00097	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
1,2-Dichloroethane	0.0027	U	0.0027	0.00080	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
1,2-Dichloropropane	0.0027	U	0.0027	0.0011	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
1,3-Dichlorobenzene	0.0027	U	0.0027	0.00098	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
1,4-Dichlorobenzene	0.0027	U	0.0027	0.00061	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
2-Butanone (MEK)	0.013	U	0.013	0.00099	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
2-Hexanone	0.013	U *	0.013	0.0046	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
4-Methyl-2-pentanone (MIBK)	0.013	U *	0.013	0.0042	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Acetone	0.016	U	0.016	0.015	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Benzene	0.0027	U	0.0027	0.00070	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Bromoform	0.0027	U	0.0027	0.0011	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Bromomethane	0.0054	U	0.0054	0.0027	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Carbon disulfide	0.0027	U	0.0027	0.00072	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Carbon tetrachloride	0.0027	U	0.0027	0.0010	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Chlorobenzene	0.0027	U	0.0027	0.00048	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Chlorobromomethane	0.0027	U	0.0027	0.00076	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Chlorodibromomethane	0.0027	U	0.0027	0.00052	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Chloroethane	0.0027	U	0.0027	0.0014	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Chloroform	0.0027	U	0.0027	0.0026	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Chloromethane	0.0027	U	0.0027	0.0012	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
cis-1,2-Dichloroethene	0.0027	U	0.0027	0.00097	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
cis-1,3-Dichloropropene	0.0027	U	0.0027	0.00074	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Cyclohexane	0.0027	U	0.0027	0.00060	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Dichlorobromomethane	0.0027	U	0.0027	0.00069	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Dichlorodifluoromethane	0.0027	U	0.0027	0.00091	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Ethylbenzene	0.0027	U	0.0027	0.00054	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Ethylene Dibromide	0.0027	U	0.0027	0.00049	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Isopropylbenzene	0.0027	U	0.0027	0.00077	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Methyl acetate	0.013	U	0.013	0.012	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Methyl tert-butyl ether	0.0027	U	0.0027	0.0014	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Methylcyclohexane	0.0027	U	0.0027	0.0013	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Methylene Chloride	0.0054	U	0.0054	0.0031	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
m-Xylene & p-Xylene	0.0027	U	0.0027	0.00047	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
o-Xylene	0.0027	U	0.0027	0.00052	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Styrene	0.0027	U	0.0027	0.00075	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Tetrachloroethene	0.0031		0.0027	0.00082	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Toluene	0.0027	U	0.0027	0.00063	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
trans-1,2-Dichloroethene	0.0027	U	0.0027	0.00066	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
trans-1,3-Dichloropropene	0.0027	U	0.0027	0.00072	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Trichloroethene	0.0027	U	0.0027	0.00087	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248782-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.8

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.0027	U	0.0027	0.0011	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Vinyl chloride	0.0027	U	0.0027	0.0015	mg/Kg	☆	12/10/21 13:24	12/13/21 11:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		77 - 145				12/10/21 13:24	12/13/21 11:53	1
4-Bromofluorobenzene	115		70 - 139				12/10/21 13:24	12/13/21 11:53	1
Dibromofluoromethane (Surr)	113		48 - 150				12/10/21 13:24	12/13/21 11:53	1
Toluene-d8 (Surr)	109		80 - 120				12/10/21 13:24	12/13/21 11:53	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0052	J	0.36	0.0048	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
1,4-Dioxane	0.036	U *	0.036	0.031	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0065	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.024	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
2,4,5-Trichlorophenol	0.36	U	0.36	0.037	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
2,4,6-Trichlorophenol	0.14	U	0.14	0.046	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
2,4-Dichlorophenol	0.14	U	0.14	0.023	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
2,4-Dinitrotoluene	0.073	U	0.073	0.039	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
2,6-Dinitrotoluene	0.073	U	0.073	0.026	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
2-Methylnaphthalene	0.015	J	0.36	0.010	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
2-Methylphenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
2-Nitroaniline	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
2-Nitrophenol	0.36	U	0.36	0.036	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
3,3'-Dichlorobenzidine	0.14	U *	0.14	0.054	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
3-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
4-Chloroaniline	0.36	U	0.36	0.064	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
4-Methylphenol	0.36	U	0.36	0.023	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
4-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
4-Nitrophenol	0.73	U	0.73	0.059	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Acenaphthene	0.016	J	0.36	0.010	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Acenaphthylene	0.034	J	0.36	0.0036	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Acetophenone	0.36	U	0.36	0.018	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Anthracene	0.065	J	0.36	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Atrazine	0.14	U	0.14	0.021	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Benzaldehyde	0.36	U	0.36	0.060	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Benzo[a]anthracene	0.22		0.036	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Benzo[a]pyrene	0.22		0.036	0.0096	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Benzo[b]fluoranthene	0.37		0.036	0.0093	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Benzo[g,h,i]perylene	0.11	J	0.36	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Benzo[k]fluoranthene	0.11		0.036	0.0071	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248782-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.8

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Bis(2-ethylhexyl) phthalate	0.17	J *	0.36	0.019	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Butyl benzyl phthalate	0.085	J	0.36	0.017	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Caprolactam	0.36	U	0.36	0.056	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Carbazole	0.027	J	0.36	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Chrysene	0.21	J	0.36	0.0061	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Dibenz(a,h)anthracene	0.032	J	0.036	0.016	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Dibenzofuran	0.014	J	0.36	0.0051	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Diethyl phthalate	0.36	U	0.36	0.0052	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Dimethyl phthalate	0.36	U	0.36	0.082	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Di-n-butyl phthalate	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Di-n-octyl phthalate	0.36	U *	0.36	0.019	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Fluoranthene	0.36		0.36	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Fluorene	0.026	J	0.36	0.0049	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Hexachlorobutadiene	0.073	U	0.073	0.0077	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.032	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Hexachloroethane	0.036	U	0.036	0.012	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Indeno[1,2,3-cd]pyrene	0.13		0.036	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Isophorone	0.14	U	0.14	0.10	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Naphthalene	0.016	J	0.36	0.0062	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Nitrobenzene	0.036	U	0.036	0.0087	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.026	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
N-Nitrosodiphenylamine	0.36	U	0.36	0.030	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Pentachlorophenol	0.29	U	0.29	0.074	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Phenanthrene	0.20	J	0.36	0.0063	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Phenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1
Pyrene	0.35	J	0.36	0.0090	mg/Kg	☆	12/10/21 19:13	12/11/21 19:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		10 - 123	12/10/21 19:13	12/11/21 19:21	1
2-Fluorobiphenyl	89		14 - 103	12/10/21 19:13	12/11/21 19:21	1
2-Fluorophenol (Surr)	86		10 - 105	12/10/21 19:13	12/11/21 19:21	1
Nitrobenzene-d5 (Surr)	88		11 - 104	12/10/21 19:13	12/11/21 19:21	1
Phenol-d5 (Surr)	90		15 - 100	12/10/21 19:13	12/11/21 19:21	1
Terphenyl-d14 (Surr)	83		12 - 126	12/10/21 19:13	12/11/21 19:21	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0073	U	0.0073	0.0012	mg/Kg	☆	12/10/21 17:52	12/12/21 23:53	1
4,4'-DDE	0.0073	U	0.0073	0.00086	mg/Kg	☆	12/10/21 17:52	12/12/21 23:53	1
4,4'-DDT	0.0073	U	0.0073	0.0013	mg/Kg	☆	12/10/21 17:52	12/12/21 23:53	1
Aldrin	0.0073	U	0.0073	0.0011	mg/Kg	☆	12/10/21 17:52	12/12/21 23:53	1
alpha-BHC	0.0022	U	0.0022	0.00074	mg/Kg	☆	12/10/21 17:52	12/12/21 23:53	1
beta-BHC	0.0022	U	0.0022	0.00082	mg/Kg	☆	12/10/21 17:52	12/12/21 23:53	1
Chlordane (technical)	0.073	U	0.073	0.018	mg/Kg	☆	12/10/21 17:52	12/12/21 23:53	1
delta-BHC	0.0022	U	0.0022	0.00045	mg/Kg	☆	12/10/21 17:52	12/12/21 23:53	1
Dieldrin	0.0022	U	0.0022	0.00095	mg/Kg	☆	12/10/21 17:52	12/12/21 23:53	1
Endosulfan I	0.0073	U	0.0073	0.0011	mg/Kg	☆	12/10/21 17:52	12/12/21 23:53	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248782-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.8

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	0.0073	U	0.0073	0.0019	mg/Kg	✱	12/10/21 17:52	12/12/21 23:53	1
Endosulfan sulfate	0.0073	U	0.0073	0.00092	mg/Kg	✱	12/10/21 17:52	12/12/21 23:53	1
Endrin	0.0073	U	0.0073	0.0010	mg/Kg	✱	12/10/21 17:52	12/12/21 23:53	1
Endrin aldehyde	0.0073	U	0.0073	0.0017	mg/Kg	✱	12/10/21 17:52	12/12/21 23:53	1
Endrin ketone	0.0073	U	0.0073	0.0014	mg/Kg	✱	12/10/21 17:52	12/12/21 23:53	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00068	mg/Kg	✱	12/10/21 17:52	12/12/21 23:53	1
Heptachlor	0.0073	U	0.0073	0.00086	mg/Kg	✱	12/10/21 17:52	12/12/21 23:53	1
Heptachlor epoxide	0.0073	U	0.0073	0.0011	mg/Kg	✱	12/10/21 17:52	12/12/21 23:53	1
Methoxychlor	0.0073	U	0.0073	0.0017	mg/Kg	✱	12/10/21 17:52	12/12/21 23:53	1
Toxaphene	0.073	U	0.073	0.026	mg/Kg	✱	12/10/21 17:52	12/12/21 23:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	83		10 - 150	12/10/21 17:52	12/12/21 23:53	1
DCB Decachlorobiphenyl	70		10 - 150	12/10/21 17:52	12/12/21 23:53	1
Tetrachloro-m-xylene	78		10 - 133	12/10/21 17:52	12/12/21 23:53	1
Tetrachloro-m-xylene	77		10 - 133	12/10/21 17:52	12/12/21 23:53	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/12/21 20:56	1
Aroclor 1221	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/12/21 20:56	1
Aroclor 1232	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/12/21 20:56	1
Aroclor 1242	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/12/21 20:56	1
Aroclor 1248	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/12/21 20:56	1
Aroclor 1254	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/12/21 20:56	1
Aroclor 1260	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/12/21 20:56	1
Aroclor-1262	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/12/21 20:56	1
Aroclor 1268	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/12/21 20:56	1
Polychlorinated biphenyls, Total	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/12/21 20:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	112		37 - 150	12/10/21 17:45	12/12/21 20:56	1
DCB Decachlorobiphenyl	101		37 - 150	12/10/21 17:45	12/12/21 20:56	1
Tetrachloro-m-xylene	104		54 - 150	12/10/21 17:45	12/12/21 20:56	1
Tetrachloro-m-xylene	91		54 - 150	12/10/21 17:45	12/12/21 20:56	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.036	U	0.036	0.0077	mg/Kg	✱	12/11/21 02:39	12/12/21 23:26	1
2,4-D	0.036	U	0.036	0.013	mg/Kg	✱	12/11/21 02:39	12/12/21 23:26	1
Silvex (2,4,5-TP)	0.036	U	0.036	0.0038	mg/Kg	✱	12/11/21 02:39	12/12/21 23:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	112		65 - 150	12/11/21 02:39	12/12/21 23:26	1
2,4-Dichlorophenylacetic acid	128		65 - 150	12/11/21 02:39	12/12/21 23:26	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6160		21.8	6.0	mg/Kg	✱	12/15/21 18:47	12/16/21 10:57	1
Antimony	0.46	J	1.1	0.16	mg/Kg	✱	12/15/21 18:47	12/16/21 10:57	1
Arsenic	6.8		1.1	0.11	mg/Kg	✱	12/15/21 18:47	12/16/21 10:57	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248782-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.8

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	72.5		2.2	0.16	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Beryllium	0.33	J	0.44	0.062	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Cadmium	0.52	J	1.1	0.12	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Calcium	49000		109	19.3	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Chromium	15.7		2.2	0.29	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Cobalt	5.5		2.2	0.16	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Copper	64.3		2.2	0.40	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Iron	15200		65.4	22.0	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Lead	129		0.65	0.22	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Magnesium	15600		109	11.1	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Manganese	205		4.4	0.44	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Nickel	15.2		2.2	0.51	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Potassium	969	B	109	13.2	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Selenium	0.35	J	1.4	0.14	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Silver	0.13	J	1.1	0.097	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Sodium	591		109	49.8	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Thallium	0.083	J	0.44	0.045	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Vanadium	33.8		2.2	0.22	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1
Zinc	180		8.7	3.3	mg/Kg	☆	12/15/21 18:47	12/16/21 10:57	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.15		0.017	0.0080	mg/Kg	☆	12/15/21 03:23	12/15/21 07:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.2		1.0	1.0	%			12/14/21 14:47	1
Percent Solids	91.8		1.0	1.0	%			12/14/21 14:47	1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.7

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0023	U	0.0023	0.00054	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
1,1,2,2-Tetrachloroethane	0.0023	U	0.0023	0.00050	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0023	U	0.0023	0.00070	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
1,1,2-Trichloroethane	0.0023	U	0.0023	0.00041	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
1,1-Dichloroethane	0.0023	U	0.0023	0.00048	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
1,1-Dichloroethene	0.0023	U	0.0023	0.00052	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
1,2,3-Trichlorobenzene	0.0023	U	0.0023	0.00042	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
1,2,4-Trichlorobenzene	0.0023	U	0.0023	0.00083	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
1,2-Dibromo-3-Chloropropane	0.0023	U	0.0023	0.0011	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
1,2-Dichlorobenzene	0.0023	U	0.0023	0.00084	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
1,2-Dichloroethane	0.0023	U	0.0023	0.00069	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
1,2-Dichloropropane	0.0023	U	0.0023	0.00098	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
1,3-Dichlorobenzene	0.0023	U	0.0023	0.00085	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
1,4-Dichlorobenzene	0.0023	U	0.0023	0.00052	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
2-Butanone (MEK)	0.012	U	0.012	0.00085	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.7

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	0.012	U	0.012	0.0040	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
4-Methyl-2-pentanone (MIBK)	0.012	U	0.012	0.0036	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Acetone	0.014	U	0.014	0.013	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Benzene	0.0023	U	0.0023	0.00060	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Bromoform	0.0023	U	0.0023	0.00099	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Bromomethane	0.0046	U	0.0046	0.0023	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Carbon disulfide	0.0023	U	0.0023	0.00062	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Carbon tetrachloride	0.0023	U	0.0023	0.00090	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Chlorobenzene	0.0023	U	0.0023	0.00041	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Chlorobromomethane	0.0023	U	0.0023	0.00065	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Chlorodibromomethane	0.0023	U	0.0023	0.00045	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Chloroethane	0.0023	U	0.0023	0.0012	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Chloroform	0.0023	U	0.0023	0.0023	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Chloromethane	0.0023	U	0.0023	0.0010	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
cis-1,2-Dichloroethene	0.0023	U	0.0023	0.00083	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
cis-1,3-Dichloropropene	0.0023	U	0.0023	0.00063	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Cyclohexane	0.0023	U	0.0023	0.00051	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Dichlorobromomethane	0.0023	U	0.0023	0.00060	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Dichlorodifluoromethane	0.0023	U	0.0023	0.00078	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Ethylbenzene	0.0023	U	0.0023	0.00046	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Ethylene Dibromide	0.0023	U	0.0023	0.00042	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Isopropylbenzene	0.0023	U	0.0023	0.00066	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Methyl acetate	0.012	U	0.012	0.010	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Methyl tert-butyl ether	0.0023	U	0.0023	0.0012	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Methylcyclohexane	0.0023	U	0.0023	0.0012	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Methylene Chloride	0.0046	U	0.0046	0.0027	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
m-Xylene & p-Xylene	0.0023	U	0.0023	0.00040	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
o-Xylene	0.0023	U	0.0023	0.00045	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Styrene	0.0023	U	0.0023	0.00064	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Tetrachloroethene	0.0017	J	0.0023	0.00071	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Toluene	0.0023	U	0.0023	0.00054	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
trans-1,2-Dichloroethene	0.0023	U	0.0023	0.00057	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
trans-1,3-Dichloropropene	0.0023	U	0.0023	0.00062	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Trichloroethene	0.0023	U	0.0023	0.00074	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Trichlorofluoromethane	0.0023	U	0.0023	0.00094	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1
Vinyl chloride	0.0023	U	0.0023	0.0013	mg/Kg	☆	12/10/21 13:26	12/12/21 05:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		77 - 145	12/10/21 13:26	12/12/21 05:03	1
4-Bromofluorobenzene	103		70 - 139	12/10/21 13:26	12/12/21 05:03	1
Dibromofluoromethane (Surr)	107		48 - 150	12/10/21 13:26	12/12/21 05:03	1
Toluene-d8 (Surr)	100		80 - 120	12/10/21 13:26	12/12/21 05:03	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.010	J	0.36	0.0048	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
1,4-Dioxane	0.036	U *	0.036	0.032	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0065	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.024	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.36	U	0.36	0.037	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.046	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
2,4-Dichlorophenol	0.15	U	0.15	0.023	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
2,4-Dinitrotoluene	0.073	U	0.073	0.039	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
2,6-Dinitrotoluene	0.073	U	0.073	0.026	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
2-Methylnaphthalene	0.019	J	0.36	0.010	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
2-Methylphenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
2-Nitroaniline	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
2-Nitrophenol	0.36	U	0.36	0.036	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
3,3'-Dichlorobenzidine	0.15	U *	0.15	0.054	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
3-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
4-Chloroaniline	0.36	U	0.36	0.064	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
4-Methylphenol	0.36	U	0.36	0.023	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
4-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
4-Nitrophenol	0.73	U	0.73	0.059	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Acenaphthene	0.020	J	0.36	0.010	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Acenaphthylene	0.071	J	0.36	0.0036	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Acetophenone	0.36	U	0.36	0.018	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Anthracene	0.097	J	0.36	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Atrazine	0.15	U	0.15	0.021	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Benzaldehyde	0.36	U	0.36	0.060	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Benzo[a]anthracene	0.35		0.036	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Benzo[a]pyrene	0.37		0.036	0.0096	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Benzo[b]fluoranthene	0.60		0.036	0.0093	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Benzo[g,h,i]perylene	0.20	J	0.36	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Benzo[k]fluoranthene	0.29		0.036	0.0071	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Bis(2-ethylhexyl) phthalate	0.21	J *	0.36	0.019	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Butyl benzyl phthalate	0.12	J	0.36	0.017	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Caprolactam	0.36	U	0.36	0.056	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Carbazole	0.042	J	0.36	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Chrysene	0.34	J	0.36	0.0061	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Dibenz(a,h)anthracene	0.051		0.036	0.016	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Dibenzofuran	0.020	J	0.36	0.0051	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Diethyl phthalate	0.36	U	0.36	0.0052	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Dimethyl phthalate	0.36	U	0.36	0.082	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Di-n-butyl phthalate	0.36	U	0.36	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Di-n-octyl phthalate	0.36	U *	0.36	0.019	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Fluoranthene	0.60		0.36	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Fluorene	0.022	J	0.36	0.0049	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Hexachlorobutadiene	0.073	U	0.073	0.0077	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.032	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Hexachloroethane	0.036	U	0.036	0.012	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Indeno[1,2,3-cd]pyrene	0.24		0.036	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Isophorone	0.15	U	0.15	0.10	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Naphthalene	0.023	J	0.36	0.0062	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Nitrobenzene	0.036	U	0.036	0.0087	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.026	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
N-Nitrosodiphenylamine	0.36	U	0.36	0.030	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Pentachlorophenol	0.29	U	0.29	0.074	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Phenanthrene	0.29	J	0.36	0.0063	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Phenol	0.36	U	0.36	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1
Pyrene	0.58		0.36	0.0090	mg/Kg	☆	12/10/21 19:13	12/11/21 18:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	96		10 - 123	12/10/21 19:13	12/11/21 18:36	1
2-Fluorobiphenyl	96		14 - 103	12/10/21 19:13	12/11/21 18:36	1
2-Fluorophenol (Surr)	91		10 - 105	12/10/21 19:13	12/11/21 18:36	1
Nitrobenzene-d5 (Surr)	94		11 - 104	12/10/21 19:13	12/11/21 18:36	1
Phenol-d5 (Surr)	93		15 - 100	12/10/21 19:13	12/11/21 18:36	1
Terphenyl-d14 (Surr)	87		12 - 126	12/10/21 19:13	12/11/21 18:36	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0073	U	0.0073	0.0012	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
4,4'-DDE	0.0026	J	0.0073	0.00086	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
4,4'-DDT	0.0036	J p	0.0073	0.0013	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
Aldrin	0.0073	U	0.0073	0.0011	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
alpha-BHC	0.0022	U	0.0022	0.00074	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
beta-BHC	0.0022	U	0.0022	0.00082	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
Chlordane (technical)	0.073	U	0.073	0.018	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
delta-BHC	0.0022	U	0.0022	0.00045	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
Dieldrin	0.0022	U	0.0022	0.00095	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
Endosulfan I	0.0073	U	0.0073	0.0011	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
Endosulfan II	0.0073	U	0.0073	0.0019	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
Endosulfan sulfate	0.0073	U	0.0073	0.00092	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
Endrin	0.0073	U	0.0073	0.0010	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
Endrin aldehyde	0.0073	U	0.0073	0.0017	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
Endrin ketone	0.0073	U	0.0073	0.0014	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00068	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
Heptachlor	0.0073	U	0.0073	0.00086	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
Heptachlor epoxide	0.0073	U	0.0073	0.0011	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
Methoxychlor	0.0073	U	0.0073	0.0017	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1
Toxaphene	0.073	U	0.073	0.026	mg/Kg	☆	12/10/21 17:52	12/13/21 00:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		10 - 150	12/10/21 17:52	12/13/21 00:09	1
DCB Decachlorobiphenyl	74		10 - 150	12/10/21 17:52	12/13/21 00:09	1
Tetrachloro-m-xylene	86		10 - 133	12/10/21 17:52	12/13/21 00:09	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.7

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		10 - 133	12/10/21 17:52	12/13/21 00:09	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/13/21 03:53	1
Aroclor 1221	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/13/21 03:53	1
Aroclor 1232	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/13/21 03:53	1
Aroclor 1242	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/13/21 03:53	1
Aroclor 1248	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/13/21 03:53	1
Aroclor 1254	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/13/21 03:53	1
Aroclor 1260	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/13/21 03:53	1
Aroclor-1262	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/13/21 03:53	1
Aroclor 1268	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/13/21 03:53	1
Polychlorinated biphenyls, Total	0.073	U	0.073	0.019	mg/Kg	✱	12/10/21 17:45	12/13/21 03:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	113		37 - 150	12/10/21 17:45	12/13/21 03:53	1
DCB Decachlorobiphenyl	107		37 - 150	12/10/21 17:45	12/13/21 03:53	1
Tetrachloro-m-xylene	104		54 - 150	12/10/21 17:45	12/13/21 03:53	1
Tetrachloro-m-xylene	95		54 - 150	12/10/21 17:45	12/13/21 03:53	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.036	U	0.036	0.0077	mg/Kg	✱	12/11/21 02:39	12/13/21 00:07	1
2,4-D	0.036	U	0.036	0.013	mg/Kg	✱	12/11/21 02:39	12/13/21 00:07	1
Silvex (2,4,5-TP)	0.036	U	0.036	0.0038	mg/Kg	✱	12/11/21 02:39	12/13/21 00:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	110		65 - 150	12/11/21 02:39	12/13/21 00:07	1
2,4-Dichlorophenylacetic acid	131		65 - 150	12/11/21 02:39	12/13/21 00:07	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6090		20.8	5.7	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Antimony	0.44	J	1.0	0.15	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Arsenic	5.8		1.0	0.11	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Barium	86.6		2.1	0.15	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Beryllium	0.31	J	0.42	0.059	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Cadmium	0.54	J	1.0	0.12	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Calcium	36700		104	18.4	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Chromium	16.0		2.1	0.28	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Cobalt	5.6		2.1	0.15	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Copper	68.0		2.1	0.38	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Iron	15800		62.3	21.0	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Lead	129		0.62	0.21	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Magnesium	10200		104	10.6	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Manganese	202		4.2	0.42	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Nickel	15.8		2.1	0.49	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Potassium	942		104	12.6	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1
Selenium	0.29	J	1.3	0.13	mg/Kg	✱	12/16/21 07:29	12/17/21 18:42	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.7

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.12	J	1.0	0.092	mg/Kg	☆	12/16/21 07:29	12/17/21 18:42	1
Sodium	636		104	47.5	mg/Kg	☆	12/16/21 07:29	12/17/21 18:42	1
Thallium	0.094	J	0.42	0.043	mg/Kg	☆	12/16/21 07:29	12/17/21 18:42	1
Vanadium	30.2		2.1	0.21	mg/Kg	☆	12/16/21 07:29	12/17/21 18:42	1
Zinc	193		8.3	3.2	mg/Kg	☆	12/16/21 07:29	12/17/21 18:42	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.15		0.016	0.0077	mg/Kg	☆	12/15/21 03:23	12/15/21 07:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.3		1.0	1.0	%			12/14/21 14:47	1
Percent Solids	91.7		1.0	1.0	%			12/14/21 14:47	1

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248782-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.2

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0016	U	0.0016	0.00036	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
1,1,2,2-Tetrachloroethane	0.0016	U	0.0016	0.00033	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0016	U	0.0016	0.00047	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
1,1,2-Trichloroethane	0.0016	U	0.0016	0.00028	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
1,1-Dichloroethane	0.0016	U	0.0016	0.00032	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
1,1-Dichloroethene	0.0016	U	0.0016	0.00035	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
1,2,3-Trichlorobenzene	0.0016	U	0.0016	0.00028	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
1,2,4-Trichlorobenzene	0.0016	U	0.0016	0.00056	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
1,2-Dibromo-3-Chloropropane	0.0016	U	0.0016	0.00072	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
1,2-Dichlorobenzene	0.0016	U	0.0016	0.00056	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
1,2-Dichloroethane	0.0016	U	0.0016	0.00046	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
1,2-Dichloropropane	0.0016	U	0.0016	0.00066	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
1,3-Dichlorobenzene	0.0016	U	0.0016	0.00057	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
1,4-Dichlorobenzene	0.0016	U	0.0016	0.00035	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
2-Butanone (MEK)	0.0078	U	0.0078	0.00057	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
2-Hexanone	0.0078	U	0.0078	0.0027	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
4-Methyl-2-pentanone (MIBK)	0.0078	U	0.0078	0.0024	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Acetone	0.0095		0.0094	0.0089	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Benzene	0.0016	U	0.0016	0.00040	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Bromoform	0.0016	U	0.0016	0.00066	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Bromomethane	0.0031	U	0.0031	0.0016	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Carbon disulfide	0.0016	U	0.0016	0.00041	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Carbon tetrachloride	0.0016	U	0.0016	0.00060	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Chlorobenzene	0.0016	U	0.0016	0.00028	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Chlorobromomethane	0.0016	U	0.0016	0.00044	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Chlorodibromomethane	0.0016	U	0.0016	0.00030	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Chloroethane	0.0016	U	0.0016	0.00081	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Chloroform	0.0016	U	0.0016	0.0015	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Chloromethane	0.0016	U	0.0016	0.00068	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248782-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.0016	U	0.0016	0.00056	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
cis-1,3-Dichloropropene	0.0016	U	0.0016	0.00043	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Cyclohexane	0.0016	U	0.0016	0.00034	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Dichlorobromomethane	0.0016	U	0.0016	0.00040	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Dichlorodifluoromethane	0.0016	U	0.0016	0.00053	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Ethylbenzene	0.0016	U	0.0016	0.00031	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Ethylene Dibromide	0.0016	U	0.0016	0.00028	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Isopropylbenzene	0.0016	U	0.0016	0.00044	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Methyl acetate	0.0078	U	0.0078	0.0067	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Methyl tert-butyl ether	0.0016	U	0.0016	0.00080	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Methylcyclohexane	0.0016	U	0.0016	0.00078	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Methylene Chloride	0.0031	U	0.0031	0.0018	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
m-Xylene & p-Xylene	0.00044	J	0.0016	0.00027	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
o-Xylene	0.0016	U	0.0016	0.00030	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Styrene	0.0016	U	0.0016	0.00043	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Tetrachloroethene	0.00050	J	0.0016	0.00048	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Toluene	0.00061	J	0.0016	0.00036	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
trans-1,2-Dichloroethene	0.0016	U	0.0016	0.00038	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
trans-1,3-Dichloropropene	0.0016	U	0.0016	0.00041	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Trichloroethene	0.0016	U	0.0016	0.00050	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Trichlorofluoromethane	0.0016	U	0.0016	0.00063	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Vinyl chloride	0.0016	U	0.0016	0.00085	mg/Kg	☆	12/10/21 13:27	12/12/21 05:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		77 - 145				12/10/21 13:27	12/12/21 05:26	1
4-Bromofluorobenzene	108		70 - 139				12/10/21 13:27	12/12/21 05:26	1
Dibromofluoromethane (Surr)	102		48 - 150				12/10/21 13:27	12/12/21 05:26	1
Toluene-d8 (Surr)	99		80 - 120				12/10/21 13:27	12/12/21 05:26	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0068	J	0.38	0.0051	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
1,2,4,5-Tetrachlorobenzene	0.38	U	0.38	0.012	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
1,4-Dioxane	0.038	U *	0.038	0.034	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
2,2'-oxybis[1-chloropropane]	0.38	U	0.38	0.0069	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
2,3,4,6-Tetrachlorophenol	0.38	U	0.38	0.026	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
2,4,5-Trichlorophenol	0.38	U	0.38	0.039	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.049	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
2,4-Dichlorophenol	0.15	U	0.15	0.025	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
2,4-Dimethylphenol	0.38	U	0.38	0.017	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
2,4-Dinitrophenol	0.31	U	0.31	0.19	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
2,4-Dinitrotoluene	0.078	U	0.078	0.041	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
2,6-Dinitrotoluene	0.078	U	0.078	0.028	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
2-Chloronaphthalene	0.38	U	0.38	0.018	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
2-Chlorophenol	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
2-Methylnaphthalene	0.026	J	0.38	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
2-Methylphenol	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
2-Nitroaniline	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
2-Nitrophenol	0.38	U	0.38	0.038	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
3,3'-Dichlorobenzidine	0.15	U *	0.15	0.058	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248782-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.2

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	0.38	U	0.38	0.043	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
4,6-Dinitro-2-methylphenol	0.31	U	0.31	0.16	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
4-Bromophenyl phenyl ether	0.38	U	0.38	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
4-Chloro-3-methylphenol	0.38	U	0.38	0.022	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
4-Chloroaniline	0.38	U	0.38	0.068	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
4-Chlorophenyl phenyl ether	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
4-Methylphenol	0.38	U	0.38	0.024	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
4-Nitroaniline	0.38	U	0.38	0.044	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
4-Nitrophenol	0.78	U	0.78	0.063	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Acenaphthene	0.037	J	0.38	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Acenaphthylene	0.038	J	0.38	0.0039	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Acetophenone	0.38	U	0.38	0.019	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Anthracene	0.13	J	0.38	0.012	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Atrazine	0.15	U	0.15	0.023	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Benzaldehyde	0.38	U	0.38	0.063	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Benzo[a]anthracene	0.55		0.038	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Benzo[a]pyrene	0.51		0.038	0.010	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Benzo[b]fluoranthene	0.74		0.038	0.0099	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Benzo[g,h,i]perylene	0.22	J	0.38	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Benzo[k]fluoranthene	0.36		0.038	0.0075	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Bis(2-chloroethoxy)methane	0.38	U	0.38	0.030	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Bis(2-chloroethyl)ether	0.038	U	0.038	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Bis(2-ethylhexyl) phthalate	0.62	*	0.38	0.020	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Butyl benzyl phthalate	1.7		0.38	0.018	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Caprolactam	0.38	U	0.38	0.060	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Carbazole	0.045	J	0.38	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Chrysene	0.52		0.38	0.0065	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Dibenz(a,h)anthracene	0.073		0.038	0.017	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Dibenzofuran	0.026	J	0.38	0.0054	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Diethyl phthalate	0.38	U	0.38	0.0056	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Dimethyl phthalate	0.38	U	0.38	0.087	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Di-n-butyl phthalate	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Di-n-octyl phthalate	0.38	U *	0.38	0.020	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Fluoranthene	0.85		0.38	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Fluorene	0.033	J	0.38	0.0052	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Hexachlorobenzene	0.038	U	0.038	0.018	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Hexachlorobutadiene	0.078	U	0.078	0.0082	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Hexachlorocyclopentadiene	0.38	U	0.38	0.034	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Hexachloroethane	0.038	U	0.038	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Indeno[1,2,3-cd]pyrene	0.29		0.038	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Isophorone	0.15	U	0.15	0.11	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Naphthalene	0.035	J	0.38	0.0066	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Nitrobenzene	0.038	U	0.038	0.0092	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
N-Nitrosodi-n-propylamine	0.038	U	0.038	0.028	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
N-Nitrosodiphenylamine	0.38	U	0.38	0.032	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Pentachlorophenol	0.31	U	0.31	0.079	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Phenanthrene	0.44		0.38	0.0067	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Phenol	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1
Pyrene	1.0		0.38	0.0095	mg/Kg	☆	12/10/21 19:13	12/11/21 18:59	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248782-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	87		10 - 123	12/10/21 19:13	12/11/21 18:59	1
2-Fluorobiphenyl	95		14 - 103	12/10/21 19:13	12/11/21 18:59	1
2-Fluorophenol (Surr)	88		10 - 105	12/10/21 19:13	12/11/21 18:59	1
Nitrobenzene-d5 (Surr)	91		11 - 104	12/10/21 19:13	12/11/21 18:59	1
Phenol-d5 (Surr)	92		15 - 100	12/10/21 19:13	12/11/21 18:59	1
Terphenyl-d14 (Surr)	86		12 - 126	12/10/21 19:13	12/11/21 18:59	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0078	U	0.0078	0.0013	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
4,4'-DDE	0.0058	J	0.0078	0.00092	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
4,4'-DDT	0.0078	U	0.0078	0.0014	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
Aldrin	0.0078	U	0.0078	0.0012	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
alpha-BHC	0.0023	U	0.0023	0.00079	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
beta-BHC	0.0023	U	0.0023	0.00087	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
Chlordane (technical)	0.059	J	0.078	0.019	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
delta-BHC	0.0023	U	0.0023	0.00048	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
Dieldrin	0.0023	U	0.0023	0.0010	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
Endosulfan I	0.0078	U	0.0078	0.0012	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
Endosulfan II	0.0078	U	0.0078	0.0020	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
Endosulfan sulfate	0.0078	U	0.0078	0.00097	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
Endrin	0.0078	U	0.0078	0.0011	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
Endrin aldehyde	0.0078	U	0.0078	0.0018	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
Endrin ketone	0.0078	U	0.0078	0.0015	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
gamma-BHC (Lindane)	0.0023	U	0.0023	0.00072	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
Heptachlor	0.0078	U	0.0078	0.00092	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
Heptachlor epoxide	0.0078	U	0.0078	0.0012	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
Methoxychlor	0.0078	U	0.0078	0.0018	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1
Toxaphene	0.078	U	0.078	0.028	mg/Kg	✱	12/10/21 17:52	12/13/21 00:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	93		10 - 150	12/10/21 17:52	12/13/21 00:25	1
DCB Decachlorobiphenyl	71		10 - 150	12/10/21 17:52	12/13/21 00:25	1
Tetrachloro-m-xylene	83		10 - 133	12/10/21 17:52	12/13/21 00:25	1
Tetrachloro-m-xylene	82		10 - 133	12/10/21 17:52	12/13/21 00:25	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.078	U	0.078	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:15	1
Aroclor 1221	0.078	U	0.078	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:15	1
Aroclor 1232	0.078	U	0.078	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:15	1
Aroclor 1242	0.078	U	0.078	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:15	1
Aroclor 1248	0.078	U	0.078	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:15	1
Aroclor 1254	0.078	U	0.078	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:15	1
Aroclor 1260	0.078	U	0.078	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:15	1
Aroclor-1262	0.078	U	0.078	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:15	1
Aroclor 1268	0.078	U	0.078	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:15	1
Polychlorinated biphenyls, Total	0.078	U	0.078	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	117		37 - 150	12/10/21 17:45	12/13/21 04:15	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248782-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	108		37 - 150	12/10/21 17:45	12/13/21 04:15	1
Tetrachloro-m-xylene	111		54 - 150	12/10/21 17:45	12/13/21 04:15	1
Tetrachloro-m-xylene	100		54 - 150	12/10/21 17:45	12/13/21 04:15	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.039	U	0.039	0.0082	mg/Kg	✱	12/11/21 02:39	12/13/21 00:21	1
2,4-D	0.039	U	0.039	0.014	mg/Kg	✱	12/11/21 02:39	12/13/21 00:21	1
Silvex (2,4,5-TP)	0.039	U	0.039	0.0040	mg/Kg	✱	12/11/21 02:39	12/13/21 00:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	114		65 - 150	12/11/21 02:39	12/13/21 00:21	1
2,4-Dichlorophenylacetic acid	137		65 - 150	12/11/21 02:39	12/13/21 00:21	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5940		22.3	6.1	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Antimony	0.50	J	1.1	0.16	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Arsenic	6.0		1.1	0.11	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Barium	73.9		2.2	0.16	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Beryllium	0.58		0.45	0.064	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Cadmium	0.28	J	1.1	0.13	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Calcium	46100		112	19.7	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Chromium	23.2		2.2	0.30	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Cobalt	6.9		2.2	0.17	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Copper	304		2.2	0.41	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Iron	15500		66.9	22.5	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Lead	121		0.67	0.22	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Magnesium	8260		112	11.4	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Manganese	188		4.5	0.45	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Nickel	18.7		2.2	0.52	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Potassium	1020		112	13.5	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Selenium	0.27	J	1.4	0.14	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Silver	0.19	J	1.1	0.099	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Sodium	335		112	51.0	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Thallium	0.089	J	0.45	0.046	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Vanadium	29.7		2.2	0.23	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1
Zinc	709		8.9	3.4	mg/Kg	✱	12/16/21 07:29	12/17/21 18:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.019	0.0091	mg/Kg	✱	12/15/21 03:23	12/15/21 07:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.8		1.0	1.0	%			12/14/21 16:51	1
Percent Solids	86.2		1.0	1.0	%			12/14/21 16:51	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248782-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.0

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0020	U	0.0020	0.00046	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
1,1,2,2-Tetrachloroethane	0.0020	U	0.0020	0.00042	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0020	U	0.0020	0.00059	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
1,1,2-Trichloroethane	0.0020	U	0.0020	0.00035	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
1,1-Dichloroethane	0.0020	U	0.0020	0.00041	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
1,1-Dichloroethene	0.0020	U	0.0020	0.00044	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
1,2,3-Trichlorobenzene	0.0020	U	0.0020	0.00036	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
1,2,4-Trichlorobenzene	0.0020	U	0.0020	0.00071	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
1,2-Dibromo-3-Chloropropane	0.0020	U	0.0020	0.00091	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
1,2-Dichlorobenzene	0.0020	U	0.0020	0.00071	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
1,2-Dichloroethane	0.0020	U	0.0020	0.00058	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
1,2-Dichloropropane	0.0020	U	0.0020	0.00083	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
1,3-Dichlorobenzene	0.0020	U	0.0020	0.00072	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
1,4-Dichlorobenzene	0.0020	U	0.0020	0.00044	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
2-Butanone (MEK)	0.0071	J	0.0099	0.00073	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
2-Hexanone	0.0099	U	0.0099	0.0034	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
4-Methyl-2-pentanone (MIBK)	0.0099	U	0.0099	0.0031	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Acetone	0.041		0.012	0.011	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Benzene	0.0020	U	0.0020	0.00051	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Bromoform	0.0020	U	0.0020	0.00084	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Bromomethane	0.0039	U	0.0039	0.0020	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Carbon disulfide	0.00091	J	0.0020	0.00052	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Carbon tetrachloride	0.0020	U	0.0020	0.00076	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Chlorobenzene	0.0020	U	0.0020	0.00035	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Chlorobromomethane	0.0020	U	0.0020	0.00055	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Chlorodibromomethane	0.0020	U	0.0020	0.00038	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Chloroethane	0.0020	U	0.0020	0.0010	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Chloroform	0.0020	U	0.0020	0.0019	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Chloromethane	0.0020	U	0.0020	0.00086	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
cis-1,2-Dichloroethene	0.0020	U	0.0020	0.00071	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
cis-1,3-Dichloropropene	0.0020	U	0.0020	0.00054	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Cyclohexane	0.0020	U	0.0020	0.00044	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Dichlorobromomethane	0.0020	U	0.0020	0.00051	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Dichlorodifluoromethane	0.0020	U	0.0020	0.00067	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Ethylbenzene	0.0020	U	0.0020	0.00039	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Ethylene Dibromide	0.0020	U	0.0020	0.00036	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Isopropylbenzene	0.0020	U	0.0020	0.00056	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Methyl acetate	0.0099	U	0.0099	0.0085	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Methyl tert-butyl ether	0.0020	U	0.0020	0.0010	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Methylcyclohexane	0.0020	U	0.0020	0.00098	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Methylene Chloride	0.0039	U	0.0039	0.0023	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
m-Xylene & p-Xylene	0.00038	J	0.0020	0.00034	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
o-Xylene	0.0020	U	0.0020	0.00038	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Styrene	0.0020	U	0.0020	0.00055	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Tetrachloroethene	0.0020	U	0.0020	0.00060	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Toluene	0.0020	U	0.0020	0.00046	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
trans-1,2-Dichloroethene	0.0020	U	0.0020	0.00049	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
trans-1,3-Dichloropropene	0.0020	U	0.0020	0.00052	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Trichloroethene	0.0020	U	0.0020	0.00063	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248782-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.0

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.0020	U	0.0020	0.00080	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Vinyl chloride	0.0020	U	0.0020	0.0011	mg/Kg	☆	12/10/21 13:27	12/12/21 05:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		77 - 145				12/10/21 13:27	12/12/21 05:49	1
4-Bromofluorobenzene	104		70 - 139				12/10/21 13:27	12/12/21 05:49	1
Dibromofluoromethane (Surr)	103		48 - 150				12/10/21 13:27	12/12/21 05:49	1
Toluene-d8 (Surr)	99		80 - 120				12/10/21 13:27	12/12/21 05:49	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.017	J	0.39	0.0052	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
1,2,4,5-Tetrachlorobenzene	0.39	U	0.39	0.012	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
1,4-Dioxane	0.039	U *	0.039	0.034	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
2,2'-oxybis[1-chloropropane]	0.39	U	0.39	0.0070	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
2,3,4,6-Tetrachlorophenol	0.39	U	0.39	0.026	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
2,4,5-Trichlorophenol	0.39	U	0.39	0.040	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
2,4,6-Trichlorophenol	0.16	U	0.16	0.050	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
2,4-Dichlorophenol	0.16	U	0.16	0.025	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
2,4-Dimethylphenol	0.39	U	0.39	0.017	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
2,4-Dinitrophenol	0.31	U	0.31	0.19	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
2,4-Dinitrotoluene	0.079	U	0.079	0.042	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
2,6-Dinitrotoluene	0.079	U	0.079	0.028	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
2-Chloronaphthalene	0.39	U	0.39	0.018	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
2-Chlorophenol	0.39	U	0.39	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
2-Methylnaphthalene	0.057	J	0.39	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
2-Methylphenol	0.39	U	0.39	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
2-Nitroaniline	0.39	U	0.39	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
2-Nitrophenol	0.39	U	0.39	0.039	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
3,3'-Dichlorobenzidine	0.16	U *	0.16	0.059	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
3-Nitroaniline	0.39	U	0.39	0.044	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
4,6-Dinitro-2-methylphenol	0.31	U	0.31	0.16	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
4-Bromophenyl phenyl ether	0.39	U	0.39	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
4-Chloro-3-methylphenol	0.39	U	0.39	0.022	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
4-Chloroaniline	0.39	U	0.39	0.069	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
4-Chlorophenyl phenyl ether	0.39	U	0.39	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
4-Methylphenol	0.39	U	0.39	0.024	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
4-Nitroaniline	0.39	U	0.39	0.045	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
4-Nitrophenol	0.79	U	0.79	0.063	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Acenaphthene	0.12	J	0.39	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Acenaphthylene	0.035	J	0.39	0.0039	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Acetophenone	0.39	U	0.39	0.019	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Anthracene	0.30	J	0.39	0.012	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Atrazine	0.16	U	0.16	0.023	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Benzaldehyde	0.39	U	0.39	0.064	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Benzo[a]anthracene	0.66		0.039	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Benzo[a]pyrene	0.61		0.039	0.010	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Benzo[b]fluoranthene	0.80		0.039	0.010	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Benzo[g,h,i]perylene	0.28	J	0.39	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Benzo[k]fluoranthene	0.28		0.039	0.0076	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248782-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.0

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.39	U	0.39	0.030	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Bis(2-chloroethyl)ether	0.039	U	0.039	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Bis(2-ethylhexyl) phthalate	0.12	J *	0.39	0.021	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Butyl benzyl phthalate	2.4		0.39	0.018	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Caprolactam	0.39	U	0.39	0.061	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Carbazole	0.10	J	0.39	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Chrysene	0.61		0.39	0.0066	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Dibenz(a,h)anthracene	0.077		0.039	0.017	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Dibenzofuran	0.080	J	0.39	0.0055	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Diethyl phthalate	0.39	U	0.39	0.0056	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Dimethyl phthalate	0.39	U	0.39	0.088	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Di-n-butyl phthalate	0.39	U	0.39	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Di-n-octyl phthalate	0.39	U *	0.39	0.021	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Fluoranthene	1.3		0.39	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Fluorene	0.13	J	0.39	0.0053	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Hexachlorobenzene	0.039	U	0.039	0.018	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Hexachlorobutadiene	0.079	U	0.079	0.0083	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Hexachlorocyclopentadiene	0.39	U	0.39	0.034	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Hexachloroethane	0.039	U	0.039	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Indeno[1,2,3-cd]pyrene	0.36		0.039	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Isophorone	0.16	U	0.16	0.11	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Naphthalene	0.084	J	0.39	0.0067	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Nitrobenzene	0.039	U	0.039	0.0093	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
N-Nitrosodi-n-propylamine	0.039	U	0.039	0.028	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
N-Nitrosodiphenylamine	0.39	U	0.39	0.032	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Pentachlorophenol	0.31	U	0.31	0.080	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Phenanthrene	1.1		0.39	0.0068	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Phenol	0.39	U	0.39	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1
Pyrene	1.3		0.39	0.0097	mg/Kg	☆	12/10/21 19:13	12/11/21 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	89		10 - 123	12/10/21 19:13	12/11/21 17:51	1
2-Fluorobiphenyl	92		14 - 103	12/10/21 19:13	12/11/21 17:51	1
2-Fluorophenol (Surr)	89		10 - 105	12/10/21 19:13	12/11/21 17:51	1
Nitrobenzene-d5 (Surr)	91		11 - 104	12/10/21 19:13	12/11/21 17:51	1
Phenol-d5 (Surr)	91		15 - 100	12/10/21 19:13	12/11/21 17:51	1
Terphenyl-d14 (Surr)	86		12 - 126	12/10/21 19:13	12/11/21 17:51	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.025		0.0079	0.0013	mg/Kg	☆	12/10/21 17:52	12/13/21 00:41	1
4,4'-DDE	0.020		0.0079	0.00093	mg/Kg	☆	12/10/21 17:52	12/13/21 00:41	1
4,4'-DDT	0.0048	J p	0.0079	0.0014	mg/Kg	☆	12/10/21 17:52	12/13/21 00:41	1
Aldrin	0.0079	U	0.0079	0.0012	mg/Kg	☆	12/10/21 17:52	12/13/21 00:41	1
alpha-BHC	0.0024	U	0.0024	0.00080	mg/Kg	☆	12/10/21 17:52	12/13/21 00:41	1
beta-BHC	0.0024	U	0.0024	0.00088	mg/Kg	☆	12/10/21 17:52	12/13/21 00:41	1
Chlordane (technical)	0.14		0.079	0.019	mg/Kg	☆	12/10/21 17:52	12/13/21 00:41	1
delta-BHC	0.0024	U	0.0024	0.00048	mg/Kg	☆	12/10/21 17:52	12/13/21 00:41	1
Dieldrin	0.0024	U	0.0024	0.0010	mg/Kg	☆	12/10/21 17:52	12/13/21 00:41	1
Endosulfan I	0.0079	U	0.0079	0.0012	mg/Kg	☆	12/10/21 17:52	12/13/21 00:41	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248782-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.0

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	0.0079	U	0.0079	0.0020	mg/Kg	✱	12/10/21 17:52	12/13/21 00:41	1
Endosulfan sulfate	0.0079	U	0.0079	0.00099	mg/Kg	✱	12/10/21 17:52	12/13/21 00:41	1
Endrin	0.0079	U	0.0079	0.0011	mg/Kg	✱	12/10/21 17:52	12/13/21 00:41	1
Endrin aldehyde	0.0079	U	0.0079	0.0019	mg/Kg	✱	12/10/21 17:52	12/13/21 00:41	1
Endrin ketone	0.0079	U	0.0079	0.0015	mg/Kg	✱	12/10/21 17:52	12/13/21 00:41	1
gamma-BHC (Lindane)	0.0024	U	0.0024	0.00073	mg/Kg	✱	12/10/21 17:52	12/13/21 00:41	1
Heptachlor	0.0079	U	0.0079	0.00093	mg/Kg	✱	12/10/21 17:52	12/13/21 00:41	1
Heptachlor epoxide	0.0079	U	0.0079	0.0012	mg/Kg	✱	12/10/21 17:52	12/13/21 00:41	1
Methoxychlor	0.0079	U	0.0079	0.0018	mg/Kg	✱	12/10/21 17:52	12/13/21 00:41	1
Toxaphene	0.079	U	0.079	0.028	mg/Kg	✱	12/10/21 17:52	12/13/21 00:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		10 - 150	12/10/21 17:52	12/13/21 00:41	1
DCB Decachlorobiphenyl	83		10 - 150	12/10/21 17:52	12/13/21 00:41	1
Tetrachloro-m-xylene	89		10 - 133	12/10/21 17:52	12/13/21 00:41	1
Tetrachloro-m-xylene	90		10 - 133	12/10/21 17:52	12/13/21 00:41	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.079	U	0.079	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:37	1
Aroclor 1221	0.079	U	0.079	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:37	1
Aroclor 1232	0.079	U	0.079	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:37	1
Aroclor 1242	0.079	U	0.079	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:37	1
Aroclor 1248	0.079	U	0.079	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:37	1
Aroclor 1254	0.079	U	0.079	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:37	1
Aroclor 1260	0.079	U	0.079	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:37	1
Aroclor-1262	0.079	U	0.079	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:37	1
Aroclor 1268	0.079	U	0.079	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:37	1
Polychlorinated biphenyls, Total	0.079	U	0.079	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	110		37 - 150	12/10/21 17:45	12/13/21 04:37	1
DCB Decachlorobiphenyl	112		37 - 150	12/10/21 17:45	12/13/21 04:37	1
Tetrachloro-m-xylene	102		54 - 150	12/10/21 17:45	12/13/21 04:37	1
Tetrachloro-m-xylene	98		54 - 150	12/10/21 17:45	12/13/21 04:37	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.039	U	0.039	0.0083	mg/Kg	✱	12/11/21 02:39	12/13/21 00:34	1
2,4-D	0.039	U	0.039	0.014	mg/Kg	✱	12/11/21 02:39	12/13/21 00:34	1
Silvex (2,4,5-TP)	0.039	U	0.039	0.0041	mg/Kg	✱	12/11/21 02:39	12/13/21 00:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	108		65 - 150	12/11/21 02:39	12/13/21 00:34	1
2,4-Dichlorophenylacetic acid	130		65 - 150	12/11/21 02:39	12/13/21 00:34	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6540		22.6	6.2	mg/Kg	✱	12/16/21 07:29	12/17/21 18:47	1
Antimony	0.98	J	1.1	0.17	mg/Kg	✱	12/16/21 07:29	12/17/21 18:47	1
Arsenic	6.6		1.1	0.12	mg/Kg	✱	12/16/21 07:29	12/17/21 18:47	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248782-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.0

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	92.2		2.3	0.16	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Beryllium	0.36	J	0.45	0.064	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Cadmium	0.69	J	1.1	0.13	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Calcium	32500		113	20.0	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Chromium	21.3		2.3	0.30	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Cobalt	5.3		2.3	0.17	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Copper	82.8		2.3	0.42	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Iron	15600		67.8	22.8	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Lead	153		0.68	0.23	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Magnesium	5610		113	11.5	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Manganese	226		4.5	0.46	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Nickel	17.8		2.3	0.53	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Potassium	1290		113	13.7	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Selenium	0.58	J	1.4	0.14	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Silver	0.25	J	1.1	0.10	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Sodium	707		113	51.7	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Thallium	0.11	J	0.45	0.046	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Vanadium	28.3		2.3	0.23	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1
Zinc	167		9.0	3.4	mg/Kg	☆	12/16/21 07:29	12/17/21 18:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.26		0.020	0.0094	mg/Kg	☆	12/15/21 03:23	12/15/21 07:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.0		1.0	1.0	%			12/14/21 16:51	1
Percent Solids	85.0		1.0	1.0	%			12/14/21 16:51	1

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248782-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.8

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0015	U	0.0015	0.00035	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
1,1,2,2-Tetrachloroethane	0.0015	U	0.0015	0.00032	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0015	U	0.0015	0.00045	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
1,1,2-Trichloroethane	0.0015	U	0.0015	0.00027	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
1,1-Dichloroethane	0.0015	U	0.0015	0.00031	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
1,1-Dichloroethene	0.0015	U	0.0015	0.00034	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
1,2,3-Trichlorobenzene	0.0015	U	0.0015	0.00027	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
1,2,4-Trichlorobenzene	0.0015	U	0.0015	0.00054	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
1,2-Dibromo-3-Chloropropane	0.0015	U	0.0015	0.00069	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
1,2-Dichlorobenzene	0.0015	U	0.0015	0.00054	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
1,2-Dichloroethane	0.0015	U	0.0015	0.00044	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
1,2-Dichloropropane	0.0015	U	0.0015	0.00063	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
1,3-Dichlorobenzene	0.0015	U	0.0015	0.00055	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
1,4-Dichlorobenzene	0.0015	U	0.0015	0.00034	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
2-Butanone (MEK)	0.0075	U	0.0075	0.00055	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248782-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.8

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	0.0075	U	0.0075	0.0026	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
4-Methyl-2-pentanone (MIBK)	0.0075	U	0.0075	0.0023	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Acetone	0.0090	U	0.0090	0.0086	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Benzene	0.0015	U	0.0015	0.00039	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Bromoform	0.0015	U	0.0015	0.00064	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Bromomethane	0.0030	U	0.0030	0.0015	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Carbon disulfide	0.0015	U	0.0015	0.00040	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Carbon tetrachloride	0.0015	U	0.0015	0.00058	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Chlorobenzene	0.0015	U	0.0015	0.00027	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Chlorobromomethane	0.0015	U	0.0015	0.00042	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Chlorodibromomethane	0.0015	U	0.0015	0.00029	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Chloroethane	0.0015	U	0.0015	0.00078	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Chloroform	0.0015	U	0.0015	0.0015	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Chloromethane	0.0015	U	0.0015	0.00065	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
cis-1,2-Dichloroethene	0.0015	U	0.0015	0.00054	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
cis-1,3-Dichloropropene	0.0015	U	0.0015	0.00041	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Cyclohexane	0.0015	U	0.0015	0.00033	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Dichlorobromomethane	0.0015	U	0.0015	0.00039	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Dichlorodifluoromethane	0.0015	U	0.0015	0.00051	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Ethylbenzene	0.0015	U	0.0015	0.00030	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Ethylene Dibromide	0.0015	U	0.0015	0.00027	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Isopropylbenzene	0.0015	U	0.0015	0.00043	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Methyl acetate	0.0075	U	0.0075	0.0065	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Methyl tert-butyl ether	0.0015	U	0.0015	0.00077	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Methylcyclohexane	0.0015	U	0.0015	0.00075	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Methylene Chloride	0.0030	U	0.0030	0.0017	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
m-Xylene & p-Xylene	0.0015	U	0.0015	0.00026	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
o-Xylene	0.0015	U	0.0015	0.00029	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Styrene	0.0015	U	0.0015	0.00042	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Tetrachloroethene	0.0015	U	0.0015	0.00046	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Toluene	0.0015	U	0.0015	0.00035	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
trans-1,2-Dichloroethene	0.0015	U	0.0015	0.00037	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
trans-1,3-Dichloropropene	0.0015	U	0.0015	0.00040	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Trichloroethene	0.0015	U	0.0015	0.00048	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Trichlorofluoromethane	0.0015	U	0.0015	0.00061	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1
Vinyl chloride	0.0015	U	0.0015	0.00082	mg/Kg	☆	12/10/21 13:28	12/12/21 06:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		77 - 145	12/10/21 13:28	12/12/21 06:12	1
4-Bromofluorobenzene	108		70 - 139	12/10/21 13:28	12/12/21 06:12	1
Dibromofluoromethane (Surr)	108		48 - 150	12/10/21 13:28	12/12/21 06:12	1
Toluene-d8 (Surr)	103		80 - 120	12/10/21 13:28	12/12/21 06:12	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.015	J	0.38	0.0051	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
1,2,4,5-Tetrachlorobenzene	0.38	U	0.38	0.012	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
1,4-Dioxane	0.038	U *	0.038	0.033	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
2,2'-oxybis[1-chloropropane]	0.38	U	0.38	0.0069	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
2,3,4,6-Tetrachlorophenol	0.38	U	0.38	0.026	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248782-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.8

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.38	U	0.38	0.039	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.049	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
2,4-Dichlorophenol	0.15	U	0.15	0.024	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
2,4-Dimethylphenol	0.38	U	0.38	0.017	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
2,4-Dinitrophenol	0.31	U	0.31	0.19	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
2,4-Dinitrotoluene	0.077	U	0.077	0.041	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
2,6-Dinitrotoluene	0.077	U	0.077	0.028	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
2-Chloronaphthalene	0.38	U	0.38	0.018	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
2-Chlorophenol	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
2-Methylnaphthalene	0.048	J	0.38	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
2-Methylphenol	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
2-Nitroaniline	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
2-Nitrophenol	0.38	U	0.38	0.038	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
3,3'-Dichlorobenzidine	0.15	U *	0.15	0.058	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
3-Nitroaniline	0.38	U	0.38	0.043	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
4,6-Dinitro-2-methylphenol	0.31	U	0.31	0.16	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
4-Bromophenyl phenyl ether	0.38	U	0.38	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
4-Chloro-3-methylphenol	0.38	U	0.38	0.021	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
4-Chloroaniline	0.38	U	0.38	0.068	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
4-Chlorophenyl phenyl ether	0.38	U	0.38	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
4-Methylphenol	0.38	U	0.38	0.024	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
4-Nitroaniline	0.38	U	0.38	0.044	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
4-Nitrophenol	0.77	U	0.77	0.062	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Acenaphthene	0.036	J	0.38	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Acenaphthylene	0.039	J	0.38	0.0038	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Acetophenone	0.38	U	0.38	0.019	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Anthracene	0.16	J	0.38	0.012	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Atrazine	0.15	U	0.15	0.022	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Benzaldehyde	0.38	U	0.38	0.063	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Benzo[a]anthracene	0.34		0.038	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Benzo[a]pyrene	0.33		0.038	0.010	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Benzo[b]fluoranthene	0.42		0.038	0.0099	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Benzo[g,h,i]perylene	0.17	J	0.38	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Benzo[k]fluoranthene	0.14		0.038	0.0075	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Bis(2-chloroethoxy)methane	0.38	U	0.38	0.030	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Bis(2-chloroethyl)ether	0.038	U	0.038	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Bis(2-ethylhexyl) phthalate	0.095	J *	0.38	0.020	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Butyl benzyl phthalate	0.026	J	0.38	0.018	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Caprolactam	0.38	U	0.38	0.059	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Carbazole	0.037	J	0.38	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Chrysene	0.30	J	0.38	0.0064	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Dibenz(a,h)anthracene	0.039		0.038	0.017	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Dibenzofuran	0.035	J	0.38	0.0054	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Diethyl phthalate	0.38	U	0.38	0.0055	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Dimethyl phthalate	0.38	U	0.38	0.087	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Di-n-butyl phthalate	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Di-n-octyl phthalate	0.38	U *	0.38	0.020	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Fluoranthene	0.62		0.38	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Fluorene	0.070	J	0.38	0.0052	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248782-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.8

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	0.038	U	0.038	0.018	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Hexachlorobutadiene	0.077	U	0.077	0.0081	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Hexachlorocyclopentadiene	0.38	U	0.38	0.033	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Hexachloroethane	0.038	U	0.038	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Indeno[1,2,3-cd]pyrene	0.20		0.038	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Isophorone	0.15	U	0.15	0.11	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Naphthalene	0.069	J	0.38	0.0066	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Nitrobenzene	0.038	U	0.038	0.0092	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
N-Nitrosodi-n-propylamine	0.038	U	0.038	0.028	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
N-Nitrosodiphenylamine	0.38	U	0.38	0.031	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Pentachlorophenol	0.31	U	0.31	0.078	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Phenanthrene	0.52		0.38	0.0067	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Phenol	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1
Pyrene	0.67		0.38	0.0095	mg/Kg	☆	12/10/21 19:13	12/11/21 18:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		10 - 123	12/10/21 19:13	12/11/21 18:14	1
2-Fluorobiphenyl	92		14 - 103	12/10/21 19:13	12/11/21 18:14	1
2-Fluorophenol (Surr)	89		10 - 105	12/10/21 19:13	12/11/21 18:14	1
Nitrobenzene-d5 (Surr)	88		11 - 104	12/10/21 19:13	12/11/21 18:14	1
Phenol-d5 (Surr)	90		15 - 100	12/10/21 19:13	12/11/21 18:14	1
Terphenyl-d14 (Surr)	86		12 - 126	12/10/21 19:13	12/11/21 18:14	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0077	U	0.0077	0.0013	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
4,4'-DDE	0.0041	J	0.0077	0.00091	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
4,4'-DDT	0.0031	J p	0.0077	0.0014	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
Aldrin	0.0077	U	0.0077	0.0012	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
alpha-BHC	0.0023	U	0.0023	0.00078	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
beta-BHC	0.0023	U	0.0023	0.00086	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
Chlordane (technical)	0.077	U	0.077	0.019	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
delta-BHC	0.0023	U	0.0023	0.00047	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
Dieldrin	0.0023	U	0.0023	0.0010	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
Endosulfan I	0.0077	U	0.0077	0.0012	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
Endosulfan II	0.0077	U	0.0077	0.0020	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
Endosulfan sulfate	0.0077	U	0.0077	0.00097	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
Endrin	0.0077	U	0.0077	0.0011	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
Endrin aldehyde	0.0077	U	0.0077	0.0018	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
Endrin ketone	0.0077	U	0.0077	0.0015	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
gamma-BHC (Lindane)	0.0023	U	0.0023	0.00071	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
Heptachlor	0.0077	U	0.0077	0.00091	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
Heptachlor epoxide	0.0077	U	0.0077	0.0012	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
Methoxychlor	0.0077	U	0.0077	0.0018	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1
Toxaphene	0.077	U	0.077	0.028	mg/Kg	☆	12/10/21 17:52	12/13/21 00:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	90		10 - 150	12/10/21 17:52	12/13/21 00:57	1
DCB Decachlorobiphenyl	73		10 - 150	12/10/21 17:52	12/13/21 00:57	1
Tetrachloro-m-xylene	88		10 - 133	12/10/21 17:52	12/13/21 00:57	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248782-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.8

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		10 - 133	12/10/21 17:52	12/13/21 00:57	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.077	U	0.077	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:59	1
Aroclor 1221	0.077	U	0.077	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:59	1
Aroclor 1232	0.077	U	0.077	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:59	1
Aroclor 1242	0.077	U	0.077	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:59	1
Aroclor 1248	0.077	U	0.077	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:59	1
Aroclor 1254	0.077	U	0.077	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:59	1
Aroclor 1260	0.077	U	0.077	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:59	1
Aroclor-1262	0.077	U	0.077	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:59	1
Aroclor 1268	0.077	U	0.077	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:59	1
Polychlorinated biphenyls, Total	0.077	U	0.077	0.021	mg/Kg	✱	12/10/21 17:45	12/13/21 04:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	99		37 - 150	12/10/21 17:45	12/13/21 04:59	1
DCB Decachlorobiphenyl	103		37 - 150	12/10/21 17:45	12/13/21 04:59	1
Tetrachloro-m-xylene	95		54 - 150	12/10/21 17:45	12/13/21 04:59	1
Tetrachloro-m-xylene	91		54 - 150	12/10/21 17:45	12/13/21 04:59	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.038	U	0.038	0.0082	mg/Kg	✱	12/11/21 02:39	12/13/21 00:48	1
2,4-D	0.038	U	0.038	0.014	mg/Kg	✱	12/11/21 02:39	12/13/21 00:48	1
Silvex (2,4,5-TP)	0.038	U	0.038	0.0040	mg/Kg	✱	12/11/21 02:39	12/13/21 00:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	106		65 - 150	12/11/21 02:39	12/13/21 00:48	1
2,4-Dichlorophenylacetic acid	122		65 - 150	12/11/21 02:39	12/13/21 00:48	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5190		22.6	6.2	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Antimony	0.35	J	1.1	0.16	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Arsenic	4.7		1.1	0.12	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Barium	68.8		2.3	0.16	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Beryllium	0.30	J	0.45	0.064	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Cadmium	0.29	J	1.1	0.13	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Calcium	50300		113	20.0	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Chromium	15.9		2.3	0.30	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Cobalt	4.2		2.3	0.17	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Copper	45.3		2.3	0.42	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Iron	12400		67.8	22.8	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Lead	74.0		0.68	0.23	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Magnesium	8650		113	11.5	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Manganese	176		4.5	0.46	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Nickel	13.3		2.3	0.53	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Potassium	906		113	13.7	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1
Selenium	0.27	J	1.4	0.14	mg/Kg	✱	12/16/21 07:29	12/17/21 18:53	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248782-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.8

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.15	J	1.1	0.10	mg/Kg	☆	12/16/21 07:29	12/17/21 18:53	1
Sodium	187		113	51.6	mg/Kg	☆	12/16/21 07:29	12/17/21 18:53	1
Thallium	0.079	J	0.45	0.046	mg/Kg	☆	12/16/21 07:29	12/17/21 18:53	1
Vanadium	20.3		2.3	0.23	mg/Kg	☆	12/16/21 07:29	12/17/21 18:53	1
Zinc	122		9.0	3.4	mg/Kg	☆	12/16/21 07:29	12/17/21 18:53	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14		0.017	0.0081	mg/Kg	☆	12/15/21 03:23	12/15/21 07:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.2		1.0	1.0	%			12/14/21 16:51	1
Percent Solids	86.8		1.0	1.0	%			12/14/21 16:51	1

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248782-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.9

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0029	U	0.0029	0.00067	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
1,1,2,2-Tetrachloroethane	0.0029	U	0.0029	0.00062	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0029	U	0.0029	0.00087	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
1,1,2-Trichloroethane	0.0029	U	0.0029	0.00051	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
1,1-Dichloroethane	0.0029	U	0.0029	0.00059	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
1,1-Dichloroethene	0.0029	U	0.0029	0.00065	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
1,2,3-Trichlorobenzene	0.0029	U	0.0029	0.00052	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
1,2,4-Trichlorobenzene	0.0029	U	0.0029	0.0010	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
1,2-Dibromo-3-Chloropropane	0.0029	U	0.0029	0.0013	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
1,2-Dichlorobenzene	0.0029	U	0.0029	0.0010	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
1,2-Dichloroethane	0.0029	U	0.0029	0.00085	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
1,2-Dichloropropane	0.0029	U	0.0029	0.0012	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
1,3-Dichlorobenzene	0.0029	U	0.0029	0.0011	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
1,4-Dichlorobenzene	0.0029	U	0.0029	0.00065	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
2-Butanone (MEK)	0.014	U	0.014	0.0011	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
2-Hexanone	0.014	U	0.014	0.0049	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
4-Methyl-2-pentanone (MIBK)	0.014	U	0.014	0.0045	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Acetone	0.026		0.017	0.016	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Benzene	0.0029	U	0.0029	0.00074	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Bromoform	0.0029	U	0.0029	0.0012	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Bromomethane	0.0058	U	0.0058	0.0029	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Carbon disulfide	0.0029	U	0.0029	0.00077	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Carbon tetrachloride	0.0029	U	0.0029	0.0011	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Chlorobenzene	0.0029	U	0.0029	0.00051	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Chlorobromomethane	0.0029	U	0.0029	0.00081	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Chlorodibromomethane	0.0029	U	0.0029	0.00056	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Chloroethane	0.0029	U	0.0029	0.0015	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Chloroform	0.0029	U	0.0029	0.0028	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Chloromethane	0.0029	U	0.0029	0.0013	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248782-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.9

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.0029	U	0.0029	0.0010	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
cis-1,3-Dichloropropene	0.0029	U	0.0029	0.00079	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Cyclohexane	0.0029	U	0.0029	0.00064	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Dichlorobromomethane	0.0029	U	0.0029	0.00074	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Dichlorodifluoromethane	0.0029	U	0.0029	0.00097	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Ethylbenzene	0.0029	U	0.0029	0.00057	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Ethylene Dibromide	0.0029	U	0.0029	0.00052	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Isopropylbenzene	0.0029	U	0.0029	0.00082	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Methyl acetate	0.014	U	0.014	0.012	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Methyl tert-butyl ether	0.0029	U	0.0029	0.0015	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Methylcyclohexane	0.0029	U	0.0029	0.0014	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Methylene Chloride	0.0058	U	0.0058	0.0033	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
m-Xylene & p-Xylene	0.0029	U	0.0029	0.00050	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
o-Xylene	0.0029	U	0.0029	0.00056	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Styrene	0.0029	U	0.0029	0.00080	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Tetrachloroethene	0.0029	U	0.0029	0.00088	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Toluene	0.0029	U	0.0029	0.00067	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
trans-1,2-Dichloroethene	0.0029	U	0.0029	0.00071	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
trans-1,3-Dichloropropene	0.0029	U	0.0029	0.00077	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Trichloroethene	0.0029	U	0.0029	0.00092	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Trichlorofluoromethane	0.0029	U	0.0029	0.0012	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1
Vinyl chloride	0.0029	U	0.0029	0.0016	mg/Kg	☆	12/10/21 13:29	12/12/21 06:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		77 - 145	12/10/21 13:29	12/12/21 06:34	1
4-Bromofluorobenzene	110		70 - 139	12/10/21 13:29	12/12/21 06:34	1
Dibromofluoromethane (Surr)	109		48 - 150	12/10/21 13:29	12/12/21 06:34	1
Toluene-d8 (Surr)	102		80 - 120	12/10/21 13:29	12/12/21 06:34	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.38	U	0.38	0.0051	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
1,2,4,5-Tetrachlorobenzene	0.38	U	0.38	0.012	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
1,4-Dioxane	0.038	U *	0.038	0.034	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
2,2'-oxybis[1-chloropropane]	0.38	U	0.38	0.0070	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
2,3,4,6-Tetrachlorophenol	0.38	U	0.38	0.026	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
2,4,5-Trichlorophenol	0.38	U	0.38	0.039	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.049	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
2,4-Dichlorophenol	0.15	U	0.15	0.025	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
2,4-Dimethylphenol	0.38	U	0.38	0.017	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
2,4-Dinitrophenol	0.31	U	0.31	0.19	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
2,4-Dinitrotoluene	0.078	U	0.078	0.041	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
2,6-Dinitrotoluene	0.078	U	0.078	0.028	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
2-Chloronaphthalene	0.38	U	0.38	0.018	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
2-Chlorophenol	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
2-Methylnaphthalene	0.38	U	0.38	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
2-Methylphenol	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
2-Nitroaniline	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
2-Nitrophenol	0.38	U	0.38	0.039	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
3,3'-Dichlorobenzidine	0.15	U *	0.15	0.058	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248782-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	0.38	U	0.38	0.043	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
4,6-Dinitro-2-methylphenol	0.31	U	0.31	0.16	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
4-Bromophenyl phenyl ether	0.38	U	0.38	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
4-Chloro-3-methylphenol	0.38	U	0.38	0.022	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
4-Chloroaniline	0.38	U	0.38	0.068	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
4-Chlorophenyl phenyl ether	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
4-Methylphenol	0.38	U	0.38	0.024	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
4-Nitroaniline	0.38	U	0.38	0.044	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
4-Nitrophenol	0.78	U	0.78	0.063	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Acenaphthene	0.029	J	0.38	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Acenaphthylene	0.018	J	0.38	0.0039	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Acetophenone	0.38	U	0.38	0.019	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Anthracene	0.093	J	0.38	0.012	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Atrazine	0.15	U	0.15	0.023	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Benzaldehyde	0.38	U	0.38	0.064	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Benzo[a]anthracene	0.35		0.038	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Benzo[a]pyrene	0.30		0.038	0.010	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Benzo[b]fluoranthene	0.38		0.038	0.010	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Benzo[g,h,i]perylene	0.19	J	0.38	0.011	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Benzo[k]fluoranthene	0.14		0.038	0.0076	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Bis(2-chloroethoxy)methane	0.38	U	0.38	0.030	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Bis(2-chloroethyl)ether	0.038	U	0.038	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Bis(2-ethylhexyl) phthalate	0.060	J *	0.38	0.020	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Butyl benzyl phthalate	0.38	U	0.38	0.018	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Caprolactam	0.38	U	0.38	0.060	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Carbazole	0.028	J	0.38	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Chrysene	0.31	J	0.38	0.0065	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Dibenz(a,h)anthracene	0.054		0.038	0.017	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Dibenzofuran	0.015	J	0.38	0.0054	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Diethyl phthalate	0.38	U	0.38	0.0056	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Dimethyl phthalate	0.38	U	0.38	0.088	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Di-n-butyl phthalate	0.38	U	0.38	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Di-n-octyl phthalate	0.38	U *	0.38	0.020	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Fluoranthene	0.57		0.38	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Fluorene	0.028	J	0.38	0.0052	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Hexachlorobenzene	0.038	U	0.038	0.018	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Hexachlorobutadiene	0.078	U	0.078	0.0082	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Hexachlorocyclopentadiene	0.38	U	0.38	0.034	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Hexachloroethane	0.038	U	0.038	0.013	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Indeno[1,2,3-cd]pyrene	0.21		0.038	0.015	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Isophorone	0.15	U	0.15	0.11	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Naphthalene	0.011	J	0.38	0.0067	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Nitrobenzene	0.038	U	0.038	0.0092	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
N-Nitrosodi-n-propylamine	0.038	U	0.038	0.028	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
N-Nitrosodiphenylamine	0.38	U	0.38	0.032	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Pentachlorophenol	0.31	U	0.31	0.079	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Phenanthrene	0.38		0.38	0.0068	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Phenol	0.38	U	0.38	0.014	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1
Pyrene	0.68		0.38	0.0096	mg/Kg	☆	12/10/21 19:13	12/11/21 15:13	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248782-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		10 - 123	12/10/21 19:13	12/11/21 15:13	1
2-Fluorobiphenyl	93		14 - 103	12/10/21 19:13	12/11/21 15:13	1
2-Fluorophenol (Surr)	86		10 - 105	12/10/21 19:13	12/11/21 15:13	1
Nitrobenzene-d5 (Surr)	91		11 - 104	12/10/21 19:13	12/11/21 15:13	1
Phenol-d5 (Surr)	90		15 - 100	12/10/21 19:13	12/11/21 15:13	1
Terphenyl-d14 (Surr)	93		12 - 126	12/10/21 19:13	12/11/21 15:13	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0078	U	0.0078	0.0013	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
4,4'-DDE	0.0090		0.0078	0.00092	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
4,4'-DDT	0.0078	U	0.0078	0.0014	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
Aldrin	0.0078	U	0.0078	0.0012	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
alpha-BHC	0.0023	U	0.0023	0.00079	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
beta-BHC	0.0023	U	0.0023	0.00087	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
Chlordane (technical)	0.078	U	0.078	0.019	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
delta-BHC	0.0023	U	0.0023	0.00048	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
Dieldrin	0.0023	U	0.0023	0.0010	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
Endosulfan I	0.0078	U	0.0078	0.0012	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
Endosulfan II	0.0078	U	0.0078	0.0020	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
Endosulfan sulfate	0.0078	U	0.0078	0.00098	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
Endrin	0.0078	U	0.0078	0.0011	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
Endrin aldehyde	0.0078	U	0.0078	0.0018	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
Endrin ketone	0.0078	U	0.0078	0.0015	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
gamma-BHC (Lindane)	0.0023	U	0.0023	0.00072	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
Heptachlor	0.0078	U	0.0078	0.00092	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
Heptachlor epoxide	0.0078	U	0.0078	0.0012	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
Methoxychlor	0.0078	U	0.0078	0.0018	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1
Toxaphene	0.078	U	0.078	0.028	mg/Kg	☆	12/10/21 17:52	12/13/21 01:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		10 - 150	12/10/21 17:52	12/13/21 01:13	1
DCB Decachlorobiphenyl	79		10 - 150	12/10/21 17:52	12/13/21 01:13	1
Tetrachloro-m-xylene	89		10 - 133	12/10/21 17:52	12/13/21 01:13	1
Tetrachloro-m-xylene	85		10 - 133	12/10/21 17:52	12/13/21 01:13	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.078	U	0.078	0.021	mg/Kg	☆	12/10/21 17:45	12/13/21 05:21	1
Aroclor 1221	0.078	U	0.078	0.021	mg/Kg	☆	12/10/21 17:45	12/13/21 05:21	1
Aroclor 1232	0.078	U	0.078	0.021	mg/Kg	☆	12/10/21 17:45	12/13/21 05:21	1
Aroclor 1242	0.078	U	0.078	0.021	mg/Kg	☆	12/10/21 17:45	12/13/21 05:21	1
Aroclor 1248	0.078	U	0.078	0.021	mg/Kg	☆	12/10/21 17:45	12/13/21 05:21	1
Aroclor 1254	0.078	U	0.078	0.021	mg/Kg	☆	12/10/21 17:45	12/13/21 05:21	1
Aroclor 1260	0.078	U	0.078	0.021	mg/Kg	☆	12/10/21 17:45	12/13/21 05:21	1
Aroclor-1262	0.078	U	0.078	0.021	mg/Kg	☆	12/10/21 17:45	12/13/21 05:21	1
Aroclor 1268	0.078	U	0.078	0.021	mg/Kg	☆	12/10/21 17:45	12/13/21 05:21	1
Polychlorinated biphenyls, Total	0.078	U	0.078	0.021	mg/Kg	☆	12/10/21 17:45	12/13/21 05:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	110		37 - 150	12/10/21 17:45	12/13/21 05:21	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248782-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	112		37 - 150	12/10/21 17:45	12/13/21 05:21	1
Tetrachloro-m-xylene	99		54 - 150	12/10/21 17:45	12/13/21 05:21	1
Tetrachloro-m-xylene	96		54 - 150	12/10/21 17:45	12/13/21 05:21	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.039	U	0.039	0.0082	mg/Kg	✱	12/11/21 02:39	12/13/21 01:01	1
2,4-D	0.039	U	0.039	0.014	mg/Kg	✱	12/11/21 02:39	12/13/21 01:01	1
Silvex (2,4,5-TP)	0.039	U	0.039	0.0040	mg/Kg	✱	12/11/21 02:39	12/13/21 01:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	109		65 - 150	12/11/21 02:39	12/13/21 01:01	1
2,4-Dichlorophenylacetic acid	125		65 - 150	12/11/21 02:39	12/13/21 01:01	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5690		22.6	6.2	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Antimony	0.26	J	1.1	0.17	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Arsenic	5.8		1.1	0.12	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Barium	97.3		2.3	0.16	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Beryllium	0.31	J	0.45	0.064	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Cadmium	0.31	J	1.1	0.13	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Calcium	45100		113	20.0	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Chromium	20.0		2.3	0.30	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Cobalt	4.7		2.3	0.17	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Copper	25.2		2.3	0.42	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Iron	31400		67.8	22.8	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Lead	83.3		0.68	0.23	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Magnesium	7940		113	11.5	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Manganese	207		4.5	0.46	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Nickel	15.8		2.3	0.53	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Potassium	638		113	13.7	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Selenium	0.24	J	1.4	0.14	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Silver	0.19	J	1.1	0.10	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Sodium	156		113	51.6	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Thallium	0.13	J	0.45	0.046	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Vanadium	20.7		2.3	0.23	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1
Zinc	180		9.0	3.4	mg/Kg	✱	12/16/21 07:29	12/17/21 18:56	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.44		0.019	0.0090	mg/Kg	✱	12/15/21 03:23	12/15/21 07:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.1		1.0	1.0	%			12/14/21 16:51	1
Percent Solids	85.9		1.0	1.0	%			12/14/21 16:51	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248782-7

Date Collected: 12/09/21 11:00

Matrix: Water

Date Received: 12/09/21 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/10/21 23:27	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/10/21 23:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			12/10/21 23:27	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			12/10/21 23:27	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/10/21 23:27	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			12/10/21 23:27	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			12/10/21 23:27	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			12/10/21 23:27	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			12/10/21 23:27	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			12/10/21 23:27	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			12/10/21 23:27	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/10/21 23:27	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			12/10/21 23:27	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			12/10/21 23:27	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			12/10/21 23:27	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			12/10/21 23:27	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			12/10/21 23:27	1
Acetone	5.0	U	5.0	4.4	ug/L			12/10/21 23:27	1
Benzene	1.0	U	1.0	0.20	ug/L			12/10/21 23:27	1
Bromoform	1.0	U	1.0	0.54	ug/L			12/10/21 23:27	1
Bromomethane	1.0	U	1.0	0.55	ug/L			12/10/21 23:27	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			12/10/21 23:27	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/10/21 23:27	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/10/21 23:27	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			12/10/21 23:27	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/10/21 23:27	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/10/21 23:27	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/10/21 23:27	1
Chloromethane	1.0	U	1.0	0.40	ug/L			12/10/21 23:27	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/10/21 23:27	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			12/10/21 23:27	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			12/10/21 23:27	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/10/21 23:27	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			12/10/21 23:27	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			12/10/21 23:27	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			12/10/21 23:27	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			12/10/21 23:27	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			12/10/21 23:27	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			12/10/21 23:27	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			12/10/21 23:27	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/10/21 23:27	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			12/10/21 23:27	1
o-Xylene	1.0	U	1.0	0.36	ug/L			12/10/21 23:27	1
Styrene	1.0	U	1.0	0.42	ug/L			12/10/21 23:27	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			12/10/21 23:27	1
Toluene	1.0	U	1.0	0.38	ug/L			12/10/21 23:27	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/10/21 23:27	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			12/10/21 23:27	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/10/21 23:27	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248782-7

Date Collected: 12/09/21 11:00

Matrix: Water

Date Received: 12/09/21 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			12/10/21 23:27	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/10/21 23:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 123		12/10/21 23:27	1
4-Bromofluorobenzene	101		76 - 120		12/10/21 23:27	1
Dibromofluoromethane (Surr)	103		77 - 124		12/10/21 23:27	1
Toluene-d8 (Surr)	105		80 - 120		12/10/21 23:27	1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.016	ug/L		12/11/21 09:24	12/11/21 19:52	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	45		10 - 150				12/11/21 09:24	12/11/21 19:52	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		12/11/21 08:01	12/11/21 17:46	1
1,2,4,5-Tetrachlorobenzene	10	U	10	1.2	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,3,4,6-Tetrachlorophenol	10	U	10	0.75	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,4-Dinitrophenol	20	U	20	2.6	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,6-Dinitrotoluene	2.0	U	2.0	0.83	ug/L		12/11/21 08:01	12/11/21 17:46	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		12/11/21 08:01	12/11/21 17:46	1
2-Chlorophenol	10	U	10	0.38	ug/L		12/11/21 08:01	12/11/21 17:46	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		12/11/21 08:01	12/11/21 17:46	1
2-Methylphenol	10	U	10	0.67	ug/L		12/11/21 08:01	12/11/21 17:46	1
2-Nitroaniline	10	U	10	0.47	ug/L		12/11/21 08:01	12/11/21 17:46	1
2-Nitrophenol	10	U	10	0.75	ug/L		12/11/21 08:01	12/11/21 17:46	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		12/11/21 08:01	12/11/21 17:46	1
3-Nitroaniline	10	U	10	1.9	ug/L		12/11/21 08:01	12/11/21 17:46	1
4,6-Dinitro-2-methylphenol	20	U	20	3.0	ug/L		12/11/21 08:01	12/11/21 17:46	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		12/11/21 08:01	12/11/21 17:46	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		12/11/21 08:01	12/11/21 17:46	1
4-Chloroaniline	10	U	10	1.9	ug/L		12/11/21 08:01	12/11/21 17:46	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		12/11/21 08:01	12/11/21 17:46	1
4-Methylphenol	10	U	10	0.65	ug/L		12/11/21 08:01	12/11/21 17:46	1
4-Nitroaniline	10	U	10	1.2	ug/L		12/11/21 08:01	12/11/21 17:46	1
4-Nitrophenol	20	U	20	4.0	ug/L		12/11/21 08:01	12/11/21 17:46	1
Acenaphthene	10	U	10	1.1	ug/L		12/11/21 08:01	12/11/21 17:46	1
Acenaphthylene	10	U	10	0.82	ug/L		12/11/21 08:01	12/11/21 17:46	1
Acetophenone	10	U	10	2.3	ug/L		12/11/21 08:01	12/11/21 17:46	1
Anthracene	10	U	10	1.3	ug/L		12/11/21 08:01	12/11/21 17:46	1
Atrazine	2.0	U	2.0	1.3	ug/L		12/11/21 08:01	12/11/21 17:46	1
Benzaldehyde	10	U	10	2.1	ug/L		12/11/21 08:01	12/11/21 17:46	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248782-7

Date Collected: 12/09/21 11:00

Matrix: Water

Date Received: 12/09/21 19:00

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		12/11/21 08:01	12/11/21 17:46	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		12/11/21 08:01	12/11/21 17:46	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		12/11/21 08:01	12/11/21 17:46	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		12/11/21 08:01	12/11/21 17:46	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		12/11/21 08:01	12/11/21 17:46	1
Bis(2-chloroethoxy)methane	10	U	10	0.59	ug/L		12/11/21 08:01	12/11/21 17:46	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.63	ug/L		12/11/21 08:01	12/11/21 17:46	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80	ug/L		12/11/21 08:01	12/11/21 17:46	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		12/11/21 08:01	12/11/21 17:46	1
Caprolactam	10	U	10	2.2	ug/L		12/11/21 08:01	12/11/21 17:46	1
Carbazole	10	U	10	0.68	ug/L		12/11/21 08:01	12/11/21 17:46	1
Chrysene	2.0	U	2.0	0.91	ug/L		12/11/21 08:01	12/11/21 17:46	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		12/11/21 08:01	12/11/21 17:46	1
Dibenzofuran	10	U	10	1.1	ug/L		12/11/21 08:01	12/11/21 17:46	1
Diethyl phthalate	10	U	10	0.98	ug/L		12/11/21 08:01	12/11/21 17:46	1
Dimethyl phthalate	10	U	10	0.77	ug/L		12/11/21 08:01	12/11/21 17:46	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		12/11/21 08:01	12/11/21 17:46	1
Di-n-octyl phthalate	10	U	10	0.75	ug/L		12/11/21 08:01	12/11/21 17:46	1
Fluoranthene	10	U	10	0.84	ug/L		12/11/21 08:01	12/11/21 17:46	1
Fluorene	10	U	10	0.91	ug/L		12/11/21 08:01	12/11/21 17:46	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		12/11/21 08:01	12/11/21 17:46	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		12/11/21 08:01	12/11/21 17:46	1
Hexachlorocyclopentadiene	10	U	10	3.6	ug/L		12/11/21 08:01	12/11/21 17:46	1
Hexachloroethane	2.0	U	2.0	0.80	ug/L		12/11/21 08:01	12/11/21 17:46	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.94	ug/L		12/11/21 08:01	12/11/21 17:46	1
Isophorone	10	U	10	0.80	ug/L		12/11/21 08:01	12/11/21 17:46	1
Naphthalene	2.0	U	2.0	0.54	ug/L		12/11/21 08:01	12/11/21 17:46	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		12/11/21 08:01	12/11/21 17:46	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		12/11/21 08:01	12/11/21 17:46	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		12/11/21 08:01	12/11/21 17:46	1
Pentachlorophenol	20	U	20	1.4	ug/L		12/11/21 08:01	12/11/21 17:46	1
Phenanthrene	10	U	10	1.3	ug/L		12/11/21 08:01	12/11/21 17:46	1
Phenol	10	U	10	0.29	ug/L		12/11/21 08:01	12/11/21 17:46	1
Pyrene	10	U	10	1.6	ug/L		12/11/21 08:01	12/11/21 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	96		33 - 150	12/11/21 08:01	12/11/21 17:46	1
2-Fluorobiphenyl	92		42 - 127	12/11/21 08:01	12/11/21 17:46	1
2-Fluorophenol (Surr)	48		18 - 72	12/11/21 08:01	12/11/21 17:46	1
Nitrobenzene-d5 (Surr)	98		46 - 137	12/11/21 08:01	12/11/21 17:46	1
Phenol-d5 (Surr)	30		10 - 50	12/11/21 08:01	12/11/21 17:46	1
Terphenyl-d14 (Surr)	96		39 - 150	12/11/21 08:01	12/11/21 17:46	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.020	U	0.020	0.0030	ug/L		12/11/21 09:12	12/13/21 00:23	1
alpha-BHC	0.020	U	0.020	0.0070	ug/L		12/11/21 09:12	12/13/21 00:23	1
beta-BHC	0.020	U	0.020	0.015	ug/L		12/11/21 09:12	12/13/21 00:23	1
delta-BHC	0.020	U	0.020	0.0050	ug/L		12/11/21 09:12	12/13/21 00:23	1
gamma-BHC (Lindane)	0.020	U	0.020	0.012	ug/L		12/11/21 09:12	12/13/21 00:23	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248782-7

Date Collected: 12/09/21 11:00

Matrix: Water

Date Received: 12/09/21 19:00

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	0.50	U	0.50	0.055	ug/L		12/11/21 09:12	12/13/21 00:23	1
4,4'-DDD	0.020	U	0.020	0.0060	ug/L		12/11/21 09:12	12/13/21 00:23	1
4,4'-DDE	0.020	U	0.020	0.0020	ug/L		12/11/21 09:12	12/13/21 00:23	1
4,4'-DDT	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/13/21 00:23	1
Dieldrin	0.020	U	0.020	0.0030	ug/L		12/11/21 09:12	12/13/21 00:23	1
Endosulfan I	0.020	U	0.020	0.0020	ug/L		12/11/21 09:12	12/13/21 00:23	1
Endosulfan II	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/13/21 00:23	1
Endosulfan sulfate	0.020	U	0.020	0.0060	ug/L		12/11/21 09:12	12/13/21 00:23	1
Endrin	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/13/21 00:23	1
Endrin aldehyde	0.020	U	0.020	0.0080	ug/L		12/11/21 09:12	12/13/21 00:23	1
Endrin ketone	0.020	U	0.020	0.0080	ug/L		12/11/21 09:12	12/13/21 00:23	1
Heptachlor	0.020	U	0.020	0.0030	ug/L		12/11/21 09:12	12/13/21 00:23	1
Heptachlor epoxide	0.020	U	0.020	0.0050	ug/L		12/11/21 09:12	12/13/21 00:23	1
Methoxychlor	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/13/21 00:23	1
Toxaphene	0.50	U	0.50	0.11	ug/L		12/11/21 09:12	12/13/21 00:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		10 - 150	12/11/21 09:12	12/13/21 00:23	1
Tetrachloro-m-xylene	70		10 - 150	12/11/21 09:12	12/13/21 00:23	1
DCB Decachlorobiphenyl	72		10 - 150	12/11/21 09:12	12/13/21 00:23	1
DCB Decachlorobiphenyl	83		10 - 150	12/11/21 09:12	12/13/21 00:23	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 08:07	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 08:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	68		10 - 138	12/11/21 09:19	12/13/21 08:07	1
DCB Decachlorobiphenyl	73		10 - 138	12/11/21 09:19	12/13/21 08:07	1
Tetrachloro-m-xylene	94		10 - 150	12/11/21 09:19	12/13/21 08:07	1
Tetrachloro-m-xylene	66		10 - 150	12/11/21 09:19	12/13/21 08:07	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	1.2	U	1.2	0.13	ug/L		12/10/21 23:07	12/12/21 21:38	1
Silvex (2,4,5-TP)	1.2	U	1.2	0.11	ug/L		12/10/21 23:07	12/12/21 21:38	1
2,4,5-T	1.2	U	1.2	0.12	ug/L		12/10/21 23:07	12/12/21 21:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	111		28 - 150	12/10/21 23:07	12/12/21 21:38	1
2,4-Dichlorophenylacetic acid	113		28 - 150	12/10/21 23:07	12/12/21 21:38	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248782-7

Date Collected: 12/09/21 11:00

Matrix: Water

Date Received: 12/09/21 19:00

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	2.0	U	2.0	0.29	ug/L		12/15/21 21:40	12/16/21 18:14	1
Aluminum	40.0	U	40.0	19.5	ug/L		12/15/21 21:40	12/16/21 18:14	1
Arsenic	2.0	U	2.0	0.89	ug/L		12/15/21 21:40	12/16/21 18:14	1
Barium	4.0	U	4.0	0.91	ug/L		12/15/21 21:40	12/16/21 18:14	1
Beryllium	0.80	U	0.80	0.13	ug/L		12/15/21 21:40	12/16/21 18:14	1
Calcium	62.6	J	500	53.6	ug/L		12/15/21 21:40	12/16/21 18:14	1
Cadmium	2.0	U	2.0	0.39	ug/L		12/15/21 21:40	12/16/21 18:14	1
Cobalt	4.0	U	4.0	0.71	ug/L		12/15/21 21:40	12/16/21 18:14	1
Chromium	4.0	U	4.0	2.5	ug/L		12/15/21 21:40	12/16/21 18:14	1
Copper	4.0	U	4.0	2.5	ug/L		12/15/21 21:40	12/16/21 18:14	1
Iron	120	U	120	58.2	ug/L		12/15/21 21:40	12/16/21 18:14	1
Potassium	200	U	200	112	ug/L		12/15/21 21:40	12/16/21 18:14	1
Magnesium	200	U	200	46.9	ug/L		12/15/21 21:40	12/16/21 18:14	1
Manganese	8.0	U	8.0	1.5	ug/L		12/15/21 21:40	12/16/21 18:14	1
Sodium	410	J	500	163	ug/L		12/15/21 21:40	12/16/21 18:14	1
Nickel	4.0	U	4.0	0.91	ug/L		12/15/21 21:40	12/16/21 18:14	1
Lead	1.2	U	1.2	0.84	ug/L		12/15/21 21:40	12/16/21 18:14	1
Antimony	2.0	U	2.0	0.76	ug/L		12/15/21 21:40	12/16/21 18:14	1
Selenium	2.5	U	2.5	0.59	ug/L		12/15/21 21:40	12/16/21 18:14	1
Thallium	0.80	U	0.80	0.21	ug/L		12/15/21 21:40	12/16/21 18:14	1
Vanadium	4.0	U	4.0	0.68	ug/L		12/15/21 21:40	12/16/21 18:14	1
Zinc	16.0	U	16.0	6.5	ug/L		12/15/21 21:40	12/16/21 18:14	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.091	ug/L		12/14/21 12:34	12/14/21 14:12	1

Client Sample ID: TRC-TB-12092021

Lab Sample ID: 460-248782-8

Date Collected: 12/09/21 11:05

Matrix: Water

Date Received: 12/09/21 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/10/21 22:26	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/10/21 22:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			12/10/21 22:26	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			12/10/21 22:26	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/10/21 22:26	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			12/10/21 22:26	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			12/10/21 22:26	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			12/10/21 22:26	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			12/10/21 22:26	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			12/10/21 22:26	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			12/10/21 22:26	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/10/21 22:26	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			12/10/21 22:26	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			12/10/21 22:26	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			12/10/21 22:26	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			12/10/21 22:26	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			12/10/21 22:26	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-TB-12092021

Lab Sample ID: 460-248782-8

Date Collected: 12/09/21 11:05

Matrix: Water

Date Received: 12/09/21 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	5.0	U	5.0	4.4	ug/L			12/10/21 22:26	1
Benzene	1.0	U	1.0	0.20	ug/L			12/10/21 22:26	1
Bromoform	1.0	U	1.0	0.54	ug/L			12/10/21 22:26	1
Bromomethane	1.0	U	1.0	0.55	ug/L			12/10/21 22:26	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			12/10/21 22:26	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/10/21 22:26	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/10/21 22:26	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			12/10/21 22:26	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/10/21 22:26	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/10/21 22:26	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/10/21 22:26	1
Chloromethane	1.0	U	1.0	0.40	ug/L			12/10/21 22:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/10/21 22:26	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			12/10/21 22:26	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			12/10/21 22:26	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/10/21 22:26	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			12/10/21 22:26	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			12/10/21 22:26	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			12/10/21 22:26	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			12/10/21 22:26	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			12/10/21 22:26	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			12/10/21 22:26	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			12/10/21 22:26	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/10/21 22:26	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			12/10/21 22:26	1
o-Xylene	1.0	U	1.0	0.36	ug/L			12/10/21 22:26	1
Styrene	1.0	U	1.0	0.42	ug/L			12/10/21 22:26	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			12/10/21 22:26	1
Toluene	1.0	U	1.0	0.38	ug/L			12/10/21 22:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/10/21 22:26	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			12/10/21 22:26	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/10/21 22:26	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			12/10/21 22:26	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/10/21 22:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		75 - 123		12/10/21 22:26	1
4-Bromofluorobenzene	100		76 - 120		12/10/21 22:26	1
Dibromofluoromethane (Surr)	102		77 - 124		12/10/21 22:26	1
Toluene-d8 (Surr)	105		80 - 120		12/10/21 22:26	1

Surrogate Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-248782-1	TRC-SB-02 (0-0.5)	98	115	113	109
460-248782-1 MS	TRC-SB-02 (0-0.5)	81	112	99	102
460-248782-1 MSD	TRC-SB-02 (0-0.5)	87	114	102	115
460-248782-2	TRC-DUP-1	88	103	107	100
460-248782-3	TRC-SB-04 (0-0.5)	88	108	102	99
460-248782-4	TRC-SB-03 (0-0.5)	88	104	103	99
460-248782-5	TRC-SB-07 (0-0.5)	93	108	108	103
460-248782-6	TRC-SB-08 (0-0.5)	91	110	109	102
LB3 460-818151/1-A	Method Blank	93	106	107	99
LCS 460-818339/4	Lab Control Sample	88	102	102	101
LCS 460-818505/4	Lab Control Sample	80	104	97	98
LCSD 460-818339/5	Lab Control Sample Dup	87	111	103	106
MB 460-818339/9	Method Blank	88	104	106	103
MB 460-818505/8	Method Blank	90	105	104	100

Surrogate Legend
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-123)	BFB (76-120)	DBFM (77-124)	TOL (80-120)
460-248782-7	TRC-EB-12092021	101	101	103	105
460-248782-8	TRC-TB-12092021	99	100	102	105
LCS 460-818214/4	Lab Control Sample	100	102	104	101
LCSD 460-818214/5	Lab Control Sample Dup	100	99	104	102
MB 460-818214/8	Method Blank	100	102	103	103

Surrogate Legend
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-123)	FBP (14-103)	2FP (10-105)	NBZ (11-104)	PHL (15-100)	TPHL (12-126)
460-248782-1	TRC-SB-02 (0-0.5)	88	89	86	88	90	83
460-248782-1 MS	TRC-SB-02 (0-0.5)	91	91	88	89	93	82
460-248782-1 MSD	TRC-SB-02 (0-0.5)	96	92	91	91	96	86
460-248782-2	TRC-DUP-1	96	96	91	94	93	87
460-248782-3	TRC-SB-04 (0-0.5)	87	95	88	91	92	86
460-248782-4	TRC-SB-03 (0-0.5)	89	92	89	91	91	86

Eurofins TestAmerica, Edison

Surrogate Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-123)	FBP (14-103)	2FP (10-105)	NBZ (11-104)	PHL (15-100)	TPHL (12-126)
460-248782-5	TRC-SB-07 (0-0.5)	88	92	89	88	90	86
460-248782-6	TRC-SB-08 (0-0.5)	88	93	86	91	90	93
LCS 460-818202/2-A	Lab Control Sample	91	88	84	86	86	92
LCSD 460-818202/3-A	Lab Control Sample Dup	90	84	78	84	84	88
MB 460-818202/1-A	Method Blank	89	84	83	86	85	92

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (33-150)	FBP (42-127)	2FP (18-72)	NBZ (46-137)	PHL (10-50)	TPHL (39-150)
460-248782-7	TRC-EB-12092021	96	92	48	98	30	96
LCS 460-818275/2-A	Lab Control Sample	103	95	46	92	30	83
LCSD 460-818275/3-A	Lab Control Sample Dup	101	93	45	91	29	84
MB 460-818275/1-A	Method Blank	88	84	49	90	30	85

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-248782-1	TRC-SB-02 (0-0.5)	70	83	77	78
460-248782-1 MS	TRC-SB-02 (0-0.5)	71	83	76	79
460-248782-1 MSD	TRC-SB-02 (0-0.5)	73	90	87	86
460-248782-2	TRC-DUP-1	74	87	86	86
460-248782-3	TRC-SB-04 (0-0.5)	71	93	82	83
460-248782-4	TRC-SB-03 (0-0.5)	83	97	90	89
460-248782-5	TRC-SB-07 (0-0.5)	73	90	88	88
460-248782-6	TRC-SB-08 (0-0.5)	79	95	85	89
LCS 460-818191/2-A	Lab Control Sample	71	80	80	81
LCSD 460-818191/3-A	Lab Control Sample Dup	65	90	77	78
MB 460-818191/1-A	Method Blank	77	97	89	88

Surrogate Legend

Eurofins TestAmerica, Edison

Surrogate Summary

Client: TRC Environmental Corporation
 Project/Site: MTA LIRR Arch St Yard Supplemental RI
 DCBP = DCB Decachlorobiphenyl
 TCX = Tetrachloro-m-xylene

Job ID: 460-248782-1

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TCX1 (10-150)	TCX2 (10-150)	DCBP1 (10-150)	DCBP2 (10-150)
460-248782-7	TRC-EB-12092021	70	68	83	72
LCS 460-818289/2-A	Lab Control Sample	84	79	100	83
LCSD 460-818289/3-A	Lab Control Sample Dup	83	78	94	80
MB 460-818289/1-A	Method Blank	75	73	89	76

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-248782-1	TRC-SB-02 (0-0.5)	101	112	91	104
460-248782-1 MS	TRC-SB-02 (0-0.5)	80	90	74	86
460-248782-1 MSD	TRC-SB-02 (0-0.5)	86	101	80	97
460-248782-2	TRC-DUP-1	107	113	95	104
460-248782-3	TRC-SB-04 (0-0.5)	108	117	100	111
460-248782-4	TRC-SB-03 (0-0.5)	112	110	98	102
460-248782-5	TRC-SB-07 (0-0.5)	103	99	91	95
460-248782-6	TRC-SB-08 (0-0.5)	112	110	96	99
LCS 460-818189/2-A	Lab Control Sample	105	101	93	102
LCSD 460-818189/3-A	Lab Control Sample Dup	117	112	103	111
MB 460-818189/1-A	Method Blank	100	98	86	97

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
 TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-138)	DCBP2 (10-138)	TCX1 (10-150)	TCX2 (10-150)
460-248782-7	TRC-EB-12092021	73	68	66	94
460-248898-E-5-A MSD	Matrix Spike Duplicate	91	106	56	63
460-248898-H-5-A MS	Matrix Spike	99	108	61	69
LCS 460-818293/2-A	Lab Control Sample	79	59	74	83
LCSD 460-818293/3-A	Lab Control Sample Dup	79	59	74	81
MB 460-818293/1-A	Method Blank	87	70	80	52

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
 TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (65-150)	DCPAA2 (65-150)
460-248782-1	TRC-SB-02 (0-0.5)	128	112
460-248782-1 MS	TRC-SB-02 (0-0.5)	128	110
460-248782-1 MSD	TRC-SB-02 (0-0.5)	136	128
460-248782-2	TRC-DUP-1	131	110
460-248782-3	TRC-SB-04 (0-0.5)	137	114
460-248782-4	TRC-SB-03 (0-0.5)	130	108
460-248782-5	TRC-SB-07 (0-0.5)	122	106
460-248782-6	TRC-SB-08 (0-0.5)	125	109
LCS 460-818240/2-A	Lab Control Sample	136	134
LCSD 460-818240/3-A	Lab Control Sample Dup	135	131
MB 460-818240/1-A	Method Blank	127	128
Surrogate Legend			
DCPAA = 2,4-Dichlorophenylacetic acid			

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (28-150)	DCPAA2 (28-150)
460-248765-F-1-C MSD	Matrix Spike Duplicate	134	132
460-248765-I-1-C MS	Matrix Spike	118	122
460-248782-7	TRC-EB-12092021	113	111
LCS 460-818232/2-A	Lab Control Sample	124	127
LCSD 460-818232/3-A	Lab Control Sample Dup	127	129
MB 460-818232/1-A	Method Blank	117	123
Surrogate Legend			
DCPAA = 2,4-Dichlorophenylacetic acid			

Isotope Dilution Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (10-150)
460-248782-7	TRC-EB-12092021	45
460-248816-D-6-A MS	Matrix Spike	46
460-248816-D-6-B MSD	Matrix Spike Duplicate	45
LCS 460-818294/2-A	Lab Control Sample	47
LCSD 460-818294/3-A	Lab Control Sample Dup	45
MB 460-818294/1-A	Method Blank	48

Surrogate Legend

DXE = 1,4-Dioxane-d8

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: LB3 460-818151/1-A

Matrix: Solid

Analysis Batch: 818339

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818151

Analyte	LB3		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	0.0010	U	0.0010	0.00023	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
1,1,2,2-Tetrachloroethane	0.0010	U	0.0010	0.00021	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0010	U	0.0010	0.00030	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
1,1,2-Trichloroethane	0.0010	U	0.0010	0.00018	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
1,1-Dichloroethane	0.0010	U	0.0010	0.00021	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
1,1-Dichloroethene	0.0010	U	0.0010	0.00023	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
1,2,3-Trichlorobenzene	0.0010	U	0.0010	0.00018	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
1,2,4-Trichlorobenzene	0.0010	U	0.0010	0.00036	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
1,2-Dibromo-3-Chloropropane	0.0010	U	0.0010	0.00046	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
1,2-Dichlorobenzene	0.0010	U	0.0010	0.00036	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
1,2-Dichloroethane	0.0010	U	0.0010	0.00030	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
1,2-Dichloropropane	0.0010	U	0.0010	0.00042	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
1,3-Dichlorobenzene	0.0010	U	0.0010	0.00037	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
1,4-Dichlorobenzene	0.0010	U	0.0010	0.00023	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
2-Butanone (MEK)	0.0050	U	0.0050	0.00037	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
2-Hexanone	0.0050	U	0.0050	0.0017	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
4-Methyl-2-pentanone (MIBK)	0.0050	U	0.0050	0.0016	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Acetone	0.0060	U	0.0060	0.0057	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Benzene	0.0010	U	0.0010	0.00026	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Bromoform	0.0010	U	0.0010	0.00043	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Bromomethane	0.0020	U	0.0020	0.0010	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Carbon disulfide	0.0010	U	0.0010	0.00027	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Carbon tetrachloride	0.0010	U	0.0010	0.00039	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Chlorobenzene	0.0010	U	0.0010	0.00018	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Chlorobromomethane	0.0010	U	0.0010	0.00028	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Chlorodibromomethane	0.0010	U	0.0010	0.00019	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Chloroethane	0.0010	U	0.0010	0.00052	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Chloroform	0.0010	U	0.0010	0.00097	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Chloromethane	0.0010	U	0.0010	0.00044	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
cis-1,2-Dichloroethene	0.0010	U	0.0010	0.00036	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
cis-1,3-Dichloropropene	0.0010	U	0.0010	0.00027	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Cyclohexane	0.0010	U	0.0010	0.00022	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Dichlorobromomethane	0.0010	U	0.0010	0.00026	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Dichlorodifluoromethane	0.0010	U	0.0010	0.00034	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Ethylbenzene	0.0010	U	0.0010	0.00020	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Ethylene Dibromide	0.0010	U	0.0010	0.00018	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Isopropylbenzene	0.0010	U	0.0010	0.00029	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Methyl acetate	0.0050	U	0.0050	0.0043	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Methyl tert-butyl ether	0.0010	U	0.0010	0.00051	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Methylcyclohexane	0.0010	U	0.0010	0.00050	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Methylene Chloride	0.0020	U	0.0020	0.0011	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
m-Xylene & p-Xylene	0.0010	U	0.0010	0.00017	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
o-Xylene	0.0010	U	0.0010	0.00019	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Styrene	0.0010	U	0.0010	0.00028	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Tetrachloroethene	0.0010	U	0.0010	0.00031	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Toluene	0.0010	U	0.0010	0.00023	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
trans-1,2-Dichloroethene	0.0010	U	0.0010	0.00025	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
trans-1,3-Dichloropropene	0.0010	U	0.0010	0.00027	mg/Kg		12/10/21 13:20	12/12/21 04:41	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LB3 460-818151/1-A
Matrix: Solid
Analysis Batch: 818339

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 818151

Analyte	LB3 Result	LB3 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	0.0010	U	0.0010	0.00032	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Trichlorofluoromethane	0.0010	U	0.0010	0.00041	mg/Kg		12/10/21 13:20	12/12/21 04:41	1
Vinyl chloride	0.0010	U	0.0010	0.00055	mg/Kg		12/10/21 13:20	12/12/21 04:41	1

Surrogate	LB3 %Recovery	LB3 Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		77 - 145	12/10/21 13:20	12/12/21 04:41	1
4-Bromofluorobenzene	106		70 - 139	12/10/21 13:20	12/12/21 04:41	1
Dibromofluoromethane (Surr)	107		48 - 150	12/10/21 13:20	12/12/21 04:41	1
Toluene-d8 (Surr)	99		80 - 120	12/10/21 13:20	12/12/21 04:41	1

Lab Sample ID: 460-248782-1 MS
Matrix: Solid
Analysis Batch: 818505

Client Sample ID: TRC-SB-02 (0-0.5)
Prep Type: Total/NA
Prep Batch: 818151

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,1,1-Trichloroethane	0.0027	U	0.0324	0.0336		mg/Kg	☼	104	78 - 132
1,1,2,2-Tetrachloroethane	0.0027	U *	0.0324	0.0402	*	mg/Kg	☼	124	69 - 123
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0027	U	0.0324	0.0410		mg/Kg	☼	127	78 - 136
1,1,2-Trichloroethane	0.0027	U	0.0324	0.0401	*	mg/Kg	☼	124	75 - 120
1,1-Dichloroethane	0.0027	U	0.0324	0.0426	*	mg/Kg	☼	131	76 - 129
1,1-Dichloroethene	0.0027	U	0.0324	0.0422		mg/Kg	☼	130	77 - 132
1,2,3-Trichlorobenzene	0.0027	U	0.0324	0.0172	*	mg/Kg	☼	53	65 - 144
1,2,4-Trichlorobenzene	0.0027	U *	0.0324	0.0201	*	mg/Kg	☼	62	75 - 120
1,2-Dibromo-3-Chloropropane	0.0027	U *	0.0324	0.0326		mg/Kg	☼	101	60 - 126
1,2-Dichlorobenzene	0.0027	U	0.0324	0.0324		mg/Kg	☼	100	80 - 120
1,2-Dichloroethane	0.0027	U	0.0324	0.0316		mg/Kg	☼	98	70 - 132
1,2-Dichloropropane	0.0027	U	0.0324	0.0409	*	mg/Kg	☼	126	73 - 124
1,3-Dichlorobenzene	0.0027	U	0.0324	0.0339		mg/Kg	☼	105	80 - 120
1,4-Dichlorobenzene	0.0027	U	0.0324	0.0333		mg/Kg	☼	103	80 - 120
2-Butanone (MEK)	0.013	U	0.162	0.191		mg/Kg	☼	118	75 - 120
2-Hexanone	0.013	U *	0.162	0.249	*	mg/Kg	☼	154	78 - 120
4-Methyl-2-pentanone (MIBK)	0.013	U *	0.162	0.249	*	mg/Kg	☼	154	80 - 122
Acetone	0.016	U	0.162	0.185		mg/Kg	☼	114	63 - 131
Benzene	0.0027	U	0.0324	0.0367		mg/Kg	☼	113	80 - 123
Bromoform	0.0027	U	0.0324	0.0371		mg/Kg	☼	115	48 - 142
Bromomethane	0.0054	U	0.0324	0.0378		mg/Kg	☼	117	46 - 150
Carbon disulfide	0.0027	U	0.0324	0.0419		mg/Kg	☼	129	67 - 136
Carbon tetrachloride	0.0027	U	0.0324	0.0343		mg/Kg	☼	106	72 - 136
Chlorobenzene	0.0027	U	0.0324	0.0360		mg/Kg	☼	111	80 - 120
Chlorobromomethane	0.0027	U	0.0324	0.0382		mg/Kg	☼	118	76 - 127
Chlorodibromomethane	0.0027	U	0.0324	0.0384		mg/Kg	☼	119	62 - 128
Chloroethane	0.0027	U	0.0324	0.0293		mg/Kg	☼	91	49 - 150
Chloroform	0.0027	U	0.0324	0.0357		mg/Kg	☼	110	79 - 126
Chloromethane	0.0027	U	0.0324	0.0261		mg/Kg	☼	81	48 - 150
cis-1,2-Dichloroethene	0.0027	U	0.0324	0.0390		mg/Kg	☼	120	80 - 123
cis-1,3-Dichloropropene	0.0027	U	0.0324	0.0384		mg/Kg	☼	119	72 - 120
Cyclohexane	0.0027	U	0.0324	0.0348		mg/Kg	☼	108	80 - 132
Dichlorobromomethane	0.0027	U	0.0324	0.0359		mg/Kg	☼	111	73 - 124

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-248782-1 MS

Matrix: Solid

Analysis Batch: 818505

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 818151

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	0.0027	U	0.0324	0.0214		mg/Kg	☼	66	40 - 146
Ethylbenzene	0.0027	U	0.0324	0.0353		mg/Kg	☼	109	80 - 120
Ethylene Dibromide	0.0027	U	0.0324	0.0352		mg/Kg	☼	109	79 - 120
Isopropylbenzene	0.0027	U	0.0324	0.0341		mg/Kg	☼	105	80 - 120
Methyl acetate	0.013	U	0.0648	0.0914		mg/Kg	☼	141	58 - 143
Methyl tert-butyl ether	0.0027	U	0.0324	0.0392		mg/Kg	☼	121	80 - 125
Methylcyclohexane	0.0027	U	0.0324	0.0314		mg/Kg	☼	97	79 - 133
Methylene Chloride	0.0054	U	0.0324	0.0399		mg/Kg	☼	123	76 - 127
m-Xylene & p-Xylene	0.0027	U	0.0324	0.0360		mg/Kg	☼	111	80 - 120
o-Xylene	0.0027	U	0.0324	0.0380		mg/Kg	☼	117	80 - 120
Styrene	0.0027	U	0.0324	0.0367		mg/Kg	☼	113	80 - 120
Tetrachloroethene	0.0031		0.0324	0.0364		mg/Kg	☼	103	78 - 123
Toluene	0.0027	U	0.0324	0.0348		mg/Kg	☼	108	80 - 120
trans-1,2-Dichloroethene	0.0027	U	0.0324	0.0418	*	mg/Kg	☼	129	78 - 128
trans-1,3-Dichloropropene	0.0027	U	0.0324	0.0361		mg/Kg	☼	111	68 - 120
Trichloroethene	0.0027	U	0.0324	0.0366		mg/Kg	☼	113	79 - 120
Trichlorofluoromethane	0.0027	U	0.0324	0.0270		mg/Kg	☼	83	67 - 142
Vinyl chloride	0.0027	U	0.0324	0.0304		mg/Kg	☼	94	56 - 147

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	81		77 - 145
4-Bromofluorobenzene	112		70 - 139
Dibromofluoromethane (Surr)	99		48 - 150
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: 460-248782-1 MSD

Matrix: Solid

Analysis Batch: 818505

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 818151

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,1,1-Trichloroethane	0.0027	U	0.0315	0.0265		mg/Kg	☼	84	78 - 132	24	30
1,1,1,2-Tetrachloroethane	0.0027	U *	0.0315	0.0332		mg/Kg	☼	106	69 - 123	19	30
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0027	U	0.0315	0.0251	*	mg/Kg	☼	80	78 - 136	48	30
1,1,2-Trichloroethane	0.0027	U	0.0315	0.0360		mg/Kg	☼	114	75 - 120	11	30
1,1-Dichloroethane	0.0027	U	0.0315	0.0311	*	mg/Kg	☼	99	76 - 129	31	30
1,1-Dichloroethene	0.0027	U	0.0315	0.0280	*	mg/Kg	☼	89	77 - 132	41	30
1,2,3-Trichlorobenzene	0.0027	U	0.0315	0.0112	*	mg/Kg	☼	36	65 - 144	42	30
1,2,4-Trichlorobenzene	0.0027	U *	0.0315	0.0127	*	mg/Kg	☼	40	75 - 120	45	30
1,2-Dibromo-3-Chloropropane	0.0027	U *	0.0315	0.0269		mg/Kg	☼	85	60 - 126	19	30
1,2-Dichlorobenzene	0.0027	U	0.0315	0.0219	*	mg/Kg	☼	70	80 - 120	39	30
1,2-Dichloroethane	0.0027	U	0.0315	0.0261		mg/Kg	☼	83	70 - 132	19	30
1,2-Dichloropropane	0.0027	U	0.0315	0.0310		mg/Kg	☼	98	73 - 124	28	30
1,3-Dichlorobenzene	0.0027	U	0.0315	0.0230	*	mg/Kg	☼	73	80 - 120	38	30
1,4-Dichlorobenzene	0.0027	U	0.0315	0.0226	*	mg/Kg	☼	72	80 - 120	38	30
2-Butanone (MEK)	0.013	U	0.157	0.166		mg/Kg	☼	105	75 - 120	14	30
2-Hexanone	0.013	U *	0.157	0.184		mg/Kg	☼	117	78 - 120	30	30
4-Methyl-2-pentanone (MIBK)	0.013	U *	0.157	0.202	*	mg/Kg	☼	128	80 - 122	21	30
Acetone	0.016	U	0.157	0.136	*	mg/Kg	☼	86	63 - 131	31	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-248782-1 MSD

Matrix: Solid

Analysis Batch: 818505

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 818151

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0027	U	0.0315	0.0331		mg/Kg	☼	105	80 - 123	10	30
Bromoform	0.0027	U	0.0315	0.0309		mg/Kg	☼	98	48 - 142	18	30
Bromomethane	0.0054	U	0.0315	0.0304		mg/Kg	☼	97	46 - 150	22	30
Carbon disulfide	0.0027	U	0.0315	0.0265	*	mg/Kg	☼	84	67 - 136	45	30
Carbon tetrachloride	0.0027	U	0.0315	0.0260		mg/Kg	☼	83	72 - 136	27	30
Chlorobenzene	0.0027	U	0.0315	0.0279		mg/Kg	☼	89	80 - 120	25	30
Chlorobromomethane	0.0027	U	0.0315	0.0294		mg/Kg	☼	93	76 - 127	26	30
Chlorodibromomethane	0.0027	U	0.0315	0.0341		mg/Kg	☼	108	62 - 128	12	30
Chloroethane	0.0027	U	0.0315	0.0233		mg/Kg	☼	74	49 - 150	23	30
Chloroform	0.0027	U	0.0315	0.0291		mg/Kg	☼	92	79 - 126	21	30
Chloromethane	0.0027	U	0.0315	0.0219		mg/Kg	☼	69	48 - 150	18	30
cis-1,2-Dichloroethene	0.0027	U	0.0315	0.0289		mg/Kg	☼	92	80 - 123	30	30
cis-1,3-Dichloropropene	0.0027	U	0.0315	0.0332		mg/Kg	☼	105	72 - 120	15	30
Cyclohexane	0.0027	U	0.0315	0.0254	*	mg/Kg	☼	81	80 - 132	31	30
Dichlorobromomethane	0.0027	U	0.0315	0.0275		mg/Kg	☼	87	73 - 124	26	30
Dichlorodifluoromethane	0.0027	U	0.0315	0.0186		mg/Kg	☼	59	40 - 146	14	30
Ethylbenzene	0.0027	U	0.0315	0.0275		mg/Kg	☼	87	80 - 120	25	30
Ethylene Dibromide	0.0027	U	0.0315	0.0307		mg/Kg	☼	98	79 - 120	14	30
Isopropylbenzene	0.0027	U	0.0315	0.0254		mg/Kg	☼	81	80 - 120	29	30
Methyl acetate	0.013	U	0.0630	0.0711		mg/Kg	☼	113	58 - 143	25	30
Methyl tert-butyl ether	0.0027	U	0.0315	0.0277	*	mg/Kg	☼	88	80 - 125	34	30
Methylcyclohexane	0.0027	U	0.0315	0.0215	*	mg/Kg	☼	68	79 - 133	37	30
Methylene Chloride	0.0054	U	0.0315	0.0262	*	mg/Kg	☼	83	76 - 127	41	30
m-Xylene & p-Xylene	0.0027	U	0.0315	0.0277		mg/Kg	☼	88	80 - 120	26	30
o-Xylene	0.0027	U	0.0315	0.0288		mg/Kg	☼	91	80 - 120	28	30
Styrene	0.0027	U	0.0315	0.0278		mg/Kg	☼	88	80 - 120	27	30
Tetrachloroethene	0.0031		0.0315	0.0307		mg/Kg	☼	88	78 - 123	17	30
Toluene	0.0027	U	0.0315	0.0290		mg/Kg	☼	92	80 - 120	18	30
trans-1,2-Dichloroethene	0.0027	U	0.0315	0.0256	*	mg/Kg	☼	81	78 - 128	48	30
trans-1,3-Dichloropropene	0.0027	U	0.0315	0.0317		mg/Kg	☼	101	68 - 120	13	30
Trichloroethene	0.0027	U	0.0315	0.0262	*	mg/Kg	☼	83	79 - 120	33	30
Trichlorofluoromethane	0.0027	U	0.0315	0.0208	*	mg/Kg	☼	66	67 - 142	26	30
Vinyl chloride	0.0027	U	0.0315	0.0240		mg/Kg	☼	76	56 - 147	23	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		77 - 145
4-Bromofluorobenzene	114		70 - 139
Dibromofluoromethane (Surr)	102		48 - 150
Toluene-d8 (Surr)	115		80 - 120

Lab Sample ID: MB 460-818214/8

Matrix: Water

Analysis Batch: 818214

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/10/21 21:44	1
1,1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/10/21 21:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			12/10/21 21:44	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-818214/8

Matrix: Water

Analysis Batch: 818214

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			12/10/21 21:44	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/10/21 21:44	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			12/10/21 21:44	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			12/10/21 21:44	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			12/10/21 21:44	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			12/10/21 21:44	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			12/10/21 21:44	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			12/10/21 21:44	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/10/21 21:44	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			12/10/21 21:44	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			12/10/21 21:44	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			12/10/21 21:44	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			12/10/21 21:44	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			12/10/21 21:44	1
Acetone	5.0	U	5.0	4.4	ug/L			12/10/21 21:44	1
Benzene	1.0	U	1.0	0.20	ug/L			12/10/21 21:44	1
Bromoform	1.0	U	1.0	0.54	ug/L			12/10/21 21:44	1
Bromomethane	1.0	U	1.0	0.55	ug/L			12/10/21 21:44	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			12/10/21 21:44	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/10/21 21:44	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/10/21 21:44	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			12/10/21 21:44	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/10/21 21:44	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/10/21 21:44	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/10/21 21:44	1
Chloromethane	1.0	U	1.0	0.40	ug/L			12/10/21 21:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/10/21 21:44	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			12/10/21 21:44	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			12/10/21 21:44	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/10/21 21:44	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			12/10/21 21:44	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			12/10/21 21:44	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			12/10/21 21:44	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			12/10/21 21:44	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			12/10/21 21:44	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			12/10/21 21:44	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			12/10/21 21:44	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/10/21 21:44	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			12/10/21 21:44	1
o-Xylene	1.0	U	1.0	0.36	ug/L			12/10/21 21:44	1
Styrene	1.0	U	1.0	0.42	ug/L			12/10/21 21:44	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			12/10/21 21:44	1
Toluene	1.0	U	1.0	0.38	ug/L			12/10/21 21:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/10/21 21:44	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			12/10/21 21:44	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/10/21 21:44	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			12/10/21 21:44	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/10/21 21:44	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-818214/8

Matrix: Water

Analysis Batch: 818214

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		75 - 123		12/10/21 21:44	1
4-Bromofluorobenzene	102		76 - 120		12/10/21 21:44	1
Dibromofluoromethane (Surr)	103		77 - 124		12/10/21 21:44	1
Toluene-d8 (Surr)	103		80 - 120		12/10/21 21:44	1

Lab Sample ID: LCS 460-818214/4

Matrix: Water

Analysis Batch: 818214

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	19.0		ug/L		95	68 - 128
1,1,1,2-Tetrachloroethane	20.0	19.0		ug/L		95	63 - 139
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.4		ug/L		102	59 - 142
1,1,2-Trichloroethane	20.0	18.2		ug/L		91	74 - 125
1,1-Dichloroethane	20.0	19.0		ug/L		95	73 - 130
1,1-Dichloroethene	20.0	18.5		ug/L		93	68 - 133
1,2,3-Trichlorobenzene	20.0	18.3		ug/L		91	53 - 144
1,2,4-Trichlorobenzene	20.0	18.3		ug/L		92	64 - 132
1,2-Dibromo-3-Chloropropane	20.0	17.4		ug/L		87	41 - 143
1,2-Dichlorobenzene	20.0	18.7		ug/L		94	79 - 122
1,2-Dichloroethane	20.0	18.2		ug/L		91	75 - 121
1,2-Dichloropropane	20.0	18.5		ug/L		92	76 - 126
1,3-Dichlorobenzene	20.0	18.1		ug/L		90	80 - 121
1,4-Dichlorobenzene	20.0	17.8		ug/L		89	80 - 118
2-Butanone (MEK)	100	96.8		ug/L		97	69 - 128
2-Hexanone	100	99.0		ug/L		99	74 - 127
4-Methyl-2-pentanone (MIBK)	100	103		ug/L		103	69 - 128
Acetone	100	87.1		ug/L		87	61 - 134
Benzene	20.0	18.6		ug/L		93	78 - 126
Bromoform	20.0	18.6		ug/L		93	38 - 144
Bromomethane	20.0	19.2		ug/L		96	43 - 150
Carbon disulfide	20.0	18.9		ug/L		95	64 - 138
Carbon tetrachloride	20.0	19.1		ug/L		96	56 - 131
Chlorobenzene	20.0	18.6		ug/L		93	80 - 119
Chlorobromomethane	20.0	20.3		ug/L		101	73 - 126
Chlorodibromomethane	20.0	18.8		ug/L		94	58 - 130
Chloroethane	20.0	20.3		ug/L		102	50 - 150
Chloroform	20.0	19.4		ug/L		97	78 - 125
Chloromethane	20.0	15.8		ug/L		79	38 - 150
cis-1,2-Dichloroethene	20.0	19.2		ug/L		96	78 - 121
cis-1,3-Dichloropropene	20.0	18.4		ug/L		92	74 - 125
Cyclohexane	20.0	19.7		ug/L		99	67 - 133
Dichlorobromomethane	20.0	18.5		ug/L		93	72 - 121
Dichlorodifluoromethane	20.0	14.1		ug/L		70	31 - 150
Ethylbenzene	20.0	18.8		ug/L		94	78 - 120
Ethylene Dibromide	20.0	18.5		ug/L		92	69 - 126
Isopropylbenzene	20.0	19.3		ug/L		97	79 - 125
Methyl acetate	40.0	34.8		ug/L		87	70 - 127

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-818214/4

Matrix: Water

Analysis Batch: 818214

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	20.0	19.5		ug/L		98	65 - 131
Methylcyclohexane	20.0	20.1		ug/L		100	60 - 139
Methylene Chloride	20.0	18.9		ug/L		95	74 - 127
m-Xylene & p-Xylene	20.0	18.7		ug/L		94	78 - 123
o-Xylene	20.0	19.1		ug/L		95	78 - 122
Styrene	20.0	19.3		ug/L		97	75 - 127
Tetrachloroethene	20.0	18.5		ug/L		93	70 - 127
Toluene	20.0	18.2		ug/L		91	78 - 119
trans-1,2-Dichloroethene	20.0	19.1		ug/L		96	74 - 126
trans-1,3-Dichloropropene	20.0	18.0		ug/L		90	66 - 127
Trichloroethene	20.0	18.0		ug/L		90	71 - 121
Trichlorofluoromethane	20.0	19.6		ug/L		98	61 - 140
Vinyl chloride	20.0	16.4		ug/L		82	61 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		75 - 123
4-Bromofluorobenzene	102		76 - 120
Dibromofluoromethane (Surr)	104		77 - 124
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: LCSD 460-818214/5

Matrix: Water

Analysis Batch: 818214

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	20.1		ug/L		101	68 - 128	6	30
1,1,2,2-Tetrachloroethane	20.0	21.1		ug/L		106	63 - 139	11	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.6		ug/L		108	59 - 142	6	30
1,1,2-Trichloroethane	20.0	19.8		ug/L		99	74 - 125	8	30
1,1-Dichloroethane	20.0	20.4		ug/L		102	73 - 130	7	30
1,1-Dichloroethene	20.0	20.2		ug/L		101	68 - 133	9	30
1,2,3-Trichlorobenzene	20.0	20.4		ug/L		102	53 - 144	11	30
1,2,4-Trichlorobenzene	20.0	20.1		ug/L		101	64 - 132	9	30
1,2-Dibromo-3-Chloropropane	20.0	18.8		ug/L		94	41 - 143	8	30
1,2-Dichlorobenzene	20.0	20.9		ug/L		104	79 - 122	11	30
1,2-Dichloroethane	20.0	19.3		ug/L		96	75 - 121	6	30
1,2-Dichloropropane	20.0	19.9		ug/L		100	76 - 126	7	30
1,3-Dichlorobenzene	20.0	20.2		ug/L		101	80 - 121	11	30
1,4-Dichlorobenzene	20.0	20.3		ug/L		102	80 - 118	13	30
2-Butanone (MEK)	100	101		ug/L		101	69 - 128	4	30
2-Hexanone	100	104		ug/L		104	74 - 127	5	30
4-Methyl-2-pentanone (MIBK)	100	106		ug/L		106	69 - 128	4	30
Acetone	100	92.7		ug/L		93	61 - 134	6	30
Benzene	20.0	20.2		ug/L		101	78 - 126	8	30
Bromoform	20.0	20.0		ug/L		100	38 - 144	7	30
Bromomethane	20.0	19.6		ug/L		98	43 - 150	2	30
Carbon disulfide	20.0	20.3		ug/L		101	64 - 138	7	30
Carbon tetrachloride	20.0	20.4		ug/L		102	56 - 131	7	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-818214/5

Matrix: Water

Analysis Batch: 818214

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorobenzene	20.0	20.0		ug/L		100	80 - 119	8	30
Chlorobromomethane	20.0	21.0		ug/L		105	73 - 126	3	30
Chlorodibromomethane	20.0	20.5		ug/L		103	58 - 130	9	30
Chloroethane	20.0	21.1		ug/L		106	50 - 150	4	30
Chloroform	20.0	20.8		ug/L		104	78 - 125	7	30
Chloromethane	20.0	16.2		ug/L		81	38 - 150	3	30
cis-1,2-Dichloroethene	20.0	20.6		ug/L		103	78 - 121	7	30
cis-1,3-Dichloropropene	20.0	20.1		ug/L		101	74 - 125	9	30
Cyclohexane	20.0	21.2		ug/L		106	67 - 133	7	30
Dichlorobromomethane	20.0	19.7		ug/L		99	72 - 121	7	30
Dichlorodifluoromethane	20.0	15.4		ug/L		77	31 - 150	9	30
Ethylbenzene	20.0	20.4		ug/L		102	78 - 120	8	30
Ethylene Dibromide	20.0	20.1		ug/L		100	69 - 126	8	30
Isopropylbenzene	20.0	20.9		ug/L		105	79 - 125	8	30
Methyl acetate	40.0	37.3		ug/L		93	70 - 127	7	30
Methyl tert-butyl ether	20.0	20.7		ug/L		104	65 - 131	6	30
Methylcyclohexane	20.0	21.4		ug/L		107	60 - 139	6	30
Methylene Chloride	20.0	20.4		ug/L		102	74 - 127	7	30
m-Xylene & p-Xylene	20.0	20.7		ug/L		104	78 - 123	10	30
o-Xylene	20.0	20.4		ug/L		102	78 - 122	7	30
Styrene	20.0	20.9		ug/L		104	75 - 127	8	30
Tetrachloroethene	20.0	20.4		ug/L		102	70 - 127	10	30
Toluene	20.0	19.8		ug/L		99	78 - 119	9	30
trans-1,2-Dichloroethene	20.0	20.4		ug/L		102	74 - 126	6	30
trans-1,3-Dichloropropene	20.0	19.2		ug/L		96	66 - 127	7	30
Trichloroethene	20.0	19.7		ug/L		98	71 - 121	9	30
Trichlorofluoromethane	20.0	20.1		ug/L		101	61 - 140	3	30
Vinyl chloride	20.0	17.2		ug/L		86	61 - 144	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		75 - 123
4-Bromofluorobenzene	99		76 - 120
Dibromofluoromethane (Surr)	104		77 - 124
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: MB 460-818339/9

Matrix: Solid

Analysis Batch: 818339

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0010	U	0.0010	0.00023	mg/Kg			12/11/21 22:14	1
1,1,2,2-Tetrachloroethane	0.0010	U	0.0010	0.00021	mg/Kg			12/11/21 22:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0010	U	0.0010	0.00030	mg/Kg			12/11/21 22:14	1
1,1,2-Trichloroethane	0.0010	U	0.0010	0.00018	mg/Kg			12/11/21 22:14	1
1,1-Dichloroethane	0.0010	U	0.0010	0.00021	mg/Kg			12/11/21 22:14	1
1,1-Dichloroethene	0.0010	U	0.0010	0.00023	mg/Kg			12/11/21 22:14	1
1,2,3-Trichlorobenzene	0.0010	U	0.0010	0.00018	mg/Kg			12/11/21 22:14	1
1,2,4-Trichlorobenzene	0.0010	U	0.0010	0.00036	mg/Kg			12/11/21 22:14	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-818339/9

Matrix: Solid

Analysis Batch: 818339

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0010	U	0.0010	0.00046	mg/Kg			12/11/21 22:14	1
1,2-Dichlorobenzene	0.0010	U	0.0010	0.00036	mg/Kg			12/11/21 22:14	1
1,2-Dichloroethane	0.0010	U	0.0010	0.00030	mg/Kg			12/11/21 22:14	1
1,2-Dichloropropane	0.0010	U	0.0010	0.00042	mg/Kg			12/11/21 22:14	1
1,3-Dichlorobenzene	0.0010	U	0.0010	0.00037	mg/Kg			12/11/21 22:14	1
1,4-Dichlorobenzene	0.0010	U	0.0010	0.00023	mg/Kg			12/11/21 22:14	1
2-Butanone (MEK)	0.0050	U	0.0050	0.00037	mg/Kg			12/11/21 22:14	1
2-Hexanone	0.0050	U	0.0050	0.0017	mg/Kg			12/11/21 22:14	1
4-Methyl-2-pentanone (MIBK)	0.0050	U	0.0050	0.0016	mg/Kg			12/11/21 22:14	1
Acetone	0.0060	U	0.0060	0.0057	mg/Kg			12/11/21 22:14	1
Benzene	0.0010	U	0.0010	0.00026	mg/Kg			12/11/21 22:14	1
Bromoform	0.0010	U	0.0010	0.00043	mg/Kg			12/11/21 22:14	1
Bromomethane	0.0020	U	0.0020	0.0010	mg/Kg			12/11/21 22:14	1
Carbon disulfide	0.0010	U	0.0010	0.00027	mg/Kg			12/11/21 22:14	1
Carbon tetrachloride	0.0010	U	0.0010	0.00039	mg/Kg			12/11/21 22:14	1
Chlorobenzene	0.0010	U	0.0010	0.00018	mg/Kg			12/11/21 22:14	1
Chlorobromomethane	0.0010	U	0.0010	0.00028	mg/Kg			12/11/21 22:14	1
Chlorodibromomethane	0.0010	U	0.0010	0.00019	mg/Kg			12/11/21 22:14	1
Chloroethane	0.0010	U	0.0010	0.00052	mg/Kg			12/11/21 22:14	1
Chloroform	0.0010	U	0.0010	0.00097	mg/Kg			12/11/21 22:14	1
Chloromethane	0.0010	U	0.0010	0.00044	mg/Kg			12/11/21 22:14	1
cis-1,2-Dichloroethene	0.0010	U	0.0010	0.00036	mg/Kg			12/11/21 22:14	1
cis-1,3-Dichloropropene	0.0010	U	0.0010	0.00027	mg/Kg			12/11/21 22:14	1
Cyclohexane	0.0010	U	0.0010	0.00022	mg/Kg			12/11/21 22:14	1
Dichlorobromomethane	0.0010	U	0.0010	0.00026	mg/Kg			12/11/21 22:14	1
Dichlorodifluoromethane	0.0010	U	0.0010	0.00034	mg/Kg			12/11/21 22:14	1
Ethylbenzene	0.0010	U	0.0010	0.00020	mg/Kg			12/11/21 22:14	1
Ethylene Dibromide	0.0010	U	0.0010	0.00018	mg/Kg			12/11/21 22:14	1
Isopropylbenzene	0.0010	U	0.0010	0.00029	mg/Kg			12/11/21 22:14	1
Methyl acetate	0.0050	U	0.0050	0.0043	mg/Kg			12/11/21 22:14	1
Methyl tert-butyl ether	0.0010	U	0.0010	0.00051	mg/Kg			12/11/21 22:14	1
Methylcyclohexane	0.0010	U	0.0010	0.00050	mg/Kg			12/11/21 22:14	1
Methylene Chloride	0.0020	U	0.0020	0.0011	mg/Kg			12/11/21 22:14	1
m-Xylene & p-Xylene	0.0010	U	0.0010	0.00017	mg/Kg			12/11/21 22:14	1
o-Xylene	0.0010	U	0.0010	0.00019	mg/Kg			12/11/21 22:14	1
Styrene	0.0010	U	0.0010	0.00028	mg/Kg			12/11/21 22:14	1
Tetrachloroethene	0.0010	U	0.0010	0.00031	mg/Kg			12/11/21 22:14	1
Toluene	0.0010	U	0.0010	0.00023	mg/Kg			12/11/21 22:14	1
trans-1,2-Dichloroethene	0.0010	U	0.0010	0.00025	mg/Kg			12/11/21 22:14	1
trans-1,3-Dichloropropene	0.0010	U	0.0010	0.00027	mg/Kg			12/11/21 22:14	1
Trichloroethene	0.0010	U	0.0010	0.00032	mg/Kg			12/11/21 22:14	1
Trichlorofluoromethane	0.0010	U	0.0010	0.00041	mg/Kg			12/11/21 22:14	1
Vinyl chloride	0.0010	U	0.0010	0.00055	mg/Kg			12/11/21 22:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		77 - 145		12/11/21 22:14	1
4-Bromofluorobenzene	104		70 - 139		12/11/21 22:14	1
Dibromofluoromethane (Surr)	106		48 - 150		12/11/21 22:14	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-818339/9

Matrix: Solid

Analysis Batch: 818339

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120		12/11/21 22:14	1

Lab Sample ID: LCS 460-818339/4

Matrix: Solid

Analysis Batch: 818339

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.0200	0.0191		mg/Kg		96	78 - 132
1,1,1,2-Tetrachloroethane	0.0200	0.0198		mg/Kg		99	69 - 123
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0200	0.0227		mg/Kg		114	78 - 136
1,1,2-Trichloroethane	0.0200	0.0203		mg/Kg		102	75 - 120
1,1-Dichloroethane	0.0200	0.0216		mg/Kg		108	76 - 129
1,1-Dichloroethene	0.0200	0.0223		mg/Kg		112	77 - 132
1,2,3-Trichlorobenzene	0.0200	0.0195		mg/Kg		98	65 - 144
1,2,4-Trichlorobenzene	0.0200	0.0189		mg/Kg		95	75 - 120
1,2-Dibromo-3-Chloropropane	0.0200	0.0185		mg/Kg		92	60 - 126
1,2-Dichlorobenzene	0.0200	0.0195		mg/Kg		98	80 - 120
1,2-Dichloroethane	0.0200	0.0183		mg/Kg		91	70 - 132
1,2-Dichloropropane	0.0200	0.0220		mg/Kg		110	73 - 124
1,3-Dichlorobenzene	0.0200	0.0206		mg/Kg		103	80 - 120
1,4-Dichlorobenzene	0.0200	0.0199		mg/Kg		99	80 - 120
2-Butanone (MEK)	0.100	0.0931		mg/Kg		93	75 - 120
2-Hexanone	0.100	0.105		mg/Kg		105	78 - 120
4-Methyl-2-pentanone (MIBK)	0.100	0.102		mg/Kg		102	80 - 122
Acetone	0.100	0.0823		mg/Kg		82	63 - 131
Benzene	0.0200	0.0207		mg/Kg		104	80 - 123
Bromoform	0.0200	0.0202		mg/Kg		101	48 - 142
Bromomethane	0.0200	0.0245		mg/Kg		123	46 - 150
Carbon disulfide	0.0200	0.0227		mg/Kg		113	67 - 136
Carbon tetrachloride	0.0200	0.0194		mg/Kg		97	72 - 136
Chlorobenzene	0.0200	0.0200		mg/Kg		100	80 - 120
Chlorobromomethane	0.0200	0.0211		mg/Kg		105	76 - 127
Chlorodibromomethane	0.0200	0.0202		mg/Kg		101	62 - 128
Chloroethane	0.0200	0.0207		mg/Kg		104	49 - 150
Chloroform	0.0200	0.0200		mg/Kg		100	79 - 126
Chloromethane	0.0200	0.0211		mg/Kg		106	48 - 150
cis-1,2-Dichloroethene	0.0200	0.0216		mg/Kg		108	80 - 123
cis-1,3-Dichloropropene	0.0200	0.0205		mg/Kg		102	72 - 120
Cyclohexane	0.0200	0.0225		mg/Kg		112	80 - 132
Dichlorobromomethane	0.0200	0.0202		mg/Kg		101	73 - 124
Dichlorodifluoromethane	0.0200	0.0183		mg/Kg		92	40 - 146
Ethylbenzene	0.0200	0.0207		mg/Kg		104	80 - 120
Ethylene Dibromide	0.0200	0.0192		mg/Kg		96	79 - 120
Isopropylbenzene	0.0200	0.0207		mg/Kg		103	80 - 120
Methyl acetate	0.0400	0.0440		mg/Kg		110	58 - 143
Methyl tert-butyl ether	0.0200	0.0206		mg/Kg		103	80 - 125
Methylcyclohexane	0.0200	0.0224		mg/Kg		112	79 - 133
Methylene Chloride	0.0200	0.0201		mg/Kg		100	76 - 127

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-818339/4

Matrix: Solid

Analysis Batch: 818339

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
m-Xylene & p-Xylene	0.0200	0.0209		mg/Kg		104	80 - 120
o-Xylene	0.0200	0.0218		mg/Kg		109	80 - 120
Styrene	0.0200	0.0211		mg/Kg		106	80 - 120
Tetrachloroethene	0.0200	0.0198		mg/Kg		99	78 - 123
Toluene	0.0200	0.0192		mg/Kg		96	80 - 120
trans-1,2-Dichloroethene	0.0200	0.0216		mg/Kg		108	78 - 128
trans-1,3-Dichloropropene	0.0200	0.0198		mg/Kg		99	68 - 120
Trichloroethene	0.0200	0.0205		mg/Kg		102	79 - 120
Trichlorofluoromethane	0.0200	0.0209		mg/Kg		104	67 - 142
Vinyl chloride	0.0200	0.0217		mg/Kg		109	56 - 147

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		77 - 145
4-Bromofluorobenzene	102		70 - 139
Dibromofluoromethane (Surr)	102		48 - 150
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: LCSD 460-818339/5

Matrix: Solid

Analysis Batch: 818339

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.0200	0.0191		mg/Kg		96	78 - 132	0	30
1,1,2,2-Tetrachloroethane	0.0200	0.0215		mg/Kg		108	69 - 123	8	30
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0200	0.0222		mg/Kg		111	78 - 136	2	30
1,1,2-Trichloroethane	0.0200	0.0213		mg/Kg		106	75 - 120	5	30
1,1-Dichloroethane	0.0200	0.0218		mg/Kg		109	76 - 129	1	30
1,1-Dichloroethene	0.0200	0.0223		mg/Kg		112	77 - 132	0	30
1,2,3-Trichlorobenzene	0.0200	0.0199		mg/Kg		100	65 - 144	2	30
1,2,4-Trichlorobenzene	0.0200	0.0198		mg/Kg		99	75 - 120	5	30
1,2-Dibromo-3-Chloropropane	0.0200	0.0201		mg/Kg		100	60 - 126	8	30
1,2-Dichlorobenzene	0.0200	0.0201		mg/Kg		101	80 - 120	3	30
1,2-Dichloroethane	0.0200	0.0185		mg/Kg		92	70 - 132	1	30
1,2-Dichloropropane	0.0200	0.0225		mg/Kg		113	73 - 124	2	30
1,3-Dichlorobenzene	0.0200	0.0216		mg/Kg		108	80 - 120	5	30
1,4-Dichlorobenzene	0.0200	0.0209		mg/Kg		105	80 - 120	5	30
2-Butanone (MEK)	0.100	0.0979		mg/Kg		98	75 - 120	5	30
2-Hexanone	0.100	0.106		mg/Kg		106	78 - 120	1	30
4-Methyl-2-pentanone (MIBK)	0.100	0.107		mg/Kg		107	80 - 122	4	30
Acetone	0.100	0.0870		mg/Kg		87	63 - 131	6	30
Benzene	0.0200	0.0219		mg/Kg		110	80 - 123	6	30
Bromoform	0.0200	0.0215		mg/Kg		108	48 - 142	6	30
Bromomethane	0.0200	0.0244		mg/Kg		122	46 - 150	1	30
Carbon disulfide	0.0200	0.0224		mg/Kg		112	67 - 136	1	30
Carbon tetrachloride	0.0200	0.0196		mg/Kg		98	72 - 136	1	30
Chlorobenzene	0.0200	0.0206		mg/Kg		103	80 - 120	3	30
Chlorobromomethane	0.0200	0.0221		mg/Kg		111	76 - 127	5	30
Chlorodibromomethane	0.0200	0.0204		mg/Kg		102	62 - 128	1	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-818339/5

Matrix: Solid

Analysis Batch: 818339

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroethane	0.0200	0.0201		mg/Kg		101	49 - 150	3	30
Chloroform	0.0200	0.0198		mg/Kg		99	79 - 126	1	30
Chloromethane	0.0200	0.0196		mg/Kg		98	48 - 150	7	30
cis-1,2-Dichloroethene	0.0200	0.0215		mg/Kg		107	80 - 123	0	30
cis-1,3-Dichloropropene	0.0200	0.0218		mg/Kg		109	72 - 120	6	30
Cyclohexane	0.0200	0.0220		mg/Kg		110	80 - 132	2	30
Dichlorobromomethane	0.0200	0.0202		mg/Kg		101	73 - 124	0	30
Dichlorodifluoromethane	0.0200	0.0175		mg/Kg		88	40 - 146	4	30
Ethylbenzene	0.0200	0.0213		mg/Kg		106	80 - 120	3	30
Ethylene Dibromide	0.0200	0.0206		mg/Kg		103	79 - 120	7	30
Isopropylbenzene	0.0200	0.0214		mg/Kg		107	80 - 120	4	30
Methyl acetate	0.0400	0.0453		mg/Kg		113	58 - 143	3	30
Methyl tert-butyl ether	0.0200	0.0212		mg/Kg		106	80 - 125	3	30
Methylcyclohexane	0.0200	0.0220		mg/Kg		110	79 - 133	2	30
Methylene Chloride	0.0200	0.0204		mg/Kg		102	76 - 127	1	30
m-Xylene & p-Xylene	0.0200	0.0211		mg/Kg		105	80 - 120	1	30
o-Xylene	0.0200	0.0222		mg/Kg		111	80 - 120	2	30
Styrene	0.0200	0.0210		mg/Kg		105	80 - 120	0	30
Tetrachloroethene	0.0200	0.0209		mg/Kg		105	78 - 123	6	30
Toluene	0.0200	0.0200		mg/Kg		100	80 - 120	4	30
trans-1,2-Dichloroethene	0.0200	0.0217		mg/Kg		109	78 - 128	1	30
trans-1,3-Dichloropropene	0.0200	0.0206		mg/Kg		103	68 - 120	4	30
Trichloroethene	0.0200	0.0205		mg/Kg		102	79 - 120	0	30
Trichlorofluoromethane	0.0200	0.0201		mg/Kg		101	67 - 142	4	30
Vinyl chloride	0.0200	0.0216		mg/Kg		108	56 - 147	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		77 - 145
4-Bromofluorobenzene	111		70 - 139
Dibromofluoromethane (Surr)	103		48 - 150
Toluene-d8 (Surr)	106		80 - 120

Lab Sample ID: MB 460-818505/8

Matrix: Solid

Analysis Batch: 818505

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0010	U	0.0010	0.00023	mg/Kg			12/13/21 08:52	1
1,1,2,2-Tetrachloroethane	0.0010	U	0.0010	0.00021	mg/Kg			12/13/21 08:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0010	U	0.0010	0.00030	mg/Kg			12/13/21 08:52	1
1,1,2-Trichloroethane	0.0010	U	0.0010	0.00018	mg/Kg			12/13/21 08:52	1
1,1-Dichloroethane	0.0010	U	0.0010	0.00021	mg/Kg			12/13/21 08:52	1
1,1-Dichloroethene	0.0010	U	0.0010	0.00023	mg/Kg			12/13/21 08:52	1
1,2,3-Trichlorobenzene	0.0010	U	0.0010	0.00018	mg/Kg			12/13/21 08:52	1
1,2,4-Trichlorobenzene	0.0010	U	0.0010	0.00036	mg/Kg			12/13/21 08:52	1
1,2-Dibromo-3-Chloropropane	0.0010	U	0.0010	0.00046	mg/Kg			12/13/21 08:52	1
1,2-Dichlorobenzene	0.0010	U	0.0010	0.00036	mg/Kg			12/13/21 08:52	1
1,2-Dichloroethane	0.0010	U	0.0010	0.00030	mg/Kg			12/13/21 08:52	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-818505/8

Matrix: Solid

Analysis Batch: 818505

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	0.0010	U	0.0010	0.00042	mg/Kg			12/13/21 08:52	1
1,3-Dichlorobenzene	0.0010	U	0.0010	0.00037	mg/Kg			12/13/21 08:52	1
1,4-Dichlorobenzene	0.0010	U	0.0010	0.00023	mg/Kg			12/13/21 08:52	1
2-Butanone (MEK)	0.0050	U	0.0050	0.00037	mg/Kg			12/13/21 08:52	1
2-Hexanone	0.0050	U	0.0050	0.0017	mg/Kg			12/13/21 08:52	1
4-Methyl-2-pentanone (MIBK)	0.0050	U	0.0050	0.0016	mg/Kg			12/13/21 08:52	1
Acetone	0.0060	U	0.0060	0.0057	mg/Kg			12/13/21 08:52	1
Benzene	0.0010	U	0.0010	0.00026	mg/Kg			12/13/21 08:52	1
Bromoform	0.0010	U	0.0010	0.00043	mg/Kg			12/13/21 08:52	1
Bromomethane	0.0020	U	0.0020	0.0010	mg/Kg			12/13/21 08:52	1
Carbon disulfide	0.0010	U	0.0010	0.00027	mg/Kg			12/13/21 08:52	1
Carbon tetrachloride	0.0010	U	0.0010	0.00039	mg/Kg			12/13/21 08:52	1
Chlorobenzene	0.0010	U	0.0010	0.00018	mg/Kg			12/13/21 08:52	1
Chlorobromomethane	0.0010	U	0.0010	0.00028	mg/Kg			12/13/21 08:52	1
Chlorodibromomethane	0.0010	U	0.0010	0.00019	mg/Kg			12/13/21 08:52	1
Chloroethane	0.0010	U	0.0010	0.00052	mg/Kg			12/13/21 08:52	1
Chloroform	0.0010	U	0.0010	0.00097	mg/Kg			12/13/21 08:52	1
Chloromethane	0.0010	U	0.0010	0.00044	mg/Kg			12/13/21 08:52	1
cis-1,2-Dichloroethene	0.0010	U	0.0010	0.00036	mg/Kg			12/13/21 08:52	1
cis-1,3-Dichloropropene	0.0010	U	0.0010	0.00027	mg/Kg			12/13/21 08:52	1
Cyclohexane	0.0010	U	0.0010	0.00022	mg/Kg			12/13/21 08:52	1
Dichlorobromomethane	0.0010	U	0.0010	0.00026	mg/Kg			12/13/21 08:52	1
Dichlorodifluoromethane	0.0010	U	0.0010	0.00034	mg/Kg			12/13/21 08:52	1
Ethylbenzene	0.0010	U	0.0010	0.00020	mg/Kg			12/13/21 08:52	1
Ethylene Dibromide	0.0010	U	0.0010	0.00018	mg/Kg			12/13/21 08:52	1
Isopropylbenzene	0.0010	U	0.0010	0.00029	mg/Kg			12/13/21 08:52	1
Methyl acetate	0.0050	U	0.0050	0.0043	mg/Kg			12/13/21 08:52	1
Methyl tert-butyl ether	0.0010	U	0.0010	0.00051	mg/Kg			12/13/21 08:52	1
Methylcyclohexane	0.0010	U	0.0010	0.00050	mg/Kg			12/13/21 08:52	1
Methylene Chloride	0.0020	U	0.0020	0.0011	mg/Kg			12/13/21 08:52	1
m-Xylene & p-Xylene	0.0010	U	0.0010	0.00017	mg/Kg			12/13/21 08:52	1
o-Xylene	0.0010	U	0.0010	0.00019	mg/Kg			12/13/21 08:52	1
Styrene	0.0010	U	0.0010	0.00028	mg/Kg			12/13/21 08:52	1
Tetrachloroethene	0.0010	U	0.0010	0.00031	mg/Kg			12/13/21 08:52	1
Toluene	0.0010	U	0.0010	0.00023	mg/Kg			12/13/21 08:52	1
trans-1,2-Dichloroethene	0.0010	U	0.0010	0.00025	mg/Kg			12/13/21 08:52	1
trans-1,3-Dichloropropene	0.0010	U	0.0010	0.00027	mg/Kg			12/13/21 08:52	1
Trichloroethene	0.0010	U	0.0010	0.00032	mg/Kg			12/13/21 08:52	1
Trichlorofluoromethane	0.0010	U	0.0010	0.00041	mg/Kg			12/13/21 08:52	1
Vinyl chloride	0.0010	U	0.0010	0.00055	mg/Kg			12/13/21 08:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		77 - 145		12/13/21 08:52	1
4-Bromofluorobenzene	105		70 - 139		12/13/21 08:52	1
Dibromofluoromethane (Surr)	104		48 - 150		12/13/21 08:52	1
Toluene-d8 (Surr)	100		80 - 120		12/13/21 08:52	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-818505/4

Matrix: Solid

Analysis Batch: 818505

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.0200	0.0195		mg/Kg		97	78 - 132
1,1,2,2-Tetrachloroethane	0.0200	0.0278	*	mg/Kg		139	69 - 123
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0200	0.0245		mg/Kg		122	78 - 136
1,1,2-Trichloroethane	0.0200	0.0226		mg/Kg		113	75 - 120
1,1-Dichloroethane	0.0200	0.0225		mg/Kg		112	76 - 129
1,1-Dichloroethene	0.0200	0.0245		mg/Kg		122	77 - 132
1,2,3-Trichlorobenzene	0.0200	0.0252		mg/Kg		126	65 - 144
1,2,4-Trichlorobenzene	0.0200	0.0243	*	mg/Kg		121	75 - 120
1,2-Dibromo-3-Chloropropane	0.0200	0.0269	*	mg/Kg		135	60 - 126
1,2-Dichlorobenzene	0.0200	0.0237		mg/Kg		119	80 - 120
1,2-Dichloroethane	0.0200	0.0186		mg/Kg		93	70 - 132
1,2-Dichloropropane	0.0200	0.0226		mg/Kg		113	73 - 124
1,3-Dichlorobenzene	0.0200	0.0240		mg/Kg		120	80 - 120
1,4-Dichlorobenzene	0.0200	0.0236		mg/Kg		118	80 - 120
2-Butanone (MEK)	0.100	0.110		mg/Kg		110	75 - 120
2-Hexanone	0.100	0.130	*	mg/Kg		130	78 - 120
4-Methyl-2-pentanone (MIBK)	0.100	0.130	*	mg/Kg		130	80 - 122
Acetone	0.100	0.100		mg/Kg		100	63 - 131
Benzene	0.0200	0.0227		mg/Kg		114	80 - 123
Bromoform	0.0200	0.0258		mg/Kg		129	48 - 142
Bromomethane	0.0200	0.0259		mg/Kg		129	46 - 150
Carbon disulfide	0.0200	0.0247		mg/Kg		124	67 - 136
Carbon tetrachloride	0.0200	0.0200		mg/Kg		100	72 - 136
Chlorobenzene	0.0200	0.0229		mg/Kg		114	80 - 120
Chlorobromomethane	0.0200	0.0227		mg/Kg		114	76 - 127
Chlorodibromomethane	0.0200	0.0221		mg/Kg		111	62 - 128
Chloroethane	0.0200	0.0209		mg/Kg		104	49 - 150
Chloroform	0.0200	0.0223		mg/Kg		111	79 - 126
Chloromethane	0.0200	0.0196		mg/Kg		98	48 - 150
cis-1,2-Dichloroethene	0.0200	0.0222		mg/Kg		111	80 - 123
cis-1,3-Dichloropropene	0.0200	0.0227		mg/Kg		113	72 - 120
Cyclohexane	0.0200	0.0235		mg/Kg		118	80 - 132
Dichlorobromomethane	0.0200	0.0203		mg/Kg		102	73 - 124
Dichlorodifluoromethane	0.0200	0.0165		mg/Kg		83	40 - 146
Ethylbenzene	0.0200	0.0225		mg/Kg		113	80 - 120
Ethylene Dibromide	0.0200	0.0220		mg/Kg		110	79 - 120
Isopropylbenzene	0.0200	0.0230		mg/Kg		115	80 - 120
Methyl acetate	0.0400	0.0501		mg/Kg		125	58 - 143
Methyl tert-butyl ether	0.0200	0.0231		mg/Kg		115	80 - 125
Methylcyclohexane	0.0200	0.0235		mg/Kg		118	79 - 133
Methylene Chloride	0.0200	0.0224		mg/Kg		112	76 - 127
m-Xylene & p-Xylene	0.0200	0.0228		mg/Kg		114	80 - 120
o-Xylene	0.0200	0.0235		mg/Kg		118	80 - 120
Styrene	0.0200	0.0238		mg/Kg		119	80 - 120
Tetrachloroethene	0.0200	0.0218		mg/Kg		109	78 - 123
Toluene	0.0200	0.0204		mg/Kg		102	80 - 120
trans-1,2-Dichloroethene	0.0200	0.0223		mg/Kg		112	78 - 128
trans-1,3-Dichloropropene	0.0200	0.0224		mg/Kg		112	68 - 120

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-818505/4

Matrix: Solid

Analysis Batch: 818505

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	0.0200	0.0210		mg/Kg		105	79 - 120
Trichlorofluoromethane	0.0200	0.0195		mg/Kg		98	67 - 142
Vinyl chloride	0.0200	0.0211		mg/Kg		106	56 - 147

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	80		77 - 145
4-Bromofluorobenzene	104		70 - 139
Dibromofluoromethane (Surr)	97		48 - 150
Toluene-d8 (Surr)	98		80 - 120

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-818202/1-A

Matrix: Solid

Analysis Batch: 818279

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818202

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.33	U	0.33	0.0044	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
1,2,4,5-Tetrachlorobenzene	0.33	U	0.33	0.010	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
1,4-Dioxane	0.033	U	0.033	0.029	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
2,2'-oxybis[1-chloropropane]	0.33	U	0.33	0.0060	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
2,3,4,6-Tetrachlorophenol	0.33	U	0.33	0.022	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
2,4,5-Trichlorophenol	0.33	U	0.33	0.034	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
2,4,6-Trichlorophenol	0.13	U	0.13	0.042	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
2,4-Dichlorophenol	0.13	U	0.13	0.021	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
2,4-Dimethylphenol	0.33	U	0.33	0.015	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
2,4-Dinitrophenol	0.27	U	0.27	0.16	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
2,4-Dinitrotoluene	0.067	U	0.067	0.036	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
2,6-Dinitrotoluene	0.067	U	0.067	0.024	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
2-Chloronaphthalene	0.33	U	0.33	0.015	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
2-Chlorophenol	0.33	U	0.33	0.012	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
2-Methylnaphthalene	0.33	U	0.33	0.0093	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
2-Methylphenol	0.33	U	0.33	0.012	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
2-Nitroaniline	0.33	U	0.33	0.012	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
2-Nitrophenol	0.33	U	0.33	0.033	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
3,3'-Dichlorobenzidine	0.13	U	0.13	0.050	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
3-Nitroaniline	0.33	U	0.33	0.037	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
4,6-Dinitro-2-methylphenol	0.27	U	0.27	0.14	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
4-Bromophenyl phenyl ether	0.33	U	0.33	0.013	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
4-Chloro-3-methylphenol	0.33	U	0.33	0.019	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
4-Chloroaniline	0.33	U	0.33	0.059	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
4-Chlorophenyl phenyl ether	0.33	U	0.33	0.012	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
4-Methylphenol	0.33	U	0.33	0.021	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
4-Nitroaniline	0.33	U	0.33	0.038	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
4-Nitrophenol	0.67	U	0.67	0.054	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Acenaphthene	0.33	U	0.33	0.0094	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Acenaphthylene	0.33	U	0.33	0.0033	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Acetophenone	0.33	U	0.33	0.016	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Anthracene	0.33	U	0.33	0.010	mg/Kg		12/10/21 19:13	12/11/21 09:35	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-818202/1-A

Matrix: Solid

Analysis Batch: 818279

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818202

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Atrazine	0.13	U	0.13	0.019	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Benzaldehyde	0.33	U	0.33	0.055	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Benzo[a]anthracene	0.033	U	0.033	0.012	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Benzo[a]pyrene	0.033	U	0.033	0.0088	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Benzo[b]fluoranthene	0.033	U	0.033	0.0086	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Benzo[g,h,i]perylene	0.33	U	0.33	0.0098	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Benzo[k]fluoranthene	0.033	U	0.033	0.0065	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Bis(2-chloroethoxy)methane	0.33	U	0.33	0.026	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Bis(2-chloroethyl)ether	0.033	U	0.033	0.012	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Bis(2-ethylhexyl) phthalate	0.33	U	0.33	0.017	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Butyl benzyl phthalate	0.33	U	0.33	0.016	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Caprolactam	0.33	U	0.33	0.051	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Carbazole	0.33	U	0.33	0.013	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Chrysene	0.33	U	0.33	0.0056	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Dibenz(a,h)anthracene	0.033	U	0.033	0.014	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Dibenzofuran	0.33	U	0.33	0.0046	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Diethyl phthalate	0.33	U	0.33	0.0048	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Dimethyl phthalate	0.33	U	0.33	0.075	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Di-n-butyl phthalate	0.33	U	0.33	0.012	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Di-n-octyl phthalate	0.33	U	0.33	0.018	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Fluoranthene	0.33	U	0.33	0.012	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Fluorene	0.33	U	0.33	0.0045	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Hexachlorobenzene	0.033	U	0.033	0.016	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Hexachlorobutadiene	0.067	U	0.067	0.0070	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Hexachlorocyclopentadiene	0.33	U	0.33	0.029	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Hexachloroethane	0.033	U	0.033	0.011	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Indeno[1,2,3-cd]pyrene	0.033	U	0.033	0.013	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Isophorone	0.13	U	0.13	0.096	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Naphthalene	0.33	U	0.33	0.0057	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Nitrobenzene	0.033	U	0.033	0.0079	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
N-Nitrosodi-n-propylamine	0.033	U	0.033	0.024	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
N-Nitrosodiphenylamine	0.33	U	0.33	0.027	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Pentachlorophenol	0.27	U	0.27	0.068	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Phenanthrene	0.33	U	0.33	0.0058	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Phenol	0.33	U	0.33	0.012	mg/Kg		12/10/21 19:13	12/11/21 09:35	1
Pyrene	0.33	U	0.33	0.0082	mg/Kg		12/10/21 19:13	12/11/21 09:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	89		10 - 123	12/10/21 19:13	12/11/21 09:35	1
2-Fluorobiphenyl	84		14 - 103	12/10/21 19:13	12/11/21 09:35	1
2-Fluorophenol (Surr)	83		10 - 105	12/10/21 19:13	12/11/21 09:35	1
Nitrobenzene-d5 (Surr)	86		11 - 104	12/10/21 19:13	12/11/21 09:35	1
Phenol-d5 (Surr)	85		15 - 100	12/10/21 19:13	12/11/21 09:35	1
Terphenyl-d14 (Surr)	92		12 - 126	12/10/21 19:13	12/11/21 09:35	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-818202/2-A

Matrix: Solid

Analysis Batch: 818279

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818202

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	3.33	3.36		mg/Kg		101	65 - 110
1,2,4,5-Tetrachlorobenzene	3.33	3.31		mg/Kg		99	64 - 110
1,4-Dioxane	3.33	2.82	*	mg/Kg		85	31 - 81
2,2'-oxybis[1-chloropropane]	3.33	3.63		mg/Kg		109	49 - 109
2,3,4,6-Tetrachlorophenol	3.33	3.43		mg/Kg		103	58 - 113
2,4,5-Trichlorophenol	3.33	3.28		mg/Kg		98	64 - 112
2,4,6-Trichlorophenol	3.33	3.37		mg/Kg		101	63 - 113
2,4-Dichlorophenol	3.33	3.27		mg/Kg		98	66 - 113
2,4-Dimethylphenol	3.33	3.20		mg/Kg		96	63 - 107
2,4-Dinitrophenol	6.67	6.63		mg/Kg		100	25 - 150
2,4-Dinitrotoluene	3.33	3.51		mg/Kg		105	65 - 124
2,6-Dinitrotoluene	3.33	3.51		mg/Kg		105	67 - 121
2-Chloronaphthalene	3.33	3.32		mg/Kg		100	65 - 109
2-Chlorophenol	3.33	3.07		mg/Kg		92	63 - 106
2-Methylnaphthalene	3.33	3.08		mg/Kg		92	64 - 108
2-Methylphenol	3.33	3.20		mg/Kg		96	63 - 108
2-Nitroaniline	3.33	3.50		mg/Kg		105	59 - 119
2-Nitrophenol	3.33	3.24		mg/Kg		97	64 - 112
3,3'-Dichlorobenzidine	3.33	3.43	*	mg/Kg		103	17 - 101
3-Nitroaniline	3.33	3.40		mg/Kg		102	31 - 102
4,6-Dinitro-2-methylphenol	6.67	7.03		mg/Kg		105	44 - 136
4-Bromophenyl phenyl ether	3.33	3.45		mg/Kg		104	67 - 113
4-Chloro-3-methylphenol	3.33	3.34		mg/Kg		100	66 - 114
4-Chloroaniline	3.33	3.19		mg/Kg		96	20 - 98
4-Chlorophenyl phenyl ether	3.33	3.39		mg/Kg		102	66 - 110
4-Methylphenol	3.33	3.10		mg/Kg		93	61 - 108
4-Nitroaniline	3.33	3.33		mg/Kg		100	50 - 110
4-Nitrophenol	6.67	7.18		mg/Kg		108	47 - 123
Acenaphthene	3.33	3.43		mg/Kg		103	53 - 110
Acenaphthylene	3.33	3.25		mg/Kg		97	64 - 108
Acetophenone	3.33	3.09		mg/Kg		93	61 - 103
Anthracene	3.33	3.42		mg/Kg		103	67 - 114
Atrazine	1.33	1.43		mg/Kg		107	44 - 145
Benzaldehyde	1.33	1.36		mg/Kg		102	43 - 150
Benzo[a]anthracene	3.33	3.35		mg/Kg		100	67 - 115
Benzo[a]pyrene	3.33	3.33		mg/Kg		100	73 - 123
Benzo[b]fluoranthene	3.33	3.46		mg/Kg		104	70 - 125
Benzo[g,h,i]perylene	3.33	3.42		mg/Kg		103	61 - 113
Benzo[k]fluoranthene	3.33	3.58		mg/Kg		107	67 - 115
Bis(2-chloroethoxy)methane	3.33	3.31		mg/Kg		99	62 - 107
Bis(2-chloroethyl)ether	3.33	3.30		mg/Kg		99	60 - 107
Bis(2-ethylhexyl) phthalate	3.33	3.88	*	mg/Kg		116	59 - 111
Butyl benzyl phthalate	3.33	3.77		mg/Kg		113	62 - 113
Caprolactam	1.33	1.45		mg/Kg		109	59 - 140
Carbazole	3.33	3.37		mg/Kg		101	64 - 113
Chrysene	3.33	3.23		mg/Kg		97	71 - 122
Dibenz(a,h)anthracene	3.33	3.54		mg/Kg		106	66 - 119
Dibenzofuran	3.33	3.35		mg/Kg		101	65 - 108

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-818202/2-A

Matrix: Solid

Analysis Batch: 818279

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818202

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diethyl phthalate	3.33	3.45		mg/Kg		103	63 - 109
Dimethyl phthalate	3.33	3.41		mg/Kg		102	65 - 109
Di-n-butyl phthalate	3.33	3.58		mg/Kg		107	66 - 114
Di-n-octyl phthalate	3.33	4.10	*	mg/Kg		123	65 - 122
Fluoranthene	3.33	3.20		mg/Kg		96	61 - 106
Fluorene	3.33	3.44		mg/Kg		103	65 - 109
Hexachlorobenzene	3.33	3.43		mg/Kg		103	61 - 113
Hexachlorobutadiene	3.33	3.06		mg/Kg		92	62 - 109
Hexachlorocyclopentadiene	3.33	3.19		mg/Kg		96	42 - 118
Hexachloroethane	3.33	3.13		mg/Kg		94	61 - 102
Indeno[1,2,3-cd]pyrene	3.33	3.71		mg/Kg		111	62 - 121
Isophorone	3.33	3.34		mg/Kg		100	63 - 107
Naphthalene	3.33	3.18		mg/Kg		95	63 - 106
Nitrobenzene	3.33	3.24		mg/Kg		97	63 - 110
N-Nitrosodi-n-propylamine	3.33	3.43		mg/Kg		103	61 - 108
N-Nitrosodiphenylamine	3.33	3.41		mg/Kg		102	67 - 113
Pentachlorophenol	6.67	6.72		mg/Kg		101	44 - 126
Phenanthrene	3.33	3.41		mg/Kg		102	66 - 112
Phenol	3.33	3.32		mg/Kg		100	63 - 110
Pyrene	3.33	3.56		mg/Kg		107	61 - 111

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	91		10 - 123
2-Fluorobiphenyl	88		14 - 103
2-Fluorophenol (Surr)	84		10 - 105
Nitrobenzene-d5 (Surr)	86		11 - 104
Phenol-d5 (Surr)	86		15 - 100
Terphenyl-d14 (Surr)	92		12 - 126

Lab Sample ID: LCSD 460-818202/3-A

Matrix: Solid

Analysis Batch: 818279

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818202

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	3.33	3.22		mg/Kg		97	65 - 110	4	30
1,2,4,5-Tetrachlorobenzene	3.33	3.12		mg/Kg		94	64 - 110	6	30
1,4-Dioxane	3.33	2.68		mg/Kg		81	31 - 81	5	30
2,2'-oxybis[1-chloropropane]	3.33	3.52		mg/Kg		106	49 - 109	3	30
2,3,4,6-Tetrachlorophenol	3.33	3.24		mg/Kg		97	58 - 113	6	30
2,4,5-Trichlorophenol	3.33	3.12		mg/Kg		94	64 - 112	5	30
2,4,6-Trichlorophenol	3.33	3.25		mg/Kg		98	63 - 113	4	30
2,4-Dichlorophenol	3.33	3.15		mg/Kg		95	66 - 113	4	30
2,4-Dimethylphenol	3.33	3.06		mg/Kg		92	63 - 107	5	30
2,4-Dinitrophenol	6.67	6.57		mg/Kg		99	25 - 150	1	30
2,4-Dinitrotoluene	3.33	3.44		mg/Kg		103	65 - 124	2	30
2,6-Dinitrotoluene	3.33	3.36		mg/Kg		101	67 - 121	4	30
2-Chloronaphthalene	3.33	3.17		mg/Kg		95	65 - 109	5	30
2-Chlorophenol	3.33	2.94		mg/Kg		88	63 - 106	4	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-818202/3-A

Matrix: Solid

Analysis Batch: 818279

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818202

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Methylnaphthalene	3.33	3.00		mg/Kg		90	64 - 108	3	30
2-Methylphenol	3.33	3.04		mg/Kg		91	63 - 108	5	30
2-Nitroaniline	3.33	3.40		mg/Kg		102	59 - 119	3	30
2-Nitrophenol	3.33	3.06		mg/Kg		92	64 - 112	6	30
3,3'-Dichlorobenzidine	3.33	3.26		mg/Kg		98	17 - 101	5	30
3-Nitroaniline	3.33	3.26		mg/Kg		98	31 - 102	4	30
4,6-Dinitro-2-methylphenol	6.67	6.61		mg/Kg		99	44 - 136	6	30
4-Bromophenyl phenyl ether	3.33	3.26		mg/Kg		98	67 - 113	6	30
4-Chloro-3-methylphenol	3.33	3.22		mg/Kg		97	66 - 114	4	30
4-Chloroaniline	3.33	3.05		mg/Kg		91	20 - 98	5	30
4-Chlorophenyl phenyl ether	3.33	3.24		mg/Kg		97	66 - 110	5	30
4-Methylphenol	3.33	2.97		mg/Kg		89	61 - 108	4	30
4-Nitroaniline	3.33	3.26		mg/Kg		98	50 - 110	2	30
4-Nitrophenol	6.67	7.08		mg/Kg		106	47 - 123	1	30
Acenaphthene	3.33	3.32		mg/Kg		100	53 - 110	3	30
Acenaphthylene	3.33	3.06		mg/Kg		92	64 - 108	6	30
Acetophenone	3.33	2.93		mg/Kg		88	61 - 103	6	30
Anthracene	3.33	3.27		mg/Kg		98	67 - 114	4	30
Atrazine	1.33	1.38		mg/Kg		104	44 - 145	3	30
Benzaldehyde	1.33	1.30		mg/Kg		98	43 - 150	4	30
Benzo[a]anthracene	3.33	3.23		mg/Kg		97	67 - 115	3	30
Benzo[a]pyrene	3.33	3.15		mg/Kg		95	73 - 123	5	30
Benzo[b]fluoranthene	3.33	3.28		mg/Kg		98	70 - 125	5	30
Benzo[g,h,i]perylene	3.33	3.14		mg/Kg		94	61 - 113	9	30
Benzo[k]fluoranthene	3.33	3.39		mg/Kg		102	67 - 115	5	30
Bis(2-chloroethoxy)methane	3.33	3.15		mg/Kg		94	62 - 107	5	30
Bis(2-chloroethyl)ether	3.33	3.10		mg/Kg		93	60 - 107	6	30
Bis(2-ethylhexyl) phthalate	3.33	3.72	*	mg/Kg		112	59 - 111	4	30
Butyl benzyl phthalate	3.33	3.65		mg/Kg		110	62 - 113	3	30
Caprolactam	1.33	1.40		mg/Kg		105	59 - 140	4	30
Carbazole	3.33	3.20		mg/Kg		96	64 - 113	5	30
Chrysene	3.33	3.11		mg/Kg		93	71 - 122	4	30
Dibenz(a,h)anthracene	3.33	3.29		mg/Kg		99	66 - 119	7	30
Dibenzofuran	3.33	3.22		mg/Kg		96	65 - 108	4	30
Diethyl phthalate	3.33	3.37		mg/Kg		101	63 - 109	2	30
Dimethyl phthalate	3.33	3.28		mg/Kg		98	65 - 109	4	30
Di-n-butyl phthalate	3.33	3.43		mg/Kg		103	66 - 114	4	30
Di-n-octyl phthalate	3.33	3.87		mg/Kg		116	65 - 122	6	30
Fluoranthene	3.33	3.13		mg/Kg		94	61 - 106	2	30
Fluorene	3.33	3.30		mg/Kg		99	65 - 109	4	30
Hexachlorobenzene	3.33	3.19		mg/Kg		96	61 - 113	7	30
Hexachlorobutadiene	3.33	2.92		mg/Kg		88	62 - 109	5	30
Hexachlorocyclopentadiene	3.33	3.04		mg/Kg		91	42 - 118	5	30
Hexachloroethane	3.33	2.96		mg/Kg		89	61 - 102	6	30
Indeno[1,2,3-cd]pyrene	3.33	3.47		mg/Kg		104	62 - 121	7	30
Isophorone	3.33	3.23		mg/Kg		97	63 - 107	3	30
Naphthalene	3.33	3.04		mg/Kg		91	63 - 106	4	30
Nitrobenzene	3.33	3.12		mg/Kg		94	63 - 110	4	30
N-Nitrosodi-n-propylamine	3.33	3.29		mg/Kg		99	61 - 108	4	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-818202/3-A

Matrix: Solid

Analysis Batch: 818279

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818202

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Nitrosodiphenylamine	3.33	3.23		mg/Kg		97	67 - 113	6	30
Pentachlorophenol	6.67	6.47		mg/Kg		97	44 - 126	4	30
Phenanthrene	3.33	3.23		mg/Kg		97	66 - 112	6	30
Phenol	3.33	3.12		mg/Kg		94	63 - 110	6	30
Pyrene	3.33	3.39		mg/Kg		102	61 - 111	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	90		10 - 123
2-Fluorobiphenyl	84		14 - 103
2-Fluorophenol (Surr)	78		10 - 105
Nitrobenzene-d5 (Surr)	84		11 - 104
Phenol-d5 (Surr)	84		15 - 100
Terphenyl-d14 (Surr)	88		12 - 126

Lab Sample ID: 460-248782-1 MS

Matrix: Solid

Analysis Batch: 818279

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 818202

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	0.0052	J	3.63	3.70		mg/Kg	✱	102	65 - 110
1,2,4,5-Tetrachlorobenzene	0.36	U	3.63	3.62		mg/Kg	✱	100	64 - 110
1,4-Dioxane	0.036	U *	3.63	2.36		mg/Kg	✱	65	31 - 81
2,2'-oxybis[1-chloropropane]	0.36	U	3.63	4.04	*	mg/Kg	✱	111	49 - 109
2,3,4,6-Tetrachlorophenol	0.36	U	3.63	3.69		mg/Kg	✱	102	58 - 113
2,4,5-Trichlorophenol	0.36	U	3.63	3.66		mg/Kg	✱	101	64 - 112
2,4,6-Trichlorophenol	0.14	U	3.63	3.67		mg/Kg	✱	101	63 - 113
2,4-Dichlorophenol	0.14	U	3.63	3.71		mg/Kg	✱	102	66 - 113
2,4-Dimethylphenol	0.36	U	3.63	3.62		mg/Kg	✱	100	63 - 107
2,4-Dinitrophenol	0.29	U	7.25	0.820	*	mg/Kg	✱	11	25 - 150
2,4-Dinitrotoluene	0.073	U	3.63	3.55		mg/Kg	✱	98	65 - 124
2,6-Dinitrotoluene	0.073	U	3.63	3.59		mg/Kg	✱	99	67 - 121
2-Chloronaphthalene	0.36	U	3.63	3.70		mg/Kg	✱	102	65 - 109
2-Chlorophenol	0.36	U	3.63	3.57		mg/Kg	✱	98	63 - 106
2-Methylnaphthalene	0.015	J	3.63	3.41		mg/Kg	✱	93	64 - 108
2-Methylphenol	0.36	U	3.63	3.66		mg/Kg	✱	101	63 - 108
2-Nitroaniline	0.36	U	3.63	3.85		mg/Kg	✱	106	59 - 119
2-Nitrophenol	0.36	U	3.63	3.24		mg/Kg	✱	89	64 - 112
3,3'-Dichlorobenzidine	0.14	U *	3.63	2.49		mg/Kg	✱	69	17 - 101
3-Nitroaniline	0.36	U	3.63	3.72	*	mg/Kg	✱	103	31 - 102
4,6-Dinitro-2-methylphenol	0.29	U	7.25	0.929	*	mg/Kg	✱	13	44 - 136
4-Bromophenyl phenyl ether	0.36	U	3.63	3.62		mg/Kg	✱	100	67 - 113
4-Chloro-3-methylphenol	0.36	U	3.63	3.75		mg/Kg	✱	103	66 - 114
4-Chloroaniline	0.36	U	3.63	2.42		mg/Kg	✱	67	20 - 98
4-Chlorophenyl phenyl ether	0.36	U	3.63	3.69		mg/Kg	✱	102	66 - 110
4-Methylphenol	0.36	U	3.63	3.56		mg/Kg	✱	98	61 - 108
4-Nitroaniline	0.36	U	3.63	3.29		mg/Kg	✱	91	50 - 110
4-Nitrophenol	0.73	U	7.25	8.11		mg/Kg	✱	112	47 - 123
Acenaphthene	0.016	J	3.63	3.20		mg/Kg	✱	88	53 - 110

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-248782-1 MS

Matrix: Solid

Analysis Batch: 818279

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 818202

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	0.034	J	3.63	3.62		mg/Kg	✱	99	64 - 108
Acetophenone	0.36	U	3.63	3.36		mg/Kg	✱	93	61 - 103
Anthracene	0.065	J	3.63	3.73		mg/Kg	✱	101	67 - 114
Atrazine	0.14	U	1.45	1.41		mg/Kg	✱	97	44 - 145
Benzaldehyde	0.36	U	1.45	1.38		mg/Kg	✱	95	43 - 150
Benzo[a]anthracene	0.22		3.63	3.83		mg/Kg	✱	100	67 - 115
Benzo[a]pyrene	0.22		3.63	3.80		mg/Kg	✱	99	73 - 123
Benzo[b]fluoranthene	0.37		3.63	4.62		mg/Kg	✱	117	70 - 125
Benzo[g,h,i]perylene	0.11	J	3.63	2.45		mg/Kg	✱	64	61 - 113
Benzo[k]fluoranthene	0.11		3.63	4.25		mg/Kg	✱	114	67 - 115
Bis(2-chloroethoxy)methane	0.36	U	3.63	3.65		mg/Kg	✱	101	62 - 107
Bis(2-chloroethyl)ether	0.036	U	3.63	3.63		mg/Kg	✱	100	60 - 107
Bis(2-ethylhexyl) phthalate	0.17	J *	3.63	3.92		mg/Kg	✱	104	59 - 111
Butyl benzyl phthalate	0.085	J	3.63	3.77		mg/Kg	✱	102	62 - 113
Caprolactam	0.36	U	1.45	1.58		mg/Kg	✱	109	59 - 140
Carbazole	0.027	J	3.63	3.69		mg/Kg	✱	101	64 - 113
Chrysene	0.21	J	3.63	3.75		mg/Kg	✱	98	71 - 122
Dibenz(a,h)anthracene	0.032	J	3.63	2.78		mg/Kg	✱	76	66 - 119
Dibenzofuran	0.014	J	3.63	3.70		mg/Kg	✱	102	65 - 108
Diethyl phthalate	0.36	U	3.63	3.70		mg/Kg	✱	102	63 - 109
Dimethyl phthalate	0.36	U	3.63	3.68		mg/Kg	✱	101	65 - 109
Di-n-butyl phthalate	0.36	U	3.63	3.64		mg/Kg	✱	100	66 - 114
Di-n-octyl phthalate	0.36	U *	3.63	5.13	*	mg/Kg	✱	141	65 - 122
Fluoranthene	0.36		3.63	3.88		mg/Kg	✱	97	61 - 106
Fluorene	0.026	J	3.63	3.76		mg/Kg	✱	103	65 - 109
Hexachlorobenzene	0.036	U	3.63	3.51		mg/Kg	✱	97	61 - 113
Hexachlorobutadiene	0.073	U	3.63	3.37		mg/Kg	✱	93	62 - 109
Hexachlorocyclopentadiene	0.36	U	3.63	0.592	*	mg/Kg	✱	16	42 - 118
Hexachloroethane	0.036	U	3.63	3.01		mg/Kg	✱	83	61 - 102
Indeno[1,2,3-cd]pyrene	0.13		3.63	2.93		mg/Kg	✱	77	62 - 121
Isophorone	0.14	U	3.63	3.63		mg/Kg	✱	100	63 - 107
Naphthalene	0.016	J	3.63	3.50		mg/Kg	✱	96	63 - 106
Nitrobenzene	0.036	U	3.63	3.55		mg/Kg	✱	98	63 - 110
N-Nitrosodi-n-propylamine	0.036	U	3.63	3.70		mg/Kg	✱	102	61 - 108
N-Nitrosodiphenylamine	0.36	U	3.63	3.66		mg/Kg	✱	101	67 - 113
Pentachlorophenol	0.29	U	7.25	7.36		mg/Kg	✱	101	44 - 126
Phenanthrene	0.20	J	3.63	3.86		mg/Kg	✱	101	66 - 112
Phenol	0.36	U	3.63	3.72		mg/Kg	✱	102	63 - 110
Pyrene	0.35	J	3.63	3.91		mg/Kg	✱	98	61 - 111

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	91		10 - 123
2-Fluorobiphenyl	91		14 - 103
2-Fluorophenol (Surr)	88		10 - 105
Nitrobenzene-d5 (Surr)	89		11 - 104
Phenol-d5 (Surr)	93		15 - 100
Terphenyl-d14 (Surr)	82		12 - 126

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-248782-1 MSD

Matrix: Solid

Analysis Batch: 818279

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 818202

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	0.0052	J	3.63	3.87		mg/Kg	✱	106	65 - 110	4	30
1,2,4,5-Tetrachlorobenzene	0.36	U	3.63	3.70		mg/Kg	✱	102	64 - 110	2	30
1,4-Dioxane	0.036	U *	3.63	2.59		mg/Kg	✱	71	31 - 81	10	30
2,2'-oxybis[1-chloropropane]	0.36	U	3.63	4.13	*	mg/Kg	✱	114	49 - 109	2	30
2,3,4,6-Tetrachlorophenol	0.36	U	3.63	3.94		mg/Kg	✱	108	58 - 113	7	30
2,4,5-Trichlorophenol	0.36	U	3.63	3.92		mg/Kg	✱	108	64 - 112	7	30
2,4,6-Trichlorophenol	0.14	U	3.63	3.87		mg/Kg	✱	107	63 - 113	5	30
2,4-Dichlorophenol	0.14	U	3.63	3.82		mg/Kg	✱	105	66 - 113	3	30
2,4-Dimethylphenol	0.36	U	3.63	3.68		mg/Kg	✱	101	63 - 107	2	30
2,4-Dinitrophenol	0.29	U	7.26	0.615	*	mg/Kg	✱	8	25 - 150	29	30
2,4-Dinitrotoluene	0.073	U	3.63	3.59		mg/Kg	✱	99	65 - 124	1	30
2,6-Dinitrotoluene	0.073	U	3.63	3.65		mg/Kg	✱	101	67 - 121	2	30
2-Chloronaphthalene	0.36	U	3.63	3.87		mg/Kg	✱	106	65 - 109	4	30
2-Chlorophenol	0.36	U	3.63	3.64		mg/Kg	✱	100	63 - 106	2	30
2-Methylnaphthalene	0.015	J	3.63	3.47		mg/Kg	✱	95	64 - 108	2	30
2-Methylphenol	0.36	U	3.63	3.73		mg/Kg	✱	103	63 - 108	2	30
2-Nitroaniline	0.36	U	3.63	3.95		mg/Kg	✱	109	59 - 119	3	30
2-Nitrophenol	0.36	U	3.63	3.02		mg/Kg	✱	83	64 - 112	7	30
3,3'-Dichlorobenzidine	0.14	U *	3.63	2.55		mg/Kg	✱	70	17 - 101	2	30
3-Nitroaniline	0.36	U	3.63	3.89	*	mg/Kg	✱	107	31 - 102	4	30
4,6-Dinitro-2-methylphenol	0.29	U	7.26	0.633	*	mg/Kg	✱	9	44 - 136	38	30
4-Bromophenyl phenyl ether	0.36	U	3.63	3.66		mg/Kg	✱	101	67 - 113	1	30
4-Chloro-3-methylphenol	0.36	U	3.63	3.83		mg/Kg	✱	105	66 - 114	2	30
4-Chloroaniline	0.36	U	3.63	2.32		mg/Kg	✱	64	20 - 98	4	30
4-Chlorophenyl phenyl ether	0.36	U	3.63	3.71		mg/Kg	✱	102	66 - 110	1	30
4-Methylphenol	0.36	U	3.63	3.58		mg/Kg	✱	99	61 - 108	0	30
4-Nitroaniline	0.36	U	3.63	3.43		mg/Kg	✱	94	50 - 110	4	30
4-Nitrophenol	0.73	U	7.26	8.44		mg/Kg	✱	116	47 - 123	4	30
Acenaphthene	0.016	J	3.63	3.30		mg/Kg	✱	90	53 - 110	3	30
Acenaphthylene	0.034	J	3.63	3.71		mg/Kg	✱	101	64 - 108	2	30
Acetophenone	0.36	U	3.63	3.39		mg/Kg	✱	93	61 - 103	1	30
Anthracene	0.065	J	3.63	3.79		mg/Kg	✱	103	67 - 114	2	30
Atrazine	0.14	U	1.45	1.31		mg/Kg	✱	90	44 - 145	7	30
Benzaldehyde	0.36	U	1.45	1.31		mg/Kg	✱	90	43 - 150	5	30
Benzo[a]anthracene	0.22		3.63	3.93		mg/Kg	✱	102	67 - 115	2	30
Benzo[a]pyrene	0.22		3.63	3.97		mg/Kg	✱	103	73 - 123	4	30
Benzo[b]fluoranthene	0.37		3.63	4.77		mg/Kg	✱	121	70 - 125	3	30
Benzo[g,h,i]perylene	0.11	J	3.63	2.60		mg/Kg	✱	68	61 - 113	6	30
Benzo[k]fluoranthene	0.11		3.63	4.62	*	mg/Kg	✱	124	67 - 115	8	30
Bis(2-chloroethoxy)methane	0.36	U	3.63	3.64		mg/Kg	✱	100	62 - 107	0	30
Bis(2-chloroethyl)ether	0.036	U	3.63	3.75		mg/Kg	✱	103	60 - 107	3	30
Bis(2-ethylhexyl) phthalate	0.17	J *	3.63	4.02		mg/Kg	✱	106	59 - 111	2	30
Butyl benzyl phthalate	0.085	J	3.63	3.93		mg/Kg	✱	106	62 - 113	4	30
Caprolactam	0.36	U	1.45	1.24		mg/Kg	✱	86	59 - 140	24	30
Carbazole	0.027	J	3.63	3.78		mg/Kg	✱	103	64 - 113	2	30
Chrysene	0.21	J	3.63	3.89		mg/Kg	✱	101	71 - 122	4	30
Dibenz(a,h)anthracene	0.032	J	3.63	2.95		mg/Kg	✱	80	66 - 119	6	30
Dibenzofuran	0.014	J	3.63	3.84		mg/Kg	✱	105	65 - 108	4	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-248782-1 MSD

Matrix: Solid

Analysis Batch: 818279

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 818202

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diethyl phthalate	0.36	U	3.63	3.74		mg/Kg	☼	103	63 - 109	1	30
Dimethyl phthalate	0.36	U	3.63	3.78		mg/Kg	☼	104	65 - 109	3	30
Di-n-butyl phthalate	0.36	U	3.63	3.64		mg/Kg	☼	100	66 - 114	0	30
Di-n-octyl phthalate	0.36	U *	3.63	5.65	*	mg/Kg	☼	156	65 - 122	10	30
Fluoranthene	0.36		3.63	4.13		mg/Kg	☼	104	61 - 106	6	30
Fluorene	0.026	J	3.63	3.86		mg/Kg	☼	106	65 - 109	3	30
Hexachlorobenzene	0.036	U	3.63	3.63		mg/Kg	☼	100	61 - 113	3	30
Hexachlorobutadiene	0.073	U	3.63	3.42		mg/Kg	☼	94	62 - 109	1	30
Hexachlorocyclopentadiene	0.36	U	3.63	0.425	*	mg/Kg	☼	12	42 - 118	33	30
Hexachloroethane	0.036	U	3.63	2.94		mg/Kg	☼	81	61 - 102	2	30
Indeno[1,2,3-cd]pyrene	0.13		3.63	3.07		mg/Kg	☼	81	62 - 121	5	30
Isophorone	0.14	U	3.63	3.70		mg/Kg	☼	102	63 - 107	2	30
Naphthalene	0.016	J	3.63	3.62		mg/Kg	☼	99	63 - 106	4	30
Nitrobenzene	0.036	U	3.63	3.68		mg/Kg	☼	101	63 - 110	4	30
N-Nitrosodi-n-propylamine	0.036	U	3.63	3.75		mg/Kg	☼	103	61 - 108	1	30
N-Nitrosodiphenylamine	0.36	U	3.63	3.84		mg/Kg	☼	106	67 - 113	5	30
Pentachlorophenol	0.29	U	7.26	7.56		mg/Kg	☼	104	44 - 126	3	30
Phenanthrene	0.20	J	3.63	3.95		mg/Kg	☼	103	66 - 112	2	30
Phenol	0.36	U	3.63	3.82		mg/Kg	☼	105	63 - 110	3	30
Pyrene	0.35	J	3.63	4.17		mg/Kg	☼	105	61 - 111	6	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	96		10 - 123
2-Fluorobiphenyl	92		14 - 103
2-Fluorophenol (Surr)	91		10 - 105
Nitrobenzene-d5 (Surr)	91		11 - 104
Phenol-d5 (Surr)	96		15 - 100
Terphenyl-d14 (Surr)	86		12 - 126

Lab Sample ID: MB 460-818275/1-A

Matrix: Water

Analysis Batch: 818324

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818275

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		12/11/21 08:01	12/11/21 16:29	1
1,2,4,5-Tetrachlorobenzene	10	U	10	1.2	ug/L		12/11/21 08:01	12/11/21 16:29	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		12/11/21 08:01	12/11/21 16:29	1
2,3,4,6-Tetrachlorophenol	10	U	10	0.75	ug/L		12/11/21 08:01	12/11/21 16:29	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		12/11/21 08:01	12/11/21 16:29	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		12/11/21 08:01	12/11/21 16:29	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		12/11/21 08:01	12/11/21 16:29	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		12/11/21 08:01	12/11/21 16:29	1
2,4-Dinitrophenol	20	U	20	2.6	ug/L		12/11/21 08:01	12/11/21 16:29	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		12/11/21 08:01	12/11/21 16:29	1
2,6-Dinitrotoluene	2.0	U	2.0	0.83	ug/L		12/11/21 08:01	12/11/21 16:29	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		12/11/21 08:01	12/11/21 16:29	1
2-Chlorophenol	10	U	10	0.38	ug/L		12/11/21 08:01	12/11/21 16:29	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		12/11/21 08:01	12/11/21 16:29	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-818275/1-A

Matrix: Water

Analysis Batch: 818324

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818275

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	10	U	10	0.67	ug/L		12/11/21 08:01	12/11/21 16:29	1
2-Nitroaniline	10	U	10	0.47	ug/L		12/11/21 08:01	12/11/21 16:29	1
2-Nitrophenol	10	U	10	0.75	ug/L		12/11/21 08:01	12/11/21 16:29	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		12/11/21 08:01	12/11/21 16:29	1
3-Nitroaniline	10	U	10	1.9	ug/L		12/11/21 08:01	12/11/21 16:29	1
4,6-Dinitro-2-methylphenol	20	U	20	3.0	ug/L		12/11/21 08:01	12/11/21 16:29	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		12/11/21 08:01	12/11/21 16:29	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		12/11/21 08:01	12/11/21 16:29	1
4-Chloroaniline	10	U	10	1.9	ug/L		12/11/21 08:01	12/11/21 16:29	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		12/11/21 08:01	12/11/21 16:29	1
4-Methylphenol	10	U	10	0.65	ug/L		12/11/21 08:01	12/11/21 16:29	1
4-Nitroaniline	10	U	10	1.2	ug/L		12/11/21 08:01	12/11/21 16:29	1
4-Nitrophenol	20	U	20	4.0	ug/L		12/11/21 08:01	12/11/21 16:29	1
Acenaphthene	10	U	10	1.1	ug/L		12/11/21 08:01	12/11/21 16:29	1
Acenaphthylene	10	U	10	0.82	ug/L		12/11/21 08:01	12/11/21 16:29	1
Acetophenone	10	U	10	2.3	ug/L		12/11/21 08:01	12/11/21 16:29	1
Anthracene	10	U	10	1.3	ug/L		12/11/21 08:01	12/11/21 16:29	1
Atrazine	2.0	U	2.0	1.3	ug/L		12/11/21 08:01	12/11/21 16:29	1
Benzaldehyde	10	U	10	2.1	ug/L		12/11/21 08:01	12/11/21 16:29	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		12/11/21 08:01	12/11/21 16:29	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		12/11/21 08:01	12/11/21 16:29	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		12/11/21 08:01	12/11/21 16:29	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		12/11/21 08:01	12/11/21 16:29	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		12/11/21 08:01	12/11/21 16:29	1
Bis(2-chloroethoxy)methane	10	U	10	0.59	ug/L		12/11/21 08:01	12/11/21 16:29	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.63	ug/L		12/11/21 08:01	12/11/21 16:29	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80	ug/L		12/11/21 08:01	12/11/21 16:29	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		12/11/21 08:01	12/11/21 16:29	1
Caprolactam	10	U	10	2.2	ug/L		12/11/21 08:01	12/11/21 16:29	1
Carbazole	10	U	10	0.68	ug/L		12/11/21 08:01	12/11/21 16:29	1
Chrysene	2.0	U	2.0	0.91	ug/L		12/11/21 08:01	12/11/21 16:29	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		12/11/21 08:01	12/11/21 16:29	1
Dibenzofuran	10	U	10	1.1	ug/L		12/11/21 08:01	12/11/21 16:29	1
Diethyl phthalate	10	U	10	0.98	ug/L		12/11/21 08:01	12/11/21 16:29	1
Dimethyl phthalate	10	U	10	0.77	ug/L		12/11/21 08:01	12/11/21 16:29	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		12/11/21 08:01	12/11/21 16:29	1
Di-n-octyl phthalate	10	U	10	0.75	ug/L		12/11/21 08:01	12/11/21 16:29	1
Fluoranthene	10	U	10	0.84	ug/L		12/11/21 08:01	12/11/21 16:29	1
Fluorene	10	U	10	0.91	ug/L		12/11/21 08:01	12/11/21 16:29	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		12/11/21 08:01	12/11/21 16:29	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		12/11/21 08:01	12/11/21 16:29	1
Hexachlorocyclopentadiene	10	U	10	3.6	ug/L		12/11/21 08:01	12/11/21 16:29	1
Hexachloroethane	2.0	U	2.0	0.80	ug/L		12/11/21 08:01	12/11/21 16:29	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.94	ug/L		12/11/21 08:01	12/11/21 16:29	1
Isophorone	10	U	10	0.80	ug/L		12/11/21 08:01	12/11/21 16:29	1
Naphthalene	2.0	U	2.0	0.54	ug/L		12/11/21 08:01	12/11/21 16:29	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		12/11/21 08:01	12/11/21 16:29	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		12/11/21 08:01	12/11/21 16:29	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		12/11/21 08:01	12/11/21 16:29	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-818275/1-A

Matrix: Water

Analysis Batch: 818324

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818275

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	20	U	20	1.4	ug/L		12/11/21 08:01	12/11/21 16:29	1
Phenanthrene	10	U	10	1.3	ug/L		12/11/21 08:01	12/11/21 16:29	1
Phenol	10	U	10	0.29	ug/L		12/11/21 08:01	12/11/21 16:29	1
Pyrene	10	U	10	1.6	ug/L		12/11/21 08:01	12/11/21 16:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		33 - 150	12/11/21 08:01	12/11/21 16:29	1
2-Fluorobiphenyl	84		42 - 127	12/11/21 08:01	12/11/21 16:29	1
2-Fluorophenol (Surr)	49		18 - 72	12/11/21 08:01	12/11/21 16:29	1
Nitrobenzene-d5 (Surr)	90		46 - 137	12/11/21 08:01	12/11/21 16:29	1
Phenol-d5 (Surr)	30		10 - 50	12/11/21 08:01	12/11/21 16:29	1
Terphenyl-d14 (Surr)	85		39 - 150	12/11/21 08:01	12/11/21 16:29	1

Lab Sample ID: LCS 460-818275/2-A

Matrix: Water

Analysis Batch: 818324

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818275

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	80.0	60.9		ug/L		76	60 - 108
1,2,4,5-Tetrachlorobenzene	80.0	58.3		ug/L		73	46 - 117
2,2'-oxybis[1-chloropropane]	80.0	56.7		ug/L		71	42 - 116
2,3,4,6-Tetrachlorophenol	80.0	80.9		ug/L		101	63 - 122
2,4,5-Trichlorophenol	80.0	72.1		ug/L		90	63 - 112
2,4,6-Trichlorophenol	80.0	78.1		ug/L		98	66 - 117
2,4-Dichlorophenol	80.0	72.5		ug/L		91	65 - 105
2,4-Dimethylphenol	80.0	67.7		ug/L		85	62 - 99
2,4-Dinitrophenol	160	179		ug/L		112	32 - 150
2,4-Dinitrotoluene	80.0	80.2		ug/L		100	68 - 134
2,6-Dinitrotoluene	80.0	78.6		ug/L		98	70 - 124
2-Chloronaphthalene	80.0	60.3		ug/L		75	57 - 107
2-Chlorophenol	80.0	59.6		ug/L		74	58 - 94
2-Methylnaphthalene	80.0	58.7		ug/L		73	55 - 111
2-Methylphenol	80.0	51.9		ug/L		65	48 - 88
2-Nitroaniline	80.0	65.4		ug/L		82	62 - 115
2-Nitrophenol	80.0	76.9		ug/L		96	60 - 125
3,3'-Dichlorobenzidine	80.0	54.8		ug/L		68	53 - 125
3-Nitroaniline	80.0	51.3		ug/L		64	60 - 112
4,6-Dinitro-2-methylphenol	160	177		ug/L		110	47 - 150
4-Bromophenyl phenyl ether	80.0	77.6		ug/L		97	59 - 117
4-Chloro-3-methylphenol	80.0	67.7		ug/L		85	61 - 100
4-Chloroaniline	80.0	38.1		ug/L		48	42 - 114
4-Chlorophenyl phenyl ether	80.0	74.2		ug/L		93	63 - 113
4-Methylphenol	80.0	46.0		ug/L		57	42 - 79
4-Nitroaniline	80.0	69.2		ug/L		87	58 - 120
4-Nitrophenol	160	49.9		ug/L		31	14 - 54
Acenaphthene	80.0	67.6		ug/L		84	60 - 110
Acenaphthylene	80.0	65.2		ug/L		82	64 - 109
Acetophenone	80.0	68.7		ug/L		86	66 - 111

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-818275/2-A

Matrix: Water

Analysis Batch: 818324

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818275

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	80.0	71.2		ug/L		89	65 - 109
Atrazine	40.0	35.3		ug/L		88	24 - 150
Benzaldehyde	40.0	23.2		ug/L		58	16 - 150
Benzo[a]anthracene	80.0	70.1		ug/L		88	62 - 106
Benzo[a]pyrene	80.0	80.0		ug/L		100	66 - 127
Benzo[b]fluoranthene	80.0	72.3		ug/L		90	66 - 125
Benzo[g,h,i]perylene	80.0	79.7		ug/L		100	49 - 149
Benzo[k]fluoranthene	80.0	73.4		ug/L		92	64 - 125
Bis(2-chloroethoxy)methane	80.0	71.2		ug/L		89	64 - 107
Bis(2-chloroethyl)ether	80.0	66.4		ug/L		83	63 - 110
Bis(2-ethylhexyl) phthalate	80.0	73.5		ug/L		92	60 - 120
Butyl benzyl phthalate	80.0	74.8		ug/L		93	58 - 119
Caprolactam	40.0	8.88	J	ug/L		22	10 - 73
Carbazole	80.0	71.1		ug/L		89	65 - 109
Chrysene	80.0	70.1		ug/L		88	63 - 108
Dibenz(a,h)anthracene	80.0	81.9		ug/L		102	55 - 150
Dibenzofuran	80.0	68.8		ug/L		86	66 - 109
Diethyl phthalate	80.0	75.9		ug/L		95	69 - 112
Dimethyl phthalate	80.0	78.2		ug/L		98	70 - 112
Di-n-butyl phthalate	80.0	85.5		ug/L		107	66 - 110
Di-n-octyl phthalate	80.0	59.0		ug/L		74	54 - 128
Fluoranthene	80.0	78.2		ug/L		98	65 - 113
Fluorene	80.0	71.1		ug/L		89	65 - 111
Hexachlorobenzene	80.0	73.4		ug/L		92	61 - 117
Hexachlorobutadiene	80.0	54.5		ug/L		68	10 - 133
Hexachlorocyclopentadiene	80.0	42.5		ug/L		53	10 - 123
Hexachloroethane	80.0	45.7		ug/L		57	17 - 115
Indeno[1,2,3-cd]pyrene	80.0	79.7		ug/L		100	54 - 150
Isophorone	80.0	74.4		ug/L		93	68 - 114
Naphthalene	80.0	57.3		ug/L		72	58 - 105
Nitrobenzene	80.0	69.0		ug/L		86	71 - 116
N-Nitrosodi-n-propylamine	80.0	70.6		ug/L		88	60 - 119
N-Nitrosodiphenylamine	80.0	71.9		ug/L		90	63 - 109
Pentachlorophenol	160	155		ug/L		97	54 - 131
Phenanthrene	80.0	70.0		ug/L		87	65 - 108
Phenol	80.0	24.2		ug/L		30	20 - 50
Pyrene	80.0	63.5		ug/L		79	54 - 114

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	103		33 - 150
2-Fluorobiphenyl	95		42 - 127
2-Fluorophenol (Surr)	46		18 - 72
Nitrobenzene-d5 (Surr)	92		46 - 137
Phenol-d5 (Surr)	30		10 - 50
Terphenyl-d14 (Surr)	83		39 - 150

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-818275/3-A

Matrix: Water

Analysis Batch: 818324

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818275

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	80.0	60.1		ug/L		75	60 - 108	1	30
1,2,4,5-Tetrachlorobenzene	80.0	56.8		ug/L		71	46 - 117	3	30
2,2'-oxybis[1-chloropropane]	80.0	57.2		ug/L		71	42 - 116	1	30
2,3,4,6-Tetrachlorophenol	80.0	79.9		ug/L		100	63 - 122	1	30
2,4,5-Trichlorophenol	80.0	70.3		ug/L		88	63 - 112	2	30
2,4,6-Trichlorophenol	80.0	79.4		ug/L		99	66 - 117	2	30
2,4-Dichlorophenol	80.0	72.9		ug/L		91	65 - 105	1	30
2,4-Dimethylphenol	80.0	66.0		ug/L		82	62 - 99	3	30
2,4-Dinitrophenol	160	182		ug/L		114	32 - 150	1	30
2,4-Dinitrotoluene	80.0	80.4		ug/L		101	68 - 134	0	30
2,6-Dinitrotoluene	80.0	77.0		ug/L		96	70 - 124	2	30
2-Chloronaphthalene	80.0	58.5		ug/L		73	57 - 107	3	30
2-Chlorophenol	80.0	59.0		ug/L		74	58 - 94	1	30
2-Methylnaphthalene	80.0	56.9		ug/L		71	55 - 111	3	30
2-Methylphenol	80.0	51.2		ug/L		64	48 - 88	1	30
2-Nitroaniline	80.0	64.4		ug/L		80	62 - 115	2	30
2-Nitrophenol	80.0	76.2		ug/L		95	60 - 125	1	30
3,3'-Dichlorobenzidine	80.0	54.3		ug/L		68	53 - 125	1	30
3-Nitroaniline	80.0	50.3		ug/L		63	60 - 112	2	30
4,6-Dinitro-2-methylphenol	160	179		ug/L		112	47 - 150	1	30
4-Bromophenyl phenyl ether	80.0	75.9		ug/L		95	59 - 117	2	30
4-Chloro-3-methylphenol	80.0	65.9		ug/L		82	61 - 100	3	30
4-Chloroaniline	80.0	37.2		ug/L		47	42 - 114	2	30
4-Chlorophenyl phenyl ether	80.0	73.5		ug/L		92	63 - 113	1	30
4-Methylphenol	80.0	45.6		ug/L		57	42 - 79	1	30
4-Nitroaniline	80.0	72.5		ug/L		91	58 - 120	5	30
4-Nitrophenol	160	49.7		ug/L		31	14 - 54	1	30
Acenaphthene	80.0	66.9		ug/L		84	60 - 110	1	30
Acenaphthylene	80.0	63.1		ug/L		79	64 - 109	3	30
Acetophenone	80.0	68.7		ug/L		86	66 - 111	0	30
Anthracene	80.0	70.1		ug/L		88	65 - 109	2	30
Atrazine	40.0	33.4		ug/L		83	24 - 150	6	30
Benzaldehyde	40.0	23.0		ug/L		58	16 - 150	1	30
Benzo[a]anthracene	80.0	71.3		ug/L		89	62 - 106	2	30
Benzo[a]pyrene	80.0	80.3		ug/L		100	66 - 127	0	30
Benzo[b]fluoranthene	80.0	74.0		ug/L		92	66 - 125	2	30
Benzo[g,h,i]perylene	80.0	79.1		ug/L		99	49 - 149	1	30
Benzo[k]fluoranthene	80.0	73.2		ug/L		92	64 - 125	0	30
Bis(2-chloroethoxy)methane	80.0	71.3		ug/L		89	64 - 107	0	30
Bis(2-chloroethyl)ether	80.0	65.3		ug/L		82	63 - 110	2	30
Bis(2-ethylhexyl) phthalate	80.0	73.5		ug/L		92	60 - 120	0	30
Butyl benzyl phthalate	80.0	76.0		ug/L		95	58 - 119	2	30
Caprolactam	40.0	8.88	J	ug/L		22	10 - 73	0	30
Carbazole	80.0	71.9		ug/L		90	65 - 109	1	30
Chrysene	80.0	69.6		ug/L		87	63 - 108	1	30
Dibenz(a,h)anthracene	80.0	81.3		ug/L		102	55 - 150	1	30
Dibenzofuran	80.0	67.1		ug/L		84	66 - 109	2	30
Diethyl phthalate	80.0	73.5		ug/L		92	69 - 112	3	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-818275/3-A

Matrix: Water

Analysis Batch: 818324

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818275

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dimethyl phthalate	80.0	75.4		ug/L		94	70 - 112	4	30
Di-n-butyl phthalate	80.0	84.5		ug/L		106	66 - 110	1	30
Di-n-octyl phthalate	80.0	59.4		ug/L		74	54 - 128	1	30
Fluoranthene	80.0	77.6		ug/L		97	65 - 113	1	30
Fluorene	80.0	68.8		ug/L		86	65 - 111	3	30
Hexachlorobenzene	80.0	72.5		ug/L		91	61 - 117	1	30
Hexachlorobutadiene	80.0	53.4		ug/L		67	10 - 133	2	30
Hexachlorocyclopentadiene	80.0	41.2		ug/L		52	10 - 123	3	30
Hexachloroethane	80.0	45.9		ug/L		57	17 - 115	0	30
Indeno[1,2,3-cd]pyrene	80.0	76.9		ug/L		96	54 - 150	4	30
Isophorone	80.0	74.0		ug/L		92	68 - 114	1	30
Naphthalene	80.0	57.1		ug/L		71	58 - 105	0	30
Nitrobenzene	80.0	69.6		ug/L		87	71 - 116	1	30
N-Nitrosodi-n-propylamine	80.0	70.1		ug/L		88	60 - 119	1	30
N-Nitrosodiphenylamine	80.0	70.2		ug/L		88	63 - 109	2	30
Pentachlorophenol	160	153		ug/L		95	54 - 131	1	30
Phenanthrene	80.0	69.3		ug/L		87	65 - 108	1	30
Phenol	80.0	24.0		ug/L		30	20 - 50	1	30
Pyrene	80.0	62.2		ug/L		78	54 - 114	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	101		33 - 150
2-Fluorobiphenyl	93		42 - 127
2-Fluorophenol (Surr)	45		18 - 72
Nitrobenzene-d5 (Surr)	91		46 - 137
Phenol-d5 (Surr)	29		10 - 50
Terphenyl-d14 (Surr)	84		39 - 150

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 460-818294/1-A

Matrix: Water

Analysis Batch: 818333

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818294

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.016	ug/L		12/11/21 09:24	12/11/21 16:40	1
Isotope Dilution	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	48		10 - 150				12/11/21 09:24	12/11/21 16:40	1

Lab Sample ID: LCS 460-818294/2-A

Matrix: Water

Analysis Batch: 818333

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818294

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
1,4-Dioxane			1.60	1.15		ug/L		72	50 - 142		
	LCS	LCS									
Isotope Dilution	%Recovery	Qualifier	Limits								
1,4-Dioxane-d8	47		10 - 150								

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: LCSD 460-818294/3-A

Matrix: Water

Analysis Batch: 818333

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818294

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			1.60	1.36		ug/L		85	50 - 142	17	20
	LCSD	LCSD									
Isotope Dilution	%Recovery	Qualifier	Limits								
1,4-Dioxane-d8	45		10 - 150								

Lab Sample ID: 460-248816-D-6-A MS

Matrix: Water

Analysis Batch: 818333

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 818294

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	0.28		1.60	1.38		ug/L		69	50 - 142		
	MS	MS									
Isotope Dilution	%Recovery	Qualifier	Limits								
1,4-Dioxane-d8	46		10 - 150								

Lab Sample ID: 460-248816-D-6-B MSD

Matrix: Water

Analysis Batch: 818333

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 818294

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	0.28		1.60	1.45		ug/L		73	50 - 142	5	20
	MSD	MSD									
Isotope Dilution	%Recovery	Qualifier	Limits								
1,4-Dioxane-d8	45		10 - 150								

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-818191/1-A

Matrix: Solid

Analysis Batch: 818460

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.0067	U	0.0067	0.0010	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Aldrin	0.0067	U	0.0067	0.0010	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
alpha-BHC	0.0020	U	0.0020	0.00068	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
alpha-BHC	0.0020	U	0.0020	0.00068	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
4,4'-DDD	0.0067	U	0.0067	0.0011	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
4,4'-DDD	0.0067	U	0.0067	0.0011	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
beta-BHC	0.0020	U	0.0020	0.00075	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
beta-BHC	0.0020	U	0.0020	0.00075	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
4,4'-DDE	0.0067	U	0.0067	0.00079	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
4,4'-DDE	0.0067	U	0.0067	0.00079	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Chlordane (technical)	0.067	U	0.067	0.016	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Chlordane (technical)	0.067	U	0.067	0.016	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
4,4'-DDT	0.0067	U	0.0067	0.0012	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
4,4'-DDT	0.0067	U	0.0067	0.0012	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
delta-BHC	0.0020	U	0.0020	0.00041	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
delta-BHC	0.0020	U	0.0020	0.00041	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Dieldrin	0.0020	U	0.0020	0.00087	mg/Kg		12/10/21 17:52	12/12/21 19:37	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-818191/1-A

Matrix: Solid

Analysis Batch: 818460

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dieldrin	0.0020	U	0.0020	0.00087	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Endosulfan I	0.0067	U	0.0067	0.0010	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Endosulfan I	0.0067	U	0.0067	0.0010	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Endosulfan II	0.0067	U	0.0067	0.0017	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Endosulfan II	0.0067	U	0.0067	0.0017	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Endosulfan sulfate	0.0067	U	0.0067	0.00084	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Endosulfan sulfate	0.0067	U	0.0067	0.00084	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Endrin	0.0067	U	0.0067	0.00096	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Endrin	0.0067	U	0.0067	0.00096	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Endrin aldehyde	0.0067	U	0.0067	0.0016	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Endrin aldehyde	0.0067	U	0.0067	0.0016	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Endrin ketone	0.0067	U	0.0067	0.0013	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Endrin ketone	0.0067	U	0.0067	0.0013	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
gamma-BHC (Lindane)	0.0020	U	0.0020	0.00062	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
gamma-BHC (Lindane)	0.0020	U	0.0020	0.00062	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Heptachlor	0.0067	U	0.0067	0.00079	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Heptachlor	0.0067	U	0.0067	0.00079	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Heptachlor epoxide	0.0067	U	0.0067	0.0010	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Heptachlor epoxide	0.0067	U	0.0067	0.0010	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Methoxychlor	0.0067	U	0.0067	0.0015	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Methoxychlor	0.0067	U	0.0067	0.0015	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Toxaphene	0.067	U	0.067	0.024	mg/Kg		12/10/21 17:52	12/12/21 19:37	1
Toxaphene	0.067	U	0.067	0.024	mg/Kg		12/10/21 17:52	12/12/21 19:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		10 - 150	12/10/21 17:52	12/12/21 19:37	1
DCB Decachlorobiphenyl	77		10 - 150	12/10/21 17:52	12/12/21 19:37	1
Tetrachloro-m-xylene	88		10 - 133	12/10/21 17:52	12/12/21 19:37	1
Tetrachloro-m-xylene	89		10 - 133	12/10/21 17:52	12/12/21 19:37	1

Lab Sample ID: LCS 460-818191/2-A

Matrix: Solid

Analysis Batch: 818460

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aldrin	0.133	0.116		mg/Kg		87	74 - 140
Aldrin	0.133	0.127		mg/Kg		95	74 - 140
alpha-BHC	0.133	0.109		mg/Kg		82	72 - 142
alpha-BHC	0.133	0.129		mg/Kg		96	72 - 142
4,4'-DDD	0.133	0.0983		mg/Kg		74	70 - 140
4,4'-DDD	0.133	0.126		mg/Kg		94	70 - 140
beta-BHC	0.133	0.121		mg/Kg		91	65 - 137
beta-BHC	0.133	0.139		mg/Kg		104	65 - 137
4,4'-DDE	0.133	0.106		mg/Kg		80	71 - 137
4,4'-DDE	0.133	0.130		mg/Kg		98	71 - 137
4,4'-DDT	0.133	0.110		mg/Kg		83	63 - 131
4,4'-DDT	0.133	0.118		mg/Kg		88	63 - 131
delta-BHC	0.133	0.117		mg/Kg		88	70 - 143

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-818191/2-A

Matrix: Solid

Analysis Batch: 818460

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
delta-BHC	0.133	0.130		mg/Kg		98	70 - 143
Dieldrin	0.133	0.111		mg/Kg		83	70 - 135
Dieldrin	0.133	0.132		mg/Kg		99	70 - 135
Endosulfan I	0.133	0.115		mg/Kg		86	68 - 135
Endosulfan I	0.133	0.127		mg/Kg		95	68 - 135
Endosulfan II	0.133	0.113		mg/Kg		84	64 - 130
Endosulfan II	0.133	0.126		mg/Kg		95	64 - 130
Endosulfan sulfate	0.133	0.110		mg/Kg		82	66 - 143
Endosulfan sulfate	0.133	0.114		mg/Kg		86	66 - 143
Endrin	0.133	0.103		mg/Kg		77	68 - 136
Endrin	0.133	0.128		mg/Kg		96	68 - 136
Endrin aldehyde	0.133	0.108		mg/Kg		81	68 - 132
Endrin aldehyde	0.133	0.113		mg/Kg		85	68 - 132
Endrin ketone	0.133	0.111		mg/Kg		83	60 - 150
Endrin ketone	0.133	0.115		mg/Kg		87	60 - 150
gamma-BHC (Lindane)	0.133	0.114		mg/Kg		86	70 - 134
gamma-BHC (Lindane)	0.133	0.134		mg/Kg		100	70 - 134
Heptachlor	0.133	0.117		mg/Kg		87	69 - 134
Heptachlor	0.133	0.122		mg/Kg		91	69 - 134
Heptachlor epoxide	0.133	0.111		mg/Kg		83	70 - 135
Heptachlor epoxide	0.133	0.128		mg/Kg		96	70 - 135
Methoxychlor	0.133	0.111		mg/Kg		83	57 - 135
Methoxychlor	0.133	0.106		mg/Kg		80	57 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	80		10 - 150
DCB Decachlorobiphenyl	71		10 - 150
Tetrachloro-m-xylene	81		10 - 133
Tetrachloro-m-xylene	80		10 - 133

Lab Sample ID: LCSD 460-818191/3-A

Matrix: Solid

Analysis Batch: 818460

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aldrin	0.133	0.123		mg/Kg		92	74 - 140	6	30
Aldrin	0.133	0.132		mg/Kg		99	74 - 140	3	30
alpha-BHC	0.133	0.123		mg/Kg		93	72 - 142	12	30
alpha-BHC	0.133	0.134		mg/Kg		100	72 - 142	4	30
4,4'-DDD	0.133	0.114		mg/Kg		86	70 - 140	15	30
4,4'-DDD	0.133	0.128		mg/Kg		96	70 - 140	2	30
beta-BHC	0.133	0.135		mg/Kg		101	65 - 137	11	30
beta-BHC	0.133	0.145		mg/Kg		108	65 - 137	4	30
4,4'-DDE	0.133	0.122		mg/Kg		91	71 - 137	13	30
4,4'-DDE	0.133	0.134		mg/Kg		101	71 - 137	3	30
4,4'-DDT	0.133	0.127		mg/Kg		96	63 - 131	14	30
4,4'-DDT	0.133	0.120		mg/Kg		90	63 - 131	2	30
delta-BHC	0.133	0.126		mg/Kg		94	70 - 143	7	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-818191/3-A

Matrix: Solid

Analysis Batch: 818460

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
delta-BHC	0.133	0.136		mg/Kg		102	70 - 143	4	30
Dieldrin	0.133	0.121		mg/Kg		91	70 - 135	8	30
Dieldrin	0.133	0.134		mg/Kg		100	70 - 135	2	30
Endosulfan I	0.133	0.124		mg/Kg		93	68 - 135	7	30
Endosulfan I	0.133	0.130		mg/Kg		97	68 - 135	2	30
Endosulfan II	0.133	0.126		mg/Kg		95	64 - 130	12	30
Endosulfan II	0.133	0.128		mg/Kg		96	64 - 130	1	30
Endosulfan sulfate	0.133	0.124		mg/Kg		93	66 - 143	12	30
Endosulfan sulfate	0.133	0.116		mg/Kg		87	66 - 143	2	30
Endrin	0.133	0.119		mg/Kg		89	68 - 136	14	30
Endrin	0.133	0.130		mg/Kg		97	68 - 136	2	30
Endrin aldehyde	0.133	0.122		mg/Kg		92	68 - 132	12	30
Endrin aldehyde	0.133	0.115		mg/Kg		86	68 - 132	1	30
Endrin ketone	0.133	0.126		mg/Kg		95	60 - 150	13	30
Endrin ketone	0.133	0.116		mg/Kg		87	60 - 150	1	30
gamma-BHC (Lindane)	0.133	0.127		mg/Kg		95	70 - 134	10	30
gamma-BHC (Lindane)	0.133	0.139		mg/Kg		104	70 - 134	4	30
Heptachlor	0.133	0.125		mg/Kg		94	69 - 134	7	30
Heptachlor	0.133	0.127		mg/Kg		95	69 - 134	4	30
Heptachlor epoxide	0.133	0.121		mg/Kg		91	70 - 135	9	30
Heptachlor epoxide	0.133	0.130		mg/Kg		98	70 - 135	2	30
Methoxychlor	0.133	0.125		mg/Kg		94	57 - 135	12	30
Methoxychlor	0.133	0.108		mg/Kg		81	57 - 135	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
DCB Decachlorobiphenyl	90		10 - 150
DCB Decachlorobiphenyl	65		10 - 150
Tetrachloro-m-xylene	78		10 - 133
Tetrachloro-m-xylene	77		10 - 133

Lab Sample ID: 460-248782-1 MS

Matrix: Solid

Analysis Batch: 818460

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 818191

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.0073	U	0.145	0.118		mg/Kg	✱	82	70 - 140
4,4'-DDD	0.0073	U	0.145	0.142		mg/Kg	✱	98	70 - 140
4,4'-DDE	0.0073	U	0.145	0.126		mg/Kg	✱	87	71 - 137
4,4'-DDE	0.0073	U	0.145	0.142		mg/Kg	✱	98	71 - 137
4,4'-DDT	0.0073	U	0.145	0.134		mg/Kg	✱	92	63 - 131
4,4'-DDT	0.0073	U	0.145	0.134		mg/Kg	✱	92	63 - 131
Aldrin	0.0073	U	0.145	0.129		mg/Kg	✱	89	74 - 140
Aldrin	0.0073	U	0.145	0.137		mg/Kg	✱	95	74 - 140
alpha-BHC	0.0022	U	0.145	0.129		mg/Kg	✱	89	72 - 142
alpha-BHC	0.0022	U	0.145	0.140		mg/Kg	✱	97	72 - 142
beta-BHC	0.0022	U	0.145	0.142		mg/Kg	✱	98	65 - 137
beta-BHC	0.0022	U	0.145	0.149		mg/Kg	✱	103	65 - 137
delta-BHC	0.0022	U	0.145	0.132		mg/Kg	✱	91	70 - 143

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-248782-1 MS

Matrix: Solid

Analysis Batch: 818460

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 818191

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
delta-BHC	0.0022	U	0.145	0.141		mg/Kg	☼	97	70 - 143
Dieldrin	0.0022	U	0.145	0.125		mg/Kg	☼	86	70 - 135
Dieldrin	0.0022	U	0.145	0.144		mg/Kg	☼	99	70 - 135
Endosulfan I	0.0073	U	0.145	0.130		mg/Kg	☼	89	68 - 135
Endosulfan I	0.0073	U	0.145	0.137		mg/Kg	☼	94	68 - 135
Endosulfan II	0.0073	U	0.145	0.130		mg/Kg	☼	90	64 - 130
Endosulfan II	0.0073	U	0.145	0.141		mg/Kg	☼	97	64 - 130
Endosulfan sulfate	0.0073	U	0.145	0.130		mg/Kg	☼	90	66 - 143
Endosulfan sulfate	0.0073	U	0.145	0.129		mg/Kg	☼	89	66 - 143
Endrin	0.0073	U	0.145	0.122		mg/Kg	☼	84	68 - 136
Endrin	0.0073	U	0.145	0.142		mg/Kg	☼	98	68 - 136
Endrin aldehyde	0.0073	U	0.145	0.125		mg/Kg	☼	86	68 - 132
Endrin aldehyde	0.0073	U	0.145	0.127		mg/Kg	☼	87	68 - 132
Endrin ketone	0.0073	U	0.145	0.131		mg/Kg	☼	90	60 - 150
Endrin ketone	0.0073	U	0.145	0.130		mg/Kg	☼	90	60 - 150
gamma-BHC (Lindane)	0.0022	U	0.145	0.132		mg/Kg	☼	91	70 - 134
gamma-BHC (Lindane)	0.0022	U	0.145	0.143		mg/Kg	☼	99	70 - 134
Heptachlor	0.0073	U	0.145	0.131		mg/Kg	☼	90	69 - 134
Heptachlor	0.0073	U	0.145	0.133		mg/Kg	☼	91	69 - 134
Heptachlor epoxide	0.0073	U	0.145	0.128		mg/Kg	☼	88	70 - 135
Heptachlor epoxide	0.0073	U	0.145	0.137		mg/Kg	☼	94	70 - 135
Methoxychlor	0.0073	U	0.145	0.131		mg/Kg	☼	90	57 - 135
Methoxychlor	0.0073	U	0.145	0.121		mg/Kg	☼	83	57 - 135

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	83		10 - 150
DCB Decachlorobiphenyl	71		10 - 150
Tetrachloro-m-xylene	79		10 - 133
Tetrachloro-m-xylene	76		10 - 133

Lab Sample ID: 460-248782-1 MSD

Matrix: Solid

Analysis Batch: 818460

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 818191

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
4,4'-DDD	0.0073	U	0.145	0.124		mg/Kg	☼	86	70 - 140	5	30
4,4'-DDD	0.0073	U	0.145	0.151		mg/Kg	☼	104	70 - 140	6	30
4,4'-DDE	0.0073	U	0.145	0.137		mg/Kg	☼	94	71 - 137	8	30
4,4'-DDE	0.0073	U	0.145	0.155		mg/Kg	☼	107	71 - 137	9	30
4,4'-DDT	0.0073	U	0.145	0.141		mg/Kg	☼	97	63 - 131	5	30
4,4'-DDT	0.0073	U	0.145	0.140		mg/Kg	☼	97	63 - 131	5	30
Aldrin	0.0073	U	0.145	0.137		mg/Kg	☼	94	74 - 140	6	30
Aldrin	0.0073	U	0.145	0.151		mg/Kg	☼	104	74 - 140	10	30
alpha-BHC	0.0022	U	0.145	0.137		mg/Kg	☼	95	72 - 142	7	30
alpha-BHC	0.0022	U	0.145	0.156		mg/Kg	☼	107	72 - 142	10	30
beta-BHC	0.0022	U	0.145	0.152		mg/Kg	☼	105	65 - 137	7	30
beta-BHC	0.0022	U	0.145	0.165		mg/Kg	☼	114	65 - 137	10	30
delta-BHC	0.0022	U	0.145	0.141		mg/Kg	☼	97	70 - 143	7	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-248782-1 MSD

Matrix: Solid

Analysis Batch: 818460

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 818191

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
delta-BHC	0.0022	U	0.145	0.157		mg/Kg	✱	108	70 - 143	10	30
Dieldrin	0.0022	U	0.145	0.137		mg/Kg	✱	94	70 - 135	9	30
Dieldrin	0.0022	U	0.145	0.155		mg/Kg	✱	107	70 - 135	8	30
Endosulfan I	0.0073	U	0.145	0.140		mg/Kg	✱	97	68 - 135	8	30
Endosulfan I	0.0073	U	0.145	0.149		mg/Kg	✱	102	68 - 135	8	30
Endosulfan II	0.0073	U	0.145	0.138		mg/Kg	✱	95	64 - 130	6	30
Endosulfan II	0.0073	U	0.145	0.149		mg/Kg	✱	103	64 - 130	6	30
Endosulfan sulfate	0.0073	U	0.145	0.139		mg/Kg	✱	96	66 - 143	7	30
Endosulfan sulfate	0.0073	U	0.145	0.135		mg/Kg	✱	93	66 - 143	5	30
Endrin	0.0073	U	0.145	0.129		mg/Kg	✱	89	68 - 136	5	30
Endrin	0.0073	U	0.145	0.151		mg/Kg	✱	104	68 - 136	6	30
Endrin aldehyde	0.0073	U	0.145	0.134		mg/Kg	✱	92	68 - 132	7	30
Endrin aldehyde	0.0073	U	0.145	0.133		mg/Kg	✱	92	68 - 132	5	30
Endrin ketone	0.0073	U	0.145	0.147		mg/Kg	✱	101	60 - 150	11	30
Endrin ketone	0.0073	U	0.145	0.136		mg/Kg	✱	93	60 - 150	4	30
gamma-BHC (Lindane)	0.0022	U	0.145	0.142		mg/Kg	✱	98	70 - 134	7	30
gamma-BHC (Lindane)	0.0022	U	0.145	0.160		mg/Kg	✱	110	70 - 134	11	30
Heptachlor	0.0073	U	0.145	0.140		mg/Kg	✱	96	69 - 134	6	30
Heptachlor	0.0073	U	0.145	0.146		mg/Kg	✱	101	69 - 134	10	30
Heptachlor epoxide	0.0073	U	0.145	0.138		mg/Kg	✱	95	70 - 135	7	30
Heptachlor epoxide	0.0073	U	0.145	0.151		mg/Kg	✱	104	70 - 135	10	30
Methoxychlor	0.0073	U	0.145	0.150		mg/Kg	✱	104	57 - 135	14	30
Methoxychlor	0.0073	U	0.145	0.125		mg/Kg	✱	86	57 - 135	4	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	90		10 - 150
DCB Decachlorobiphenyl	73		10 - 150
Tetrachloro-m-xylene	86		10 - 133
Tetrachloro-m-xylene	87		10 - 133

Lab Sample ID: MB 460-818289/1-A

Matrix: Water

Analysis Batch: 818457

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818289

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.020	U	0.020	0.0030	ug/L		12/11/21 09:12	12/12/21 23:47	1
Aldrin	0.020	U	0.020	0.0030	ug/L		12/11/21 09:12	12/12/21 23:47	1
alpha-BHC	0.020	U	0.020	0.0070	ug/L		12/11/21 09:12	12/12/21 23:47	1
alpha-BHC	0.020	U	0.020	0.0070	ug/L		12/11/21 09:12	12/12/21 23:47	1
4,4'-DDD	0.020	U	0.020	0.0060	ug/L		12/11/21 09:12	12/12/21 23:47	1
4,4'-DDD	0.020	U	0.020	0.0060	ug/L		12/11/21 09:12	12/12/21 23:47	1
beta-BHC	0.020	U	0.020	0.015	ug/L		12/11/21 09:12	12/12/21 23:47	1
beta-BHC	0.020	U	0.020	0.015	ug/L		12/11/21 09:12	12/12/21 23:47	1
4,4'-DDE	0.020	U	0.020	0.0020	ug/L		12/11/21 09:12	12/12/21 23:47	1
4,4'-DDE	0.020	U	0.020	0.0020	ug/L		12/11/21 09:12	12/12/21 23:47	1
Chlordane (technical)	0.50	U	0.50	0.055	ug/L		12/11/21 09:12	12/12/21 23:47	1
Chlordane (technical)	0.50	U	0.50	0.055	ug/L		12/11/21 09:12	12/12/21 23:47	1
4,4'-DDT	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/12/21 23:47	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-818289/1-A

Matrix: Water

Analysis Batch: 818457

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818289

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/12/21 23:47	1
delta-BHC	0.020	U	0.020	0.0050	ug/L		12/11/21 09:12	12/12/21 23:47	1
delta-BHC	0.020	U	0.020	0.0050	ug/L		12/11/21 09:12	12/12/21 23:47	1
Dieldrin	0.020	U	0.020	0.0030	ug/L		12/11/21 09:12	12/12/21 23:47	1
Dieldrin	0.020	U	0.020	0.0030	ug/L		12/11/21 09:12	12/12/21 23:47	1
Endosulfan I	0.020	U	0.020	0.0020	ug/L		12/11/21 09:12	12/12/21 23:47	1
Endosulfan I	0.020	U	0.020	0.0020	ug/L		12/11/21 09:12	12/12/21 23:47	1
Endosulfan II	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/12/21 23:47	1
Endosulfan II	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/12/21 23:47	1
Endosulfan sulfate	0.020	U	0.020	0.0060	ug/L		12/11/21 09:12	12/12/21 23:47	1
Endosulfan sulfate	0.020	U	0.020	0.0060	ug/L		12/11/21 09:12	12/12/21 23:47	1
Endrin	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/12/21 23:47	1
Endrin	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/12/21 23:47	1
Endrin aldehyde	0.020	U	0.020	0.0080	ug/L		12/11/21 09:12	12/12/21 23:47	1
Endrin aldehyde	0.020	U	0.020	0.0080	ug/L		12/11/21 09:12	12/12/21 23:47	1
Endrin ketone	0.020	U	0.020	0.0080	ug/L		12/11/21 09:12	12/12/21 23:47	1
Endrin ketone	0.020	U	0.020	0.0080	ug/L		12/11/21 09:12	12/12/21 23:47	1
gamma-BHC (Lindane)	0.020	U	0.020	0.012	ug/L		12/11/21 09:12	12/12/21 23:47	1
gamma-BHC (Lindane)	0.020	U	0.020	0.012	ug/L		12/11/21 09:12	12/12/21 23:47	1
Heptachlor	0.020	U	0.020	0.0030	ug/L		12/11/21 09:12	12/12/21 23:47	1
Heptachlor	0.020	U	0.020	0.0030	ug/L		12/11/21 09:12	12/12/21 23:47	1
Heptachlor epoxide	0.020	U	0.020	0.0050	ug/L		12/11/21 09:12	12/12/21 23:47	1
Heptachlor epoxide	0.020	U	0.020	0.0050	ug/L		12/11/21 09:12	12/12/21 23:47	1
Methoxychlor	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/12/21 23:47	1
Methoxychlor	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/12/21 23:47	1
Toxaphene	0.50	U	0.50	0.11	ug/L		12/11/21 09:12	12/12/21 23:47	1
Toxaphene	0.50	U	0.50	0.11	ug/L		12/11/21 09:12	12/12/21 23:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		10 - 150	12/11/21 09:12	12/12/21 23:47	1
DCB Decachlorobiphenyl	89		10 - 150	12/11/21 09:12	12/12/21 23:47	1
Tetrachloro-m-xylene	73		10 - 150	12/11/21 09:12	12/12/21 23:47	1
Tetrachloro-m-xylene	75		10 - 150	12/11/21 09:12	12/12/21 23:47	1

Lab Sample ID: LCS 460-818289/2-A

Matrix: Water

Analysis Batch: 818457

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818289

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	0.800	0.816		ug/L		102	53 - 142
Aldrin	0.800	0.887		ug/L		111	53 - 142
alpha-BHC	0.800	0.821		ug/L		103	65 - 134
alpha-BHC	0.800	0.881		ug/L		110	65 - 134
4,4'-DDD	0.800	0.821		ug/L		103	67 - 135
4,4'-DDD	0.800	0.907		ug/L		113	67 - 135
beta-BHC	0.800	0.861		ug/L		108	72 - 141
beta-BHC	0.800	0.940		ug/L		117	72 - 141
4,4'-DDE	0.800	0.823		ug/L		103	65 - 135

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-818289/2-A

Matrix: Water

Analysis Batch: 818457

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818289

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDE	0.800	0.903		ug/L		113	65 - 135
4,4'-DDT	0.800	0.803		ug/L		100	62 - 136
4,4'-DDT	0.800	0.924		ug/L		116	62 - 136
delta-BHC	0.800	0.700		ug/L		88	41 - 147
delta-BHC	0.800	0.756		ug/L		95	41 - 147
Dieldrin	0.800	0.810		ug/L		101	66 - 133
Dieldrin	0.800	0.889		ug/L		111	66 - 133
Endosulfan I	0.800	0.796		ug/L		100	64 - 132
Endosulfan I	0.800	0.873		ug/L		109	64 - 132
Endosulfan II	0.800	0.833		ug/L		104	67 - 134
Endosulfan II	0.800	0.913		ug/L		114	67 - 134
Endosulfan sulfate	0.800	0.840		ug/L		105	47 - 158
Endosulfan sulfate	0.800	0.980		ug/L		122	47 - 158
Endrin	0.800	0.839		ug/L		105	67 - 132
Endrin	0.800	0.910		ug/L		114	67 - 132
Endrin aldehyde	0.800	0.762		ug/L		95	54 - 132
Endrin aldehyde	0.800	0.840		ug/L		105	54 - 132
Endrin ketone	0.800	0.865		ug/L		108	68 - 132
Endrin ketone	0.800	0.941		ug/L		118	68 - 132
gamma-BHC (Lindane)	0.800	0.830		ug/L		104	65 - 134
gamma-BHC (Lindane)	0.800	0.904		ug/L		113	65 - 134
Heptachlor	0.800	0.830		ug/L		104	63 - 128
Heptachlor	0.800	0.883		ug/L		110	63 - 128
Heptachlor epoxide	0.800	0.792		ug/L		99	66 - 128
Heptachlor epoxide	0.800	0.863		ug/L		108	66 - 128
Methoxychlor	0.800	0.760		ug/L		95	42 - 151
Methoxychlor	0.800	0.887		ug/L		111	42 - 151

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	83		10 - 150
DCB Decachlorobiphenyl	100		10 - 150
Tetrachloro-m-xylene	79		10 - 150
Tetrachloro-m-xylene	84		10 - 150

Lab Sample ID: LCSD 460-818289/3-A

Matrix: Water

Analysis Batch: 818457

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818289

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin	0.800	0.811		ug/L		101	53 - 142	1	30
Aldrin	0.800	0.864		ug/L		108	53 - 142	3	30
alpha-BHC	0.800	0.822		ug/L		103	65 - 134	0	30
alpha-BHC	0.800	0.857		ug/L		107	65 - 134	3	30
4,4'-DDD	0.800	0.812		ug/L		102	67 - 135	1	30
4,4'-DDD	0.800	0.873		ug/L		109	67 - 135	4	30
beta-BHC	0.800	0.849		ug/L		106	72 - 141	1	30
beta-BHC	0.800	0.911		ug/L		114	72 - 141	3	30
4,4'-DDE	0.800	0.817		ug/L		102	65 - 135	1	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-818289/3-A

Matrix: Water

Analysis Batch: 818457

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818289

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDE	0.800	0.878		ug/L		110	65 - 135	3	30
4,4'-DDT	0.800	0.798		ug/L		100	62 - 136	1	30
4,4'-DDT	0.800	0.891		ug/L		111	62 - 136	4	30
delta-BHC	0.800	0.698		ug/L		87	41 - 147	0	30
delta-BHC	0.800	0.736		ug/L		92	41 - 147	3	30
Dieldrin	0.800	0.806		ug/L		101	66 - 133	1	30
Dieldrin	0.800	0.857		ug/L		107	66 - 133	4	30
Endosulfan I	0.800	0.789		ug/L		99	64 - 132	1	30
Endosulfan I	0.800	0.845		ug/L		106	64 - 132	3	30
Endosulfan II	0.800	0.826		ug/L		103	67 - 134	1	30
Endosulfan II	0.800	0.877		ug/L		110	67 - 134	4	30
Endosulfan sulfate	0.800	0.831		ug/L		104	47 - 158	1	30
Endosulfan sulfate	0.800	0.942		ug/L		118	47 - 158	4	30
Endrin	0.800	0.836		ug/L		104	67 - 132	0	30
Endrin	0.800	0.878		ug/L		110	67 - 132	4	30
Endrin aldehyde	0.800	0.758		ug/L		95	54 - 132	1	30
Endrin aldehyde	0.800	0.810		ug/L		101	54 - 132	4	30
Endrin ketone	0.800	0.852		ug/L		107	68 - 132	1	30
Endrin ketone	0.800	0.902		ug/L		113	68 - 132	4	30
gamma-BHC (Lindane)	0.800	0.827		ug/L		103	65 - 134	0	30
gamma-BHC (Lindane)	0.800	0.883		ug/L		110	65 - 134	2	30
Heptachlor	0.800	0.827		ug/L		103	63 - 128	0	30
Heptachlor	0.800	0.855		ug/L		107	63 - 128	3	30
Heptachlor epoxide	0.800	0.787		ug/L		98	66 - 128	1	30
Heptachlor epoxide	0.800	0.836		ug/L		104	66 - 128	3	30
Methoxychlor	0.800	0.749		ug/L		94	42 - 151	1	30
Methoxychlor	0.800	0.846		ug/L		106	42 - 151	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
DCB Decachlorobiphenyl	80		10 - 150
DCB Decachlorobiphenyl	94		10 - 150
Tetrachloro-m-xylene	78		10 - 150
Tetrachloro-m-xylene	83		10 - 150

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-818189/1-A

Matrix: Solid

Analysis Batch: 818455

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor 1016	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor 1221	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor 1221	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor 1232	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor 1232	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor 1242	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor 1242	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-818189/1-A
Matrix: Solid
Analysis Batch: 818455

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 818189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor 1248	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor 1254	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor 1254	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor 1260	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor 1260	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor-1262	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor-1262	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor 1268	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Aroclor 1268	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Polychlorinated biphenyls, Total	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1
Polychlorinated biphenyls, Total	0.067	U	0.067	0.018	mg/Kg		12/10/21 17:45	12/12/21 20:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	98		37 - 150	12/10/21 17:45	12/12/21 20:12	1
DCB Decachlorobiphenyl	100		37 - 150	12/10/21 17:45	12/12/21 20:12	1
Tetrachloro-m-xylene	97		54 - 150	12/10/21 17:45	12/12/21 20:12	1
Tetrachloro-m-xylene	86		54 - 150	12/10/21 17:45	12/12/21 20:12	1

Lab Sample ID: LCS 460-818189/2-A
Matrix: Solid
Analysis Batch: 818455

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 818189

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	0.333	0.372		mg/Kg		112	65 - 133
Aroclor 1016	0.333	0.343		mg/Kg		103	65 - 133
Aroclor 1260	0.333	0.387		mg/Kg		116	71 - 150
Aroclor 1260	0.333	0.369		mg/Kg		111	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	101		37 - 150
DCB Decachlorobiphenyl	105		37 - 150
Tetrachloro-m-xylene	102		54 - 150
Tetrachloro-m-xylene	93		54 - 150

Lab Sample ID: LCSD 460-818189/3-A
Matrix: Solid
Analysis Batch: 818455

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 818189

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	0.333	0.399		mg/Kg		120	65 - 133	7	30
Aroclor 1016	0.333	0.372		mg/Kg		112	65 - 133	8	30
Aroclor 1260	0.333	0.416		mg/Kg		125	71 - 150	7	30
Aroclor 1260	0.333	0.400		mg/Kg		120	71 - 150	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	112		37 - 150
DCB Decachlorobiphenyl	117		37 - 150

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QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-818189/3-A
Matrix: Solid
Analysis Batch: 818455

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 818189

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	111		54 - 150
Tetrachloro-m-xylene	103		54 - 150

Lab Sample ID: 460-248782-1 MS
Matrix: Solid
Analysis Batch: 818455

Client Sample ID: TRC-SB-02 (0-0.5)
Prep Type: Total/NA
Prep Batch: 818189

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	0.073	U	0.363	0.406		mg/Kg	⊛	112	65 - 133
Aroclor 1016	0.073	U	0.363	0.363		mg/Kg	⊛	100	65 - 133
Aroclor 1260	0.073	U	0.363	0.378		mg/Kg	⊛	104	71 - 150
Aroclor 1260	0.073	U	0.363	0.330		mg/Kg	⊛	91	71 - 150

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	90		37 - 150
DCB Decachlorobiphenyl	80		37 - 150
Tetrachloro-m-xylene	86		54 - 150
Tetrachloro-m-xylene	74		54 - 150

Lab Sample ID: 460-248782-1 MSD
Matrix: Solid
Analysis Batch: 818455

Client Sample ID: TRC-SB-02 (0-0.5)
Prep Type: Total/NA
Prep Batch: 818189

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aroclor 1016	0.073	U	0.363	0.444		mg/Kg	⊛	122	65 - 133	9	30
Aroclor 1016	0.073	U	0.363	0.377		mg/Kg	⊛	104	65 - 133	4	30
Aroclor 1260	0.073	U	0.363	0.406		mg/Kg	⊛	112	71 - 150	7	30
Aroclor 1260	0.073	U	0.363	0.339		mg/Kg	⊛	93	71 - 150	3	30

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	101		37 - 150
DCB Decachlorobiphenyl	86		37 - 150
Tetrachloro-m-xylene	97		54 - 150
Tetrachloro-m-xylene	80		54 - 150

Lab Sample ID: MB 460-818293/1-A
Matrix: Water
Analysis Batch: 818504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 818293

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor 1016	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 07:47	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-818293/1-A
Matrix: Water
Analysis Batch: 818504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 818293

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 07:47	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 07:47	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 07:47	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 07:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	70		10 - 138	12/11/21 09:19	12/13/21 07:47	1
DCB Decachlorobiphenyl	87		10 - 138	12/11/21 09:19	12/13/21 07:47	1
Tetrachloro-m-xylene	52		10 - 150	12/11/21 09:19	12/13/21 07:47	1
Tetrachloro-m-xylene	80		10 - 150	12/11/21 09:19	12/13/21 07:47	1

Lab Sample ID: LCS 460-818293/2-A
Matrix: Water
Analysis Batch: 818504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 818293

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	4.00	3.19		ug/L		80	66 - 141
Aroclor 1016	4.00	3.17		ug/L		79	66 - 141
Aroclor 1260	4.00	3.06		ug/L		77	66 - 142
Aroclor 1260	4.00	3.18		ug/L		80	66 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	59		10 - 138
DCB Decachlorobiphenyl	79		10 - 138
Tetrachloro-m-xylene	83		10 - 150
Tetrachloro-m-xylene	74		10 - 150

Lab Sample ID: LCSD 460-818293/3-A
Matrix: Water
Analysis Batch: 818504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 818293

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	4.00	3.12		ug/L		78	66 - 141	2	30
Aroclor 1016	4.00	3.21		ug/L		80	66 - 141	0	30
Aroclor 1260	4.00	3.05		ug/L		76	66 - 142	0	30
Aroclor 1260	4.00	3.30		ug/L		82	66 - 142	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	59		10 - 138
DCB Decachlorobiphenyl	79		10 - 138

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-818293/3-A

Matrix: Water

Analysis Batch: 818504

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818293

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	81		10 - 150
Tetrachloro-m-xylene	74		10 - 150

Lab Sample ID: 460-248898-E-5-A MSD

Matrix: Water

Analysis Batch: 818504

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 818293

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	0.40	U	4.00	5.59		ug/L		140	66 - 142	27	30
Aroclor 1016	0.40	U	4.00	3.36		ug/L		84	66 - 142	12	30
Aroclor 1260	0.40	U	4.00	5.57		ug/L		139	75 - 150	8	30
Aroclor 1260	0.40	U	4.00	3.91		ug/L		98	75 - 150	7	30

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	106		10 - 138
DCB Decachlorobiphenyl	91		10 - 138
Tetrachloro-m-xylene	63		10 - 150
Tetrachloro-m-xylene	56		10 - 150

Lab Sample ID: 460-248898-H-5-A MS

Matrix: Water

Analysis Batch: 818504

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 818293

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	0.40	U	4.00	7.35	*	ug/L		184	66 - 142
Aroclor 1016	0.40	U	4.00	3.80		ug/L		95	66 - 142
Aroclor 1260	0.40	U	4.00	6.03	*	ug/L		151	75 - 150
Aroclor 1260	0.40	U	4.00	4.19		ug/L		105	75 - 150

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	108		10 - 138
DCB Decachlorobiphenyl	99		10 - 138
Tetrachloro-m-xylene	69		10 - 150
Tetrachloro-m-xylene	61		10 - 150

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-818232/1-A

Matrix: Water

Analysis Batch: 818466

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818232

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	1.2	U	1.2	0.13	ug/L		12/10/21 23:07	12/12/21 18:33	1
2,4-D	1.2	U	1.2	0.13	ug/L		12/10/21 23:07	12/12/21 18:33	1
2,4,5-T	1.2	U	1.2	0.12	ug/L		12/10/21 23:07	12/12/21 18:33	1
2,4,5-T	1.2	U	1.2	0.12	ug/L		12/10/21 23:07	12/12/21 18:33	1
Silvex (2,4,5-TP)	1.2	U	1.2	0.11	ug/L		12/10/21 23:07	12/12/21 18:33	1
Silvex (2,4,5-TP)	1.2	U	1.2	0.11	ug/L		12/10/21 23:07	12/12/21 18:33	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: MB 460-818232/1-A

Matrix: Water

Analysis Batch: 818466

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818232

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	123		28 - 150	12/10/21 23:07	12/12/21 18:33	1
2,4-Dichlorophenylacetic acid	117		28 - 150	12/10/21 23:07	12/12/21 18:33	1

Lab Sample ID: LCS 460-818232/2-A

Matrix: Water

Analysis Batch: 818466

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818232

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	8.00	9.84		ug/L		123	36 - 139
2,4-D	8.00	9.09		ug/L		114	36 - 139
2,4,5-T	2.00	2.32		ug/L		116	45 - 150
2,4,5-T	2.00	2.55		ug/L		127	45 - 150
Silvex (2,4,5-TP)	2.00	2.48		ug/L		124	42 - 150
Silvex (2,4,5-TP)	2.00	2.67		ug/L		134	42 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	127		28 - 150
2,4-Dichlorophenylacetic acid	124		28 - 150

Lab Sample ID: LCSD 460-818232/3-A

Matrix: Water

Analysis Batch: 818466

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818232

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
2,4-D	8.00	9.92		ug/L		124	36 - 139	1	30
2,4-D	8.00	9.30		ug/L		116	36 - 139	2	30
2,4,5-T	2.00	2.32		ug/L		116	45 - 150	0	30
2,4,5-T	2.00	2.68		ug/L		134	45 - 150	5	30
Silvex (2,4,5-TP)	2.00	2.49		ug/L		125	42 - 150	1	30
Silvex (2,4,5-TP)	2.00	2.69		ug/L		135	42 - 150	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	129		28 - 150
2,4-Dichlorophenylacetic acid	127		28 - 150

Lab Sample ID: 460-248765-F-1-C MSD

Matrix: Water

Analysis Batch: 818466

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 818232

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
2,4-D	1.2	U	8.00	9.25		ug/L		116	36 - 139	8	30
2,4-D	1.2	U	8.00	9.40		ug/L		117	36 - 139	13	30
2,4,5-T	1.2	U	2.00	2.29		ug/L		115	45 - 150	10	30
2,4,5-T	1.2	U	2.00	2.97		ug/L		149	45 - 150	12	30
Silvex (2,4,5-TP)	1.2	U	2.00	2.45		ug/L		123	42 - 150	9	30
Silvex (2,4,5-TP)	1.2	U	2.00	2.75		ug/L		138	42 - 150	10	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 460-248765-F-1-C MSD

Matrix: Water

Analysis Batch: 818466

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 818232

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	132		28 - 150
2,4-Dichlorophenylacetic acid	134		28 - 150

Lab Sample ID: 460-248765-I-1-C MS

Matrix: Water

Analysis Batch: 818466

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 818232

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	1.2	U	8.00	8.51		ug/L		106	36 - 139
2,4-D	1.2	U	8.00	8.23		ug/L		103	36 - 139
2,4,5-T	1.2	U	2.00	2.08		ug/L		104	45 - 150
2,4,5-T	1.2	U	2.00	2.64		ug/L		132	45 - 150
Silvex (2,4,5-TP)	1.2	U	2.00	2.23		ug/L		111	42 - 150
Silvex (2,4,5-TP)	1.2	U	2.00	2.50		ug/L		125	42 - 150

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	122		28 - 150
2,4-Dichlorophenylacetic acid	118		28 - 150

Lab Sample ID: MB 460-818240/1-A

Matrix: Solid

Analysis Batch: 818466

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818240

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.033	U	0.033	0.012	mg/Kg		12/11/21 02:39	12/12/21 22:19	1
2,4-D	0.033	U	0.033	0.012	mg/Kg		12/11/21 02:39	12/12/21 22:19	1
2,4,5-T	0.033	U	0.033	0.0071	mg/Kg		12/11/21 02:39	12/12/21 22:19	1
2,4,5-T	0.033	U	0.033	0.0071	mg/Kg		12/11/21 02:39	12/12/21 22:19	1
Silvex (2,4,5-TP)	0.033	U	0.033	0.0035	mg/Kg		12/11/21 02:39	12/12/21 22:19	1
Silvex (2,4,5-TP)	0.033	U	0.033	0.0035	mg/Kg		12/11/21 02:39	12/12/21 22:19	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
2,4-Dichlorophenylacetic acid	128		65 - 150	12/11/21 02:39	12/12/21 22:19	1			
2,4-Dichlorophenylacetic acid	127		65 - 150	12/11/21 02:39	12/12/21 22:19	1			

Lab Sample ID: LCS 460-818240/2-A

Matrix: Solid

Analysis Batch: 818466

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818240

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	0.167	0.210		mg/Kg		126	50 - 130
2,4-D	0.167	0.198		mg/Kg		119	50 - 130
2,4,5-T	0.0417	0.0475		mg/Kg		114	59 - 150
2,4,5-T	0.0417	0.0521		mg/Kg		125	59 - 150
Silvex (2,4,5-TP)	0.0417	0.0508		mg/Kg		122	58 - 150
Silvex (2,4,5-TP)	0.0417	0.0544		mg/Kg		130	58 - 150

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 460-818240/2-A

Matrix: Solid

Analysis Batch: 818466

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818240

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	134		65 - 150
2,4-Dichlorophenylacetic acid	136		65 - 150

Lab Sample ID: LCSD 460-818240/3-A

Matrix: Solid

Analysis Batch: 818466

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 818240

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-D	0.167	0.214		mg/Kg		129	50 - 130	2	30
2,4-D	0.167	0.200		mg/Kg		120	50 - 130	5	30
2,4,5-T	0.0417	0.0490		mg/Kg		118	59 - 150	3	30
2,4,5-T	0.0417	0.0529		mg/Kg		127	59 - 150	11	30
Silvex (2,4,5-TP)	0.0417	0.0525		mg/Kg		126	58 - 150	3	30
Silvex (2,4,5-TP)	0.0417	0.0555		mg/Kg		133	58 - 150	9	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	131		65 - 150
2,4-Dichlorophenylacetic acid	135		65 - 150

Lab Sample ID: 460-248782-1 MS

Matrix: Solid

Analysis Batch: 818466

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 818240

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	0.036	U	0.0453	0.0494		mg/Kg	✱	109	59 - 150
2,4,5-T	0.036	U	0.0453	0.0579		mg/Kg	✱	128	59 - 150
2,4-D	0.036	U	0.181	0.210		mg/Kg	✱	116	50 - 130
2,4-D	0.036	U	0.181	0.303	*	mg/Kg	✱	167	50 - 130
Silvex (2,4,5-TP)	0.036	U	0.0453	0.0666		mg/Kg	✱	147	58 - 150
Silvex (2,4,5-TP)	0.036	U	0.0453	0.0525		mg/Kg	✱	116	58 - 150

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	110		65 - 150
2,4-Dichlorophenylacetic acid	128		65 - 150

Lab Sample ID: 460-248782-1 MSD

Matrix: Solid

Analysis Batch: 818466

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 818240

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	0.036	U	0.0454	0.0516		mg/Kg	✱	114	59 - 150	4	30
2,4,5-T	0.036	U	0.0454	0.0622		mg/Kg	✱	137	59 - 150	7	30
2,4-D	0.036	U	0.182	0.206	*	mg/Kg	✱	113	50 - 130	38	30
2,4-D	0.036	U	0.182	0.428	E *	mg/Kg	✱	236	50 - 130	68	30
Silvex (2,4,5-TP)	0.036	U	0.0454	0.0664		mg/Kg	✱	146	58 - 150	0	30
Silvex (2,4,5-TP)	0.036	U	0.0454	0.0581		mg/Kg	✱	128	58 - 150	10	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 460-248782-1 MSD

Matrix: Solid

Analysis Batch: 818466

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 818240

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	128		65 - 150
2,4-Dichlorophenylacetic acid	136		65 - 150

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-819072/1-A

Matrix: Solid

Analysis Batch: 819195

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 819072

Analyte	MB	MB							
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	20.0	U	20.0	5.5	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Barium	2.0	U	2.0	0.15	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Calcium	100	U	100	17.7	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Chromium	2.0	U	2.0	0.27	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Cobalt	2.0	U	2.0	0.15	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Copper	2.0	U	2.0	0.37	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Iron	60.0	U	60.0	20.2	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Magnesium	100	U	100	10.2	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Manganese	4.0	U	4.0	0.40	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Nickel	2.0	U	2.0	0.47	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Potassium	18.95	J	100	12.1	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Lead	0.60	U	0.60	0.20	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Antimony	1.0	U	1.0	0.15	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Silver	1.0	U	1.0	0.089	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Selenium	1.3	U	1.3	0.13	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Sodium	100	U	100	45.7	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Thallium	0.40	U	0.40	0.041	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Vanadium	2.0	U	2.0	0.21	mg/Kg		12/15/21 18:47	12/16/21 10:50	1
Zinc	8.0	U	8.0	3.1	mg/Kg		12/15/21 18:47	12/16/21 10:50	1

Lab Sample ID: LCSSRM 460-819072/2-A ^5

Matrix: Solid

Analysis Batch: 819195

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 819072

Analyte	Spike	LCSSRM	LCSSRM						
	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Aluminum	7970	6373		mg/Kg		80.0	47.2 - 153.		
							1		
Arsenic	140	146.9		mg/Kg		105.0	82.9 - 117.		
							9		
Barium	202	178.8		mg/Kg		88.5	81.2 - 118.		
							3		
Beryllium	42.6	43.34		mg/Kg		101.7	81.0 - 119.		
							0		
Cadmium	97.9	94.81		mg/Kg		96.8	80.0 - 119.		
							5		
Calcium	4190	3879		mg/Kg		92.6	79.2 - 121.		
							0		

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSSRM 460-819072/2-A ^5

Matrix: Solid

Analysis Batch: 819195

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 819072

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	60.4	61.58		mg/Kg		102.0	80.3 - 119.7
Cobalt	86.4	87.04		mg/Kg		100.7	80.8 - 119.2
Copper	122	122.4		mg/Kg		100.4	82.8 - 117.2
Iron	13800	13390		mg/Kg		97.0	59.2 - 140.6
Magnesium	2260	2047		mg/Kg		90.6	75.2 - 124.8
Manganese	457	413.6		mg/Kg		90.5	79.6 - 120.6
Nickel	151	154.0		mg/Kg		102.0	79.5 - 121.2
Potassium	2030	1692		mg/Kg		83.4	70.0 - 130.0
Lead	56.7	53.55		mg/Kg		94.4	82.9 - 116.9
Antimony	99.5	72.09		mg/Kg		72.5	1.0 - 209.0
Silver	33.6	20.24		mg/Kg		60.2	48.2 - 73.5
Selenium	35.5	37.50		mg/Kg		105.6	77.5 - 122.3
Sodium	129	500 U		mg/Kg		71.3	70.7 - 129.5
Thallium	69.3	67.03		mg/Kg		96.7	79.4 - 120.6
Vanadium	44.9	44.50		mg/Kg		99.1	78.0 - 121.8
Zinc	186	184.7		mg/Kg		99.3	79.0 - 121.0

Lab Sample ID: 460-248782-1 MS

Matrix: Solid

Analysis Batch: 819195

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 819072

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	6160		544	6667	4	mg/Kg	✱	93	75 - 125
Antimony	0.46	J	5.44	2.80	N	mg/Kg	✱	43	75 - 125
Arsenic	6.8		10.9	15.56		mg/Kg	✱	80	75 - 125
Barium	72.5		10.9	82.65	4	mg/Kg	✱	93	75 - 125
Beryllium	0.33	J	5.44	5.63		mg/Kg	✱	97	75 - 125
Cadmium	0.52	J	5.44	5.34		mg/Kg	✱	89	75 - 125
Calcium	49000		544	49980	4	mg/Kg	✱	179	75 - 125
Chromium	15.7		10.9	27.09		mg/Kg	✱	105	75 - 125
Cobalt	5.5		5.44	10.06		mg/Kg	✱	85	75 - 125
Copper	64.3		10.9	68.29	4	mg/Kg	✱	36	75 - 125
Iron	15200		544	16630	4	mg/Kg	✱	271	75 - 125
Lead	129		5.44	132.0	4	mg/Kg	✱	63	75 - 125
Magnesium	15600		544	10020	4	mg/Kg	✱	-1017	75 - 125
Manganese	205		54.4	236.6	N	mg/Kg	✱	58	75 - 125
Nickel	15.2		10.9	25.46		mg/Kg	✱	94	75 - 125
Potassium	969	B	544	1481		mg/Kg	✱	94	75 - 125

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-248782-1 MS

Matrix: Solid

Analysis Batch: 819195

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 819072

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	0.35	J	10.9	10.39		mg/Kg	☼	92	75 - 125
Silver	0.13	J	5.44	5.19		mg/Kg	☼	93	75 - 125
Sodium	591		544	1074		mg/Kg	☼	89	75 - 125
Thallium	0.083	J	4.35	4.05		mg/Kg	☼	91	75 - 125
Vanadium	33.8		10.9	40.61	N	mg/Kg	☼	63	75 - 125
Zinc	180		54.4	217.9	N	mg/Kg	☼	70	75 - 125

Lab Sample ID: 460-248782-1 DU

Matrix: Solid

Analysis Batch: 819195

Client Sample ID: TRC-SB-02 (0-0.5)

Prep Type: Total/NA

Prep Batch: 819072

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Aluminum	6160		6198		mg/Kg	☼	0.6	20
Antimony	0.46	J	0.540	J	mg/Kg	☼	17	20
Arsenic	6.8		6.93		mg/Kg	☼	1	20
Barium	72.5		73.56		mg/Kg	☼	1	20
Beryllium	0.33	J	0.323	J	mg/Kg	☼	3	20
Cadmium	0.52	J	0.484	J	mg/Kg	☼	7	20
Calcium	49000		49920		mg/Kg	☼	2	20
Chromium	15.7		15.52		mg/Kg	☼	0.9	20
Cobalt	5.5		5.49		mg/Kg	☼	0.7	20
Copper	64.3		64.15		mg/Kg	☼	0.3	20
Iron	15200		15520		mg/Kg	☼	2	20
Lead	129		132.3		mg/Kg	☼	3	20
Magnesium	15600		15440		mg/Kg	☼	0.8	20
Manganese	205		206.1		mg/Kg	☼	0.4	20
Nickel	15.2		15.44		mg/Kg	☼	1	20
Potassium	969	B	963.0		mg/Kg	☼	0.6	20
Selenium	0.35	J	0.286	J	mg/Kg	☼	20	20
Silver	0.13	J	0.126	J	mg/Kg	☼	3	20
Sodium	591		593.7		mg/Kg	☼	0.5	20
Thallium	0.083	J	0.0855	J	mg/Kg	☼	3	20
Vanadium	33.8		33.95		mg/Kg	☼	0.4	20
Zinc	180		179.0		mg/Kg	☼	0.6	20

Lab Sample ID: MB 460-819082/1-A

Matrix: Water

Analysis Batch: 819195

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 819082

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	40.0	U	40.0	19.5	ug/L		12/15/21 21:40	12/16/21 12:18	1
Arsenic	2.0	U	2.0	0.89	ug/L		12/15/21 21:40	12/16/21 12:18	1
Barium	4.0	U	4.0	0.91	ug/L		12/15/21 21:40	12/16/21 12:18	1
Beryllium	0.80	U	0.80	0.13	ug/L		12/15/21 21:40	12/16/21 12:18	1
Cadmium	2.0	U	2.0	0.39	ug/L		12/15/21 21:40	12/16/21 12:18	1
Calcium	500	U	500	53.6	ug/L		12/15/21 21:40	12/16/21 12:18	1
Chromium	4.0	U	4.0	2.5	ug/L		12/15/21 21:40	12/16/21 12:18	1
Cobalt	4.0	U	4.0	0.71	ug/L		12/15/21 21:40	12/16/21 12:18	1
Copper	4.0	U	4.0	2.5	ug/L		12/15/21 21:40	12/16/21 12:18	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-819082/1-A
Matrix: Water
Analysis Batch: 819195

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 819082

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	120	U	120	58.2	ug/L		12/15/21 21:40	12/16/21 12:18	1
Magnesium	200	U	200	46.9	ug/L		12/15/21 21:40	12/16/21 12:18	1
Manganese	8.0	U	8.0	1.5	ug/L		12/15/21 21:40	12/16/21 12:18	1
Nickel	4.0	U	4.0	0.91	ug/L		12/15/21 21:40	12/16/21 12:18	1
Potassium	137.4	J	200	112	ug/L		12/15/21 21:40	12/16/21 12:18	1
Lead	1.2	U	1.2	0.84	ug/L		12/15/21 21:40	12/16/21 12:18	1
Antimony	2.0	U	2.0	0.76	ug/L		12/15/21 21:40	12/16/21 12:18	1
Silver	2.0	U	2.0	0.29	ug/L		12/15/21 21:40	12/16/21 12:18	1
Selenium	2.5	U	2.5	0.59	ug/L		12/15/21 21:40	12/16/21 12:18	1
Sodium	500	U	500	163	ug/L		12/15/21 21:40	12/16/21 12:18	1
Thallium	0.80	U	0.80	0.21	ug/L		12/15/21 21:40	12/16/21 12:18	1
Vanadium	4.0	U	4.0	0.68	ug/L		12/15/21 21:40	12/16/21 12:18	1
Zinc	16.0	U	16.0	6.5	ug/L		12/15/21 21:40	12/16/21 12:18	1

Lab Sample ID: LCS 460-819082/2-A
Matrix: Water
Analysis Batch: 819195

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 819082

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	2500	2310		ug/L		92	80 - 120
Arsenic	50.0	49.98		ug/L		100	80 - 120
Barium	50.0	44.97		ug/L		90	80 - 120
Beryllium	25.0	26.41		ug/L		106	80 - 120
Cadmium	25.0	24.74		ug/L		99	80 - 120
Calcium	2500	2509		ug/L		100	80 - 120
Chromium	50.0	51.14		ug/L		102	80 - 120
Cobalt	25.0	25.18		ug/L		101	80 - 120
Copper	50.0	51.46		ug/L		103	80 - 120
Iron	2500	2479		ug/L		99	80 - 120
Magnesium	2500	2435		ug/L		97	80 - 120
Manganese	250	243.4		ug/L		97	80 - 120
Nickel	50.0	50.09		ug/L		100	80 - 120
Potassium	2500	2475		ug/L		99	80 - 120
Lead	25.0	24.19		ug/L		97	80 - 120
Antimony	25.0	23.60		ug/L		94	80 - 120
Silver	25.0	24.94		ug/L		100	80 - 120
Selenium	50.0	49.45		ug/L		99	80 - 120
Sodium	2500	2496		ug/L		100	80 - 120
Thallium	20.0	18.64		ug/L		93	80 - 120
Vanadium	50.0	48.83		ug/L		98	80 - 120
Zinc	250	255.5		ug/L		102	80 - 120

Lab Sample ID: 460-248302-A-23-C MS
Matrix: Water
Analysis Batch: 819195

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 819082

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	223		2500	2424		ug/L		88	75 - 125
Arsenic	6.9		50.0	58.46		ug/L		103	75 - 125

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-248302-A-23-C MS
Matrix: Water
Analysis Batch: 819195

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 819082

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	105		50.0	167.6	N	ug/L		126	75 - 125
Beryllium	0.80	U	25.0	26.22		ug/L		105	75 - 125
Cadmium	2.0	U	25.0	24.87		ug/L		99	75 - 125
Calcium	17000		2500	20640	4	ug/L		144	75 - 125
Chromium	72.4		50.0	99.18	N	ug/L		54	75 - 125
Cobalt	9.5		25.0	35.78		ug/L		105	75 - 125
Copper	4.0	U	50.0	52.28		ug/L		105	75 - 125
Iron	708		2500	3012		ug/L		92	75 - 125
Magnesium	15300		2500	19160	4	ug/L		155	75 - 125
Manganese	1690		250	2082	4	ug/L		158	75 - 125
Nickel	15.2		50.0	67.88		ug/L		105	75 - 125
Potassium	2460	B	2500	5028		ug/L		103	75 - 125
Lead	1.2	U	25.0	25.43		ug/L		102	75 - 125
Antimony	2.0	U	25.0	24.82		ug/L		99	75 - 125
Silver	2.0	U	25.0	25.19		ug/L		101	75 - 125
Selenium	2.5	U	50.0	48.58		ug/L		97	75 - 125
Sodium	48900		2500	56590	4	ug/L		309	75 - 125
Thallium	0.80	U	20.0	18.92		ug/L		95	75 - 125
Vanadium	1.2	J	50.0	51.94		ug/L		102	75 - 125
Zinc	11.8	J	250	263.6		ug/L		101	75 - 125

Lab Sample ID: 460-248302-A-23-B DU
Matrix: Water
Analysis Batch: 819195

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 819082

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Aluminum	223		389.9	*	ug/L		54	20
Arsenic	6.9		7.53		ug/L		8	20
Barium	105		109.2		ug/L		4	20
Beryllium	0.80	U	0.80	U	ug/L		NC	20
Cadmium	2.0	U	2.0	U	ug/L		NC	20
Calcium	17000		16890		ug/L		0.9	20
Chromium	72.4		72.00		ug/L		0.5	20
Cobalt	9.5		9.99		ug/L		6	20
Copper	4.0	U	2.91	J	ug/L		NC	20
Iron	708		707.2		ug/L		0.08	20
Magnesium	15300		15590		ug/L		2	20
Manganese	1690		1681		ug/L		0.4	20
Nickel	15.2		16.95		ug/L		11	20
Potassium	2460	B	2554		ug/L		4	20
Lead	1.2	U	3.15		ug/L		NC	20
Antimony	2.0	U	2.0	U	ug/L		NC	20
Silver	2.0	U	2.0	U	ug/L		NC	20
Selenium	2.5	U	2.5	U	ug/L		NC	20
Sodium	48900		49740		ug/L		2	20
Thallium	0.80	U	0.80	U	ug/L		NC	20
Vanadium	1.2	J	2.31	J	ug/L		66	20
Zinc	11.8	J	14.26	J	ug/L		19	20

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-819134/1-A

Matrix: Solid

Analysis Batch: 819484

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 819134

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	20.0	U	20.0	5.5	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Barium	2.0	U	2.0	0.15	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Calcium	100	U	100	17.7	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Chromium	2.0	U	2.0	0.27	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Cobalt	2.0	U	2.0	0.15	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Copper	2.0	U	2.0	0.37	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Iron	60.0	U	60.0	20.2	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Magnesium	100	U	100	10.2	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Manganese	4.0	U	4.0	0.40	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Nickel	2.0	U	2.0	0.47	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Potassium	100	U	100	12.1	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Lead	0.60	U	0.60	0.20	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Antimony	1.0	U	1.0	0.15	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Silver	1.0	U	1.0	0.089	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Selenium	1.3	U	1.3	0.13	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Sodium	100	U	100	45.7	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Thallium	0.40	U	0.40	0.041	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Vanadium	2.0	U	2.0	0.21	mg/Kg		12/16/21 07:29	12/17/21 18:26	1
Zinc	8.0	U	8.0	3.1	mg/Kg		12/16/21 07:29	12/17/21 18:26	1

Lab Sample ID: LCSSRM 460-819134/2-A ^5

Matrix: Solid

Analysis Batch: 819484

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 819134

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	7970	6853		mg/Kg		86.0	47.2 - 153.1
Arsenic	140	141.2		mg/Kg		100.9	82.9 - 117.9
Barium	202	193.4		mg/Kg		95.7	81.2 - 118.3
Beryllium	42.6	41.82		mg/Kg		98.2	81.0 - 119.0
Cadmium	97.9	97.57		mg/Kg		99.7	80.0 - 119.5
Calcium	4190	4062		mg/Kg		96.9	79.2 - 121.0
Chromium	60.4	58.05		mg/Kg		96.1	80.3 - 119.7
Cobalt	86.4	86.87		mg/Kg		100.5	80.8 - 119.2
Copper	122	119.6		mg/Kg		98.0	82.8 - 117.2
Iron	13800	12880		mg/Kg		93.3	59.2 - 140.6
Magnesium	2260	2058		mg/Kg		91.1	75.2 - 124.8
Manganese	457	437.8		mg/Kg		95.8	79.6 - 120.6

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSSRM 460-819134/2-A ^5

Matrix: Solid

Analysis Batch: 819484

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 819134

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Nickel	151	152.0		mg/Kg		100.7	79.5 - 121.2
Potassium	2030	1763		mg/Kg		86.8	70.0 - 130.0
Lead	56.7	55.73		mg/Kg		98.3	82.9 - 116.9
Antimony	99.5	59.88		mg/Kg		60.2	1.0 - 209.0
Silver	33.6	19.97		mg/Kg		59.4	48.2 - 73.5
Selenium	35.5	36.55		mg/Kg		103.0	77.5 - 122.3
Sodium	129	500	U	mg/Kg		124.9	70.7 - 129.5
Thallium	69.3	68.45		mg/Kg		98.8	79.4 - 120.6
Vanadium	44.9	42.24		mg/Kg		94.1	78.0 - 121.8
Zinc	186	180.0		mg/Kg		96.8	79.0 - 121.0

Lab Sample ID: 460-248860-E-13-E MS

Matrix: Solid

Analysis Batch: 819484

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 819134

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	2960		602	4004	4	mg/Kg	✱	173	75 - 125
Arsenic	4.8		12.0	14.48		mg/Kg	✱	80	75 - 125
Barium	19.8		12.0	28.42	N	mg/Kg	✱	72	75 - 125
Beryllium	1.3		6.02	5.74	N	mg/Kg	✱	74	75 - 125
Cadmium	0.20	J	6.02	5.52		mg/Kg	✱	88	75 - 125
Calcium	4380		602	4896	4	mg/Kg	✱	86	75 - 125
Chromium	21.4		12.0	21.91	N	mg/Kg	✱	4	75 - 125
Cobalt	4.1		6.02	10.20		mg/Kg	✱	101	75 - 125
Copper	40.0		12.0	52.33		mg/Kg	✱	103	75 - 125
Iron	16300		602	14160	4	mg/Kg	✱	-363	75 - 125
Magnesium	2880		602	3156	4	mg/Kg	✱	45	75 - 125
Manganese	127		60.2	173.8		mg/Kg	✱	77	75 - 125
Nickel	16.7		12.0	24.06	N	mg/Kg	✱	61	75 - 125
Potassium	468		602	994.1		mg/Kg	✱	87	75 - 125
Lead	52.1		6.02	28.34	4	mg/Kg	✱	-395	75 - 125
Antimony	0.27	J	6.02	4.06	N	mg/Kg	✱	63	75 - 125
Silver	1.2	U	6.02	5.72		mg/Kg	✱	95	75 - 125
Selenium	0.18	J	12.0	11.15		mg/Kg	✱	91	75 - 125
Sodium	109	J	602	775.5		mg/Kg	✱	111	75 - 125
Thallium	0.48	U	4.81	4.36		mg/Kg	✱	90	75 - 125
Vanadium	21.1		12.0	44.66	N	mg/Kg	✱	196	75 - 125
Zinc	144		60.2	128.0	N	mg/Kg	✱	-26	75 - 125

Eurofins TestAmerica, Edison

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-248860-A-13-A DU
Matrix: Solid
Analysis Batch: 819484

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 819134

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Aluminum	2960		4673	*	mg/Kg	✖	45	20
Arsenic	4.8		4.87		mg/Kg	✖	1	20
Barium	19.8		52.62	*	mg/Kg	✖	91	20
Beryllium	1.3		0.887		mg/Kg	✖	35	20
Cadmium	0.20	J	0.772	J	mg/Kg	✖	118	20
Calcium	4380		16380	*	mg/Kg	✖	116	20
Chromium	21.4		11.65	*	mg/Kg	✖	59	20
Cobalt	4.1		4.82		mg/Kg	✖	16	20
Copper	40.0		57.42	*	mg/Kg	✖	36	20
Iron	16300		11910	*	mg/Kg	✖	31	20
Magnesium	2880		12740	*	mg/Kg	✖	126	20
Manganese	127		295.5	*	mg/Kg	✖	80	20
Nickel	16.7		17.05		mg/Kg	✖	2	20
Potassium	468		551.3		mg/Kg	✖	16	20
Lead	52.1		67.43	*	mg/Kg	✖	26	20
Antimony	0.27	J	0.357	J	mg/Kg	✖	27	20
Silver	1.2	U	0.159	J	mg/Kg	✖	NC	20
Selenium	0.18	J	0.217	J	mg/Kg	✖	21	20
Sodium	109	J	236.1	*	mg/Kg	✖	73	20
Thallium	0.48	U	0.0733	J	mg/Kg	✖	NC	20
Vanadium	21.1		18.83		mg/Kg	✖	11	20
Zinc	144		252.7	*	mg/Kg	✖	55	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-818774/1-A
Matrix: Water
Analysis Batch: 818835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 818774

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.091	ug/L		12/14/21 12:34	12/14/21 13:41	1

Lab Sample ID: LCS 460-818774/2-A
Matrix: Water
Analysis Batch: 818835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 818774

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	1.04		ug/L		104	80 - 120

Lab Sample ID: 460-248898-E-5-C MS
Matrix: Water
Analysis Batch: 818835

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 818774

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.20	U	1.00	1.07		ug/L		107	75 - 125

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 460-248898-A-5-A DU
Matrix: Water
Analysis Batch: 818835

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 818774

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.20	U	0.20	U	ug/L		NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-818880/1-A
Matrix: Solid
Analysis Batch: 818949

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 818880

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0080	mg/Kg		12/15/21 03:23	12/15/21 07:35	1

Lab Sample ID: LCSSRM 460-818880/2-A ^40
Matrix: Solid
Analysis Batch: 818949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 818880

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	16.5	16.99		mg/Kg		103.0	74.5 - 124.8

Lab Sample ID: 460-248782-1 MS
Matrix: Solid
Analysis Batch: 818949

Client Sample ID: TRC-SB-02 (0-0.5)
Prep Type: Total/NA
Prep Batch: 818880

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.15		0.0837	0.219		mg/Kg	☆	87	80 - 120

Lab Sample ID: 460-248782-1 DU
Matrix: Solid
Analysis Batch: 818949

Client Sample ID: TRC-SB-02 (0-0.5)
Prep Type: Total/NA
Prep Batch: 818880

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.15		0.148		mg/Kg	☆	1	20

Method: Moisture - Percent Moisture

Lab Sample ID: 460-248782-1 DU
Matrix: Solid
Analysis Batch: 818794

Client Sample ID: TRC-SB-02 (0-0.5)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	8.2		8.2		%		0	20
Percent Solids	91.8		91.8		%		0	20

Lab Sample ID: 460-248782-2 DU
Matrix: Solid
Analysis Batch: 818794

Client Sample ID: TRC-DUP-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	8.3		8.1		%		3	20
Percent Moisture	8.3		8.1		%		3	20
Percent Solids	91.7		91.9		%		0.3	20

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QC Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method: Moisture - Percent Moisture (Continued)

Lab Sample ID: 460-248782-2 DU

Matrix: Solid

Analysis Batch: 818794

Client Sample ID: TRC-DUP-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	91.7		91.9		%		0.3	20

Lab Sample ID: 460-248790-F-18 DU

Matrix: Solid

Analysis Batch: 818830

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	8.4		8.4		%		0.7	20
Percent Solids	91.6		91.6		%		0.06	20

QC Association Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

GC/MS VOA

Prep Batch: 818151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	5035	
460-248782-2	TRC-DUP-1	Total/NA	Solid	5035	
460-248782-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	5035	
460-248782-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	5035	
460-248782-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	5035	
460-248782-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	5035	
LB3 460-818151/1-A	Method Blank	Total/NA	Solid	5035	
460-248782-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	5035	
460-248782-1 MSD	TRC-SB-02 (0-0.5)	Total/NA	Solid	5035	

Analysis Batch: 818214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-7	TRC-EB-12092021	Total/NA	Water	8260D	
460-248782-8	TRC-TB-12092021	Total/NA	Water	8260D	
MB 460-818214/8	Method Blank	Total/NA	Water	8260D	
LCS 460-818214/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 460-818214/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 818339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-2	TRC-DUP-1	Total/NA	Solid	8260D	818151
460-248782-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	8260D	818151
460-248782-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	8260D	818151
460-248782-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	8260D	818151
460-248782-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	8260D	818151
LB3 460-818151/1-A	Method Blank	Total/NA	Solid	8260D	818151
MB 460-818339/9	Method Blank	Total/NA	Solid	8260D	
LCS 460-818339/4	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-818339/5	Lab Control Sample Dup	Total/NA	Solid	8260D	

Analysis Batch: 818505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	8260D	818151
MB 460-818505/8	Method Blank	Total/NA	Solid	8260D	
LCS 460-818505/4	Lab Control Sample	Total/NA	Solid	8260D	
460-248782-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	8260D	818151
460-248782-1 MSD	TRC-SB-02 (0-0.5)	Total/NA	Solid	8260D	818151

GC/MS Semi VOA

Prep Batch: 818202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	3546	
460-248782-2	TRC-DUP-1	Total/NA	Solid	3546	
460-248782-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	3546	
460-248782-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	3546	
460-248782-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	3546	
460-248782-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	3546	
MB 460-818202/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-818202/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-818202/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

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QC Association Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

GC/MS Semi VOA (Continued)

Prep Batch: 818202 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	3546	
460-248782-1 MSD	TRC-SB-02 (0-0.5)	Total/NA	Solid	3546	

Prep Batch: 818275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-7	TRC-EB-12092021	Total/NA	Water	3510C	
MB 460-818275/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-818275/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-818275/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 818279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	8270E	818202
460-248782-2	TRC-DUP-1	Total/NA	Solid	8270E	818202
460-248782-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	8270E	818202
460-248782-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	8270E	818202
460-248782-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	8270E	818202
460-248782-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	8270E	818202
MB 460-818202/1-A	Method Blank	Total/NA	Solid	8270E	818202
LCS 460-818202/2-A	Lab Control Sample	Total/NA	Solid	8270E	818202
LCSD 460-818202/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	818202
460-248782-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	8270E	818202
460-248782-1 MSD	TRC-SB-02 (0-0.5)	Total/NA	Solid	8270E	818202

Prep Batch: 818294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-7	TRC-EB-12092021	Total/NA	Water	3510C	
MB 460-818294/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-818294/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-818294/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
460-248816-D-6-A MS	Matrix Spike	Total/NA	Water	3510C	
460-248816-D-6-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 818324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-7	TRC-EB-12092021	Total/NA	Water	8270E	818275
MB 460-818275/1-A	Method Blank	Total/NA	Water	8270E	818275
LCS 460-818275/2-A	Lab Control Sample	Total/NA	Water	8270E	818275
LCSD 460-818275/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	818275

Analysis Batch: 818333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-7	TRC-EB-12092021	Total/NA	Water	8270E SIM ID	818294
MB 460-818294/1-A	Method Blank	Total/NA	Water	8270E SIM ID	818294
LCS 460-818294/2-A	Lab Control Sample	Total/NA	Water	8270E SIM ID	818294
LCSD 460-818294/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM ID	818294
460-248816-D-6-A MS	Matrix Spike	Total/NA	Water	8270E SIM ID	818294
460-248816-D-6-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270E SIM ID	818294

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QC Association Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

GC Semi VOA

Prep Batch: 818189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	3546	
460-248782-2	TRC-DUP-1	Total/NA	Solid	3546	
460-248782-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	3546	
460-248782-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	3546	
460-248782-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	3546	
460-248782-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	3546	
MB 460-818189/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-818189/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-818189/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-248782-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	3546	
460-248782-1 MSD	TRC-SB-02 (0-0.5)	Total/NA	Solid	3546	

Prep Batch: 818191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	3546	
460-248782-2	TRC-DUP-1	Total/NA	Solid	3546	
460-248782-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	3546	
460-248782-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	3546	
460-248782-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	3546	
460-248782-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	3546	
MB 460-818191/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-818191/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-818191/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-248782-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	3546	
460-248782-1 MSD	TRC-SB-02 (0-0.5)	Total/NA	Solid	3546	

Prep Batch: 818232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-7	TRC-EB-12092021	Total/NA	Water	8151A	
MB 460-818232/1-A	Method Blank	Total/NA	Water	8151A	
LCS 460-818232/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 460-818232/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	
460-248765-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	8151A	
460-248765-I-1-C MS	Matrix Spike	Total/NA	Water	8151A	

Prep Batch: 818240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	8151A	
460-248782-2	TRC-DUP-1	Total/NA	Solid	8151A	
460-248782-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	8151A	
460-248782-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	8151A	
460-248782-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	8151A	
460-248782-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	8151A	
MB 460-818240/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-818240/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-818240/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	
460-248782-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	8151A	
460-248782-1 MSD	TRC-SB-02 (0-0.5)	Total/NA	Solid	8151A	

QC Association Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

GC Semi VOA

Prep Batch: 818289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-7	TRC-EB-12092021	Total/NA	Water	3510C	
MB 460-818289/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-818289/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-818289/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 818293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-7	TRC-EB-12092021	Total/NA	Water	3510C	
MB 460-818293/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-818293/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-818293/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
460-248898-E-5-A MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	
460-248898-H-5-A MS	Matrix Spike	Total/NA	Water	3510C	

Analysis Batch: 818455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	8082A	818189
460-248782-2	TRC-DUP-1	Total/NA	Solid	8082A	818189
460-248782-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	8082A	818189
460-248782-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	8082A	818189
460-248782-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	8082A	818189
460-248782-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	8082A	818189
MB 460-818189/1-A	Method Blank	Total/NA	Solid	8082A	818189
LCS 460-818189/2-A	Lab Control Sample	Total/NA	Solid	8082A	818189
LCSD 460-818189/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	818189
460-248782-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	8082A	818189
460-248782-1 MSD	TRC-SB-02 (0-0.5)	Total/NA	Solid	8082A	818189

Analysis Batch: 818457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-7	TRC-EB-12092021	Total/NA	Water	8081B	818289
MB 460-818289/1-A	Method Blank	Total/NA	Water	8081B	818289
LCS 460-818289/2-A	Lab Control Sample	Total/NA	Water	8081B	818289
LCSD 460-818289/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	818289

Analysis Batch: 818460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	8081B	818191
460-248782-2	TRC-DUP-1	Total/NA	Solid	8081B	818191
460-248782-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	8081B	818191
460-248782-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	8081B	818191
460-248782-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	8081B	818191
460-248782-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	8081B	818191
MB 460-818191/1-A	Method Blank	Total/NA	Solid	8081B	818191
LCS 460-818191/2-A	Lab Control Sample	Total/NA	Solid	8081B	818191
LCSD 460-818191/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	818191
460-248782-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	8081B	818191
460-248782-1 MSD	TRC-SB-02 (0-0.5)	Total/NA	Solid	8081B	818191

QC Association Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

GC Semi VOA

Analysis Batch: 818466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	8151A	818240
460-248782-2	TRC-DUP-1	Total/NA	Solid	8151A	818240
460-248782-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	8151A	818240
460-248782-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	8151A	818240
460-248782-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	8151A	818240
460-248782-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	8151A	818240
460-248782-7	TRC-EB-12092021	Total/NA	Water	8151A	818232
MB 460-818232/1-A	Method Blank	Total/NA	Water	8151A	818232
MB 460-818240/1-A	Method Blank	Total/NA	Solid	8151A	818240
LCS 460-818232/2-A	Lab Control Sample	Total/NA	Water	8151A	818232
LCS 460-818240/2-A	Lab Control Sample	Total/NA	Solid	8151A	818240
LCSD 460-818232/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	818232
LCSD 460-818240/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	818240
460-248765-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	8151A	818232
460-248765-I-1-C MS	Matrix Spike	Total/NA	Water	8151A	818232
460-248782-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	8151A	818240
460-248782-1 MSD	TRC-SB-02 (0-0.5)	Total/NA	Solid	8151A	818240

Analysis Batch: 818504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-7	TRC-EB-12092021	Total/NA	Water	8082A	818293
MB 460-818293/1-A	Method Blank	Total/NA	Water	8082A	818293
LCS 460-818293/2-A	Lab Control Sample	Total/NA	Water	8082A	818293
LCSD 460-818293/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	818293
460-248898-E-5-A MSD	Matrix Spike Duplicate	Total/NA	Water	8082A	818293
460-248898-H-5-A MS	Matrix Spike	Total/NA	Water	8082A	818293

Metals

Prep Batch: 818774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-7	TRC-EB-12092021	Total/NA	Water	7470A	
MB 460-818774/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-818774/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-248898-E-5-C MS	Matrix Spike	Total/NA	Water	7470A	
460-248898-A-5-A DU	Duplicate	Total/NA	Water	7470A	

Analysis Batch: 818835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-7	TRC-EB-12092021	Total/NA	Water	7470A	818774
MB 460-818774/1-A	Method Blank	Total/NA	Water	7470A	818774
LCS 460-818774/2-A	Lab Control Sample	Total/NA	Water	7470A	818774
460-248898-E-5-C MS	Matrix Spike	Total/NA	Water	7470A	818774
460-248898-A-5-A DU	Duplicate	Total/NA	Water	7470A	818774

Prep Batch: 818880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	7471B	
460-248782-2	TRC-DUP-1	Total/NA	Solid	7471B	
460-248782-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	7471B	
460-248782-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	7471B	

Eurofins TestAmerica, Edison

QC Association Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Metals (Continued)

Prep Batch: 818880 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	7471B	
460-248782-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	7471B	
MB 460-818880/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-818880/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	
460-248782-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	7471B	
460-248782-1 DU	TRC-SB-02 (0-0.5)	Total/NA	Solid	7471B	

Analysis Batch: 818949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	7471B	818880
460-248782-2	TRC-DUP-1	Total/NA	Solid	7471B	818880
460-248782-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	7471B	818880
460-248782-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	7471B	818880
460-248782-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	7471B	818880
460-248782-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	7471B	818880
MB 460-818880/1-A	Method Blank	Total/NA	Solid	7471B	818880
LCSSRM 460-818880/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	818880
460-248782-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	7471B	818880
460-248782-1 DU	TRC-SB-02 (0-0.5)	Total/NA	Solid	7471B	818880

Prep Batch: 819072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	3050B	
MB 460-819072/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-819072/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
460-248782-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	3050B	
460-248782-1 DU	TRC-SB-02 (0-0.5)	Total/NA	Solid	3050B	

Prep Batch: 819082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-7	TRC-EB-12092021	Total/NA	Water	3010A	
MB 460-819082/1-A	Method Blank	Total/NA	Water	3010A	
LCS 460-819082/2-A	Lab Control Sample	Total/NA	Water	3010A	
460-248302-A-23-C MS	Matrix Spike	Total/NA	Water	3010A	
460-248302-A-23-B DU	Duplicate	Total/NA	Water	3010A	

Prep Batch: 819134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-2	TRC-DUP-1	Total/NA	Solid	3050B	
460-248782-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	3050B	
460-248782-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	3050B	
460-248782-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	3050B	
460-248782-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	3050B	
MB 460-819134/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-819134/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
460-248860-E-13-E MS	Matrix Spike	Total/NA	Solid	3050B	
460-248860-A-13-A DU	Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 819195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	6020B	819072

Eurofins TestAmerica, Edison

QC Association Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Metals (Continued)

Analysis Batch: 819195 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-7	TRC-EB-12092021	Total/NA	Water	6020B	819082
MB 460-819072/1-A	Method Blank	Total/NA	Solid	6020B	819072
MB 460-819082/1-A	Method Blank	Total/NA	Water	6020B	819082
LCS 460-819082/2-A	Lab Control Sample	Total/NA	Water	6020B	819082
LCSSRM 460-819072/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	819072
460-248302-A-23-C MS	Matrix Spike	Total/NA	Water	6020B	819082
460-248782-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	6020B	819072
460-248302-A-23-B DU	Duplicate	Total/NA	Water	6020B	819082
460-248782-1 DU	TRC-SB-02 (0-0.5)	Total/NA	Solid	6020B	819072

Analysis Batch: 819484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-2	TRC-DUP-1	Total/NA	Solid	6020B	819134
460-248782-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	6020B	819134
460-248782-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	6020B	819134
460-248782-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	6020B	819134
460-248782-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	6020B	819134
MB 460-819134/1-A	Method Blank	Total/NA	Solid	6020B	819134
LCSSRM 460-819134/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	819134
460-248860-E-13-E MS	Matrix Spike	Total/NA	Solid	6020B	819134
460-248860-A-13-A DU	Duplicate	Total/NA	Solid	6020B	819134

General Chemistry

Analysis Batch: 818794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-1	TRC-SB-02 (0-0.5)	Total/NA	Solid	Moisture	
460-248782-2	TRC-DUP-1	Total/NA	Solid	Moisture	
460-248782-1 MS	TRC-SB-02 (0-0.5)	Total/NA	Solid	Moisture	
460-248782-1 MSD	TRC-SB-02 (0-0.5)	Total/NA	Solid	Moisture	
460-248782-1 DU	TRC-SB-02 (0-0.5)	Total/NA	Solid	Moisture	
460-248782-2 DU	TRC-DUP-1	Total/NA	Solid	Moisture	

Analysis Batch: 818830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248782-3	TRC-SB-04 (0-0.5)	Total/NA	Solid	Moisture	
460-248782-4	TRC-SB-03 (0-0.5)	Total/NA	Solid	Moisture	
460-248782-5	TRC-SB-07 (0-0.5)	Total/NA	Solid	Moisture	
460-248782-6	TRC-SB-08 (0-0.5)	Total/NA	Solid	Moisture	
460-248790-F-7 MS	Matrix Spike	Total/NA	Solid	Moisture	
460-248790-F-7 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	
460-248790-F-18 DU	Duplicate	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248782-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818794	12/14/21 14:47	MIE	TAL EDI

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248782-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			818151	12/10/21 13:24	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818505	12/13/21 11:53	SZD	TAL EDI
Total/NA	Prep	3546			818202	12/10/21 19:13	GXY	TAL EDI
Total/NA	Analysis	8270E		1	818279	12/11/21 19:21	YAH	TAL EDI
Total/NA	Prep	3546			818191	12/10/21 17:52	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818460	12/12/21 23:53	FAM	TAL EDI
Total/NA	Prep	3546			818189	12/10/21 17:45	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818455	12/12/21 20:56	JHP	TAL EDI
Total/NA	Prep	8151A			818240	12/11/21 02:39	AFR	TAL EDI
Total/NA	Analysis	8151A		1	818466	12/12/21 23:26	JHP	TAL EDI
Total/NA	Prep	3050B			819072	12/15/21 18:47	GMC	TAL EDI
Total/NA	Analysis	6020B		1	819195	12/16/21 10:57	YZH	TAL EDI
Total/NA	Prep	7471B			818880	12/15/21 03:23	TJS	TAL EDI
Total/NA	Analysis	7471B		1	818949	12/15/21 07:38	TJS	TAL EDI

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818794	12/14/21 14:47	MIE	TAL EDI

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			818151	12/10/21 13:26	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818339	12/12/21 05:03	VBP	TAL EDI
Total/NA	Prep	3546			818202	12/10/21 19:13	GXY	TAL EDI
Total/NA	Analysis	8270E		1	818279	12/11/21 18:36	YAH	TAL EDI
Total/NA	Prep	3546			818191	12/10/21 17:52	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818460	12/13/21 00:09	FAM	TAL EDI
Total/NA	Prep	3546			818189	12/10/21 17:45	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818455	12/13/21 03:53	JHP	TAL EDI
Total/NA	Prep	8151A			818240	12/11/21 02:39	AFR	TAL EDI
Total/NA	Analysis	8151A		1	818466	12/13/21 00:07	JHP	TAL EDI

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			819134	12/16/21 07:29	SXC	TAL EDI
Total/NA	Analysis	6020B		1	819484	12/17/21 18:42	CDC	TAL EDI
Total/NA	Prep	7471B			818880	12/15/21 03:23	TJS	TAL EDI
Total/NA	Analysis	7471B		1	818949	12/15/21 07:51	TJS	TAL EDI

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248782-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818830	12/14/21 16:51	MIE	TAL EDI

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248782-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			818151	12/10/21 13:27	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818339	12/12/21 05:26	VBP	TAL EDI
Total/NA	Prep	3546			818202	12/10/21 19:13	GXY	TAL EDI
Total/NA	Analysis	8270E		1	818279	12/11/21 18:59	YAH	TAL EDI
Total/NA	Prep	3546			818191	12/10/21 17:52	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818460	12/13/21 00:25	FAM	TAL EDI
Total/NA	Prep	3546			818189	12/10/21 17:45	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818455	12/13/21 04:15	JHP	TAL EDI
Total/NA	Prep	8151A			818240	12/11/21 02:39	AFR	TAL EDI
Total/NA	Analysis	8151A		1	818466	12/13/21 00:21	JHP	TAL EDI
Total/NA	Prep	3050B			819134	12/16/21 07:29	SXC	TAL EDI
Total/NA	Analysis	6020B		1	819484	12/17/21 18:44	CDC	TAL EDI
Total/NA	Prep	7471B			818880	12/15/21 03:23	TJS	TAL EDI
Total/NA	Analysis	7471B		1	818949	12/15/21 07:52	TJS	TAL EDI

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248782-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818830	12/14/21 16:51	MIE	TAL EDI

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248782-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			818151	12/10/21 13:27	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818339	12/12/21 05:49	VBP	TAL EDI

Eurofins TestAmerica, Edison

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248782-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			818202	12/10/21 19:13	GXY	TAL EDI
Total/NA	Analysis	8270E		1	818279	12/11/21 17:51	YAH	TAL EDI
Total/NA	Prep	3546			818191	12/10/21 17:52	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818460	12/13/21 00:41	FAM	TAL EDI
Total/NA	Prep	3546			818189	12/10/21 17:45	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818455	12/13/21 04:37	JHP	TAL EDI
Total/NA	Prep	8151A			818240	12/11/21 02:39	AFR	TAL EDI
Total/NA	Analysis	8151A		1	818466	12/13/21 00:34	JHP	TAL EDI
Total/NA	Prep	3050B			819134	12/16/21 07:29	SXC	TAL EDI
Total/NA	Analysis	6020B		1	819484	12/17/21 18:47	CDC	TAL EDI
Total/NA	Prep	7471B			818880	12/15/21 03:23	TJS	TAL EDI
Total/NA	Analysis	7471B		1	818949	12/15/21 07:54	TJS	TAL EDI

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248782-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818830	12/14/21 16:51	MIE	TAL EDI

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248782-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			818151	12/10/21 13:28	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818339	12/12/21 06:12	VBP	TAL EDI
Total/NA	Prep	3546			818202	12/10/21 19:13	GXY	TAL EDI
Total/NA	Analysis	8270E		1	818279	12/11/21 18:14	YAH	TAL EDI
Total/NA	Prep	3546			818191	12/10/21 17:52	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818460	12/13/21 00:57	FAM	TAL EDI
Total/NA	Prep	3546			818189	12/10/21 17:45	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818455	12/13/21 04:59	JHP	TAL EDI
Total/NA	Prep	8151A			818240	12/11/21 02:39	AFR	TAL EDI
Total/NA	Analysis	8151A		1	818466	12/13/21 00:48	JHP	TAL EDI
Total/NA	Prep	3050B			819134	12/16/21 07:29	SXC	TAL EDI
Total/NA	Analysis	6020B		1	819484	12/17/21 18:53	CDC	TAL EDI
Total/NA	Prep	7471B			818880	12/15/21 03:23	TJS	TAL EDI
Total/NA	Analysis	7471B		1	818949	12/15/21 07:56	TJS	TAL EDI

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248782-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	818830	12/14/21 16:51	MIE	TAL EDI

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248782-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			818151	12/10/21 13:29	YXG	TAL EDI
Total/NA	Analysis	8260D		1	818339	12/12/21 06:34	VBP	TAL EDI
Total/NA	Prep	3546			818202	12/10/21 19:13	GXY	TAL EDI
Total/NA	Analysis	8270E		1	818279	12/11/21 15:13	YAH	TAL EDI
Total/NA	Prep	3546			818191	12/10/21 17:52	ARA	TAL EDI
Total/NA	Analysis	8081B		1	818460	12/13/21 01:13	FAM	TAL EDI
Total/NA	Prep	3546			818189	12/10/21 17:45	ARA	TAL EDI
Total/NA	Analysis	8082A		1	818455	12/13/21 05:21	JHP	TAL EDI
Total/NA	Prep	8151A			818240	12/11/21 02:39	AFR	TAL EDI
Total/NA	Analysis	8151A		1	818466	12/13/21 01:01	JHP	TAL EDI
Total/NA	Prep	3050B			819134	12/16/21 07:29	SXC	TAL EDI
Total/NA	Analysis	6020B		1	819484	12/17/21 18:56	CDC	TAL EDI
Total/NA	Prep	7471B			818880	12/15/21 03:23	TJS	TAL EDI
Total/NA	Analysis	7471B		1	818949	12/15/21 07:58	TJS	TAL EDI

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248782-7

Date Collected: 12/09/21 11:00

Matrix: Water

Date Received: 12/09/21 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	818214	12/10/21 23:27	KLB	TAL EDI
Total/NA	Prep	3510C			818275	12/11/21 08:01	DXD	TAL EDI
Total/NA	Analysis	8270E		1	818324	12/11/21 17:46	YAH	TAL EDI
Total/NA	Prep	3510C			818294	12/11/21 09:24	ZEH	TAL EDI
Total/NA	Analysis	8270E SIM ID		1	818333	12/11/21 19:52	YAH	TAL EDI
Total/NA	Prep	3510C			818289	12/11/21 09:12	ZEH	TAL EDI
Total/NA	Analysis	8081B		1	818457	12/13/21 00:23	FAM	TAL EDI
Total/NA	Prep	3510C			818293	12/11/21 09:19	ZEH	TAL EDI
Total/NA	Analysis	8082A		1	818504	12/13/21 08:07	JHP	TAL EDI
Total/NA	Prep	8151A			818232	12/10/21 23:07	AFR	TAL EDI
Total/NA	Analysis	8151A		1	818466	12/12/21 21:38	JHP	TAL EDI
Total/NA	Prep	3010A			819082	12/15/21 21:40	GMC	TAL EDI
Total/NA	Analysis	6020B		1	819195	12/16/21 18:14	YZH	TAL EDI
Total/NA	Prep	7470A			818774	12/14/21 12:34	RBS	TAL EDI
Total/NA	Analysis	7470A		1	818835	12/14/21 14:12	RBS	TAL EDI

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-TB-12092021

Lab Sample ID: 460-248782-8

Date Collected: 12/09/21 11:05

Matrix: Water

Date Received: 12/09/21 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	818214	12/10/21 22:26	KL B	TAL EDI

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Laboratory: Eurofins TestAmerica, Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270E SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL EDI
8081B	Organochlorine Pesticides (GC)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
8151A	Herbicides (GC)	SW846	TAL EDI
6020B	Metals (ICP/MS)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3010A	Preparation, Total Metals	SW846	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
7470A	Preparation, Mercury	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
8151A	Extraction (Herbicides)	SW846	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-248782-1	TRC-SB-02 (0-0.5)	Solid	12/09/21 08:45	12/09/21 19:00
460-248782-2	TRC-DUP-1	Solid	12/09/21 08:45	12/09/21 19:00
460-248782-3	TRC-SB-04 (0-0.5)	Solid	12/09/21 09:10	12/09/21 19:00
460-248782-4	TRC-SB-03 (0-0.5)	Solid	12/09/21 09:30	12/09/21 19:00
460-248782-5	TRC-SB-07 (0-0.5)	Solid	12/09/21 10:00	12/09/21 19:00
460-248782-6	TRC-SB-08 (0-0.5)	Solid	12/09/21 10:20	12/09/21 19:00
460-248782-7	TRC-EB-12092021	Water	12/09/21 11:00	12/09/21 19:00
460-248782-8	TRC-TB-12092021	Water	12/09/21 11:05	12/09/21 19:00

248792

IR Gun #

Cooler Temperatures

RAW		CORRECTED	
	°C		°C
	°C		°C
	°C		°C

[illegible]

If pH adjustments are required record the information below:

Volume of Preservative used (ml):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted. Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials: Land

Login Sample Receipt Checklist

Client: TRC Environmental Corporation

Job Number: 460-248782-1

Login Number: 248782

List Number: 1

Creator: Khlungprakhon, Sukanya

List Source: Eurofins TestAmerica, Edison

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ATTACHMENT C

Data Usability Summary Report

Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

MTA LIRR Arch St. Yard
Eurofins SDG#460-248692-1
January 13, 2022
Sampling date: 12/8/2021

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

MTA LIRR Arch St. Yard
SDG# 480-188609-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for TRC, project located at MTA LIRR Arch St. Yard, Eurofins #460-248692-1 submitted to Vali-Data of WNY, LLC on December 23, 2021. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines(NFG), NYSDEC; 'Guidelines for Sampling and Analysis of PFAS'(1/2021) and NYSDEC Analytical Services Protocols. The laboratory performed the analysis using USEPA method Perfluorinated Hydrocarbons (537 modified).

ID	Sample ID	Laboratory ID
1	TRC-SB-01(0-0.5)	460-248692-1
2	TRC-SB-05(0-0.5)	460-248692-2
3	TRC-SB-06(0-0.5)	460-248692-3
4	TRC-SB-09(0-0.5)	460-248692-4
5	TRC-SB-12(0-0.5)	460-248692-5
6	TRC-SB-13(0-0.5)	460-248692-6
7	TRC-SB-10(0-0.5)	460-248692-7
8	TRC-SB-14(0-0.5)	460-248692-8
9	TRC-SB-11(0-0.5)	460-248692-9
10	TRC-SB-15(0-0.5)	460-248692-10

PFC IDA

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS)
- Surrogate Recoveries
- Blanks
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Blanks.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met except a revised Narrative is attached to include the sample ID change.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE RECOVERIES

All criteria were met.

BLANKS

All the criteria were met except some target analytes were detected above the MDL, below the reporting limit and are qualified as estimated in ICB 200-174497/11. These target analytes should be qualified as undetected at the reporting limit in associated samples in which they were detected below the reporting limit. These target analytes should be qualified as estimated high in associated samples in which they were detected above the reporting limit but below 10x the blank concentration.

Target Analyte	Concentration (ng/L)	Qualifier	Associated Sample
PFDA	6.4	U at RL	1-10
PFBS	4.88	U at RL	6-8
PFHxS	7.11	U at RL	1, 2, 4, 7, 8, 10
NMeFOSAA	69.2	U at RL	3, 9
NEtFOSAA	48.5	U at RL	3

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

MTA LIRR Arch St. Yard

SDG# 480-188609-1

COMPOUND QUANTITATION

All the criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on target analytes in which the %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

CASE NARRATIVE

Client: TRC Environmental Corporation

Project: MTA LIRR Arch St Yard Supplemental RI

Report Number: 460-248692-1
Revised Report #1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

REVISED REPORT #1

The following report required a revision: 460-248692-1. Details are as follows: The client changed the depths in the sample IDs, this was not noted in the original report narrative.

RECEIPT

The samples were received on 12/8/2021 6:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.5° C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The sample collection times were not recorded on the COC and were taken from the containers. In addition, the sample IDs had a character that is not allowed per Equis requirements. The foot and inch markers in the depths were removed and the client requested that the lab change the depth in all IDs to 0-0.5.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples TRC-SB-01 (0-0.5) (460-248692-1), TRC-SB-05 (0-0.5) (460-248692-2), TRC-SB-06 (0-0.5) (460-248692-3), TRC-SB-09 (0-0.5) (460-248692-4), TRC-SB-12 (0-0.5) (460-248692-5), TRC-SB-13 (0-0.5) (460-248692-6), TRC-SB-10 (0-0.5) (460-248692-7), TRC-SB-14 (0-0.5) (460-248692-8), TRC-SB-11 (0-0.5) (460-248692-9) and TRC-SB-15 (0-0.5) (460-248692-10) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC. The samples were prepared and analyzed on 12/13/2021.

The "I" qualifier associated with samples TRC-SB-12 (0-0.5) (460-248692-5), TRC-SB-10 (0-0.5) (460-248692-7) and TRC-SB-11 (0-0.5) (460-248692-9) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

No other difficulties were encountered during the PFAS analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples TRC-SB-01 (0-0.5) (460-248692-1), TRC-SB-05 (0-0.5) (460-248692-2), TRC-SB-06 (0-0.5) (460-248692-3), TRC-SB-09 (0-0.5) (460-248692-4), TRC-SB-12 (0-0.5) (460-248692-5), TRC-SB-13 (0-0.5) (460-248692-6), TRC-SB-10 (0-0.5) (460-248692-7), TRC-SB-14 (0-0.5) (460-248692-8), TRC-SB-11 (0-0.5) (460-248692-9) and TRC-SB-15 (0-0.5) (460-248692-10) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 12/13/2021.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248692-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 94.6

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.51	U	0.51	0.17	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluoropentanoic acid (PFPeA)	0.21	U	0.21	0.040	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluorohexanoic acid (PFHxA)	0.037	J	0.21	0.023	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluoroheptanoic acid (PFHpA)	0.026	J	0.21	0.021	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluorooctanoic acid (PFOA)	0.20	J	0.21	0.026	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluorononanoic acid (PFNA)	0.048	J	0.21	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluorodecanoic acid (PFDA)	0.054	J	0.21	0.012	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluoroundecanoic acid (PFUnA)	0.037	J	0.21	0.021	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluorododecanoic acid (PFDoA)	0.032	J	0.21	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.015	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.024	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.0095	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluorohexanesulfonic acid (PFHxS)	0.033	J	0.21	0.014	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.21	U	0.21	0.015	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluorooctanesulfonic acid (PFOS)	0.50		0.21	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluorodecanesulfonic acid (PFDS)	0.032	J	0.21	0.012	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.05	U	2.05	0.038	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.05	U	2.05	0.047	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.05	U	2.05	0.032	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.05	U	2.05	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 20:14	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	74		50 - 150	12/13/21 08:32	12/13/21 20:14	1
13C4 PFHpA	87		50 - 150	12/13/21 08:32	12/13/21 20:14	1
13C4 PFOA	91		50 - 150	12/13/21 08:32	12/13/21 20:14	1
13C4 PFOS	76		50 - 150	12/13/21 08:32	12/13/21 20:14	1
13C5 PFNA	93		50 - 150	12/13/21 08:32	12/13/21 20:14	1
13C4 PFBA	88		25 - 150	12/13/21 08:32	12/13/21 20:14	1
13C2 PFHxA	87		50 - 150	12/13/21 08:32	12/13/21 20:14	1
13C2 PFDA	89		50 - 150	12/13/21 08:32	12/13/21 20:14	1
13C2 PFUnA	93		50 - 150	12/13/21 08:32	12/13/21 20:14	1
13C2 PFDoA	89		50 - 150	12/13/21 08:32	12/13/21 20:14	1
13C8 FOSA	74		25 - 150	12/13/21 08:32	12/13/21 20:14	1
13C5 PFPeA	86		25 - 150	12/13/21 08:32	12/13/21 20:14	1
13C2 PFTeDA	91		50 - 150	12/13/21 08:32	12/13/21 20:14	1
d3-NMeFOSAA	81		50 - 150	12/13/21 08:32	12/13/21 20:14	1
d5-NEtFOSAA	84		50 - 150	12/13/21 08:32	12/13/21 20:14	1
M2-6:2 FTS	71		25 - 150	12/13/21 08:32	12/13/21 20:14	1
M2-8:2 FTS	78		25 - 150	12/13/21 08:32	12/13/21 20:14	1
13C3 PFBS	75		50 - 150	12/13/21 08:32	12/13/21 20:14	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248692-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.3

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.56	U	0.56	0.18	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluoropentanoic acid (PFPeA)	0.22	U	0.22	0.044	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluorohexanoic acid (PFHxA)	0.22	U	0.22	0.025	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluoroheptanoic acid (PFHpA)	0.22	U	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluorooctanoic acid (PFOA)	0.096	J	0.22	0.028	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluorononanoic acid (PFNA)	0.22	U	0.22	0.020	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluorodecanoic acid (PFDA)	0.035	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluoroundecanoic acid (PFUnA)	0.029	J	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluorododecanoic acid (PFDoA)	0.031	J	0.22	0.023	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluorotridecanoic acid (PFTriA)	0.018	J	0.22	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluorotetradecanoic acid (PFTeA)	0.22	U	0.22	0.026	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.010	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluorohexanesulfonic acid (PFHxS)	0.024	J	0.22	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluorooctanesulfonic acid (PFOS)	0.33		0.22	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluorodecanesulfonic acid (PFDS)	0.030	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.019	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.23	U	2.23	0.041	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.23	U	2.23	0.051	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.23	U	2.23	0.035	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.032	J	2.23	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 20:22	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	71		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C4 PFHpA	90		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C4 PFOA	91		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C4 PFOS	74		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C5 PFNA	91		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C4 PFBA	83		25 - 150	12/13/21 08:32	12/13/21 20:22	1
13C2 PFHxA	85		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C2 PFDA	86		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C2 PFUnA	95		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C2 PFDoA	90		50 - 150	12/13/21 08:32	12/13/21 20:22	1
13C8 FOSA	72		25 - 150	12/13/21 08:32	12/13/21 20:22	1
13C5 PFPeA	84		25 - 150	12/13/21 08:32	12/13/21 20:22	1
13C2 PFTeDA	99		50 - 150	12/13/21 08:32	12/13/21 20:22	1
d3-NMeFOSAA	89		50 - 150	12/13/21 08:32	12/13/21 20:22	1
d5-NEtFOSAA	108		50 - 150	12/13/21 08:32	12/13/21 20:22	1
M2-6:2 FTS	69		25 - 150	12/13/21 08:32	12/13/21 20:22	1
M2-8:2 FTS	90		25 - 150	12/13/21 08:32	12/13/21 20:22	1
13C3 PFBS	74		50 - 150	12/13/21 08:32	12/13/21 20:22	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248692-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.55	U	0.55	0.18	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluoropentanoic acid (PFPeA)	0.22	U	0.22	0.043	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorohexanoic acid (PFHxA)	0.029	J	0.22	0.024	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluoroheptanoic acid (PFHpA)	0.22	U	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorooctanoic acid (PFOA)	0.031	J	0.22	0.027	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorononanoic acid (PFNA)	0.22	U	0.22	0.020	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorodecanoic acid (PFDA)	0.035	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluoroundecanoic acid (PFUnA)	0.037	J	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorododecanoic acid (PFDoA)	0.068	J	0.22	0.023	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorotridecanoic acid (PFTriA)	0.036	J	0.22	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorotetradecanoic acid (PFTeA)	0.047	J	0.22	0.025	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.010	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorohexanesulfonic acid (PFHxS)	0.22	U	0.22	0.015	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorooctanesulfonic acid (PFOS)	0.12	J	0.22	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorodecanesulfonic acid (PFDS)	0.034	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.019	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.16	J	2.19	0.041	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.13	J	2.19	0.050	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.19	U	2.19	0.034	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.19	U	2.19	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 20:30	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	79		50 - 150	12/13/21 08:32	12/13/21 20:30	1
13C4 PFHpA	84		50 - 150	12/13/21 08:32	12/13/21 20:30	1
13C4 PFOA	89		50 - 150	12/13/21 08:32	12/13/21 20:30	1
13C4 PFOS	81		50 - 150	12/13/21 08:32	12/13/21 20:30	1
13C5 PFNA	86		50 - 150	12/13/21 08:32	12/13/21 20:30	1
13C4 PFBA	81		25 - 150	12/13/21 08:32	12/13/21 20:30	1
13C2 PFHxA	81		50 - 150	12/13/21 08:32	12/13/21 20:30	1
13C2 PFDA	86		50 - 150	12/13/21 08:32	12/13/21 20:30	1
13C2 PFUnA	101		50 - 150	12/13/21 08:32	12/13/21 20:30	1
13C2 PFDoA	95		50 - 150	12/13/21 08:32	12/13/21 20:30	1
13C8 FOSA	76		25 - 150	12/13/21 08:32	12/13/21 20:30	1
13C5 PFPeA	83		25 - 150	12/13/21 08:32	12/13/21 20:30	1
13C2 PFTeDA	98		50 - 150	12/13/21 08:32	12/13/21 20:30	1
d3-NMeFOSAA	84		50 - 150	12/13/21 08:32	12/13/21 20:30	1
d5-NEtFOSAA	99		50 - 150	12/13/21 08:32	12/13/21 20:30	1
M2-6:2 FTS	74		25 - 150	12/13/21 08:32	12/13/21 20:30	1
M2-8:2 FTS	89		25 - 150	12/13/21 08:32	12/13/21 20:30	1
13C3 PFBS	79		50 - 150	12/13/21 08:32	12/13/21 20:30	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248692-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.3

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.55	U	0.55	0.18	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluoropentanoic acid (PFPeA)	0.22	U	0.22	0.043	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluorohexanoic acid (PFHxA)	0.22	U	0.22	0.024	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluoroheptanoic acid (PFHpA)	0.22	U	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluorooctanoic acid (PFOA)	0.065	J	0.22	0.028	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluorononanoic acid (PFNA)	0.027	J	0.22	0.020	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluorodecanoic acid (PFDA)	0.074	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluoroundecanoic acid (PFUnA)	0.045	J	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluorododecanoic acid (PFDoA)	0.047	J	0.22	0.023	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluorotridecanoic acid (PFTriA)	0.028	J	0.22	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluorotetradecanoic acid (PFTeA)	0.031	J	0.22	0.025	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.010	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluorohexanesulfonic acid (PFHxS)	0.016	J	0.22	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluorooctanesulfonic acid (PFOS)	0.33		0.22	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluorodecanesulfonic acid (PFDS)	0.027	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.019	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.22	U	2.22	0.041	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.22	U	2.22	0.051	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.22	U	2.22	0.034	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.22	U	2.22	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 20:38	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	75		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C4 PFHpA	85		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C4 PFOA	90		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C4 PFOS	74		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C5 PFNA	97		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C4 PFBA	84		25 - 150				12/13/21 08:32	12/13/21 20:38	1
13C2 PFHxA	84		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C2 PFDA	90		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C2 PFUnA	92		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C2 PFDoA	95		50 - 150				12/13/21 08:32	12/13/21 20:38	1
13C8 FOSA	67		25 - 150				12/13/21 08:32	12/13/21 20:38	1
13C5 PFPeA	77		25 - 150				12/13/21 08:32	12/13/21 20:38	1
13C2 PFTeDA	96		50 - 150				12/13/21 08:32	12/13/21 20:38	1
d3-NMeFOSAA	98		50 - 150				12/13/21 08:32	12/13/21 20:38	1
d5-NEtFOSAA	109		50 - 150				12/13/21 08:32	12/13/21 20:38	1
M2-6:2 FTS	81		25 - 150				12/13/21 08:32	12/13/21 20:38	1
M2-8:2 FTS	121		25 - 150				12/13/21 08:32	12/13/21 20:38	1
13C3 PFBS	77		50 - 150				12/13/21 08:32	12/13/21 20:38	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248692-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.3

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.55	U	0.55	0.18	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluoropentanoic acid (PFPeA)	0.058	J	0.22	0.043	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluorohexanoic acid (PFHxA)	0.035	J	0.22	0.024	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluoroheptanoic acid (PFHpA)	0.045	J	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluorooctanoic acid (PFOA)	0.033	J	0.22	0.027	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluorononanoic acid (PFNA)	0.22	U	0.22	0.020	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluorodecanoic acid (PFDA)	0.058	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluoroundecanoic acid (PFUnA)	0.059	J	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluorododecanoic acid (PFDoA)	0.068	J	0.22	0.023	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluorotridecanoic acid (PFTriA)	0.034	J	0.22	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluorotetradecanoic acid (PFTeA)	0.22	U	0.22	0.025	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.010	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluorohexanesulfonic acid (PFHxS)	0.22	U	0.22	0.015	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluorooctanesulfonic acid (PFOS)	0.15	J	0.22	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluorodecanesulfonic acid (PFDS)	0.042	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.019	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.19	U	2.19	0.041	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.19	U	2.19	0.050	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.19	U	2.19	0.034	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.19	U	2.19	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 20:55	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	80		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C4 PFHpA	90		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C4 PFOA	94		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C4 PFOS	83		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C5 PFNA	98		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C4 PFBA	89		25 - 150				12/13/21 08:32	12/13/21 20:55	1
13C2 PFHxA	91		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C2 PFDA	91		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C2 PFUnA	106		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C2 PFDoA	91		50 - 150				12/13/21 08:32	12/13/21 20:55	1
13C8 FOSA	69		25 - 150				12/13/21 08:32	12/13/21 20:55	1
13C5 PFPeA	89		25 - 150				12/13/21 08:32	12/13/21 20:55	1
13C2 PFTeDA	98		50 - 150				12/13/21 08:32	12/13/21 20:55	1
d3-NMeFOSAA	101		50 - 150				12/13/21 08:32	12/13/21 20:55	1
d5-NEtFOSAA	112		50 - 150				12/13/21 08:32	12/13/21 20:55	1
M2-6:2 FTS	83		25 - 150				12/13/21 08:32	12/13/21 20:55	1
M2-8:2 FTS	117		25 - 150				12/13/21 08:32	12/13/21 20:55	1
13C3 PFBS	82		50 - 150				12/13/21 08:32	12/13/21 20:55	1

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248692-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 87.6

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.17	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluoropentanoic acid (PFPeA)	0.043	J	0.22	0.042	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluorohexanoic acid (PFHxA)	0.047	J	0.22	0.024	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluoroheptanoic acid (PFHpA)	0.033	J	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluorooctanoic acid (PFOA)	0.044	J	0.22	0.027	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluorononanoic acid (PFNA)	0.031	J	0.22	0.019	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluorodecanoic acid (PFDA)	0.076	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluoroundecanoic acid (PFUnA)	0.090	J	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluorododecanoic acid (PFDoA)	0.094	J	0.22	0.023	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluorotridecanoic acid (PFTriA)	0.050	J	0.22	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluorotetradecanoic acid (PFTeA)	0.057	J	0.22	0.025	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluorobutanesulfonic acid (PFBS)	0.015	J	0.22	0.010	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluorohexanesulfonic acid (PFHxS)	0.22	U	0.22	0.015	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluorooctanesulfonic acid (PFOS)	0.13	J	0.22	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluorodecanesulfonic acid (PFDS)	0.032	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.16	U	2.16	0.040	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.16	U	2.16	0.050	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.16	U	2.16	0.034	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.16	U	2.16	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 21:03	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	83		50 - 150				12/13/21 08:32	12/13/21 21:03	1
13C4 PFHpA	86		50 - 150				12/13/21 08:32	12/13/21 21:03	1
13C4 PFOA	89		50 - 150				12/13/21 08:32	12/13/21 21:03	1
13C4 PFOS	82		50 - 150				12/13/21 08:32	12/13/21 21:03	1
13C5 PFNA	95		50 - 150				12/13/21 08:32	12/13/21 21:03	1
13C4 PFBA	84		25 - 150				12/13/21 08:32	12/13/21 21:03	1
13C2 PFHxA	89		50 - 150				12/13/21 08:32	12/13/21 21:03	1
13C2 PFDA	92		50 - 150				12/13/21 08:32	12/13/21 21:03	1
13C2 PFUnA	91		50 - 150				12/13/21 08:32	12/13/21 21:03	1
13C2 PFDoA	85		50 - 150				12/13/21 08:32	12/13/21 21:03	1
13C8 FOSA	76		25 - 150				12/13/21 08:32	12/13/21 21:03	1
13C5 PFPeA	85		25 - 150				12/13/21 08:32	12/13/21 21:03	1
13C2 PFTeDA	101		50 - 150				12/13/21 08:32	12/13/21 21:03	1
d3-NMeFOSAA	87		50 - 150				12/13/21 08:32	12/13/21 21:03	1
d5-NEtFOSAA	101		50 - 150				12/13/21 08:32	12/13/21 21:03	1
M2-6:2 FTS	79		25 - 150				12/13/21 08:32	12/13/21 21:03	1
M2-8:2 FTS	95		25 - 150				12/13/21 08:32	12/13/21 21:03	1
13C3 PFBS	83		50 - 150				12/13/21 08:32	12/13/21 21:03	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248692-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.17	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluoropentanoic acid (PFPeA)	0.22	U	0.22	0.042	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluorohexanoic acid (PFHxA)	0.051	J	0.22	0.024	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluoroheptanoic acid (PFHpA)	0.027	J	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluorooctanoic acid (PFOA)	0.099	J	0.22	0.027	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluorononanoic acid (PFNA)	0.042	J	0.22	0.020	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluorodecanoic acid (PFDA)	0.096	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluoroundecanoic acid (PFUnA)	0.043	J	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluorododecanoic acid (PFDoA)	0.033	J	0.22	0.023	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluorotridecanoic acid (PFTriA)	0.020	J	0.22	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluorotetradecanoic acid (PFTeA)	0.029	J	0.22	0.025	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluorobutanesulfonic acid (PFBS)	0.014	J	0.22	0.010	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluorohexanesulfonic acid (PFHxS)	0.026	J	0.22	0.015	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluorooctanesulfonic acid (PFOS)	0.58		0.22	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluorodecanesulfonic acid (PFDS)	0.026	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.17	U	2.17	0.040	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.17	U	2.17	0.050	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.17	U	2.17	0.034	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.17	U	2.17	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 21:11	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	74		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C4 PFHpA	82		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C4 PFOA	83		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C4 PFOS	73		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C5 PFNA	89		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C4 PFBA	85		25 - 150	12/13/21 08:32	12/13/21 21:11	1
13C2 PFHxA	82		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C2 PFDA	82		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C2 PFUnA	88		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C2 PFDoA	90		50 - 150	12/13/21 08:32	12/13/21 21:11	1
13C8 FOSA	66		25 - 150	12/13/21 08:32	12/13/21 21:11	1
13C5 PFPeA	82		25 - 150	12/13/21 08:32	12/13/21 21:11	1
13C2 PFTeDA	88		50 - 150	12/13/21 08:32	12/13/21 21:11	1
d3-NMeFOSAA	80		50 - 150	12/13/21 08:32	12/13/21 21:11	1
d5-NEtFOSAA	90		50 - 150	12/13/21 08:32	12/13/21 21:11	1
M2-6:2 FTS	75		25 - 150	12/13/21 08:32	12/13/21 21:11	1
M2-8:2 FTS	92		25 - 150	12/13/21 08:32	12/13/21 21:11	1
13C3 PFBS	72		50 - 150	12/13/21 08:32	12/13/21 21:11	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248692-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.6

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.23	J	0.53	0.17	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluoropentanoic acid (PFPeA)	0.12	J	0.21	0.041	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluorohexanoic acid (PFHxA)	0.13	J	0.21	0.023	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluoroheptanoic acid (PFHpA)	0.073	J	0.21	0.021	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluorooctanoic acid (PFOA)	0.098	J	0.21	0.027	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluorononanoic acid (PFNA)	0.052	J	0.21	0.019	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluorodecanoic acid (PFDA)	0.12	J	0.21	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluoroundecanoic acid (PFUnA)	0.078	J	0.21	0.021	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluorododecanoic acid (PFDoA)	0.068	J	0.21	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluorotridecanoic acid (PFTriA)	0.028	J	0.21	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluorotetradecanoic acid (PFTeA)	0.037	J	0.21	0.024	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluorobutanesulfonic acid (PFBS)	0.014	J	0.21	0.0099	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluorohexanesulfonic acid (PFHxS)	0.018	J	0.21	0.015	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.21	U	0.21	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluorooctanesulfonic acid (PFOS)	0.28		0.21	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluorodecanesulfonic acid (PFDS)	0.025	J	0.21	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.13	U	2.13	0.039	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.13	U	2.13	0.049	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.13	U	2.13	0.033	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.13	U	2.13	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 21:19	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	75		50 - 150	12/13/21 08:32	12/13/21 21:19	1
13C4 PFHpA	90		50 - 150	12/13/21 08:32	12/13/21 21:19	1
13C4 PFOA	88		50 - 150	12/13/21 08:32	12/13/21 21:19	1
13C4 PFOS	76		50 - 150	12/13/21 08:32	12/13/21 21:19	1
13C5 PFNA	94		50 - 150	12/13/21 08:32	12/13/21 21:19	1
13C4 PFBA	88		25 - 150	12/13/21 08:32	12/13/21 21:19	1
13C2 PFHxA	88		50 - 150	12/13/21 08:32	12/13/21 21:19	1
13C2 PFDA	89		50 - 150	12/13/21 08:32	12/13/21 21:19	1
13C2 PFUnA	100		50 - 150	12/13/21 08:32	12/13/21 21:19	1
13C2 PFDoA	91		50 - 150	12/13/21 08:32	12/13/21 21:19	1
13C8 FOSA	71		25 - 150	12/13/21 08:32	12/13/21 21:19	1
13C5 PFPeA	87		25 - 150	12/13/21 08:32	12/13/21 21:19	1
13C2 PFTeDA	97		50 - 150	12/13/21 08:32	12/13/21 21:19	1
d3-NMeFOSAA	80		50 - 150	12/13/21 08:32	12/13/21 21:19	1
d5-NEtFOSAA	92		50 - 150	12/13/21 08:32	12/13/21 21:19	1
M2-6:2 FTS	74		25 - 150	12/13/21 08:32	12/13/21 21:19	1
M2-8:2 FTS	80		25 - 150	12/13/21 08:32	12/13/21 21:19	1
13C3 PFBS	74		50 - 150	12/13/21 08:32	12/13/21 21:19	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248692-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.55	U	0.55	0.18	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluoropentanoic acid (PFPeA)	0.22	U	0.22	0.043	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorohexanoic acid (PFHxA)	0.024	J	0.22	0.024	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluoroheptanoic acid (PFHpA)	0.22	U	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorooctanoic acid (PFOA)	0.042	J	0.22	0.028	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorononanoic acid (PFNA)	0.021	J	0.22	0.020	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorodecanoic acid (PFDA)	0.053	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluoroundecanoic acid (PFUnA)	0.034	J	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorododecanoic acid (PFDoA)	0.068	J	0.22	0.023	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorotridecanoic acid (PFTriA)	0.033	J	0.22	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorotetradecanoic acid (PFTeA)	0.047	J	0.22	0.025	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.010	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorohexanesulfonic acid (PFHxS)	0.22	U	0.22	0.015	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorooctanesulfonic acid (PFOS)	0.11	J	0.22	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorodecanesulfonic acid (PFDS)	0.023	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.019	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.19	J	2.21	0.041	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.21	U	2.21	0.051	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.21	U	2.21	0.034	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.21	U	2.21	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 21:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	89		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C4 PFHpA	93		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C4 PFOA	91		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C4 PFOS	87		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C5 PFNA	99		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C4 PFBA	93		25 - 150	12/13/21 08:32	12/13/21 21:27	1
13C2 PFHxA	96		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C2 PFDA	94		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C2 PFUnA	110		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C2 PFDoA	100		50 - 150	12/13/21 08:32	12/13/21 21:27	1
13C8 FOSA	80		25 - 150	12/13/21 08:32	12/13/21 21:27	1
13C5 PFPeA	96		25 - 150	12/13/21 08:32	12/13/21 21:27	1
13C2 PFTeDA	115		50 - 150	12/13/21 08:32	12/13/21 21:27	1
d3-NMeFOSAA	90		50 - 150	12/13/21 08:32	12/13/21 21:27	1
d5-NEtFOSAA	104		50 - 150	12/13/21 08:32	12/13/21 21:27	1
M2-6:2 FTS	80		25 - 150	12/13/21 08:32	12/13/21 21:27	1
M2-8:2 FTS	102		25 - 150	12/13/21 08:32	12/13/21 21:27	1
13C3 PFBS	85		50 - 150	12/13/21 08:32	12/13/21 21:27	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248692-1

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248692-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.17	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluoropentanoic acid (PFPeA)	0.11	J	0.22	0.042	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluorohexanoic acid (PFHxA)	0.11	J	0.22	0.024	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluoroheptanoic acid (PFHpA)	0.060	J	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluorooctanoic acid (PFOA)	0.095	J	0.22	0.027	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluorononanoic acid (PFNA)	0.053	J	0.22	0.019	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluorodecanoic acid (PFDA)	0.12	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluoroundecanoic acid (PFUnA)	0.082	J	0.22	0.022	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluorododecanoic acid (PFDoA)	0.095	J	0.22	0.023	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluorotridecanoic acid (PFTriA)	0.063	J	0.22	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluorotetradecanoic acid (PFTeA)	0.091	J	0.22	0.025	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.010	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluorohexanesulfonic acid (PFHxS)	0.015	J	0.22	0.015	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.22	U	0.22	0.016	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluorooctanesulfonic acid (PFOS)	0.21	J	0.22	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluorodecanesulfonic acid (PFDS)	0.045	J	0.22	0.013	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.018	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.16	U	2.16	0.040	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.16	U	2.16	0.050	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.16	U	2.16	0.034	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.16	U	2.16	0.017	ug/Kg	☼	12/13/21 08:32	12/13/21 21:36	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	78		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C4 PFHpA	89		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C4 PFOA	91		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C4 PFOS	78		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C5 PFNA	86		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C4 PFBA	88		25 - 150				12/13/21 08:32	12/13/21 21:36	1
13C2 PFHxA	90		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C2 PFDA	88		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C2 PFUnA	99		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C2 PFDoA	93		50 - 150				12/13/21 08:32	12/13/21 21:36	1
13C8 FOSA	71		25 - 150				12/13/21 08:32	12/13/21 21:36	1
13C5 PFPeA	88		25 - 150				12/13/21 08:32	12/13/21 21:36	1
13C2 PFTeDA	98		50 - 150				12/13/21 08:32	12/13/21 21:36	1
d3-NMeFOSAA	87		50 - 150				12/13/21 08:32	12/13/21 21:36	1
d5-NEtFOSAA	100		50 - 150				12/13/21 08:32	12/13/21 21:36	1
M2-6:2 FTS	75		25 - 150				12/13/21 08:32	12/13/21 21:36	1
M2-8:2 FTS	96		25 - 150				12/13/21 08:32	12/13/21 21:36	1
13C3 PFBS	77		50 - 150				12/13/21 08:32	12/13/21 21:36	1

Eurofins TestAmerica, Edison

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-248692-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: ICB 200-174497/11
 Matrix: Solid Lab File ID: PA211203ICAL11.d
 Analysis Method: 537 (modified) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/03/2021 14:01
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: C-18 ID: 4.6 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 174497 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.25	U	0.25	0.022
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.10	U	0.10	0.012
307-24-4	Perfluorohexanoic acid (PFHxA)	0.10	U	0.10	0.011
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.10	U	0.10	0.0060
335-67-1	Perfluorooctanoic acid (PFOA)	0.10	U	0.10	0.011
375-95-1	Perfluorononanoic acid (PFNA)	0.10	U	0.10	0.0070
335-76-2	Perfluorodecanoic acid (PFDA)	0.00640	J	0.10	0.0062
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.10	U	0.10	0.0086
307-55-1	Perfluorododecanoic acid (PFDoA)	0.10	U	0.10	0.0096
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.10	U	0.10	0.0074
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.10	U	0.10	0.012
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.00488	J	0.10	0.0046
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.00711	J	0.10	0.0071
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.10	U	0.10	0.0059
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.10	U	0.10	0.0073
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.10	U	0.10	0.0058
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.10	U	0.10	0.0084
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.0692	J	1.00	0.019
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.0485	J	1.00	0.019
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.00	U	1.00	0.015
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.00	U	1.00	0.0080

Data Usability Summary Report

Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

MTA LIRR Arch St. Yard
Eurofins SDG#460-248693-1
January 14, 2022
Reissued: February 2, 2022
Sampling date: 12/8/2021

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

MTA LIRR Arch St. Yard
SDG# 460-248693-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package, reissued: February 2 2022 for TRC, project located at MTA LIRR Arch St. Yard, Eurofins SDG#460-248693-1 submitted to Vali-Data of WNY, LLC on December 23, 2021. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines(NFG) and NYSDEC Analytical Services Protocols. The laboratory performed the analyses using USEPA method Volatile Organics (8260D), Semi-Volatile Organics (8270E), Pesticides (8081B), PCB (8082A), Herbicides (8151A) and Inorganics/Mercury (6020B, 7471B).

ID	Sample ID	Laboratory ID
1	TRC-SB-01(0-0.5)	460-248693-1
2	TRC-SB-05(0-0.5)	460-248693-2
3	TRC-SB-06(0-0.5)	460-248693-3
4	TRC-SB-09(0-0.5)	460-248693-4
5	TRC-SB-12(0-0.5)	460-248693-5
6	TRC-SB-13(0-0.5)	460-248693-6
7	TRC-SB-10(0-0.5)	460-248693-7
8	TRC-SB-14(0-0.5)	460-248693-8
9	TRC-SB-11(0-0.5)	460-248693-9
10	TRC-SB-15(0-0.5)	460-248693-10

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

MTA LIRR Arch St. Yard

SDG# 460-248693-1

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired for these samples.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples and Initial Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of 1,4-Dioxane was outside QC limits, high in LCS/SD 480-818114/2-A,3-A and should be qualified as estimated. This target analyte was not detected in the associated samples, so no further action is required.

MS/MSD

No MS/MSD was acquired for these samples.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met except the %D of Benzaldehyde was outside QC limits in ICV 460-816489/11 and ICV 460-806532/11. This target analyte should be qualified as estimated in the samples, blanks and spikes.

Alternate forms of regression were performed on some target analytes, with acceptable results except as mentioned above.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries and Compound Quantitation.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of all surrogates was outside QC limits, high in TRC-SB-09(0-0.5) and should be qualified as estimated. No target analytes were detected in this sample, so no further action is required.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired for these samples.

COMPOUND QUANTITATION

All criteria were met the RPD of 4,4'-DDT was outside QC limits between the columns in TRC-SB-01(0-0.5), TRC-SB-05(0-0.5) and TRC-SB-10(0-0.5) and should be qualified as estimated. The RPD of 4,4'-DDE was outside QC limits between the columns in TRC-SB-06(0-0.5) and TRC-SB-10(0-0.5) and should be qualified as estimated.

INITIAL CALIBRATION

All criteria were met.

CONTINUING CALIBRATION

All criteria were met.

Some target analytes were outside laboratory QC limits but within NFG QC limits, so no further action is required.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

MTA LIRR Arch St. Yard

SDG# 460-248693-1

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Surrogate Spike Recoveries, Initial Calibration and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of DCBP off both columns and TCMX off column Rtx-CLP were outside QC limits, high in TRC-SB-09(0-0.5) and should be qualified as estimated. No target analytes were detected in this sample, so no further action is required.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired for these samples.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met except a single peak calibration was used for Aroclor 1248. This target analyte should be qualified as estimated in TRC-SB-10(0-0.5).

CONTINUING CALIBRATION

All criteria were met except the %D of some surrogates and target analytes were outside QC limits in the continuing calibrations and should be qualified as estimated off the associated column in the associated samples, blanks and spikes.

Calibration ID	Target Analyte/Surrogate	Column	Qualifier	Associated Sample
ICV 460-794200/7	Aroclor 1016 peak 8	Rtx-CLP	UJ/J	MB/LCS/SD 460-818188, 1-10
CCV 460-818456/4	Aroclor 1248 peak 1	CLP-2	UJ/J	MB 460-818188, 7

HERBICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
-

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Surrogate Spike Recoveries and Continuing Calibration.

Samples; 3-10 were diluted due to sample matrix.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of 2,4-Dichlorophenylacetic acid was outside QC limits off column CLP-2 in all of the samples except TRC-SB-01(0-0.5) and TRC-SB-05(0-0.5) and should be qualified as estimated. CLP-2 was not prime for these samples, so no further action is required.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired for these samples.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

CONTINUING CALIBRATION

All criteria were met except the %D of several target analytes was outside QC limits. Those target analytes should be qualified as estimated in the associated samples, blanks and spikes off the associated column.

CCal ID	Target Analyte	%D CLP-2	Qualifier	Associated Sample
CCVRT 460-818108/1	2,4,5-TP	35.9	UJ/J	1-10
CCV 460-818108/34	2,4,5-TP	23.6	UJ/J	1-10

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD/Duplicate
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks and Laboratory Control Samples.

Sample: TRC-SB-05(0-0.5) was diluted in method 6020B due to sample matrix.

Samples: TRC-SB-09(0-0.5), TRC-SB-13(0-0.5) and TRC-SB-14(0-0.5) were diluted in method 7471B due to high target analyte concentrations.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except a target analyte was outside QC limits above the MDL, but below the reporting limits. This target analyte should be qualified as undetected at the reporting limit in associated samples in which it was detected above the MDL, and below the reporting limit. This target analyte should be qualified as estimated high in the associated samples in which it

was detected above the reporting limit.

Blank ID	Target analyte	Concentration	Qualifier	Associated Sample
CCB 460-819195/124	K	137.8 ug/L	JH	5-10
CCB 460-819195/158	K	172.9 ug/L	JH	none

LABORATORY CONTROL SAMPLE

All criteria were met except some target analytes were outside QC limits, low in LCSSRM 460-819071/2-A and should be qualified as estimated.

LCS ID	Target Analyte	%Rec	Qualifier	Associated Sample
LCSSRM 460-819071	Sb	47.6	UJ/J	1-10
LCSSRM 460-819071	Ag	57.9	UJ/J	1-10

MS/MSD/DUPLICATE

No MS/MSD was acquired for these samples.

FIELD DUPLICATE

No field duplicate was acquired.

SERIAL DILUTION

All criteria were met.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met.

CASE NARRATIVE

Client: TRC Environmental Corporation

Project: MTA LIRR Arch St Yard Supplemental RI

Report Number: 460-248693-1
Revised Report #1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

REVISED REPORT #1

The following report required a revision: 460-248693-1. Details are as follows:

SVOC: Sample 4 is not on Form IV

Pests: There is an ICV and CCals for Chlordane peaks 1-5 but no lcal.

Herb: p 2303 Samples and QC were not reporting from the same column.

Metals: Raw data for Ca in sample 9 missing (On p. 2903 the run stops at 17:59.29 but on p. 2754 this dilution was run at 18:32).

RECEIPT

The samples were received on 12/08/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.5 C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The client requested the change in sample ID depths to 0-0.5.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 12/09/2021 and analyzed on 12/11/2021 and 12/12/2021.

The continuing calibration verification (CCV) associated with batch 460-818258 recovered above the upper control limit for Bromomethane, Trichlorofluoromethane and Chloroethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 460-818258 recovered outside control limits for the following analytes: Chloroethane, Bromomethane and 2-Hexanone. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported.

No other difficulties were encountered during the Volatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5)

(460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 12/10/2021 and analyzed on 12/11/2021 and 12/12/2021.

The continuing calibration verification (CCV) analyzed in batch 460-818224 was outside the method criteria for the following analyte(s): Benzaldehyde. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 460-818114 and analytical batch 460-818224 recovered outside control limits for the following analytes: 1,4-Dioxane. This analyte was biased high in the LCS/LCSD and was not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) analyzed in batch 460-818345 was outside the method criteria for the following analyte(s): Benzaldehyde. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Several analytes failed the recovery criteria low for the MS of sample 460-248701-3 in batch 460-818224.

Several analytes failed the recovery criteria low for the MSD of sample 460-248701-3 in batch 460-818224.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 12/10/2021 and analyzed on 12/12/2021 and 12/13/2021.

The %RPD between the primary and confirmation column exceeded 40% for 4,4'-DDT for the following samples: TRC-SB-05 (0-0.5) (460-248693-2) and TRC-SB-10 (0-0.5) (460-248693-7). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

Surrogate recoveries for the following sample were outside the upper control limit: TRC-SB-09 (0-0.5) (460-248693-4). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No other difficulties were encountered during the Pesticides analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 12/10/2021 and analyzed on 12/12/2021 and 12/13/2021.

The Tetrachloro-m-xylene surrogate recovery for the following LCS was outside acceptance limits (low biased) on the confirmation column: (LCS 460-818188/2-A). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

The Tetrachloro-m-xylene surrogate recovery for the following samples was outside acceptance limits (low biased) on the confirmation column: TRC-SB-06 (0-0.5) (460-248693-3). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Surrogate recovery for the following sample was outside the upper control limit: TRC-SB-09 (0-0.5) (460-248693-4). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for chlorinated

herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared and analyzed on 12/10/2021.

The 2,4-Dichlorophenylacetic acid surrogate recovery for the following samples was outside acceptance limits (high biased) on the confirmation column due to matrix interference: TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

The following samples were diluted due to the nature of the sample matrix: TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) at 5.0, 5.0, 5.0, 5.0, 5.0, 5.0, 5.0 and 5.0. Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the herbicides analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 12/15/2021 and analyzed on 12/16/2021.

Several analytes failed the recovery criteria low for the MS of sample 460-248403-8 in batch 460-819195. Barium and Lead failed the recovery criteria high.

The following sample was diluted due to the nature of the sample matrix: TRC-SB-05 (0-0.5) (460-248693-2). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 12/13/2021.

Samples TRC-SB-09 (0-0.5) (460-248693-4)[3X], TRC-SB-13 (0-0.5) (460-248693-6)[3X] and TRC-SB-14 (0-0.5) (460-248693-8)[3X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples TRC-SB-01 (0-0.5) (460-248693-1), TRC-SB-05 (0-0.5) (460-248693-2), TRC-SB-06 (0-0.5) (460-248693-3), TRC-SB-09 (0-0.5) (460-248693-4), TRC-SB-12 (0-0.5) (460-248693-5), TRC-SB-13 (0-0.5) (460-248693-6), TRC-SB-10 (0-0.5) (460-248693-7), TRC-SB-14 (0-0.5) (460-248693-8), TRC-SB-11 (0-0.5) (460-248693-9) and TRC-SB-15 (0-0.5) (460-248693-10) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 12/13/2021.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248693-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 96.9

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0018	U	0.0018	0.00042	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
1,1,2,2-Tetrachloroethane	0.0018	U	0.0018	0.00039	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0018	U	0.0018	0.00054	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
1,1,2-Trichloroethane	0.0018	U	0.0018	0.00032	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
1,1-Dichloroethane	0.0018	U	0.0018	0.00037	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
1,1-Dichloroethene	0.0018	U	0.0018	0.00041	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
1,2,3-Trichlorobenzene	0.0018	U	0.0018	0.00033	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
1,2,4-Trichlorobenzene	0.0018	U	0.0018	0.00065	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
1,2-Dibromo-3-Chloropropane	0.0018	U	0.0018	0.00083	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
1,2-Dichlorobenzene	0.0018	U	0.0018	0.00065	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
1,2-Dichloroethane	0.0018	U	0.0018	0.00053	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
1,2-Dichloropropane	0.0018	U	0.0018	0.00076	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
1,3-Dichlorobenzene	0.0018	U	0.0018	0.00066	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
1,4-Dichlorobenzene	0.0018	U	0.0018	0.00041	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
2-Butanone (MEK)	0.0090	U	0.0090	0.00066	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
2-Hexanone	0.0090	U	0.0090	0.0031	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
4-Methyl-2-pentanone (MIBK)	0.0090	U	0.0090	0.0028	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Acetone	0.011	U	0.011	0.010	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Benzene	0.0018	U	0.0018	0.00047	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Bromoform	0.0018	U	0.0018	0.00077	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Bromomethane	0.0036	U	0.0036	0.0018	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Carbon disulfide	0.0018	U	0.0018	0.00048	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Carbon tetrachloride	0.0018	U	0.0018	0.00070	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Chlorobenzene	0.0018	U	0.0018	0.00032	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Chlorobromomethane	0.0018	U	0.0018	0.00051	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Chlorodibromomethane	0.0018	U	0.0018	0.00035	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Chloroethane	0.0018	U	0.0018	0.00094	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Chloroform	0.0018	U	0.0018	0.0018	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Chloromethane	0.0018	U	0.0018	0.00078	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
cis-1,2-Dichloroethene	0.0018	U	0.0018	0.00065	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
cis-1,3-Dichloropropene	0.0018	U	0.0018	0.00049	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Cyclohexane	0.0018	U	0.0018	0.00040	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Dichlorobromomethane	0.0018	U	0.0018	0.00046	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Dichlorodifluoromethane	0.0018	U	0.0018	0.00061	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Ethylbenzene	0.0018	U	0.0018	0.00036	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Ethylene Dibromide	0.0018	U	0.0018	0.00032	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Isopropylbenzene	0.0018	U	0.0018	0.00051	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Methyl acetate	0.0090	U	0.0090	0.0078	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Methyl tert-butyl ether	0.0018	U	0.0018	0.00092	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Methylcyclohexane	0.0018	U	0.0018	0.00090	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Methylene Chloride	0.0036	U	0.0036	0.0021	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
m-Xylene & p-Xylene	0.0018	U	0.0018	0.00031	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
o-Xylene	0.0018	U	0.0018	0.00035	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Styrene	0.0018	U	0.0018	0.00050	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Tetrachloroethene	0.0014	J	0.0018	0.00055	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Toluene	0.0018	U	0.0018	0.00042	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
trans-1,2-Dichloroethene	0.0018	U	0.0018	0.00044	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
trans-1,3-Dichloropropene	0.0018	U	0.0018	0.00048	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Trichloroethene	0.0012	J	0.0018	0.00058	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248693-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 96.9

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.0018	U	0.0018	0.00073	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1
Vinyl chloride	0.0018	U	0.0018	0.00099	mg/Kg	☼	12/09/21 17:47	12/11/21 23:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		77 - 145	12/09/21 17:47	12/11/21 23:22	1
4-Bromofluorobenzene	107		70 - 139	12/09/21 17:47	12/11/21 23:22	1
Dibromofluoromethane (Surr)	108		48 - 150	12/09/21 17:47	12/11/21 23:22	1
Toluene-d8 (Surr)	102		80 - 120	12/09/21 17:47	12/11/21 23:22	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.34	U	0.34	0.0045	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
1,2,4,5-Tetrachlorobenzene	0.34	U	0.34	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
1,4-Dioxane	0.034	U *	0.034	0.030	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
2,2'-oxybis[1-chloropropane]	0.34	U	0.34	0.0062	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
2,3,4,6-Tetrachlorophenol	0.34	U	0.34	0.023	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
2,4,5-Trichlorophenol	0.34	U	0.34	0.035	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
2,4,6-Trichlorophenol	0.14	U	0.14	0.044	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
2,4-Dichlorophenol	0.14	U	0.14	0.022	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
2,4-Dimethylphenol	0.34	U	0.34	0.015	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
2,4-Dinitrophenol	0.27	U	0.27	0.17	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
2,4-Dinitrotoluene	0.069	U	0.069	0.037	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
2,6-Dinitrotoluene	0.069	U	0.069	0.025	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
2-Chloronaphthalene	0.34	U	0.34	0.016	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
2-Chlorophenol	0.34	U	0.34	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
2-Methylnaphthalene	0.018	J	0.34	0.0095	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
2-Methylphenol	0.34	U	0.34	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
2-Nitroaniline	0.34	U	0.34	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
2-Nitrophenol	0.34	U	0.34	0.034	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
3,3'-Dichlorobenzidine	0.14	U	0.14	0.052	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
3-Nitroaniline	0.34	U	0.34	0.038	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
4,6-Dinitro-2-methylphenol	0.27	U	0.27	0.14	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
4-Bromophenyl phenyl ether	0.34	U	0.34	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
4-Chloro-3-methylphenol	0.34	U	0.34	0.019	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
4-Chloroaniline	0.34	U	0.34	0.061	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
4-Chlorophenyl phenyl ether	0.34	U	0.34	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
4-Methylphenol	0.34	U	0.34	0.021	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
4-Nitroaniline	0.34	U	0.34	0.039	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
4-Nitrophenol	0.69	U	0.69	0.056	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Acenaphthene	0.014	J	0.34	0.0097	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Acenaphthylene	0.018	J	0.34	0.0034	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Acetophenone	0.34	U	0.34	0.017	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Anthracene	0.041	J	0.34	0.010	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Atrazine	0.14	U	0.14	0.020	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Benzaldehyde	0.34	U	0.34	0.056	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Benzo[a]anthracene	0.16		0.034	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Benzo[a]pyrene	0.14		0.034	0.0091	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Benzo[b]fluoranthene	0.23		0.034	0.0088	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Benzo[g,h,i]perylene	0.094	J	0.34	0.010	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Benzo[k]fluoranthene	0.092		0.034	0.0067	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248693-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 96.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.34	U	0.34	0.027	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Bis(2-chloroethyl)ether	0.034	U	0.034	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Bis(2-ethylhexyl) phthalate	0.34	U	0.34	0.018	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Butyl benzyl phthalate	0.34	U	0.34	0.016	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Caprolactam	0.34	U	0.34	0.053	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Carbazole	0.020	J	0.34	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Chrysene	0.16	J	0.34	0.0058	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Dibenz(a,h)anthracene	0.022	J	0.034	0.015	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Dibenzofuran	0.017	J	0.34	0.0048	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Diethyl phthalate	0.34	U	0.34	0.0049	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Dimethyl phthalate	0.34	U	0.34	0.078	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Di-n-butyl phthalate	0.34	U	0.34	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Di-n-octyl phthalate	0.34	U	0.34	0.018	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Fluoranthene	0.30	J	0.34	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Fluorene	0.014	J	0.34	0.0046	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Hexachlorobenzene	0.034	U	0.034	0.016	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Hexachlorobutadiene	0.069	U	0.069	0.0073	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Hexachlorocyclopentadiene	0.34	U	0.34	0.030	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Hexachloroethane	0.034	U	0.034	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Indeno[1,2,3-cd]pyrene	0.14		0.034	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Isophorone	0.14	U	0.14	0.099	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Naphthalene	0.021	J	0.34	0.0059	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Nitrobenzene	0.034	U	0.034	0.0082	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
N-Nitrosodi-n-propylamine	0.034	U	0.034	0.025	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
N-Nitrosodiphenylamine	0.34	U	0.34	0.028	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Pentachlorophenol	0.27	U	0.27	0.070	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Phenanthrene	0.18	J	0.34	0.0060	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Phenol	0.34	U	0.34	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1
Pyrene	0.26	J	0.34	0.0085	mg/Kg	☼	12/10/21 10:04	12/11/21 08:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	72		10 - 123	12/10/21 10:04	12/11/21 08:11	1
2-Fluorobiphenyl	64		14 - 103	12/10/21 10:04	12/11/21 08:11	1
2-Fluorophenol (Surr)	60		10 - 105	12/10/21 10:04	12/11/21 08:11	1
Nitrobenzene-d5 (Surr)	60		11 - 104	12/10/21 10:04	12/11/21 08:11	1
Phenol-d5 (Surr)	61		15 - 100	12/10/21 10:04	12/11/21 08:11	1
Terphenyl-d14 (Surr)	69		12 - 126	12/10/21 10:04	12/11/21 08:11	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0069	U	0.0069	0.0012	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
4,4'-DDE	0.0069	U	0.0069	0.00082	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
4,4'-DDT	0.0028	J	0.0069	0.0013	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
Aldrin	0.0069	U	0.0069	0.0010	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
alpha-BHC	0.0021	U	0.0021	0.00070	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
beta-BHC	0.0021	U	0.0021	0.00077	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
Chlordane (technical)	0.069	U	0.069	0.017	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
delta-BHC	0.0021	U	0.0021	0.00042	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
Dieldrin	0.0021	U	0.0021	0.00090	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
Endosulfan I	0.0069	U	0.0069	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248693-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 96.9

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	0.0069	U	0.0069	0.0018	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
Endosulfan sulfate	0.0069	U	0.0069	0.00087	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
Endrin	0.0069	U	0.0069	0.00099	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
Endrin aldehyde	0.0069	U	0.0069	0.0016	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
Endrin ketone	0.0069	U	0.0069	0.0013	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
gamma-BHC (Lindane)	0.0021	U	0.0021	0.00064	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
Heptachlor	0.0069	U	0.0069	0.00082	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
Heptachlor epoxide	0.0069	U	0.0069	0.0010	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
Methoxychlor	0.0069	U	0.0069	0.0016	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1
Toxaphene	0.069	U	0.069	0.025	mg/Kg	☼	12/10/21 17:51	12/12/21 22:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	94		10 - 150	12/10/21 17:51	12/12/21 22:02	1
DCB Decachlorobiphenyl	87		10 - 150	12/10/21 17:51	12/12/21 22:02	1
Tetrachloro-m-xylene	91		10 - 133	12/10/21 17:51	12/12/21 22:02	1
Tetrachloro-m-xylene	83		10 - 133	12/10/21 17:51	12/12/21 22:02	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.069	U	0.069	0.018	mg/Kg	☼	12/10/21 17:42	12/12/21 22:04	1
Aroclor 1221	0.069	U	0.069	0.018	mg/Kg	☼	12/10/21 17:42	12/12/21 22:04	1
Aroclor 1232	0.069	U	0.069	0.018	mg/Kg	☼	12/10/21 17:42	12/12/21 22:04	1
Aroclor 1242	0.069	U	0.069	0.018	mg/Kg	☼	12/10/21 17:42	12/12/21 22:04	1
Aroclor 1248	0.069	U	0.069	0.018	mg/Kg	☼	12/10/21 17:42	12/12/21 22:04	1
Aroclor 1254	0.069	U	0.069	0.018	mg/Kg	☼	12/10/21 17:42	12/12/21 22:04	1
Aroclor 1260	0.069	U	0.069	0.018	mg/Kg	☼	12/10/21 17:42	12/12/21 22:04	1
Aroclor-1262	0.069	U	0.069	0.018	mg/Kg	☼	12/10/21 17:42	12/12/21 22:04	1
Aroclor 1268	0.069	U	0.069	0.018	mg/Kg	☼	12/10/21 17:42	12/12/21 22:04	1
Polychlorinated biphenyls, Total	0.069	U	0.069	0.018	mg/Kg	☼	12/10/21 17:42	12/12/21 22:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		37 - 150	12/10/21 17:42	12/12/21 22:04	1
DCB Decachlorobiphenyl	92		37 - 150	12/10/21 17:42	12/12/21 22:04	1
Tetrachloro-m-xylene	55		54 - 150	12/10/21 17:42	12/12/21 22:04	1
Tetrachloro-m-xylene	90		54 - 150	12/10/21 17:42	12/12/21 22:04	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.034	U	0.034	0.0073	mg/Kg	☼	12/10/21 00:41	12/10/21 18:15	1
2,4-D	0.034	U	0.034	0.012	mg/Kg	☼	12/10/21 00:41	12/10/21 18:15	1
Silvex (2,4,5-TP)	0.034	U	0.034	0.0036	mg/Kg	☼	12/10/21 00:41	12/10/21 18:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	124		65 - 150	12/10/21 00:41	12/10/21 18:15	1
2,4-Dichlorophenylacetic acid	132		65 - 150	12/10/21 00:41	12/10/21 18:15	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2250		19.5	5.3	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Antimony	0.56	J	0.97	0.14	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Arsenic	4.7		0.97	0.10	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-01 (0-0.5)

Lab Sample ID: 460-248693-1

Date Collected: 12/08/21 09:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 96.9

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	34.6		1.9	0.14	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Beryllium	0.25	J	0.39	0.055	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Cadmium	0.18	J	0.97	0.11	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Calcium	8530		97.4	17.2	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Chromium	11.1		1.9	0.26	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Cobalt	2.9		1.9	0.14	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Copper	40.3		1.9	0.36	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Iron	9080		58.4	19.7	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Lead	66.3		0.58	0.19	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Magnesium	1460		97.4	9.9	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Manganese	105		3.9	0.39	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Nickel	6.5		1.9	0.46	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Potassium	639		97.4	11.8	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Selenium	0.19	J	1.2	0.12	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Silver	0.97	U	0.97	0.087	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Sodium	135		97.4	44.5	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Thallium	0.39	U	0.39	0.040	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Vanadium	12.8		1.9	0.20	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1
Zinc	59.7		7.8	3.0	mg/Kg	☼	12/15/21 18:44	12/16/21 17:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.081		0.016	0.0076	mg/Kg	☼	12/13/21 03:29	12/13/21 07:58	1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 91.4

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0016	U	0.0016	0.00037	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
1,1,2,2-Tetrachloroethane	0.0016	U	0.0016	0.00034	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0016	U	0.0016	0.00047	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
1,1,2-Trichloroethane	0.0016	U	0.0016	0.00028	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
1,1-Dichloroethane	0.0016	U	0.0016	0.00032	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
1,1-Dichloroethene	0.0016	U	0.0016	0.00035	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
1,2,3-Trichlorobenzene	0.0016	U	0.0016	0.00028	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
1,2,4-Trichlorobenzene	0.0016	U	0.0016	0.00056	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
1,2-Dibromo-3-Chloropropane	0.0016	U	0.0016	0.00072	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
1,2-Dichlorobenzene	0.0016	U	0.0016	0.00057	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
1,2-Dichloroethane	0.0016	U	0.0016	0.00047	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
1,2-Dichloropropane	0.0016	U	0.0016	0.00067	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
1,3-Dichlorobenzene	0.0016	U	0.0016	0.00057	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
1,4-Dichlorobenzene	0.0016	U	0.0016	0.00035	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
2-Butanone (MEK)	0.0044	J	0.0079	0.00058	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
2-Hexanone	0.0079	U	0.0079	0.0027	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
4-Methyl-2-pentanone (MIBK)	0.0079	U	0.0079	0.0024	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Acetone	0.029		0.0094	0.0090	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Benzene	0.0016	U	0.0016	0.00041	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Bromoform	0.0016	U	0.0016	0.00067	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 91.4

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	0.0031	U	0.0031	0.0016	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Carbon disulfide	0.00053	J	0.0016	0.00042	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Carbon tetrachloride	0.0016	U	0.0016	0.00061	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Chlorobenzene	0.0016	U	0.0016	0.00028	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Chlorobromomethane	0.0016	U	0.0016	0.00044	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Chlorodibromomethane	0.0016	U	0.0016	0.00031	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Chloroethane	0.0016	U	0.0016	0.00082	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Chloroform	0.0016	U	0.0016	0.0015	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Chloromethane	0.0016	U	0.0016	0.00068	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
cis-1,2-Dichloroethene	0.0016	U	0.0016	0.00056	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
cis-1,3-Dichloropropene	0.0016	U	0.0016	0.00043	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Cyclohexane	0.0016	U	0.0016	0.00035	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Dichlorobromomethane	0.0016	U	0.0016	0.00040	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Dichlorodifluoromethane	0.0016	U	0.0016	0.00053	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Ethylbenzene	0.0016	U	0.0016	0.00031	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Ethylene Dibromide	0.0016	U	0.0016	0.00028	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Isopropylbenzene	0.0016	U	0.0016	0.00045	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Methyl acetate	0.0079	U	0.0079	0.0068	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Methyl tert-butyl ether	0.0016	U	0.0016	0.00081	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Methylcyclohexane	0.0016	U	0.0016	0.00078	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Methylene Chloride	0.0021	J	0.0031	0.0018	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
m-Xylene & p-Xylene	0.0016	U	0.0016	0.00027	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
o-Xylene	0.0016	U	0.0016	0.00031	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Styrene	0.0016	U	0.0016	0.00044	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Tetrachloroethene	0.0016	U	0.0016	0.00048	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Toluene	0.0016	U	0.0016	0.00037	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
trans-1,2-Dichloroethene	0.0016	U	0.0016	0.00039	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
trans-1,3-Dichloropropene	0.0016	U	0.0016	0.00042	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Trichloroethene	0.0016	U	0.0016	0.00050	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Trichlorofluoromethane	0.0016	U	0.0016	0.00064	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1
Vinyl chloride	0.0016	U	0.0016	0.00086	mg/Kg	☼	12/09/21 17:48	12/11/21 23:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		77 - 145	12/09/21 17:48	12/11/21 23:45	1
4-Bromofluorobenzene	105		70 - 139	12/09/21 17:48	12/11/21 23:45	1
Dibromofluoromethane (Surr)	107		48 - 150	12/09/21 17:48	12/11/21 23:45	1
Toluene-d8 (Surr)	102		80 - 120	12/09/21 17:48	12/11/21 23:45	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.027	J	0.36	0.0048	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
1,4-Dioxane	0.036	U *	0.036	0.032	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0066	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.025	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
2,4,5-Trichlorophenol	0.36	U	0.36	0.037	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.046	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
2,4-Dichlorophenol	0.15	U	0.15	0.023	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 91.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.073	U	0.073	0.039	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
2,6-Dinitrotoluene	0.073	U	0.073	0.026	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
2-Methylnaphthalene	0.099	J	0.36	0.010	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
2-Methylphenol	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
2-Nitroaniline	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
2-Nitrophenol	0.36	U	0.36	0.036	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
3,3'-Dichlorobenzidine	0.15	U	0.15	0.055	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
3-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
4-Chloroaniline	0.36	U	0.36	0.064	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
4-Methylphenol	0.36	U	0.36	0.023	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
4-Nitroaniline	0.36	U	0.36	0.042	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
4-Nitrophenol	0.73	U	0.73	0.059	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Acenaphthene	0.14	J	0.36	0.010	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Acenaphthylene	0.047	J	0.36	0.0036	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Acetophenone	0.36	U	0.36	0.018	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Anthracene	0.21	J	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Atrazine	0.15	U	0.15	0.021	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Benzaldehyde	0.36	U	0.36	0.060	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Benzo[a]anthracene	0.57		0.036	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Benzo[a]pyrene	0.52		0.036	0.0096	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Benzo[b]fluoranthene	0.80		0.036	0.0094	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Benzo[g,h,i]perylene	0.24	J	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Benzo[k]fluoranthene	0.30		0.036	0.0071	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Bis(2-ethylhexyl) phthalate	0.076	J	0.36	0.019	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Butyl benzyl phthalate	0.36	U	0.36	0.017	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Caprolactam	0.36	U	0.36	0.056	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Carbazole	0.073	J	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Chrysene	0.56		0.36	0.0061	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Dibenz(a,h)anthracene	0.056		0.036	0.016	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Dibenzofuran	0.11	J	0.36	0.0051	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Diethyl phthalate	0.36	U	0.36	0.0052	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Dimethyl phthalate	0.36	U	0.36	0.082	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Di-n-butyl phthalate	0.014	J	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Di-n-octyl phthalate	0.36	U	0.36	0.019	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Fluoranthene	1.2		0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Fluorene	0.13	J	0.36	0.0049	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Hexachlorobutadiene	0.073	U	0.073	0.0077	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.032	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Hexachloroethane	0.036	U	0.036	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Indeno[1,2,3-cd]pyrene	0.38		0.036	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 91.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	0.15	U	0.15	0.10	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Naphthalene	0.13	J	0.36	0.0063	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Nitrobenzene	0.036	U	0.036	0.0087	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.026	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
N-Nitrosodiphenylamine	0.36	U	0.36	0.030	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Pentachlorophenol	0.29	U	0.29	0.074	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Phenanthrene	0.74		0.36	0.0064	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Phenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1
Pyrene	1.0		0.36	0.0090	mg/Kg	☼	12/10/21 10:04	12/11/21 08:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	46		10 - 123	12/10/21 10:04	12/11/21 08:28	1
2-Fluorobiphenyl	47		14 - 103	12/10/21 10:04	12/11/21 08:28	1
2-Fluorophenol (Surr)	47		10 - 105	12/10/21 10:04	12/11/21 08:28	1
Nitrobenzene-d5 (Surr)	47		11 - 104	12/10/21 10:04	12/11/21 08:28	1
Phenol-d5 (Surr)	46		15 - 100	12/10/21 10:04	12/11/21 08:28	1
Terphenyl-d14 (Surr)	46		12 - 126	12/10/21 10:04	12/11/21 08:28	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0098		0.0073	0.0012	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
4,4'-DDE	0.0059	J	0.0073	0.00086	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
4,4'-DDT	0.0034	J p	0.0073	0.0013	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
Aldrin	0.0073	U	0.0073	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
alpha-BHC	0.0022	U	0.0022	0.00074	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
beta-BHC	0.0022	U	0.0022	0.00082	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
Chlordane (technical)	0.073	U	0.073	0.018	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
delta-BHC	0.0022	U	0.0022	0.00045	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
Dieldrin	0.0022	U	0.0022	0.00095	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
Endosulfan I	0.0073	U	0.0073	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
Endosulfan II	0.0073	U	0.0073	0.0019	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
Endosulfan sulfate	0.0073	U	0.0073	0.00092	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
Endrin	0.0073	U	0.0073	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
Endrin aldehyde	0.0073	U	0.0073	0.0017	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
Endrin ketone	0.0073	U	0.0073	0.0014	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00068	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
Heptachlor	0.0073	U	0.0073	0.00086	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
Heptachlor epoxide	0.0073	U	0.0073	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
Methoxychlor	0.0073	U	0.0073	0.0017	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1
Toxaphene	0.073	U	0.073	0.026	mg/Kg	☼	12/10/21 17:51	12/12/21 22:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		10 - 150	12/10/21 17:51	12/12/21 22:17	1
DCB Decachlorobiphenyl	88		10 - 150	12/10/21 17:51	12/12/21 22:17	1
Tetrachloro-m-xylene	92		10 - 133	12/10/21 17:51	12/12/21 22:17	1
Tetrachloro-m-xylene	86		10 - 133	12/10/21 17:51	12/12/21 22:17	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 22:23	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 91.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1221	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 22:23	1
Aroclor 1232	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 22:23	1
Aroclor 1242	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 22:23	1
Aroclor 1248	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 22:23	1
Aroclor 1254	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 22:23	1
Aroclor 1260	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 22:23	1
Aroclor-1262	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 22:23	1
Aroclor 1268	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 22:23	1
Polychlorinated biphenyls, Total	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 22:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		37 - 150				12/10/21 17:42	12/12/21 22:23	1
DCB Decachlorobiphenyl	96		37 - 150				12/10/21 17:42	12/12/21 22:23	1
Tetrachloro-m-xylene	70		54 - 150				12/10/21 17:42	12/12/21 22:23	1
Tetrachloro-m-xylene	88		54 - 150				12/10/21 17:42	12/12/21 22:23	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.036	U	0.036	0.0077	mg/Kg	☼	12/10/21 00:41	12/10/21 18:28	1
2,4-D	0.036	U	0.036	0.013	mg/Kg	☼	12/10/21 00:41	12/10/21 18:28	1
Silvex (2,4,5-TP)	0.036	U	0.036	0.0038	mg/Kg	☼	12/10/21 00:41	12/10/21 18:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	107		65 - 150				12/10/21 00:41	12/10/21 18:28	1
2,4-Dichlorophenylacetic acid	119		65 - 150				12/10/21 00:41	12/10/21 18:28	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3910		41.3	11.3	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Antimony	1.4	J	2.1	0.30	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Arsenic	10.4		2.1	0.21	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Barium	129		4.1	0.30	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Beryllium	0.31	J	0.83	0.12	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Cadmium	0.49	J	2.1	0.23	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Calcium	13100		207	36.6	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Chromium	16.4		4.1	0.55	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Cobalt	4.8		4.1	0.31	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Copper	108		4.1	0.76	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Iron	21600		124	41.7	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Lead	278		1.2	0.41	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Magnesium	2260		207	21.1	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Manganese	219		8.3	0.83	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Nickel	12.8		4.1	0.97	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Potassium	698		207	25.0	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Selenium	0.58	J	2.6	0.26	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Silver	2.1	U	2.1	0.18	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Sodium	159	J	207	94.4	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Thallium	0.12	J	0.83	0.085	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Vanadium	18.6		4.1	0.43	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2
Zinc	209		16.5	6.3	mg/Kg	☼	12/15/21 18:44	12/16/21 17:49	2

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-05 (0-0.5)

Lab Sample ID: 460-248693-2

Date Collected: 12/08/21 10:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 91.4

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.52		0.018	0.0085	mg/Kg	☼	12/13/21 03:29	12/13/21 08:03	1

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248693-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.6

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0023	U	0.0023	0.00053	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
1,1,2,2-Tetrachloroethane	0.0023	U	0.0023	0.00049	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0023	U	0.0023	0.00069	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
1,1,2-Trichloroethane	0.0023	U	0.0023	0.00041	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
1,1-Dichloroethane	0.0023	U	0.0023	0.00047	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
1,1-Dichloroethene	0.0023	U	0.0023	0.00052	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
1,2,3-Trichlorobenzene	0.0023	U	0.0023	0.00041	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
1,2,4-Trichlorobenzene	0.0023	U	0.0023	0.00082	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
1,2-Dibromo-3-Chloropropane	0.0023	U	0.0023	0.0011	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
1,2-Dichlorobenzene	0.0023	U	0.0023	0.00083	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
1,2-Dichloroethane	0.0023	U	0.0023	0.00068	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
1,2-Dichloropropane	0.0023	U	0.0023	0.00097	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
1,3-Dichlorobenzene	0.0023	U	0.0023	0.00084	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
1,4-Dichlorobenzene	0.0023	U	0.0023	0.00052	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
2-Butanone (MEK)	0.011	U	0.011	0.00084	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
2-Hexanone	0.011	U	0.011	0.0039	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
4-Methyl-2-pentanone (MIBK)	0.011	U	0.011	0.0036	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Acetone	0.019		0.014	0.013	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Benzene	0.0023	U	0.0023	0.00059	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Bromoform	0.0023	U	0.0023	0.00097	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Bromomethane	0.0046	U	0.0046	0.0023	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Carbon disulfide	0.0023	U	0.0023	0.00061	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Carbon tetrachloride	0.0023	U	0.0023	0.00089	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Chlorobenzene	0.0023	U	0.0023	0.00041	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Chlorobromomethane	0.0023	U	0.0023	0.00064	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Chlorodibromomethane	0.0023	U	0.0023	0.00044	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Chloroethane	0.0023	U	0.0023	0.0012	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Chloroform	0.0023	U	0.0023	0.0022	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Chloromethane	0.0023	U	0.0023	0.0010	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
cis-1,2-Dichloroethene	0.0023	U	0.0023	0.00082	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
cis-1,3-Dichloropropene	0.0023	U	0.0023	0.00063	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Cyclohexane	0.0023	U	0.0023	0.00051	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Dichlorobromomethane	0.0023	U	0.0023	0.00059	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Dichlorodifluoromethane	0.0023	U	0.0023	0.00077	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Ethylbenzene	0.0023	U	0.0023	0.00046	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Ethylene Dibromide	0.0023	U	0.0023	0.00041	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Isopropylbenzene	0.0023	U	0.0023	0.00065	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Methyl acetate	0.011	U	0.011	0.0098	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Methyl tert-butyl ether	0.0023	U	0.0023	0.0012	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Methylcyclohexane	0.0023	U	0.0023	0.0011	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Methylene Chloride	0.0046	U	0.0046	0.0026	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
m-Xylene & p-Xylene	0.0023	U	0.0023	0.00040	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248693-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.6

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	0.0023	U	0.0023	0.00044	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Styrene	0.0023	U	0.0023	0.00064	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Tetrachloroethene	0.0023	U	0.0023	0.00070	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Toluene	0.0023	U	0.0023	0.00054	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
trans-1,2-Dichloroethene	0.0023	U	0.0023	0.00056	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
trans-1,3-Dichloropropene	0.0023	U	0.0023	0.00061	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Trichloroethene	0.0023	U	0.0023	0.00074	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Trichlorofluoromethane	0.0023	U	0.0023	0.00093	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Vinyl chloride	0.0023	U	0.0023	0.0013	mg/Kg	☼	12/09/21 17:49	12/12/21 00:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		77 - 145				12/09/21 17:49	12/12/21 00:08	1
4-Bromofluorobenzene	104		70 - 139				12/09/21 17:49	12/12/21 00:08	1
Dibromofluoromethane (Surr)	101		48 - 150				12/09/21 17:49	12/12/21 00:08	1
Toluene-d8 (Surr)	100		80 - 120				12/09/21 17:49	12/12/21 00:08	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0085	J	0.36	0.0048	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
1,4-Dioxane	0.036	U *	0.036	0.032	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0066	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.025	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
2,4,5-Trichlorophenol	0.36	U	0.36	0.037	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.047	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
2,4-Dichlorophenol	0.15	U	0.15	0.023	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
2,4-Dinitrotoluene	0.074	U	0.074	0.039	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
2,6-Dinitrotoluene	0.074	U	0.074	0.026	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
2-Methylnaphthalene	0.028	J	0.36	0.010	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
2-Methylphenol	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
2-Nitroaniline	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
2-Nitrophenol	0.36	U	0.36	0.037	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
3,3'-Dichlorobenzidine	0.15	U	0.15	0.055	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
3-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
4-Chloroaniline	0.36	U	0.36	0.065	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
4-Methylphenol	0.36	U	0.36	0.023	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
4-Nitroaniline	0.36	U	0.36	0.042	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
4-Nitrophenol	0.74	U	0.74	0.060	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Acenaphthene	0.025	J	0.36	0.010	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Acenaphthylene	0.015	J	0.36	0.0037	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Acetophenone	0.36	U	0.36	0.018	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Anthracene	0.059	J	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248693-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.6

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Atrazine	0.15	U	0.15	0.021	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Benzaldehyde	0.36	U	0.36	0.060	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Benzo[a]anthracene	0.18		0.036	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Benzo[a]pyrene	0.16		0.036	0.0097	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Benzo[b]fluoranthene	0.27		0.036	0.0094	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Benzo[g,h,i]perylene	0.11	J	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Benzo[k]fluoranthene	0.11		0.036	0.0072	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Bis(2-ethylhexyl) phthalate	0.22	J	0.36	0.019	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Butyl benzyl phthalate	0.36	U	0.36	0.017	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Caprolactam	0.36	U	0.36	0.057	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Carbazole	0.022	J	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Chrysene	0.18	J	0.36	0.0062	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Dibenz(a,h)anthracene	0.016	J	0.036	0.016	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Dibenzofuran	0.029	J	0.36	0.0051	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Diethyl phthalate	0.36	U	0.36	0.0053	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Dimethyl phthalate	0.36	U	0.36	0.083	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Di-n-butyl phthalate	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Di-n-octyl phthalate	0.36	U	0.36	0.019	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Fluoranthene	0.40		0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Fluorene	0.014	J	0.36	0.0050	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Hexachlorobutadiene	0.074	U	0.074	0.0078	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.032	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Hexachloroethane	0.036	U	0.036	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Indeno[1,2,3-cd]pyrene	0.13		0.036	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Isophorone	0.15	U	0.15	0.11	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Naphthalene	0.041	J	0.36	0.0063	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Nitrobenzene	0.036	U	0.036	0.0088	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.027	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
N-Nitrosodiphenylamine	0.36	U	0.36	0.030	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Pentachlorophenol	0.29	U	0.29	0.075	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Phenanthrene	0.21	J	0.36	0.0064	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Phenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1
Pyrene	0.34	J	0.36	0.0091	mg/Kg	☼	12/10/21 10:04	12/12/21 03:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	13		10 - 123	12/10/21 10:04	12/12/21 03:04	1
2-Fluorobiphenyl	48		14 - 103	12/10/21 10:04	12/12/21 03:04	1
2-Fluorophenol (Surr)	45		10 - 105	12/10/21 10:04	12/12/21 03:04	1
Nitrobenzene-d5 (Surr)	43		11 - 104	12/10/21 10:04	12/12/21 03:04	1
Phenol-d5 (Surr)	47		15 - 100	12/10/21 10:04	12/12/21 03:04	1
Terphenyl-d14 (Surr)	49		12 - 126	12/10/21 10:04	12/12/21 03:04	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0074	U	0.0074	0.0013	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
4,4'-DDE	0.0044	J	0.0074	0.00087	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
4,4'-DDT	0.0074	U	0.0074	0.0014	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1

Eurofins Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248693-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.6

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.0074	U	0.0074	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
alpha-BHC	0.0022	U	0.0022	0.00075	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
beta-BHC	0.0022	U	0.0022	0.00083	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
Chlordane (technical)	0.074	U	0.074	0.018	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
delta-BHC	0.0022	U	0.0022	0.00045	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
Dieldrin	0.0022	U	0.0022	0.00096	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
Endosulfan I	0.0074	U	0.0074	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
Endosulfan II	0.0074	U	0.0074	0.0019	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
Endosulfan sulfate	0.0074	U	0.0074	0.00093	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
Endrin	0.0074	U	0.0074	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
Endrin aldehyde	0.0074	U	0.0074	0.0017	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
Endrin ketone	0.0074	U	0.0074	0.0014	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00068	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
Heptachlor	0.0074	U	0.0074	0.00087	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
Heptachlor epoxide	0.0074	U	0.0074	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
Methoxychlor	0.0074	U	0.0074	0.0017	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1
Toxaphene	0.074	U	0.074	0.027	mg/Kg	☼	12/10/21 17:51	12/12/21 22:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		10 - 150	12/10/21 17:51	12/12/21 22:32	1
DCB Decachlorobiphenyl	78		10 - 150	12/10/21 17:51	12/12/21 22:32	1
Tetrachloro-m-xylene	89		10 - 133	12/10/21 17:51	12/12/21 22:32	1
Tetrachloro-m-xylene	83		10 - 133	12/10/21 17:51	12/12/21 22:32	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 22:43	1
Aroclor 1221	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 22:43	1
Aroclor 1232	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 22:43	1
Aroclor 1242	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 22:43	1
Aroclor 1248	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 22:43	1
Aroclor 1254	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 22:43	1
Aroclor 1260	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 22:43	1
Aroclor-1262	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 22:43	1
Aroclor 1268	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 22:43	1
Polychlorinated biphenyls, Total	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 22:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	74		37 - 150	12/10/21 17:42	12/12/21 22:43	1
DCB Decachlorobiphenyl	89		37 - 150	12/10/21 17:42	12/12/21 22:43	1
Tetrachloro-m-xylene	52	*	54 - 150	12/10/21 17:42	12/12/21 22:43	1
Tetrachloro-m-xylene	90		54 - 150	12/10/21 17:42	12/12/21 22:43	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.18	U	0.18	0.039	mg/Kg	☼	12/10/21 00:41	12/10/21 19:40	5
2,4-D	0.18	U	0.18	0.067	mg/Kg	☼	12/10/21 00:41	12/10/21 19:40	5
Silvex (2,4,5-TP)	0.18	U	0.18	0.019	mg/Kg	☼	12/10/21 00:41	12/10/21 19:40	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	146		65 - 150	12/10/21 00:41	12/10/21 19:40	5

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-06 (0-0.5)

Lab Sample ID: 460-248693-3

Date Collected: 12/08/21 11:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.6

Method: 8151A - Herbicides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	205	*	65 - 150	12/10/21 00:41	12/10/21 19:40	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6430		20.4	5.6	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Antimony	0.46	J	1.0	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Arsenic	9.9		1.0	0.11	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Barium	67.8		2.0	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Beryllium	0.35	J	0.41	0.058	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Cadmium	0.25	J	1.0	0.12	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Calcium	47400		102	18.1	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Chromium	17.3		2.0	0.27	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Cobalt	8.4		2.0	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Copper	68.2		2.0	0.38	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Iron	22100		61.3	20.6	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Lead	77.4		0.61	0.20	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Magnesium	5380		102	10.4	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Manganese	244		4.1	0.41	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Nickel	19.2		2.0	0.48	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Potassium	764		102	12.4	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Selenium	0.22	J	1.3	0.13	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Silver	0.14	J	1.0	0.091	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Sodium	311		102	46.7	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Thallium	0.055	J	0.41	0.042	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Vanadium	29.9		2.0	0.21	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1
Zinc	157		8.2	3.1	mg/Kg	☼	12/15/21 18:44	12/16/21 17:52	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.093		0.018	0.0084	mg/Kg	☼	12/13/21 03:29	12/13/21 08:05	1

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248693-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0021	U	0.0021	0.00048	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
1,1,2,2-Tetrachloroethane	0.0021	U	0.0021	0.00044	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0021	U	0.0021	0.00062	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
1,1,2-Trichloroethane	0.0021	U	0.0021	0.00037	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
1,1-Dichloroethane	0.0021	U	0.0021	0.00042	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
1,1-Dichloroethene	0.0021	U	0.0021	0.00046	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
1,2,3-Trichlorobenzene	0.0021	U	0.0021	0.00037	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
1,2,4-Trichlorobenzene	0.0021	U	0.0021	0.00074	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
1,2-Dibromo-3-Chloropropane	0.0021	U	0.0021	0.00095	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
1,2-Dichlorobenzene	0.0021	U	0.0021	0.00074	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
1,2-Dichloroethane	0.0021	U	0.0021	0.00061	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
1,2-Dichloropropane	0.0021	U	0.0021	0.00087	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
1,3-Dichlorobenzene	0.0021	U	0.0021	0.00075	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248693-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0021	U	0.0021	0.00046	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
2-Butanone (MEK)	0.010	U	0.010	0.00076	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
2-Hexanone	0.010	U	0.010	0.0035	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
4-Methyl-2-pentanone (MIBK)	0.010	U	0.010	0.0032	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Acetone	0.037		0.012	0.012	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Benzene	0.0021	U	0.0021	0.00053	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Bromoform	0.0021	U	0.0021	0.00087	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Bromomethane	0.0041	U	0.0041	0.0021	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Carbon disulfide	0.0010	J	0.0021	0.00055	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Carbon tetrachloride	0.0021	U	0.0021	0.00080	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Chlorobenzene	0.0021	U	0.0021	0.00036	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Chlorobromomethane	0.0021	U	0.0021	0.00058	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Chlorodibromomethane	0.0021	U	0.0021	0.00040	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Chloroethane	0.0021	U	0.0021	0.0011	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Chloroform	0.0021	U	0.0021	0.0020	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Chloromethane	0.0021	U	0.0021	0.00090	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
cis-1,2-Dichloroethene	0.0021	U	0.0021	0.00074	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
cis-1,3-Dichloropropene	0.0021	U	0.0021	0.00056	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Cyclohexane	0.0021	U	0.0021	0.00045	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Dichlorobromomethane	0.0021	U	0.0021	0.00053	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Dichlorodifluoromethane	0.0021	U	0.0021	0.00070	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Ethylbenzene	0.0021	U	0.0021	0.00041	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Ethylene Dibromide	0.0021	U	0.0021	0.00037	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Isopropylbenzene	0.0021	U	0.0021	0.00059	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Methyl acetate	0.010	U	0.010	0.0088	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Methyl tert-butyl ether	0.0021	U	0.0021	0.0011	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Methylcyclohexane	0.0021	U	0.0021	0.0010	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Methylene Chloride	0.0041	U	0.0041	0.0024	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
m-Xylene & p-Xylene	0.0021	U	0.0021	0.00036	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
o-Xylene	0.0021	U	0.0021	0.00040	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Styrene	0.0021	U	0.0021	0.00057	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Tetrachloroethene	0.0021	U	0.0021	0.00063	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Toluene	0.0021	U	0.0021	0.00048	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
trans-1,2-Dichloroethene	0.0021	U	0.0021	0.00051	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
trans-1,3-Dichloropropene	0.0021	U	0.0021	0.00055	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Trichloroethene	0.0021	U	0.0021	0.00066	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Trichlorofluoromethane	0.0021	U	0.0021	0.00084	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1
Vinyl chloride	0.0021	U	0.0021	0.0011	mg/Kg	☼	12/09/21 17:50	12/12/21 00:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		77 - 145	12/09/21 17:50	12/12/21 00:31	1
4-Bromofluorobenzene	104		70 - 139	12/09/21 17:50	12/12/21 00:31	1
Dibromofluoromethane (Surr)	108		48 - 150	12/09/21 17:50	12/12/21 00:31	1
Toluene-d8 (Surr)	99		80 - 120	12/09/21 17:50	12/12/21 00:31	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.038	J	0.37	0.0050	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
1,4-Dioxane	0.037	U *	0.037	0.033	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248693-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2'-oxybis[1-chloropropane]	0.37	U	0.37	0.0068	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
2,3,4,6-Tetrachlorophenol	0.37	U	0.37	0.025	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
2,4,5-Trichlorophenol	0.37	U	0.37	0.038	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.048	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
2,4-Dichlorophenol	0.15	U	0.15	0.024	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
2,4-Dimethylphenol	0.37	U	0.37	0.016	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
2,4-Dinitrophenol	0.30	U	0.30	0.18	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
2,4-Dinitrotoluene	0.076	U	0.076	0.040	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
2,6-Dinitrotoluene	0.076	U	0.076	0.027	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
2-Chloronaphthalene	0.37	U	0.37	0.017	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
2-Chlorophenol	0.37	U	0.37	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
2-Methylnaphthalene	0.077	J	0.37	0.010	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
2-Methylphenol	0.37	U	0.37	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
2-Nitroaniline	0.37	U	0.37	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
2-Nitrophenol	0.37	U	0.37	0.037	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
3,3'-Dichlorobenzidine	0.15	U	0.15	0.056	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
3-Nitroaniline	0.37	U	0.37	0.042	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
4,6-Dinitro-2-methylphenol	0.30	U	0.30	0.15	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
4-Bromophenyl phenyl ether	0.37	U	0.37	0.015	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
4-Chloro-3-methylphenol	0.37	U	0.37	0.021	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
4-Chloroaniline	0.37	U	0.37	0.066	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
4-Chlorophenyl phenyl ether	0.37	U	0.37	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
4-Methylphenol	0.37	U	0.37	0.023	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
4-Nitroaniline	0.37	U	0.37	0.043	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
4-Nitrophenol	0.76	U	0.76	0.061	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Acenaphthene	0.23	J	0.37	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Acenaphthylene	0.25	J	0.37	0.0038	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Acetophenone	0.37	U	0.37	0.018	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Anthracene	1.7		0.37	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Atrazine	0.15	U	0.15	0.022	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Benzaldehyde	0.37	U	0.37	0.062	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Benzo[a]anthracene	4.2		0.037	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Benzo[a]pyrene	3.7		0.037	0.0099	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Benzo[b]fluoranthene	4.3		0.037	0.0097	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Benzo[g,h,i]perylene	1.5		0.37	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Benzo[k]fluoranthene	2.2		0.037	0.0073	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Bis(2-chloroethoxy)methane	0.37	U	0.37	0.029	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Bis(2-chloroethyl)ether	0.037	U	0.037	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Bis(2-ethylhexyl) phthalate	0.072	J	0.37	0.020	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Butyl benzyl phthalate	0.37	U	0.37	0.017	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Caprolactam	0.37	U	0.37	0.058	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Carbazole	0.15	J	0.37	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Chrysene	3.9		0.37	0.0063	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Dibenz(a,h)anthracene	0.50		0.037	0.016	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Dibenzofuran	0.20	J	0.37	0.0052	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Diethyl phthalate	0.37	U	0.37	0.0054	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Dimethyl phthalate	0.37	U	0.37	0.085	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Di-n-butyl phthalate	0.37	U	0.37	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Di-n-octyl phthalate	0.37	U	0.37	0.020	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248693-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	8.3		0.37	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Fluorene	0.33	J	0.37	0.0051	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Hexachlorobenzene	0.037	U	0.037	0.018	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Hexachlorobutadiene	0.076	U	0.076	0.0079	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Hexachlorocyclopentadiene	0.37	U	0.37	0.033	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Hexachloroethane	0.037	U	0.037	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Indeno[1,2,3-cd]pyrene	1.9		0.037	0.015	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Isophorone	0.15	U	0.15	0.11	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Naphthalene	0.17	J	0.37	0.0064	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Nitrobenzene	0.037	U	0.037	0.0090	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
N-Nitrosodi-n-propylamine	0.037	U	0.037	0.027	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
N-Nitrosodiphenylamine	0.37	U	0.37	0.031	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Pentachlorophenol	0.30	U	0.30	0.076	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Phenanthrene	4.8		0.37	0.0066	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Phenol	0.37	U	0.37	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1
Pyrene	8.1		0.37	0.0093	mg/Kg	☼	12/10/21 10:04	12/11/21 18:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	34		10 - 123	12/10/21 10:04	12/11/21 18:15	1
2-Fluorobiphenyl	39		14 - 103	12/10/21 10:04	12/11/21 18:15	1
2-Fluorophenol (Surr)	40		10 - 105	12/10/21 10:04	12/11/21 18:15	1
Nitrobenzene-d5 (Surr)	35		11 - 104	12/10/21 10:04	12/11/21 18:15	1
Phenol-d5 (Surr)	41		15 - 100	12/10/21 10:04	12/11/21 18:15	1
Terphenyl-d14 (Surr)	40		12 - 126	12/10/21 10:04	12/11/21 18:15	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0076	U	0.0076	0.0013	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
4,4'-DDE	0.0076	U	0.0076	0.00089	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
4,4'-DDT	0.0076	U	0.0076	0.0014	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
Aldrin	0.0076	U	0.0076	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
alpha-BHC	0.0023	U	0.0023	0.00077	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
beta-BHC	0.0023	U	0.0023	0.00085	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
Chlordane (technical)	0.076	U	0.076	0.018	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
delta-BHC	0.0023	U	0.0023	0.00046	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
Dieldrin	0.0023	U	0.0023	0.00098	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
Endosulfan I	0.0076	U	0.0076	0.0012	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
Endosulfan II	0.0076	U	0.0076	0.0019	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
Endosulfan sulfate	0.0076	U	0.0076	0.00095	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
Endrin	0.0076	U	0.0076	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
Endrin aldehyde	0.0076	U	0.0076	0.0018	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
Endrin ketone	0.0076	U	0.0076	0.0015	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
gamma-BHC (Lindane)	0.0023	U	0.0023	0.00070	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
Heptachlor	0.0076	U	0.0076	0.00089	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
Heptachlor epoxide	0.0076	U	0.0076	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
Methoxychlor	0.0076	U	0.0076	0.0017	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1
Toxaphene	0.076	U	0.076	0.027	mg/Kg	☼	12/10/21 17:51	12/12/21 22:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	177	*	10 - 150	12/10/21 17:51	12/12/21 22:46	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-09 (0-0.5)

Lab Sample ID: 460-248693-4

Date Collected: 12/08/21 11:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.7

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	158	*	10 - 150	12/10/21 17:51	12/12/21 22:46	1
Tetrachloro-m-xylene	170	*	10 - 133	12/10/21 17:51	12/12/21 22:46	1
Tetrachloro-m-xylene	156	*	10 - 133	12/10/21 17:51	12/12/21 22:46	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.076	U	0.076	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:02	1
Aroclor 1221	0.076	U	0.076	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:02	1
Aroclor 1232	0.076	U	0.076	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:02	1
Aroclor 1242	0.076	U	0.076	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:02	1
Aroclor 1248	0.076	U	0.076	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:02	1
Aroclor 1254	0.076	U	0.076	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:02	1
Aroclor 1260	0.076	U	0.076	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:02	1
Aroclor-1262	0.076	U	0.076	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:02	1
Aroclor 1268	0.076	U	0.076	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:02	1
Polychlorinated biphenyls, Total	0.076	U	0.076	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	170	*	37 - 150	12/10/21 17:42	12/12/21 23:02	1
DCB Decachlorobiphenyl	203	*	37 - 150	12/10/21 17:42	12/12/21 23:02	1
Tetrachloro-m-xylene	103		54 - 150	12/10/21 17:42	12/12/21 23:02	1
Tetrachloro-m-xylene	168	*	54 - 150	12/10/21 17:42	12/12/21 23:02	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.19	U	0.19	0.040	mg/Kg	☼	12/10/21 00:41	12/10/21 19:54	5
2,4-D	0.19	U	0.19	0.068	mg/Kg	☼	12/10/21 00:41	12/10/21 19:54	5
Silvex (2,4,5-TP)	0.19	U	0.19	0.020	mg/Kg	☼	12/10/21 00:41	12/10/21 19:54	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	135		65 - 150	12/10/21 00:41	12/10/21 19:54	5
2,4-Dichlorophenylacetic acid	191	*	65 - 150	12/10/21 00:41	12/10/21 19:54	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5200		21.1	5.8	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Antimony	1.2		1.1	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Arsenic	11.0		1.1	0.11	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Barium	145		2.1	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Beryllium	0.55		0.42	0.060	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Cadmium	0.65	J	1.1	0.12	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Calcium	29500		105	18.7	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Chromium	19.7		2.1	0.28	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Cobalt	7.2		2.1	0.16	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Copper	179		2.1	0.39	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Iron	18300		63.2	21.3	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Lead	682		0.63	0.21	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Magnesium	6940		105	10.7	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Manganese	220		4.2	0.42	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Nickel	20.2		2.1	0.50	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-09 (0-0.5)

Date Collected: 12/08/21 11:35

Date Received: 12/08/21 18:00

Lab Sample ID: 460-248693-4

Matrix: Solid

Percent Solids: 88.7

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	785		105	12.8	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Selenium	1.0	J	1.3	0.13	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Silver	0.46	J	1.1	0.094	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Sodium	952		105	48.2	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Thallium	0.10	J	0.42	0.043	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Vanadium	27.2		2.1	0.22	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1
Zinc	511		8.4	3.2	mg/Kg	☼	12/15/21 18:44	12/16/21 17:54	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.0		0.055	0.026	mg/Kg	☼	12/13/21 03:29	12/13/21 09:52	3

Client Sample ID: TRC-SB-12 (0-0.5)

Date Collected: 12/08/21 12:15

Date Received: 12/08/21 18:00

Lab Sample ID: 460-248693-5

Matrix: Solid

Percent Solids: 92.5

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0017	U	0.0017	0.00039	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
1,1,2,2-Tetrachloroethane	0.0017	U	0.0017	0.00036	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0017	U	0.0017	0.00050	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
1,1,2-Trichloroethane	0.0017	U	0.0017	0.00030	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
1,1-Dichloroethane	0.0017	U	0.0017	0.00034	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
1,1-Dichloroethene	0.0017	U	0.0017	0.00038	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
1,2,3-Trichlorobenzene	0.0017	U	0.0017	0.00030	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
1,2,4-Trichlorobenzene	0.0017	U	0.0017	0.00060	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
1,2-Dibromo-3-Chloropropane	0.0017	U	0.0017	0.00077	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
1,2-Dichlorobenzene	0.0017	U	0.0017	0.00060	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
1,2-Dichloroethane	0.0017	U	0.0017	0.00050	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
1,2-Dichloropropane	0.0017	U	0.0017	0.00071	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
1,3-Dichlorobenzene	0.0017	U	0.0017	0.00061	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
1,4-Dichlorobenzene	0.0017	U	0.0017	0.00038	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
2-Butanone (MEK)	0.0084	U	0.0084	0.00062	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
2-Hexanone	0.0084	U	0.0084	0.0029	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
4-Methyl-2-pentanone (MIBK)	0.0084	U	0.0084	0.0026	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Acetone	0.010	U	0.010	0.0096	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Benzene	0.0017	U	0.0017	0.00043	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Bromoform	0.0017	U	0.0017	0.00071	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Bromomethane	0.0033	U	0.0033	0.0017	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Carbon disulfide	0.0017	U	0.0017	0.00044	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Carbon tetrachloride	0.0017	U	0.0017	0.00065	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Chlorobenzene	0.0017	U	0.0017	0.00030	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Chlorobromomethane	0.0017	U	0.0017	0.00047	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Chlorodibromomethane	0.0017	U	0.0017	0.00032	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Chloroethane	0.0017	U	0.0017	0.00087	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Chloroform	0.0017	U	0.0017	0.0016	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Chloromethane	0.0017	U	0.0017	0.00073	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
cis-1,2-Dichloroethene	0.0017	U	0.0017	0.00060	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
cis-1,3-Dichloropropene	0.0017	U	0.0017	0.00046	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Cyclohexane	0.0017	U	0.0017	0.00037	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248693-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.5

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	0.0017	U	0.0017	0.00043	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Dichlorodifluoromethane	0.0017	U	0.0017	0.00057	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Ethylbenzene	0.0017	U	0.0017	0.00033	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Ethylene Dibromide	0.0017	U	0.0017	0.00030	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Isopropylbenzene	0.0017	U	0.0017	0.00048	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Methyl acetate	0.0084	U	0.0084	0.0072	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Methyl tert-butyl ether	0.0017	U	0.0017	0.00086	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Methylcyclohexane	0.0017	U	0.0017	0.00083	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Methylene Chloride	0.0033	U	0.0033	0.0019	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
m-Xylene & p-Xylene	0.0017	U	0.0017	0.00029	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
o-Xylene	0.0017	U	0.0017	0.00032	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Styrene	0.0017	U	0.0017	0.00047	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Tetrachloroethene	0.0017	U	0.0017	0.00051	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Toluene	0.0017	U	0.0017	0.00039	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
trans-1,2-Dichloroethene	0.0017	U	0.0017	0.00041	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
trans-1,3-Dichloropropene	0.0017	U	0.0017	0.00044	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Trichloroethene	0.0017	U	0.0017	0.00054	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Trichlorofluoromethane	0.0017	U	0.0017	0.00068	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1
Vinyl chloride	0.0017	U	0.0017	0.00091	mg/Kg	☼	12/09/21 17:51	12/12/21 00:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		77 - 145	12/09/21 17:51	12/12/21 00:53	1
4-Bromofluorobenzene	111		70 - 139	12/09/21 17:51	12/12/21 00:53	1
Dibromofluoromethane (Surr)	110		48 - 150	12/09/21 17:51	12/12/21 00:53	1
Toluene-d8 (Surr)	104		80 - 120	12/09/21 17:51	12/12/21 00:53	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.034	J	0.36	0.0047	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
1,4-Dioxane	0.036	U *	0.036	0.031	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0065	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.024	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
2,4,5-Trichlorophenol	0.36	U	0.36	0.036	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
2,4,6-Trichlorophenol	0.14	U	0.14	0.046	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
2,4-Dichlorophenol	0.14	U	0.14	0.023	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
2,4-Dinitrotoluene	0.072	U	0.072	0.038	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
2,6-Dinitrotoluene	0.072	U	0.072	0.026	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
2-Methylnaphthalene	0.25	J	0.36	0.010	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
2-Methylphenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
2-Nitroaniline	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
2-Nitrophenol	0.36	U	0.36	0.036	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
3,3'-Dichlorobenzidine	0.14	U	0.14	0.054	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
3-Nitroaniline	0.36	U	0.36	0.040	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248693-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.5

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
4-Chloroaniline	0.36	U	0.36	0.063	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
4-Methylphenol	0.36	U	0.36	0.022	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
4-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
4-Nitrophenol	0.72	U	0.72	0.058	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Acenaphthene	0.18	J	0.36	0.010	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Acenaphthylene	0.014	J	0.36	0.0036	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Acetophenone	0.36	U	0.36	0.018	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Anthracene	0.18	J	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Atrazine	0.14	U	0.14	0.021	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Benzaldehyde	0.36	U	0.36	0.059	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Benzo[a]anthracene	0.41		0.036	0.012	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Benzo[a]pyrene	0.37		0.036	0.0095	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Benzo[b]fluoranthene	0.55		0.036	0.0092	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Benzo[g,h,i]perylene	0.21	J	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Benzo[k]fluoranthene	0.25		0.036	0.0070	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.012	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Bis(2-ethylhexyl) phthalate	0.36	U	0.36	0.019	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Butyl benzyl phthalate	0.36	U	0.36	0.017	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Caprolactam	0.36	U	0.36	0.056	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Carbazole	0.085	J	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Chrysene	0.40		0.36	0.0060	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Dibenz(a,h)anthracene	0.046		0.036	0.015	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Dibenzofuran	0.12	J	0.36	0.0050	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Diethyl phthalate	0.36	U	0.36	0.0052	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Dimethyl phthalate	0.36	U	0.36	0.081	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Di-n-butyl phthalate	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Di-n-octyl phthalate	0.36	U	0.36	0.019	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Fluoranthene	0.84		0.36	0.012	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Fluorene	0.13	J	0.36	0.0049	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Hexachlorobutadiene	0.072	U	0.072	0.0076	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.031	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Hexachloroethane	0.036	U	0.036	0.012	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Indeno[1,2,3-cd]pyrene	0.30		0.036	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Isophorone	0.14	U	0.14	0.10	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Naphthalene	0.097	J	0.36	0.0062	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Nitrobenzene	0.036	U	0.036	0.0086	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.026	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
N-Nitrosodiphenylamine	0.36	U	0.36	0.029	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Pentachlorophenol	0.29	U	0.29	0.073	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Phenanthrene	0.68		0.36	0.0063	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Phenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1
Pyrene	0.70		0.36	0.0089	mg/Kg	☼	12/10/21 10:04	12/12/21 01:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	54		10 - 123	12/10/21 10:04	12/12/21 01:55	1
2-Fluorobiphenyl	52		14 - 103	12/10/21 10:04	12/12/21 01:55	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248693-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.5

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	53		10 - 105	12/10/21 10:04	12/12/21 01:55	1
Nitrobenzene-d5 (Surr)	53		11 - 104	12/10/21 10:04	12/12/21 01:55	1
Phenol-d5 (Surr)	53		15 - 100	12/10/21 10:04	12/12/21 01:55	1
Terphenyl-d14 (Surr)	51		12 - 126	12/10/21 10:04	12/12/21 01:55	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0072	U	0.0072	0.0012	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
4,4'-DDE	0.0072	U	0.0072	0.00085	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
4,4'-DDT	0.0072	U	0.0072	0.0013	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
Aldrin	0.0072	U	0.0072	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
alpha-BHC	0.0022	U	0.0022	0.00073	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
beta-BHC	0.0022	U	0.0022	0.00081	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
Chlordane (technical)	0.072	U	0.072	0.018	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
delta-BHC	0.0022	U	0.0022	0.00044	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
Dieldrin	0.0022	U	0.0022	0.00094	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
Endosulfan I	0.0072	U	0.0072	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
Endosulfan II	0.0072	U	0.0072	0.0019	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
Endosulfan sulfate	0.0072	U	0.0072	0.00091	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
Endrin	0.0072	U	0.0072	0.0010	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
Endrin aldehyde	0.0072	U	0.0072	0.0017	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
Endrin ketone	0.0072	U	0.0072	0.0014	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00067	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
Heptachlor	0.0072	U	0.0072	0.00085	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
Heptachlor epoxide	0.0072	U	0.0072	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
Methoxychlor	0.0072	U	0.0072	0.0017	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1
Toxaphene	0.072	U	0.072	0.026	mg/Kg	☼	12/10/21 17:51	12/12/21 23:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	94		10 - 150	12/10/21 17:51	12/12/21 23:01	1
DCB Decachlorobiphenyl	81		10 - 150	12/10/21 17:51	12/12/21 23:01	1
Tetrachloro-m-xylene	91		10 - 133	12/10/21 17:51	12/12/21 23:01	1
Tetrachloro-m-xylene	86		10 - 133	12/10/21 17:51	12/12/21 23:01	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 23:22	1
Aroclor 1221	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 23:22	1
Aroclor 1232	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 23:22	1
Aroclor 1242	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 23:22	1
Aroclor 1248	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 23:22	1
Aroclor 1254	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 23:22	1
Aroclor 1260	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 23:22	1
Aroclor-1262	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 23:22	1
Aroclor 1268	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 23:22	1
Polychlorinated biphenyls, Total	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/12/21 23:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	75		37 - 150	12/10/21 17:42	12/12/21 23:22	1
DCB Decachlorobiphenyl	90		37 - 150	12/10/21 17:42	12/12/21 23:22	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-12 (0-0.5)

Lab Sample ID: 460-248693-5

Date Collected: 12/08/21 12:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		54 - 150	12/10/21 17:42	12/12/21 23:22	1
Tetrachloro-m-xylene	96		54 - 150	12/10/21 17:42	12/12/21 23:22	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.18	U	0.18	0.038	mg/Kg	☼	12/10/21 00:41	12/10/21 20:07	5
2,4-D	0.18	U	0.18	0.065	mg/Kg	☼	12/10/21 00:41	12/10/21 20:07	5
Silvex (2,4,5-TP)	0.18	U	0.18	0.019	mg/Kg	☼	12/10/21 00:41	12/10/21 20:07	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	143		65 - 150	12/10/21 00:41	12/10/21 20:07	5
2,4-Dichlorophenylacetic acid	202	*	65 - 150	12/10/21 00:41	12/10/21 20:07	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3330		20.6	5.7	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Antimony	0.49	J	1.0	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Arsenic	4.3		1.0	0.11	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Barium	41.5		2.1	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Beryllium	0.25	J	0.41	0.059	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Cadmium	0.28	J	1.0	0.12	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Calcium	29200		103	18.2	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Chromium	10.2		2.1	0.27	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Cobalt	3.4		2.1	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Copper	54.0		2.1	0.38	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Iron	11100		61.8	20.8	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Lead	119		0.62	0.21	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Magnesium	9340		103	10.5	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Manganese	169		4.1	0.41	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Nickel	11.1		2.1	0.48	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Potassium	490		103	12.5	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Selenium	0.21	J	1.3	0.13	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Silver	0.11	J	1.0	0.092	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Sodium	98.8	J	103	47.0	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Thallium	0.045	J	0.41	0.042	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Vanadium	28.8		2.1	0.21	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1
Zinc	107		8.2	3.1	mg/Kg	☼	12/15/21 18:44	12/16/21 14:36	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.24		0.017	0.0081	mg/Kg	☼	12/13/21 03:29	12/13/21 09:54	1

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248693-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.2

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0024	U	0.0024	0.00057	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
1,1,2,2-Tetrachloroethane	0.0024	U	0.0024	0.00052	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248693-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0024	U	0.0024	0.00074	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
1,1,2-Trichloroethane	0.0024	U	0.0024	0.00044	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
1,1-Dichloroethane	0.0024	U	0.0024	0.00050	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
1,1-Dichloroethene	0.0024	U	0.0024	0.00055	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
1,2,3-Trichlorobenzene	0.0024	U	0.0024	0.00044	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
1,2,4-Trichlorobenzene	0.0024	U	0.0024	0.00088	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
1,2-Dibromo-3-Chloropropane	0.0024	U	0.0024	0.0011	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
1,2-Dichlorobenzene	0.0024	U	0.0024	0.00088	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
1,2-Dichloroethane	0.0024	U	0.0024	0.00072	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
1,2-Dichloropropane	0.0024	U	0.0024	0.0010	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
1,3-Dichlorobenzene	0.0024	U	0.0024	0.00089	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
1,4-Dichlorobenzene	0.0024	U	0.0024	0.00055	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
2-Butanone (MEK)	0.012	U	0.012	0.00090	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
2-Hexanone	0.012	U	0.012	0.0042	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
4-Methyl-2-pentanone (MIBK)	0.012	U	0.012	0.0038	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Acetone	0.015	U	0.015	0.014	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Benzene	0.0024	U	0.0024	0.00063	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Bromoform	0.0024	U	0.0024	0.0010	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Bromomethane	0.0049	U	0.0049	0.0024	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Carbon disulfide	0.0024	U	0.0024	0.00065	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Carbon tetrachloride	0.0024	U	0.0024	0.00095	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Chlorobenzene	0.0024	U	0.0024	0.00043	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Chlorobromomethane	0.0024	U	0.0024	0.00069	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Chlorodibromomethane	0.0024	U	0.0024	0.00047	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Chloroethane	0.0024	U	0.0024	0.0013	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Chloroform	0.0024	U	0.0024	0.0024	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Chloromethane	0.0024	U	0.0024	0.0011	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
cis-1,2-Dichloroethene	0.0024	U	0.0024	0.00088	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
cis-1,3-Dichloropropene	0.0024	U	0.0024	0.00067	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Cyclohexane	0.0024	U	0.0024	0.00054	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Dichlorobromomethane	0.0024	U	0.0024	0.00063	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Dichlorodifluoromethane	0.0024	U	0.0024	0.00083	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Ethylbenzene	0.0024	U	0.0024	0.00049	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Ethylene Dibromide	0.0024	U	0.0024	0.00044	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Isopropylbenzene	0.0024	U	0.0024	0.00070	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Methyl acetate	0.012	U	0.012	0.011	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Methyl tert-butyl ether	0.0024	U	0.0024	0.0013	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Methylcyclohexane	0.0024	U	0.0024	0.0012	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Methylene Chloride	0.0049	U	0.0049	0.0028	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
m-Xylene & p-Xylene	0.0024	U	0.0024	0.00043	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
o-Xylene	0.0024	U	0.0024	0.00047	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Styrene	0.0024	U	0.0024	0.00068	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Tetrachloroethene	0.0024	U	0.0024	0.00075	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Toluene	0.0024	U	0.0024	0.00057	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
trans-1,2-Dichloroethene	0.0024	U	0.0024	0.00060	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
trans-1,3-Dichloropropene	0.0024	U	0.0024	0.00065	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Trichloroethene	0.0024	U	0.0024	0.00079	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Trichlorofluoromethane	0.0024	U	0.0024	0.00099	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1
Vinyl chloride	0.0024	U	0.0024	0.0013	mg/Kg	☼	12/09/21 17:52	12/12/21 01:16	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248693-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		77 - 145	12/09/21 17:52	12/12/21 01:16	1
4-Bromofluorobenzene	108		70 - 139	12/09/21 17:52	12/12/21 01:16	1
Dibromofluoromethane (Surr)	102		48 - 150	12/09/21 17:52	12/12/21 01:16	1
Toluene-d8 (Surr)	100		80 - 120	12/09/21 17:52	12/12/21 01:16	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0073	J	0.37	0.0049	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	0.012	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
1,4-Dioxane	0.037	U *	0.037	0.032	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
2,2'-oxybis[1-chloropropane]	0.37	U	0.37	0.0067	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
2,3,4,6-Tetrachlorophenol	0.37	U	0.37	0.025	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
2,4,5-Trichlorophenol	0.37	U	0.37	0.038	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.048	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
2,4-Dichlorophenol	0.15	U	0.15	0.024	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
2,4-Dimethylphenol	0.37	U	0.37	0.016	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
2,4-Dinitrophenol	0.30	U	0.30	0.18	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
2,4-Dinitrotoluene	0.075	U	0.075	0.040	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
2,6-Dinitrotoluene	0.075	U	0.075	0.027	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
2-Chloronaphthalene	0.37	U	0.37	0.017	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
2-Chlorophenol	0.37	U	0.37	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
2-Methylnaphthalene	0.024	J	0.37	0.010	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
2-Methylphenol	0.37	U	0.37	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
2-Nitroaniline	0.37	U	0.37	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
2-Nitrophenol	0.37	U	0.37	0.037	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
3,3'-Dichlorobenzidine	0.15	U	0.15	0.056	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
3-Nitroaniline	0.37	U	0.37	0.042	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
4,6-Dinitro-2-methylphenol	0.30	U	0.30	0.15	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
4-Bromophenyl phenyl ether	0.37	U	0.37	0.015	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
4-Chloro-3-methylphenol	0.37	U	0.37	0.021	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
4-Chloroaniline	0.37	U	0.37	0.066	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
4-Chlorophenyl phenyl ether	0.37	U	0.37	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
4-Methylphenol	0.37	U	0.37	0.023	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
4-Nitroaniline	0.37	U	0.37	0.043	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
4-Nitrophenol	0.75	U	0.75	0.060	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Acenaphthene	0.032	J	0.37	0.011	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Acenaphthylene	0.022	J	0.37	0.0037	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Acetophenone	0.37	U	0.37	0.018	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Anthracene	0.079	J	0.37	0.011	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Atrazine	0.15	U	0.15	0.022	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Benzaldehyde	0.37	U	0.37	0.061	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Benzo[a]anthracene	0.33		0.037	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Benzo[a]pyrene	0.32		0.037	0.0099	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Benzo[b]fluoranthene	0.47		0.037	0.0096	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Benzo[g,h,i]perylene	0.18	J	0.37	0.011	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Benzo[k]fluoranthene	0.17		0.037	0.0073	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Bis(2-chloroethoxy)methane	0.37	U	0.37	0.029	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Bis(2-chloroethyl)ether	0.037	U	0.037	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Bis(2-ethylhexyl) phthalate	0.042	J	0.37	0.020	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Butyl benzyl phthalate	0.021	J	0.37	0.017	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248693-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.2

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	0.37	U	0.37	0.058	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Carbazole	0.033	J	0.37	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Chrysene	0.34	J	0.37	0.0063	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Dibenz(a,h)anthracene	0.035	J	0.037	0.016	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Dibenzofuran	0.031	J	0.37	0.0052	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Diethyl phthalate	0.37	U	0.37	0.0054	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Dimethyl phthalate	0.37	U	0.37	0.084	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Di-n-butyl phthalate	0.015	J	0.37	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Di-n-octyl phthalate	0.37	U	0.37	0.020	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Fluoranthene	0.63		0.37	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Fluorene	0.033	J	0.37	0.0050	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Hexachlorobenzene	0.037	U	0.037	0.018	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Hexachlorobutadiene	0.075	U	0.075	0.0079	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Hexachlorocyclopentadiene	0.37	U	0.37	0.033	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Hexachloroethane	0.037	U	0.037	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Indeno[1,2,3-cd]pyrene	0.26		0.037	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Isophorone	0.15	U	0.15	0.11	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Naphthalene	0.041	J	0.37	0.0064	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Nitrobenzene	0.037	U	0.037	0.0089	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
N-Nitrosodi-n-propylamine	0.037	U	0.037	0.027	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
N-Nitrosodiphenylamine	0.37	U	0.37	0.030	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Pentachlorophenol	0.30	U	0.30	0.076	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Phenanthrene	0.37		0.37	0.0065	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Phenol	0.37	U	0.37	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1
Pyrene	0.56		0.37	0.0092	mg/Kg	☼	12/10/21 10:04	12/12/21 02:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	51		10 - 123	12/10/21 10:04	12/12/21 02:12	1
2-Fluorobiphenyl	48		14 - 103	12/10/21 10:04	12/12/21 02:12	1
2-Fluorophenol (Surr)	46		10 - 105	12/10/21 10:04	12/12/21 02:12	1
Nitrobenzene-d5 (Surr)	45		11 - 104	12/10/21 10:04	12/12/21 02:12	1
Phenol-d5 (Surr)	48		15 - 100	12/10/21 10:04	12/12/21 02:12	1
Terphenyl-d14 (Surr)	49		12 - 126	12/10/21 10:04	12/12/21 02:12	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0075	U	0.0075	0.0013	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
4,4'-DDE	0.0023	J	0.0075	0.00089	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
4,4'-DDT	0.0075	U	0.0075	0.0014	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
Aldrin	0.0075	U	0.0075	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
alpha-BHC	0.0022	U	0.0022	0.00076	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
beta-BHC	0.0022	U	0.0022	0.00084	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
Chlordane (technical)	0.075	U	0.075	0.018	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
delta-BHC	0.0022	U	0.0022	0.00046	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
Dieldrin	0.0022	U	0.0022	0.00098	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
Endosulfan I	0.0075	U	0.0075	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
Endosulfan II	0.0075	U	0.0075	0.0019	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
Endosulfan sulfate	0.0075	U	0.0075	0.00094	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
Endrin	0.0075	U	0.0075	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
Endrin aldehyde	0.0075	U	0.0075	0.0018	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248693-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.2

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin ketone	0.0075	U	0.0075	0.0015	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00069	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
Heptachlor	0.0075	U	0.0075	0.00089	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
Heptachlor epoxide	0.0075	U	0.0075	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
Methoxychlor	0.0075	U	0.0075	0.0017	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1
Toxaphene	0.075	U	0.075	0.027	mg/Kg	☼	12/10/21 17:51	12/12/21 23:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		10 - 150	12/10/21 17:51	12/12/21 23:15	1
DCB Decachlorobiphenyl	79		10 - 150	12/10/21 17:51	12/12/21 23:15	1
Tetrachloro-m-xylene	86		10 - 133	12/10/21 17:51	12/12/21 23:15	1
Tetrachloro-m-xylene	80		10 - 133	12/10/21 17:51	12/12/21 23:15	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:41	1
Aroclor 1221	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:41	1
Aroclor 1232	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:41	1
Aroclor 1242	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:41	1
Aroclor 1248	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:41	1
Aroclor 1254	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:41	1
Aroclor 1260	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:41	1
Aroclor-1262	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:41	1
Aroclor 1268	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:41	1
Polychlorinated biphenyls, Total	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/12/21 23:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		37 - 150	12/10/21 17:42	12/12/21 23:41	1
DCB Decachlorobiphenyl	95		37 - 150	12/10/21 17:42	12/12/21 23:41	1
Tetrachloro-m-xylene	73		54 - 150	12/10/21 17:42	12/12/21 23:41	1
Tetrachloro-m-xylene	100		54 - 150	12/10/21 17:42	12/12/21 23:41	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.19	U	0.19	0.040	mg/Kg	☼	12/10/21 00:41	12/10/21 20:21	5
2,4-D	0.19	U	0.19	0.068	mg/Kg	☼	12/10/21 00:41	12/10/21 20:21	5
Silvex (2,4,5-TP)	0.19	U	0.19	0.019	mg/Kg	☼	12/10/21 00:41	12/10/21 20:21	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	137		65 - 150	12/10/21 00:41	12/10/21 20:21	5
2,4-Dichlorophenylacetic acid	192	*	65 - 150	12/10/21 00:41	12/10/21 20:21	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5060		20.9	5.8	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Antimony	0.43	J	1.0	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Arsenic	5.1		1.0	0.11	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Barium	69.3		2.1	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Beryllium	0.34	J	0.42	0.060	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Cadmium	0.26	J	1.0	0.12	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Calcium	34800		105	18.5	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-13 (0-0.5)

Lab Sample ID: 460-248693-6

Date Collected: 12/08/21 12:35

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 89.2

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	12.8		2.1	0.28	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Cobalt	4.6		2.1	0.16	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Copper	132		2.1	0.39	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Iron	9740		62.8	21.2	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Lead	99.7		0.63	0.21	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Magnesium	5990		105	10.7	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Manganese	153		4.2	0.42	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Nickel	11.8		2.1	0.49	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Potassium	656		105	12.7	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Selenium	0.20	J	1.3	0.13	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Silver	0.15	J	1.0	0.093	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Sodium	134		105	47.9	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Thallium	0.060	J	0.42	0.043	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Vanadium	21.9		2.1	0.22	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1
Zinc	105		8.4	3.2	mg/Kg	☼	12/15/21 18:44	12/16/21 14:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.4		0.053	0.025	mg/Kg	☼	12/13/21 03:29	12/13/21 09:56	3

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248693-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0018	U	0.0018	0.00042	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
1,1,2,2-Tetrachloroethane	0.0018	U	0.0018	0.00039	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0018	U	0.0018	0.00055	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
1,1,2-Trichloroethane	0.0018	U	0.0018	0.00032	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
1,1-Dichloroethane	0.0018	U	0.0018	0.00037	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
1,1-Dichloroethene	0.0018	U	0.0018	0.00041	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
1,2,3-Trichlorobenzene	0.0018	U	0.0018	0.00033	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
1,2,4-Trichlorobenzene	0.0018	U	0.0018	0.00065	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
1,2-Dibromo-3-Chloropropane	0.0018	U	0.0018	0.00083	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
1,2-Dichlorobenzene	0.0018	U	0.0018	0.00066	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
1,2-Dichloroethane	0.0018	U	0.0018	0.00054	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
1,2-Dichloropropane	0.0018	U	0.0018	0.00077	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
1,3-Dichlorobenzene	0.0018	U	0.0018	0.00066	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
1,4-Dichlorobenzene	0.0018	U	0.0018	0.00041	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
2-Butanone (MEK)	0.0091	U	0.0091	0.00067	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
2-Hexanone	0.0091	U	0.0091	0.0031	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
4-Methyl-2-pentanone (MIBK)	0.0091	U	0.0091	0.0028	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Acetone	0.011	U	0.011	0.010	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Benzene	0.0018	U	0.0018	0.00047	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Bromoform	0.0018	U	0.0018	0.00077	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Bromomethane	0.0036	U	0.0036	0.0018	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Carbon disulfide	0.0018	U	0.0018	0.00048	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Carbon tetrachloride	0.0018	U	0.0018	0.00070	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Chlorobenzene	0.0018	U	0.0018	0.00032	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248693-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	0.0018	U	0.0018	0.00051	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Chlorodibromomethane	0.0018	U	0.0018	0.00035	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Chloroethane	0.0018	U	0.0018	0.00095	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Chloroform	0.0018	U	0.0018	0.0018	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Chloromethane	0.0018	U	0.0018	0.00079	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
cis-1,2-Dichloroethene	0.0018	U	0.0018	0.00065	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
cis-1,3-Dichloropropene	0.0018	U	0.0018	0.00050	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Cyclohexane	0.0018	U	0.0018	0.00040	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Dichlorobromomethane	0.0018	U	0.0018	0.00047	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Dichlorodifluoromethane	0.0018	U	0.0018	0.00061	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Ethylbenzene	0.0018	U	0.0018	0.00036	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Ethylene Dibromide	0.0018	U	0.0018	0.00033	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Isopropylbenzene	0.0018	U	0.0018	0.00052	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Methyl acetate	0.0091	U	0.0091	0.0078	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Methyl tert-butyl ether	0.0018	U	0.0018	0.00093	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Methylcyclohexane	0.0018	U	0.0018	0.00091	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Methylene Chloride	0.0036	U	0.0036	0.0021	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
m-Xylene & p-Xylene	0.0018	U	0.0018	0.00032	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
o-Xylene	0.0018	U	0.0018	0.00035	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Styrene	0.0018	U	0.0018	0.00050	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Tetrachloroethene	0.0018	U	0.0018	0.00055	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Toluene	0.0018	U	0.0018	0.00042	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
trans-1,2-Dichloroethene	0.0018	U	0.0018	0.00045	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
trans-1,3-Dichloropropene	0.0018	U	0.0018	0.00048	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Trichloroethene	0.0018	U	0.0018	0.00058	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Trichlorofluoromethane	0.0018	U	0.0018	0.00074	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1
Vinyl chloride	0.0018	U	0.0018	0.00099	mg/Kg	☼	12/09/21 17:53	12/12/21 01:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		77 - 145	12/09/21 17:53	12/12/21 01:39	1
4-Bromofluorobenzene	104		70 - 139	12/09/21 17:53	12/12/21 01:39	1
Dibromofluoromethane (Surr)	108		48 - 150	12/09/21 17:53	12/12/21 01:39	1
Toluene-d8 (Surr)	103		80 - 120	12/09/21 17:53	12/12/21 01:39	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0093	J	0.36	0.0048	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
1,4-Dioxane	0.036	U *	0.036	0.032	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0066	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.025	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
2,4,5-Trichlorophenol	0.36	U	0.36	0.037	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.047	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
2,4-Dichlorophenol	0.15	U	0.15	0.023	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
2,4-Dinitrotoluene	0.074	U	0.074	0.039	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
2,6-Dinitrotoluene	0.074	U	0.074	0.026	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248693-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.037	J	0.36	0.010	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
2-Methylphenol	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
2-Nitroaniline	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
2-Nitrophenol	0.36	U	0.36	0.036	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
3,3'-Dichlorobenzidine	0.15	U	0.15	0.055	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
3-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
4-Chloroaniline	0.36	U	0.36	0.065	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
4-Methylphenol	0.36	U	0.36	0.023	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
4-Nitroaniline	0.36	U	0.36	0.042	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
4-Nitrophenol	0.74	U	0.74	0.059	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Acenaphthene	0.033	J	0.36	0.010	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Acenaphthylene	0.027	J	0.36	0.0037	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Acetophenone	0.36	U	0.36	0.018	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Anthracene	0.099	J	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Atrazine	0.15	U	0.15	0.021	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Benzaldehyde	0.36	U	0.36	0.060	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Benzo[a]anthracene	0.34		0.036	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Benzo[a]pyrene	0.32		0.036	0.0097	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Benzo[b]fluoranthene	0.47		0.036	0.0094	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Benzo[g,h,i]perylene	0.16	J	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Benzo[k]fluoranthene	0.19		0.036	0.0071	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Bis(2-ethylhexyl) phthalate	0.36	U	0.36	0.019	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Butyl benzyl phthalate	0.36	U	0.36	0.017	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Caprolactam	0.36	U	0.36	0.057	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Carbazole	0.033	J	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Chrysene	0.34	J	0.36	0.0061	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Dibenz(a,h)anthracene	0.032	J	0.036	0.016	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Dibenzofuran	0.036	J	0.36	0.0051	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Diethyl phthalate	0.36	U	0.36	0.0053	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Dimethyl phthalate	0.36	U	0.36	0.083	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Di-n-butyl phthalate	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Di-n-octyl phthalate	0.36	U	0.36	0.019	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Fluoranthene	0.68		0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Fluorene	0.030	J	0.36	0.0049	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Hexachlorobutadiene	0.074	U	0.074	0.0077	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.032	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Hexachloroethane	0.036	U	0.036	0.012	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Indeno[1,2,3-cd]pyrene	0.25		0.036	0.014	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Isophorone	0.15	U	0.15	0.11	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Naphthalene	0.047	J	0.36	0.0063	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Nitrobenzene	0.036	U	0.036	0.0087	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.026	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248693-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	0.36	U	0.36	0.030	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Pentachlorophenol	0.29	U	0.29	0.075	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Phenanthrene	0.43		0.36	0.0064	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Phenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1
Pyrene	0.63		0.36	0.0090	mg/Kg	☼	12/10/21 10:04	12/12/21 02:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	37		10 - 123	12/10/21 10:04	12/12/21 02:29	1
2-Fluorobiphenyl	34		14 - 103	12/10/21 10:04	12/12/21 02:29	1
2-Fluorophenol (Surr)	31		10 - 105	12/10/21 10:04	12/12/21 02:29	1
Nitrobenzene-d5 (Surr)	30		11 - 104	12/10/21 10:04	12/12/21 02:29	1
Phenol-d5 (Surr)	33		15 - 100	12/10/21 10:04	12/12/21 02:29	1
Terphenyl-d14 (Surr)	36		12 - 126	12/10/21 10:04	12/12/21 02:29	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0074	U	0.0074	0.0013	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
4,4'-DDE	0.0031	J	0.0074	0.00087	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
4,4'-DDT	0.0036	J p	0.0074	0.0014	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
Aldrin	0.0074	U	0.0074	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
alpha-BHC	0.0022	U	0.0022	0.00075	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
beta-BHC	0.0022	U	0.0022	0.00082	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
Chlordane (technical)	0.074	U	0.074	0.018	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
delta-BHC	0.0022	U	0.0022	0.00045	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
Dieldrin	0.0022	U	0.0022	0.00096	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
Endosulfan I	0.0074	U	0.0074	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
Endosulfan II	0.0074	U	0.0074	0.0019	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
Endosulfan sulfate	0.0074	U	0.0074	0.00092	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
Endrin	0.0074	U	0.0074	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
Endrin aldehyde	0.0074	U	0.0074	0.0017	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
Endrin ketone	0.0074	U	0.0074	0.0014	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00068	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
Heptachlor	0.0074	U	0.0074	0.00087	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
Heptachlor epoxide	0.0074	U	0.0074	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
Methoxychlor	0.0074	U	0.0074	0.0017	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1
Toxaphene	0.074	U	0.074	0.027	mg/Kg	☼	12/10/21 17:51	12/12/21 23:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		10 - 150	12/10/21 17:51	12/12/21 23:30	1
DCB Decachlorobiphenyl	92		10 - 150	12/10/21 17:51	12/12/21 23:30	1
Tetrachloro-m-xylene	95		10 - 133	12/10/21 17:51	12/12/21 23:30	1
Tetrachloro-m-xylene	88		10 - 133	12/10/21 17:51	12/12/21 23:30	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:01	1
Aroclor 1221	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:01	1
Aroclor 1232	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:01	1
Aroclor 1242	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:01	1
Aroclor 1248	0.27		0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:01	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-10 (0-0.5)

Lab Sample ID: 460-248693-7

Date Collected: 12/08/21 13:15

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 90.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1254	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:01	1
Aroclor 1260	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:01	1
Aroclor-1262	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:01	1
Aroclor 1268	0.074	U	0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:01	1
Polychlorinated biphenyls, Total	0.27		0.074	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		37 - 150	12/10/21 17:42	12/13/21 00:01	1
DCB Decachlorobiphenyl	107		37 - 150	12/10/21 17:42	12/13/21 00:01	1
Tetrachloro-m-xylene	110		54 - 150	12/10/21 17:42	12/13/21 00:01	1
Tetrachloro-m-xylene	111		54 - 150	12/10/21 17:42	12/13/21 00:01	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.18	U	0.18	0.039	mg/Kg	☼	12/10/21 00:41	12/10/21 20:34	5
2,4-D	0.18	U	0.18	0.067	mg/Kg	☼	12/10/21 00:41	12/10/21 20:34	5
Silvex (2,4,5-TP)	0.18	U	0.18	0.019	mg/Kg	☼	12/10/21 00:41	12/10/21 20:34	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	129		65 - 150	12/10/21 00:41	12/10/21 20:34	5
2,4-Dichlorophenylacetic acid	155	*	65 - 150	12/10/21 00:41	12/10/21 20:34	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3970		20.7	5.7	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Antimony	1.3		1.0	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Arsenic	8.1		1.0	0.11	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Barium	85.6		2.1	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Beryllium	0.33	J	0.41	0.059	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Cadmium	0.50	J	1.0	0.12	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Calcium	26500		104	18.4	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Chromium	16.6		2.1	0.28	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Cobalt	5.1		2.1	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Copper	144		2.1	0.38	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Iron	16500		62.2	21.0	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Lead	241		0.62	0.21	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Magnesium	10400		104	10.6	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Manganese	188		4.1	0.42	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Nickel	13.5		2.1	0.49	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Potassium	604		104	12.6	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Selenium	0.83	J	1.3	0.13	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Silver	0.27	J	1.0	0.092	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Sodium	733		104	47.4	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Thallium	0.10	J	0.41	0.043	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Vanadium	22.5		2.1	0.21	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1
Zinc	200		8.3	3.2	mg/Kg	☼	12/15/21 18:44	12/16/21 14:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.52		0.018	0.0085	mg/Kg	☼	12/13/21 03:29	12/13/21 09:58	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248693-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.6

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0014	U	0.0014	0.00033	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
1,1,2,2-Tetrachloroethane	0.0014	U	0.0014	0.00030	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0014	U	0.0014	0.00043	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
1,1,2-Trichloroethane	0.0014	U	0.0014	0.00025	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
1,1-Dichloroethane	0.0014	U	0.0014	0.00029	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
1,1-Dichloroethene	0.0014	U	0.0014	0.00032	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
1,2,3-Trichlorobenzene	0.0014	U	0.0014	0.00026	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
1,2,4-Trichlorobenzene	0.0014	U	0.0014	0.00051	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
1,2-Dibromo-3-Chloropropane	0.0014	U	0.0014	0.00065	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
1,2-Dichlorobenzene	0.0014	U	0.0014	0.00051	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
1,2-Dichloroethane	0.0014	U	0.0014	0.00042	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
1,2-Dichloropropane	0.0014	U	0.0014	0.00060	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
1,3-Dichlorobenzene	0.0014	U	0.0014	0.00052	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
1,4-Dichlorobenzene	0.0014	U	0.0014	0.00032	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
2-Butanone (MEK)	0.0071	U	0.0071	0.00052	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
2-Hexanone	0.0071	U	0.0071	0.0024	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
4-Methyl-2-pentanone (MIBK)	0.0071	U	0.0071	0.0022	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Acetone	0.0085	U	0.0085	0.0081	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Benzene	0.0014	U	0.0014	0.00037	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Bromoform	0.0014	U	0.0014	0.00060	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Bromomethane	0.0028	U	0.0028	0.0014	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Carbon disulfide	0.0014	U	0.0014	0.00038	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Carbon tetrachloride	0.0014	U	0.0014	0.00055	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Chlorobenzene	0.0014	U	0.0014	0.00025	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Chlorobromomethane	0.0014	U	0.0014	0.00040	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Chlorodibromomethane	0.0014	U	0.0014	0.00028	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Chloroethane	0.0014	U	0.0014	0.00074	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Chloroform	0.0014	U	0.0014	0.0014	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Chloromethane	0.0014	U	0.0014	0.00062	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
cis-1,2-Dichloroethene	0.0014	U	0.0014	0.00051	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
cis-1,3-Dichloropropene	0.0014	U	0.0014	0.00039	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Cyclohexane	0.0014	U	0.0014	0.00031	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Dichlorobromomethane	0.0014	U	0.0014	0.00037	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Dichlorodifluoromethane	0.0014	U	0.0014	0.00048	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Ethylbenzene	0.0014	U	0.0014	0.00028	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Ethylene Dibromide	0.0014	U	0.0014	0.00026	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Isopropylbenzene	0.0014	U	0.0014	0.00041	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Methyl acetate	0.0071	U	0.0071	0.0061	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Methyl tert-butyl ether	0.0014	U	0.0014	0.00073	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Methylcyclohexane	0.0014	U	0.0014	0.00071	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Methylene Chloride	0.0028	U	0.0028	0.0016	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
m-Xylene & p-Xylene	0.0014	U	0.0014	0.00025	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
o-Xylene	0.0014	U	0.0014	0.00028	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Styrene	0.0014	U	0.0014	0.00040	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Tetrachloroethene	0.0014	U	0.0014	0.00043	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Toluene	0.0014	U	0.0014	0.00033	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
trans-1,2-Dichloroethene	0.0014	U	0.0014	0.00035	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
trans-1,3-Dichloropropene	0.0014	U	0.0014	0.00038	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Trichloroethene	0.0014	U	0.0014	0.00046	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248693-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.6

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.0014	U	0.0014	0.00058	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1
Vinyl chloride	0.0014	U	0.0014	0.00078	mg/Kg	☼	12/09/21 17:54	12/12/21 02:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		77 - 145	12/09/21 17:54	12/12/21 02:01	1
4-Bromofluorobenzene	103		70 - 139	12/09/21 17:54	12/12/21 02:01	1
Dibromofluoromethane (Surr)	103		48 - 150	12/09/21 17:54	12/12/21 02:01	1
Toluene-d8 (Surr)	101		80 - 120	12/09/21 17:54	12/12/21 02:01	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0081	J	0.36	0.0047	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
1,4-Dioxane	0.036	U *	0.036	0.031	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0065	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.024	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
2,4,5-Trichlorophenol	0.36	U	0.36	0.036	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
2,4,6-Trichlorophenol	0.14	U	0.14	0.046	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
2,4-Dichlorophenol	0.14	U	0.14	0.023	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
2,4-Dinitrotoluene	0.072	U	0.072	0.038	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
2,6-Dinitrotoluene	0.072	U	0.072	0.026	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
2-Methylnaphthalene	0.048	J	0.36	0.010	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
2-Methylphenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
2-Nitroaniline	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
2-Nitrophenol	0.36	U	0.36	0.036	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
3,3'-Dichlorobenzidine	0.14	U	0.14	0.054	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
3-Nitroaniline	0.36	U	0.36	0.040	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
4-Chloroaniline	0.36	U	0.36	0.063	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
4-Methylphenol	0.36	U	0.36	0.022	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
4-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
4-Nitrophenol	0.72	U	0.72	0.058	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Acenaphthene	0.020	J	0.36	0.010	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Acenaphthylene	0.024	J	0.36	0.0036	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Acetophenone	0.36	U	0.36	0.018	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Anthracene	0.052	J	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Atrazine	0.14	U	0.14	0.021	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Benzaldehyde	0.36	U	0.36	0.059	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Benzo[a]anthracene	0.31		0.036	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Benzo[a]pyrene	0.31		0.036	0.0095	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Benzo[b]fluoranthene	0.48		0.036	0.0092	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Benzo[g,h,i]perylene	0.18	J	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Benzo[k]fluoranthene	0.17		0.036	0.0070	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248693-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.6

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Bis(2-ethylhexyl) phthalate	0.36	U	0.36	0.019	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Butyl benzyl phthalate	0.36	U	0.36	0.017	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Caprolactam	0.36	U	0.36	0.056	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Carbazole	0.022	J	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Chrysene	0.32	J	0.36	0.0060	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Dibenz(a,h)anthracene	0.052		0.036	0.015	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Dibenzofuran	0.019	J	0.36	0.0050	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Diethyl phthalate	0.36	U	0.36	0.0052	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Dimethyl phthalate	0.36	U	0.36	0.081	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Di-n-butyl phthalate	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Di-n-octyl phthalate	0.36	U	0.36	0.019	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Fluoranthene	0.51		0.36	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Fluorene	0.015	J	0.36	0.0048	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Hexachlorobutadiene	0.072	U	0.072	0.0076	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.031	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Hexachloroethane	0.036	U	0.036	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Indeno[1,2,3-cd]pyrene	0.26		0.036	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Isophorone	0.14	U	0.14	0.10	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Naphthalene	0.030	J	0.36	0.0062	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Nitrobenzene	0.036	U	0.036	0.0086	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.026	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
N-Nitrosodiphenylamine	0.36	U	0.36	0.029	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Pentachlorophenol	0.29	U	0.29	0.073	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Phenanthrene	0.26	J	0.36	0.0063	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Phenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1
Pyrene	0.48		0.36	0.0089	mg/Kg	☼	12/10/21 10:04	12/11/21 09:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	46		10 - 123	12/10/21 10:04	12/11/21 09:55	1
2-Fluorobiphenyl	46		14 - 103	12/10/21 10:04	12/11/21 09:55	1
2-Fluorophenol (Surr)	45		10 - 105	12/10/21 10:04	12/11/21 09:55	1
Nitrobenzene-d5 (Surr)	46		11 - 104	12/10/21 10:04	12/11/21 09:55	1
Phenol-d5 (Surr)	44		15 - 100	12/10/21 10:04	12/11/21 09:55	1
Terphenyl-d14 (Surr)	44		12 - 126	12/10/21 10:04	12/11/21 09:55	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0072	U	0.0072	0.0012	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
4,4'-DDE	0.0072	U	0.0072	0.00085	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
4,4'-DDT	0.0072	U	0.0072	0.0013	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
Aldrin	0.0072	U	0.0072	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
alpha-BHC	0.0022	U	0.0022	0.00073	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
beta-BHC	0.0022	U	0.0022	0.00081	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
Chlordane (technical)	0.072	U	0.072	0.017	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
delta-BHC	0.0022	U	0.0022	0.00044	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
Dieldrin	0.0022	U	0.0022	0.00094	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
Endosulfan I	0.0072	U	0.0072	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248693-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.6

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	0.0072	U	0.0072	0.0019	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
Endosulfan sulfate	0.0072	U	0.0072	0.00091	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
Endrin	0.0072	U	0.0072	0.0010	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
Endrin aldehyde	0.0072	U	0.0072	0.0017	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
Endrin ketone	0.0072	U	0.0072	0.0014	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00067	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
Heptachlor	0.0072	U	0.0072	0.00085	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
Heptachlor epoxide	0.0072	U	0.0072	0.0011	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
Methoxychlor	0.0072	U	0.0072	0.0017	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1
Toxaphene	0.072	U	0.072	0.026	mg/Kg	☼	12/10/21 17:51	12/12/21 23:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		10 - 150	12/10/21 17:51	12/12/21 23:45	1
DCB Decachlorobiphenyl	93		10 - 150	12/10/21 17:51	12/12/21 23:45	1
Tetrachloro-m-xylene	95		10 - 133	12/10/21 17:51	12/12/21 23:45	1
Tetrachloro-m-xylene	88		10 - 133	12/10/21 17:51	12/12/21 23:45	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:20	1
Aroclor 1221	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:20	1
Aroclor 1232	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:20	1
Aroclor 1242	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:20	1
Aroclor 1248	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:20	1
Aroclor 1254	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:20	1
Aroclor 1260	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:20	1
Aroclor-1262	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:20	1
Aroclor 1268	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:20	1
Polychlorinated biphenyls, Total	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	83		37 - 150	12/10/21 17:42	12/13/21 00:20	1
DCB Decachlorobiphenyl	96		37 - 150	12/10/21 17:42	12/13/21 00:20	1
Tetrachloro-m-xylene	69		54 - 150	12/10/21 17:42	12/13/21 00:20	1
Tetrachloro-m-xylene	103		54 - 150	12/10/21 17:42	12/13/21 00:20	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.18	U	0.18	0.038	mg/Kg	☼	12/10/21 00:41	12/10/21 20:48	5
2,4-D	0.18	U	0.18	0.065	mg/Kg	☼	12/10/21 00:41	12/10/21 20:48	5
Silvex (2,4,5-TP)	0.18	U	0.18	0.019	mg/Kg	☼	12/10/21 00:41	12/10/21 20:48	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	135		65 - 150	12/10/21 00:41	12/10/21 20:48	5
2,4-Dichlorophenylacetic acid	179	*	65 - 150	12/10/21 00:41	12/10/21 20:48	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	4120		20.6	5.6	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Antimony	0.54	J	1.0	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Arsenic	6.1		1.0	0.11	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-14 (0-0.5)

Lab Sample ID: 460-248693-8

Date Collected: 12/08/21 13:40

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.6

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	58.0		2.1	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Beryllium	0.31	J	0.41	0.059	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Cadmium	0.37	J	1.0	0.12	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Calcium	9720		103	18.2	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Chromium	12.6		2.1	0.27	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Cobalt	10.3		2.1	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Copper	81.8		2.1	0.38	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Iron	12700		61.7	20.8	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Lead	194		0.62	0.21	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Magnesium	2810		103	10.5	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Manganese	175		4.1	0.41	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Nickel	13.0		2.1	0.48	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Potassium	536		103	12.4	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Selenium	0.35	J	1.3	0.13	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Silver	0.14	J	1.0	0.092	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Sodium	596		103	47.0	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Thallium	0.073	J	0.41	0.042	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Vanadium	16.7		2.1	0.21	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1
Zinc	200		8.2	3.1	mg/Kg	☼	12/15/21 18:44	12/16/21 14:43	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.9		0.052	0.025	mg/Kg	☼	12/13/21 03:29	12/13/21 10:00	3

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248693-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0018	U	0.0018	0.00041	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
1,1,2,2-Tetrachloroethane	0.0018	U	0.0018	0.00038	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0018	U	0.0018	0.00053	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
1,1,2-Trichloroethane	0.0018	U	0.0018	0.00031	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
1,1-Dichloroethane	0.0018	U	0.0018	0.00036	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
1,1-Dichloroethene	0.0018	U	0.0018	0.00040	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
1,2,3-Trichlorobenzene	0.0018	U	0.0018	0.00032	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
1,2,4-Trichlorobenzene	0.0018	U	0.0018	0.00063	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
1,2-Dibromo-3-Chloropropane	0.0018	U	0.0018	0.00081	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
1,2-Dichlorobenzene	0.0018	U	0.0018	0.00064	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
1,2-Dichloroethane	0.0018	U	0.0018	0.00052	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
1,2-Dichloropropane	0.0018	U	0.0018	0.00075	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
1,3-Dichlorobenzene	0.0018	U	0.0018	0.00064	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
1,4-Dichlorobenzene	0.0018	U	0.0018	0.00040	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
2-Butanone (MEK)	0.0088	U	0.0088	0.00065	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
2-Hexanone	0.0088	U	0.0088	0.0030	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
4-Methyl-2-pentanone (MIBK)	0.0088	U	0.0088	0.0027	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Acetone	0.012		0.011	0.010	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Benzene	0.0018	U	0.0018	0.00045	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Bromoform	0.0018	U	0.0018	0.00075	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248693-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	0.0035	U	0.0035	0.0018	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Carbon disulfide	0.0018	U	0.0018	0.00047	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Carbon tetrachloride	0.0018	U	0.0018	0.00068	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Chlorobenzene	0.0018	U	0.0018	0.00031	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Chlorobromomethane	0.0018	U	0.0018	0.00050	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Chlorodibromomethane	0.0018	U	0.0018	0.00034	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Chloroethane	0.0018	U	0.0018	0.00092	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Chloroform	0.0018	U	0.0018	0.0017	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Chloromethane	0.0018	U	0.0018	0.00077	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
cis-1,2-Dichloroethene	0.0018	U	0.0018	0.00063	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
cis-1,3-Dichloropropene	0.0018	U	0.0018	0.00048	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Cyclohexane	0.0018	U	0.0018	0.00039	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Dichlorobromomethane	0.0018	U	0.0018	0.00045	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Dichlorodifluoromethane	0.0018	U	0.0018	0.00060	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Ethylbenzene	0.0018	U	0.0018	0.00035	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Ethylene Dibromide	0.0018	U	0.0018	0.00032	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Isopropylbenzene	0.0018	U	0.0018	0.00050	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Methyl acetate	0.0088	U	0.0088	0.0076	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Methyl tert-butyl ether	0.0018	U	0.0018	0.00090	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Methylcyclohexane	0.0018	U	0.0018	0.00088	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Methylene Chloride	0.0035	U	0.0035	0.0020	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
m-Xylene & p-Xylene	0.0018	U	0.0018	0.00031	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
o-Xylene	0.0018	U	0.0018	0.00034	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Styrene	0.0018	U	0.0018	0.00049	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Tetrachloroethene	0.0018	U	0.0018	0.00054	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Toluene	0.00045	J	0.0018	0.00041	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
trans-1,2-Dichloroethene	0.0018	U	0.0018	0.00043	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
trans-1,3-Dichloropropene	0.0018	U	0.0018	0.00047	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Trichloroethene	0.0018	U	0.0018	0.00057	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Trichlorofluoromethane	0.0018	U	0.0018	0.00072	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1
Vinyl chloride	0.0018	U	0.0018	0.00096	mg/Kg	☼	12/09/21 17:55	12/12/21 02:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		77 - 145	12/09/21 17:55	12/12/21 02:24	1
4-Bromofluorobenzene	105		70 - 139	12/09/21 17:55	12/12/21 02:24	1
Dibromofluoromethane (Surr)	107		48 - 150	12/09/21 17:55	12/12/21 02:24	1
Toluene-d8 (Surr)	100		80 - 120	12/09/21 17:55	12/12/21 02:24	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.013	J	0.37	0.0049	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
1,4-Dioxane	0.037	U *	0.037	0.033	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
2,2'-oxybis[1-chloropropane]	0.37	U	0.37	0.0067	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
2,3,4,6-Tetrachlorophenol	0.37	U	0.37	0.025	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
2,4,5-Trichlorophenol	0.37	U	0.37	0.038	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.048	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
2,4-Dichlorophenol	0.15	U	0.15	0.024	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
2,4-Dimethylphenol	0.37	U	0.37	0.016	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
2,4-Dinitrophenol	0.30	U	0.30	0.18	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248693-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.075	U	0.075	0.040	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
2,6-Dinitrotoluene	0.075	U	0.075	0.027	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
2-Chloronaphthalene	0.37	U	0.37	0.017	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
2-Chlorophenol	0.37	U	0.37	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
2-Methylnaphthalene	0.046	J	0.37	0.010	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
2-Methylphenol	0.37	U	0.37	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
2-Nitroaniline	0.37	U	0.37	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
2-Nitrophenol	0.37	U	0.37	0.037	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
3,3'-Dichlorobenzidine	0.15	U	0.15	0.056	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
3-Nitroaniline	0.37	U	0.37	0.042	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
4,6-Dinitro-2-methylphenol	0.30	U	0.30	0.15	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
4-Bromophenyl phenyl ether	0.37	U	0.37	0.015	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
4-Chloro-3-methylphenol	0.37	U	0.37	0.021	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
4-Chloroaniline	0.37	U	0.37	0.066	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
4-Chlorophenyl phenyl ether	0.37	U	0.37	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
4-Methylphenol	0.37	U	0.37	0.023	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
4-Nitroaniline	0.37	U	0.37	0.043	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
4-Nitrophenol	0.75	U	0.75	0.061	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Acenaphthene	0.079	J	0.37	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Acenaphthylene	0.021	J	0.37	0.0037	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Acetophenone	0.053	J	0.37	0.018	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Anthracene	0.25	J	0.37	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Atrazine	0.15	U	0.15	0.022	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Benzaldehyde	0.37	U	0.37	0.062	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Benzo[a]anthracene	0.72		0.037	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Benzo[a]pyrene	0.62		0.037	0.0099	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Benzo[b]fluoranthene	0.86		0.037	0.0096	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Benzo[g,h,i]perylene	0.29	J	0.37	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Benzo[k]fluoranthene	0.35		0.037	0.0073	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Bis(2-chloroethoxy)methane	0.37	U	0.37	0.029	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Bis(2-chloroethyl)ether	0.037	U	0.037	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Bis(2-ethylhexyl) phthalate	0.33	J	0.37	0.020	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Butyl benzyl phthalate	0.018	J	0.37	0.017	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Caprolactam	0.37	U	0.37	0.058	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Carbazole	0.073	J	0.37	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Chrysene	0.66		0.37	0.0063	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Dibenz(a,h)anthracene	0.082		0.037	0.016	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Dibenzofuran	0.056	J	0.37	0.0052	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Diethyl phthalate	0.37	U	0.37	0.0054	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Dimethyl phthalate	0.37	U	0.37	0.085	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Di-n-butyl phthalate	3.4		0.37	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Di-n-octyl phthalate	0.37	U	0.37	0.020	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Fluoranthene	1.4		0.37	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Fluorene	0.082	J	0.37	0.0050	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Hexachlorobenzene	0.037	U	0.037	0.018	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Hexachlorobutadiene	0.075	U	0.075	0.0079	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Hexachlorocyclopentadiene	0.37	U	0.37	0.033	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Hexachloroethane	0.037	U	0.037	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Indeno[1,2,3-cd]pyrene	0.45		0.037	0.015	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248693-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	0.15	U	0.15	0.11	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Naphthalene	0.054	J	0.37	0.0064	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Nitrobenzene	0.037	U	0.037	0.0089	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
N-Nitrosodi-n-propylamine	0.037	U	0.037	0.027	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
N-Nitrosodiphenylamine	0.37	U	0.37	0.031	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Pentachlorophenol	0.30	U	0.30	0.076	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Phenanthrene	0.87		0.37	0.0065	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Phenol	0.37	U	0.37	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1
Pyrene	1.2		0.37	0.0093	mg/Kg	☼	12/10/21 10:04	12/11/21 07:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	43		10 - 123	12/10/21 10:04	12/11/21 07:54	1
2-Fluorobiphenyl	52		14 - 103	12/10/21 10:04	12/11/21 07:54	1
2-Fluorophenol (Surr)	50		10 - 105	12/10/21 10:04	12/11/21 07:54	1
Nitrobenzene-d5 (Surr)	50		11 - 104	12/10/21 10:04	12/11/21 07:54	1
Phenol-d5 (Surr)	52		15 - 100	12/10/21 10:04	12/11/21 07:54	1
Terphenyl-d14 (Surr)	52		12 - 126	12/10/21 10:04	12/11/21 07:54	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0075	U	0.0075	0.0013	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
4,4'-DDE	0.0075	U	0.0075	0.00089	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
4,4'-DDT	0.0075	U	0.0075	0.0014	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
Aldrin	0.0075	U	0.0075	0.0011	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
alpha-BHC	0.0023	U	0.0023	0.00077	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
beta-BHC	0.0023	U	0.0023	0.00084	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
Chlordane (technical)	0.075	U	0.075	0.018	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
delta-BHC	0.0023	U	0.0023	0.00046	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
Dieldrin	0.0023	U	0.0023	0.00098	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
Endosulfan I	0.0075	U	0.0075	0.0011	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
Endosulfan II	0.0075	U	0.0075	0.0019	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
Endosulfan sulfate	0.0075	U	0.0075	0.00095	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
Endrin	0.0075	U	0.0075	0.0011	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
Endrin aldehyde	0.0075	U	0.0075	0.0018	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
Endrin ketone	0.0075	U	0.0075	0.0015	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
gamma-BHC (Lindane)	0.0023	U	0.0023	0.00070	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
Heptachlor	0.0075	U	0.0075	0.00089	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
Heptachlor epoxide	0.0075	U	0.0075	0.0011	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
Methoxychlor	0.0075	U	0.0075	0.0017	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1
Toxaphene	0.075	U	0.075	0.027	mg/Kg	☼	12/10/21 17:51	12/13/21 23:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	93		10 - 150	12/10/21 17:51	12/13/21 23:59	1
DCB Decachlorobiphenyl	94		10 - 150	12/10/21 17:51	12/13/21 23:59	1
Tetrachloro-m-xylene	91		10 - 133	12/10/21 17:51	12/13/21 23:59	1
Tetrachloro-m-xylene	85		10 - 133	12/10/21 17:51	12/13/21 23:59	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:39	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248693-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1221	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:39	1
Aroclor 1232	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:39	1
Aroclor 1242	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:39	1
Aroclor 1248	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:39	1
Aroclor 1254	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:39	1
Aroclor 1260	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:39	1
Aroclor-1262	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:39	1
Aroclor 1268	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:39	1
Polychlorinated biphenyls, Total	0.075	U	0.075	0.020	mg/Kg	☼	12/10/21 17:42	12/13/21 00:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	77		37 - 150				12/10/21 17:42	12/13/21 00:39	1
DCB Decachlorobiphenyl	88		37 - 150				12/10/21 17:42	12/13/21 00:39	1
Tetrachloro-m-xylene	75		54 - 150				12/10/21 17:42	12/13/21 00:39	1
Tetrachloro-m-xylene	86		54 - 150				12/10/21 17:42	12/13/21 00:39	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.19	U	0.19	0.040	mg/Kg	☼	12/10/21 00:41	12/10/21 21:01	5
2,4-D	0.19	U	0.19	0.068	mg/Kg	☼	12/10/21 00:41	12/10/21 21:01	5
Silvex (2,4,5-TP)	0.19	U	0.19	0.020	mg/Kg	☼	12/10/21 00:41	12/10/21 21:01	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	148		65 - 150				12/10/21 00:41	12/10/21 21:01	5
2,4-Dichlorophenylacetic acid	186	*	65 - 150				12/10/21 00:41	12/10/21 21:01	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8700		21.6	5.9	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Antimony	0.34	J	1.1	0.16	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Arsenic	4.5		1.1	0.11	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Barium	123		2.2	0.16	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Beryllium	0.34	J	0.43	0.062	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Cadmium	0.27	J	1.1	0.12	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Calcium	57500		1080	191	mg/Kg	☼	12/15/21 18:44	12/16/21 18:32	10
Chromium	33.9		2.2	0.29	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Cobalt	6.3		2.2	0.16	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Copper	39.5		2.2	0.40	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Iron	16500		64.9	21.9	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Lead	56.5		0.65	0.22	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Magnesium	8730		108	11.0	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Manganese	245		4.3	0.44	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Nickel	16.4		2.2	0.51	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Potassium	3300		108	13.1	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Selenium	0.21	J	1.4	0.14	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Silver	1.1	U	1.1	0.096	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Sodium	147		108	49.4	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Thallium	0.21	J	0.43	0.044	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Vanadium	33.5		2.2	0.22	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1
Zinc	100		8.7	3.3	mg/Kg	☼	12/15/21 18:44	12/16/21 14:46	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-11 (0-0.5)

Lab Sample ID: 460-248693-9

Date Collected: 12/08/21 14:10

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 88.9

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.019	0.0087	mg/Kg	☼	12/13/21 03:29	12/13/21 10:01	1

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248693-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.7

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0017	U	0.0017	0.00039	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
1,1,2,2-Tetrachloroethane	0.0017	U	0.0017	0.00035	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0017	U	0.0017	0.00050	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
1,1,2-Trichloroethane	0.0017	U	0.0017	0.00029	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
1,1-Dichloroethane	0.0017	U	0.0017	0.00034	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
1,1-Dichloroethene	0.0017	U	0.0017	0.00037	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
1,2,3-Trichlorobenzene	0.0017	U	0.0017	0.00030	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
1,2,4-Trichlorobenzene	0.0017	U	0.0017	0.00059	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
1,2-Dibromo-3-Chloropropane	0.0017	U	0.0017	0.00076	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
1,2-Dichlorobenzene	0.0017	U	0.0017	0.00060	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
1,2-Dichloroethane	0.0017	U	0.0017	0.00049	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
1,2-Dichloropropane	0.0017	U	0.0017	0.00070	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
1,3-Dichlorobenzene	0.0017	U	0.0017	0.00060	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
1,4-Dichlorobenzene	0.0017	U	0.0017	0.00037	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
2-Butanone (MEK)	0.0083	U	0.0083	0.00061	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
2-Hexanone	0.0083	U	0.0083	0.0028	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
4-Methyl-2-pentanone (MIBK)	0.0083	U	0.0083	0.0026	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Acetone	0.0099	U	0.0099	0.0095	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Benzene	0.0017	U	0.0017	0.00043	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Bromoform	0.0017	U	0.0017	0.00070	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Bromomethane	0.0033	U	0.0033	0.0017	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Carbon disulfide	0.0017	U	0.0017	0.00044	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Carbon tetrachloride	0.0017	U	0.0017	0.00064	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Chlorobenzene	0.0017	U	0.0017	0.00029	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Chlorobromomethane	0.0017	U	0.0017	0.00047	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Chlorodibromomethane	0.0017	U	0.0017	0.00032	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Chloroethane	0.0017	U	0.0017	0.00086	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Chloroform	0.0017	U	0.0017	0.0016	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Chloromethane	0.0017	U	0.0017	0.00072	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
cis-1,2-Dichloroethene	0.0017	U	0.0017	0.00059	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
cis-1,3-Dichloropropene	0.0017	U	0.0017	0.00045	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Cyclohexane	0.0017	U	0.0017	0.00037	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Dichlorobromomethane	0.0017	U	0.0017	0.00043	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Dichlorodifluoromethane	0.0017	U	0.0017	0.00056	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Ethylbenzene	0.0017	U	0.0017	0.00033	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Ethylene Dibromide	0.0017	U	0.0017	0.00030	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Isopropylbenzene	0.0017	U	0.0017	0.00047	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Methyl acetate	0.0083	U	0.0083	0.0071	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Methyl tert-butyl ether	0.0017	U	0.0017	0.00085	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Methylcyclohexane	0.0017	U	0.0017	0.00083	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Methylene Chloride	0.0023	J	0.0033	0.0019	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
m-Xylene & p-Xylene	0.0017	U	0.0017	0.00029	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248693-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.7

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	0.0017	U	0.0017	0.00032	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Styrene	0.0017	U	0.0017	0.00046	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Tetrachloroethene	0.0017	U	0.0017	0.00050	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Toluene	0.0017	U	0.0017	0.00039	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
trans-1,2-Dichloroethene	0.0017	U	0.0017	0.00041	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
trans-1,3-Dichloropropene	0.0017	U	0.0017	0.00044	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Trichloroethene	0.0017	U	0.0017	0.00053	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Trichlorofluoromethane	0.0017	U	0.0017	0.00067	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Vinyl chloride	0.0017	U	0.0017	0.00090	mg/Kg	☼	12/09/21 17:56	12/12/21 02:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		77 - 145				12/09/21 17:56	12/12/21 02:47	1
4-Bromofluorobenzene	111		70 - 139				12/09/21 17:56	12/12/21 02:47	1
Dibromofluoromethane (Surr)	113		48 - 150				12/09/21 17:56	12/12/21 02:47	1
Toluene-d8 (Surr)	106		80 - 120				12/09/21 17:56	12/12/21 02:47	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.013	J	0.36	0.0047	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
1,4-Dioxane	0.036	U *	0.036	0.031	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0065	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.024	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
2,4,5-Trichlorophenol	0.36	U	0.36	0.036	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
2,4,6-Trichlorophenol	0.14	U	0.14	0.046	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
2,4-Dichlorophenol	0.14	U	0.14	0.023	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
2,4-Dinitrotoluene	0.072	U	0.072	0.038	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
2,6-Dinitrotoluene	0.072	U	0.072	0.026	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
2-Methylnaphthalene	0.045	J	0.36	0.010	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
2-Methylphenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
2-Nitroaniline	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
2-Nitrophenol	0.36	U	0.36	0.036	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
3,3'-Dichlorobenzidine	0.14	U	0.14	0.054	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
3-Nitroaniline	0.36	U	0.36	0.040	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
4-Chloroaniline	0.36	U	0.36	0.063	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
4-Methylphenol	0.36	U	0.36	0.022	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
4-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
4-Nitrophenol	0.72	U	0.72	0.058	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Acenaphthene	0.069	J	0.36	0.010	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Acenaphthylene	0.027	J	0.36	0.0036	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Acetophenone	0.028	J	0.36	0.018	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Anthracene	0.19	J	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1

Eurofins Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248693-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Atrazine	0.14	U	0.14	0.021	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Benzaldehyde	0.36	U	0.36	0.059	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Benzo[a]anthracene	0.66		0.036	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Benzo[a]pyrene	0.66		0.036	0.0095	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Benzo[b]fluoranthene	0.88		0.036	0.0092	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Benzo[g,h,i]perylene	0.34	J	0.36	0.011	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Benzo[k]fluoranthene	0.38		0.036	0.0070	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Bis(2-ethylhexyl) phthalate	0.036	J	0.36	0.019	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Butyl benzyl phthalate	0.36	U	0.36	0.017	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Caprolactam	0.36	U	0.36	0.056	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Carbazole	0.058	J	0.36	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Chrysene	0.61		0.36	0.0060	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Dibenz(a,h)anthracene	0.068		0.036	0.015	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Dibenzofuran	0.045	J	0.36	0.0050	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Diethyl phthalate	0.36	U	0.36	0.0052	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Dimethyl phthalate	0.36	U	0.36	0.081	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Di-n-butyl phthalate	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Di-n-octyl phthalate	0.36	U	0.36	0.019	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Fluoranthene	1.3		0.36	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Fluorene	0.060	J	0.36	0.0048	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Hexachlorobutadiene	0.072	U	0.072	0.0076	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.031	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Hexachloroethane	0.036	U	0.036	0.012	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Indeno[1,2,3-cd]pyrene	0.55		0.036	0.014	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Isophorone	0.14	U	0.14	0.10	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Naphthalene	0.058	J	0.36	0.0062	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Nitrobenzene	0.036	U	0.036	0.0086	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.026	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
N-Nitrosodiphenylamine	0.36	U	0.36	0.029	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Pentachlorophenol	0.29	U	0.29	0.073	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Phenanthrene	0.77		0.36	0.0063	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Phenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1
Pyrene	1.2		0.36	0.0089	mg/Kg	☼	12/10/21 10:04	12/11/21 07:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	57		10 - 123	12/10/21 10:04	12/11/21 07:37	1
2-Fluorobiphenyl	54		14 - 103	12/10/21 10:04	12/11/21 07:37	1
2-Fluorophenol (Surr)	56		10 - 105	12/10/21 10:04	12/11/21 07:37	1
Nitrobenzene-d5 (Surr)	54		11 - 104	12/10/21 10:04	12/11/21 07:37	1
Phenol-d5 (Surr)	54		15 - 100	12/10/21 10:04	12/11/21 07:37	1
Terphenyl-d14 (Surr)	50		12 - 126	12/10/21 10:04	12/11/21 07:37	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0072	U	0.0072	0.0012	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
4,4'-DDE	0.0072	U	0.0072	0.00085	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
4,4'-DDT	0.0072	U	0.0072	0.0013	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1

Eurofins Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248693-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.7

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.0072	U	0.0072	0.0011	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
alpha-BHC	0.0022	U	0.0022	0.00073	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
beta-BHC	0.0022	U	0.0022	0.00081	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
Chlordane (technical)	0.072	U	0.072	0.017	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
delta-BHC	0.0022	U	0.0022	0.00044	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
Dieldrin	0.0022	U	0.0022	0.00094	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
Endosulfan I	0.0072	U	0.0072	0.0011	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
Endosulfan II	0.0072	U	0.0072	0.0019	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
Endosulfan sulfate	0.0072	U	0.0072	0.00091	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
Endrin	0.0072	U	0.0072	0.0010	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
Endrin aldehyde	0.0072	U	0.0072	0.0017	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
Endrin ketone	0.0072	U	0.0072	0.0014	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00067	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
Heptachlor	0.0072	U	0.0072	0.00085	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
Heptachlor epoxide	0.0072	U	0.0072	0.0011	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
Methoxychlor	0.0072	U	0.0072	0.0017	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1
Toxaphene	0.072	U	0.072	0.026	mg/Kg	☼	12/10/21 17:51	12/13/21 05:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	99		10 - 150	12/10/21 17:51	12/13/21 05:30	1
DCB Decachlorobiphenyl	96		10 - 150	12/10/21 17:51	12/13/21 05:30	1
Tetrachloro-m-xylene	100		10 - 133	12/10/21 17:51	12/13/21 05:30	1
Tetrachloro-m-xylene	94		10 - 133	12/10/21 17:51	12/13/21 05:30	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:59	1
Aroclor 1221	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:59	1
Aroclor 1232	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:59	1
Aroclor 1242	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:59	1
Aroclor 1248	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:59	1
Aroclor 1254	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:59	1
Aroclor 1260	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:59	1
Aroclor-1262	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:59	1
Aroclor 1268	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:59	1
Polychlorinated biphenyls, Total	0.072	U	0.072	0.019	mg/Kg	☼	12/10/21 17:42	12/13/21 00:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	89		37 - 150	12/10/21 17:42	12/13/21 00:59	1
DCB Decachlorobiphenyl	101		37 - 150	12/10/21 17:42	12/13/21 00:59	1
Tetrachloro-m-xylene	66		54 - 150	12/10/21 17:42	12/13/21 00:59	1
Tetrachloro-m-xylene	105		54 - 150	12/10/21 17:42	12/13/21 00:59	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.18	U	0.18	0.038	mg/Kg	☼	12/10/21 00:41	12/10/21 21:15	5
2,4-D	0.18	U	0.18	0.065	mg/Kg	☼	12/10/21 00:41	12/10/21 21:15	5
Silvex (2,4,5-TP)	0.18	U	0.18	0.019	mg/Kg	☼	12/10/21 00:41	12/10/21 21:15	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	140		65 - 150	12/10/21 00:41	12/10/21 21:15	5

Eurofins Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248693-1

Client Sample ID: TRC-SB-15 (0-0.5)

Lab Sample ID: 460-248693-10

Date Collected: 12/08/21 15:00

Matrix: Solid

Date Received: 12/08/21 18:00

Percent Solids: 92.7

Method: 8151A - Herbicides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	197	*	65 - 150	12/10/21 00:41	12/10/21 21:15	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	4480		20.2	5.5	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Antimony	0.66	J	1.0	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Arsenic	6.5		1.0	0.10	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Barium	63.7		2.0	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Beryllium	0.28	J	0.40	0.057	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Cadmium	0.42	J	1.0	0.11	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Calcium	35000		101	17.9	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Chromium	11.1		2.0	0.27	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Cobalt	5.6		2.0	0.15	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Copper	85.9		2.0	0.37	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Iron	14700		60.5	20.4	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Lead	159		0.61	0.20	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Magnesium	12400		101	10.3	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Manganese	205		4.0	0.41	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Nickel	12.6		2.0	0.47	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Potassium	719		101	12.2	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Selenium	0.40	J	1.3	0.13	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Silver	0.17	J	1.0	0.090	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Sodium	695		101	46.1	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Thallium	0.085	J	0.40	0.041	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Vanadium	26.7		2.0	0.21	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1
Zinc	161		8.1	3.1	mg/Kg	☼	12/15/21 18:44	12/16/21 14:48	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.49		0.017	0.0081	mg/Kg	☼	12/13/21 03:29	12/13/21 08:18	1

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Edison Job No.: 460-248693-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: f457605.D
 Lab ID: LCS 460-818114/2-A Client ID: _____

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
1,1'-Biphenyl	3.33	2.81	84	65-110	
1,2,4,5-Tetrachlorobenzene	3.33	2.81	84	64-110	
1,4-Dioxane	3.33	2.75	82	31-81	*
2,2'-oxybis[1-chloropropane]	3.33	2.49	75	49-109	
2,3,4,6-Tetrachlorophenol	3.33	3.01	90	58-113	
2,4,5-Trichlorophenol	3.33	2.84	85	64-112	
2,4,6-Trichlorophenol	3.33	2.84	85	63-113	
2,4-Dichlorophenol	3.33	2.83	85	66-113	
2,4-Dimethylphenol	3.33	2.77	83	63-107	
2,4-Dinitrophenol	6.67	6.16	92	25-150	
2,4-Dinitrotoluene	3.33	3.16	95	65-124	
2,6-Dinitrotoluene	3.33	3.04	91	67-121	
2-Chloronaphthalene	3.33	2.76	83	65-109	
2-Chlorophenol	3.33	2.76	83	63-106	
2-Methylnaphthalene	3.33	2.68	80	64-108	
2-Methylphenol	3.33	2.71	81	63-108	
2-Nitroaniline	3.33	2.76	83	59-119	
2-Nitrophenol	3.33	2.91	87	64-112	
3,3'-Dichlorobenzidine	3.33	2.86	86	17-101	
3-Nitroaniline	3.33	2.98	90	31-102	
4,6-Dinitro-2-methylphenol	6.67	6.56	98	44-136	
4-Bromophenyl phenyl ether	3.33	2.80	84	67-113	
4-Chloro-3-methylphenol	3.33	2.77	83	66-114	
4-Chloroaniline	3.33	2.68	80	20-98	
4-Chlorophenyl phenyl ether	3.33	2.89	87	66-110	
4-Methylphenol	3.33	2.70	81	61-108	
4-Nitroaniline	3.33	2.92	88	50-110	
4-Nitrophenol	6.67	5.48	82	47-123	
Acenaphthene	3.33	2.88	87	53-110	
Acenaphthylene	3.33	2.77	83	64-108	
Acetophenone	3.33	2.60	78	61-103	
Anthracene	3.33	2.85	86	67-114	
Atrazine	1.33	1.16	87	44-145	
Benzaldehyde	1.33	0.969	73	43-150	
Benzo[a]anthracene	3.33	2.86	86	67-115	
Benzo[a]pyrene	3.33	2.99	90	73-123	
Benzo[b]fluoranthene	3.33	3.12	94	70-125	
Benzo[g,h,i]perylene	3.33	2.91	87	61-113	
Benzo[k]fluoranthene	3.33	3.06	92	67-115	
Bis(2-chloroethoxy)methane	3.33	2.70	81	62-107	
Bis(2-chloroethyl)ether	3.33	2.65	80	60-107	
Bis(2-ethylhexyl) phthalate	3.33	2.97	89	59-111	

Column to be used to flag recovery and RPD values

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Edison Job No.: 460-248693-1
SDG No.: _____
Matrix: Solid Level: Low Lab File ID: f457606.D
Lab ID: LCSD 460-818114/3-A Client ID: _____

COMPOUND	SPIKE ADDED (mg/Kg)	LCSD CONCENTRATION (mg/Kg)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1'-Biphenyl	3.33	2.89	87	3	30	65-110	
1,2,4,5-Tetrachlorobenzene	3.33	2.85	86	2	30	64-110	
1,4-Dioxane	3.33	2.76	83	0	30	31-81	*
2,2'-oxybis[1-chloropropane]	3.33	2.55	76	2	30	49-109	
2,3,4,6-Tetrachlorophenol	3.33	2.99	90	1	30	58-113	
2,4,5-Trichlorophenol	3.33	2.89	87	2	30	64-112	
2,4,6-Trichlorophenol	3.33	2.87	86	1	30	63-113	
2,4-Dichlorophenol	3.33	2.84	85	0	30	66-113	
2,4-Dimethylphenol	3.33	2.84	85	3	30	63-107	
2,4-Dinitrophenol	6.67	6.33	95	3	30	25-150	
2,4-Dinitrotoluene	3.33	3.18	95	1	30	65-124	
2,6-Dinitrotoluene	3.33	3.08	92	1	30	67-121	
2-Chloronaphthalene	3.33	2.83	85	3	30	65-109	
2-Chlorophenol	3.33	2.81	84	2	30	63-106	
2-Methylnaphthalene	3.33	2.73	82	2	30	64-108	
2-Methylphenol	3.33	2.76	83	2	30	63-108	
2-Nitroaniline	3.33	2.76	83	0	30	59-119	
2-Nitrophenol	3.33	2.95	88	1	30	64-112	
3,3'-Dichlorobenzidine	3.33	2.85	85	1	30	17-101	
3-Nitroaniline	3.33	3.00	90	1	30	31-102	
4,6-Dinitro-2-methylphenol	6.67	6.57	99	0	30	44-136	
4-Bromophenyl phenyl ether	3.33	2.82	85	1	30	67-113	
4-Chloro-3-methylphenol	3.33	2.85	86	3	30	66-114	
4-Chloroaniline	3.33	2.76	83	3	30	20-98	
4-Chlorophenyl phenyl ether	3.33	2.93	88	1	30	66-110	
4-Methylphenol	3.33	2.73	82	1	30	61-108	
4-Nitroaniline	3.33	2.93	88	0	30	50-110	
4-Nitrophenol	6.67	5.44	82	1	30	47-123	
Acenaphthene	3.33	2.90	87	1	30	53-110	
Acenaphthylene	3.33	2.80	84	1	30	64-108	
Acetophenone	3.33	2.62	79	1	30	61-103	
Anthracene	3.33	2.81	84	2	30	67-114	
Atrazine	1.33	1.20	90	4	30	44-145	
Benzaldehyde	1.33	1.02	77	5	30	43-150	
Benzo[a]anthracene	3.33	2.82	85	1	30	67-115	
Benzo[a]pyrene	3.33	2.95	89	1	30	73-123	
Benzo[b]fluoranthene	3.33	3.16	95	1	30	70-125	
Benzo[g,h,i]perylene	3.33	2.92	88	0	30	61-113	
Benzo[k]fluoranthene	3.33	3.08	92	1	30	67-115	
Bis(2-chloroethoxy)methane	3.33	2.75	82	2	30	62-107	
Bis(2-chloroethyl)ether	3.33	2.66	80	0	30	60-107	
Bis(2-ethylhexyl) phthalate	3.33	2.94	88	1	30	59-111	

Column to be used to flag recovery and RPD values

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Edison Job No.: 460-248693-1

SDG No.: _____

Lab Sample ID: ICV 460-816489/11 Calibration Date: 12/02/2021 13:13

Instrument ID: CBNAMS11 Calib Start Date: 12/02/2021 09:47

GC Column: Rtxi-5Sil MS ID: 0.25 (mm) Calib End Date: 12/02/2021 12:50

Lab File ID: Z66373.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.3542	0.3081		43500	50000	-13.0	30.0
N-Nitrosodimethylamine	Ave	0.5774	0.5434		47100	50000	-5.9	30.0
Pyridine	Ave	0.9037	0.8213		90900	100000	-9.1	30.0
Benzaldehyde	Ave	0.8257	0.4192	0.0100	10200	20000	-49.2*	30.0
Phenol	Ave	1.262	1.188	0.8000	47100	50000	-5.9	30.0
Aniline	Ave	1.535	1.453		47300	50000	-5.4	30.0
Bis(2-chloroethyl)ether	Ave	0.9333	0.9112	0.7000	48800	50000	-2.4	30.0
2-Chlorophenol	Ave	1.124	1.057	0.8000	47000	50000	-5.9	30.0
n-Decane	Ave	1.267	1.186		46800	50000	-6.5	30.0
1,3-Dichlorobenzene	Ave	1.489	1.416		47500	50000	-4.9	30.0
1,4-Dichlorobenzene	Ave	1.505	1.435		47700	50000	-4.6	30.0
Benzyl alcohol	Ave	0.6735	0.6448		47900	50000	-4.3	30.0
1,2-Dichlorobenzene	Ave	1.429	1.348		47200	50000	-5.7	30.0
2-Methylphenol	Ave	0.9247	0.8719	0.7000	47100	50000	-5.7	30.0
2,2'-oxybis[1-chloropropane]	Ave	1.490	1.431	0.0100	48000	50000	-4.0	30.0
N-Methylaniline	Ave	1.678	1.552		46300	50000	-7.5	30.0
3 & 4 Methylphenol	Ave	1.061	1.009		47500	50000	-4.9	30.0
4-Methylphenol	Ave	1.061	1.009	0.6000	47500	50000	-4.9	30.0
Acetophenone	Ave	1.475	1.428	0.0100	48400	50000	-3.2	30.0
N-Nitrosodi-n-propylamine	Ave	0.7139	0.7174	0.5000	50200	50000	0.5	30.0
Hexachloroethane	Ave	0.4481	0.4187	0.3000	46700	50000	-6.6	30.0
Nitrobenzene	Ave	0.5041	0.4930	0.2000	48900	50000	-2.2	30.0
n,n'-Dimethylaniline	Ave	1.703	1.690		49600	50000	-0.8	30.0
Isophorone	Ave	0.5419	0.5264	0.4000	48600	50000	-2.9	30.0
2-Nitrophenol	Ave	0.1969	0.1901	0.1000	48300	50000	-3.4	30.0
2,4-Dimethylphenol	Ave	0.2850	0.2714	0.2000	47600	50000	-4.8	30.0
Bis(2-chloroethoxy)methane	Ave	0.3479	0.3251	0.3000	46700	50000	-6.6	30.0
Benzoic acid	Lin2		0.1802		48400	50000	-3.1	30.0
2,4-Dichlorophenol	Ave	0.3713	0.3695	0.2000	49800	50000	-0.5	30.0
1,2,4-Trichlorobenzene	Ave	0.4179	0.4265		51000	50000	2.0	30.0
Naphthalene	Ave	0.9675	0.9229	0.7000	47700	50000	-4.6	30.0
4-Chloroaniline	Ave	0.4008	0.3921	0.0100	48900	50000	-2.2	30.0
Hexachlorobutadiene	Ave	0.2543	0.2445	0.0100	48100	50000	-3.9	30.0
Caprolactam	Ave	0.0774	0.0858	0.0100	22200	20000	10.9	30.0
4-Chloro-3-methylphenol	Ave	0.2612	0.2598	0.2000	49700	50000	-0.5	30.0
2-Methylnaphthalene	Ave	0.7446	0.7222	0.4000	48500	50000	-3.0	30.0
1-Methylnaphthalene	Ave	0.6854	0.6670		48700	50000	-2.7	30.0
Hexachlorocyclopentadiene	Ave	0.4508	0.4440	0.0500	49200	50000	-1.5	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5925	0.5886	0.0100	49700	50000	-0.7	30.0
2-tertbutyl-4-methylphenol	Ave	0.5150	0.5192		50400	50000	0.8	30.0
2,4,6-Trichlorophenol	Ave	0.4332	0.4572	0.2000	52800	50000	5.5	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Edison Job No.: 460-248693-1

SDG No.: _____

Lab Sample ID: ICV 460-806532/11 Calibration Date: 10/12/2021 12:59

Instrument ID: CBNAMS15 Calib Start Date: 10/12/2021 10:24

GC Column: Rtxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/12/2021 12:42

Lab File ID: f455725.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.4971	0.4970		50000	50000	-0.0	30.0
N-Nitrosodimethylamine	Ave	0.7671	0.7375		48100	50000	-3.9	30.0
Pyridine	Ave	1.312	1.175		89600	100000	-10.4	30.0
Benzaldehyde	Ave	1.158	0.6279	0.0100	10800	20000	-45.8*	30.0
Phenol	Ave	1.652	1.557	0.8000	47100	50000	-5.7	30.0
Aniline	Ave	2.030	1.922		47300	50000	-5.3	30.0
Bis(2-chloroethyl)ether	Ave	1.340	1.263	0.7000	47100	50000	-5.7	30.0
2-Chlorophenol	Ave	1.368	1.309	0.8000	47900	50000	-4.3	30.0
n-Decane	Ave	1.926	1.793		46600	50000	-6.9	30.0
1,3-Dichlorobenzene	Ave	1.515	1.437		47400	50000	-5.1	30.0
1,4-Dichlorobenzene	Ave	1.546	1.465		47400	50000	-5.3	30.0
Benzyl alcohol	Ave	0.8995	0.8675		48200	50000	-3.6	30.0
1,2-Dichlorobenzene	Ave	1.466	1.384		47200	50000	-5.6	30.0
2-Methylphenol	Ave	1.215	1.152	0.7000	47400	50000	-5.2	30.0
2,2'-oxybis[1-chloropropane]	Ave	2.412	2.297	0.0100	47600	50000	-4.8	30.0
N-Methylaniline	Ave	2.156	2.021		46900	50000	-6.2	30.0
Acetophenone	Ave	1.972	1.870	0.0100	47400	50000	-5.2	30.0
3 & 4 Methylphenol	Ave	1.389	1.323		47600	50000	-4.8	30.0
4-Methylphenol	Ave	1.389	1.323	0.6000	47600	50000	-4.8	30.0
N-Nitrosodi-n-propylamine	Ave	0.8620	0.8410	0.5000	48800	50000	-2.4	30.0
Hexachloroethane	Ave	0.6032	0.5673	0.3000	47000	50000	-5.9	30.0
Nitrobenzene	Ave	0.6422	0.6268	0.2000	48800	50000	-2.4	30.0
n,n'-Dimethylaniline	Ave	2.156	2.126		49300	50000	-1.4	30.0
Isophorone	Ave	0.6789	0.6501	0.4000	47900	50000	-4.2	30.0
2-Nitrophenol	Ave	0.1794	0.1710	0.1000	47600	50000	-4.7	30.0
2,4-Dimethylphenol	Ave	0.3056	0.2929	0.2000	47900	50000	-4.2	30.0
Bis(2-chloroethoxy)methane	Ave	0.4309	0.4097	0.3000	47500	50000	-4.9	30.0
Benzoic acid	Ave	0.1990	0.2126		53400	50000	6.8	30.0
2,4-Dichlorophenol	Ave	0.2888	0.2825	0.2000	48900	50000	-2.2	30.0
1,2,4-Trichlorobenzene	Ave	0.3126	0.3093		49500	50000	-1.1	30.0
Naphthalene	Ave	1.039	0.997	0.7000	48000	50000	-4.1	30.0
4-Chloroaniline	Ave	0.4389	0.4154	0.0100	47300	50000	-5.4	30.0
Hexachlorobutadiene	Ave	0.1878	0.1800	0.0100	47900	50000	-4.1	30.0
Caprolactam	Qua		0.0952	0.0100	17300	20000	-13.4	30.0
4-Chloro-3-methylphenol	Ave	0.3006	0.2878	0.2000	47900	50000	-4.3	30.0
2-Methylnaphthalene	Ave	0.7107	0.6745	0.4000	47500	50000	-5.1	30.0
1-Methylnaphthalene	Ave	0.6490	0.6257		48200	50000	-3.6	30.0
Hexachlorocyclopentadiene	Ave	0.4035	0.3983	0.0500	49400	50000	-1.3	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5896	0.5886	0.0100	49900	50000	-0.2	30.0
2-tertbutyl-4-methylphenol	Ave	0.4338	0.4330		49900	50000	-0.2	30.0
2,4,6-Trichlorophenol	Ave	0.3888	0.4020	0.2000	51700	50000	3.4	30.0

FORM II
PESTICIDES SURROGATE RECOVERY

Lab Name: Eurofins Edison Job No.: 460-248693-1
 SDG No.: _____
 Matrix: Solid Level: Low
 GC Column (1): Rtx-CLP ID: 0.53 (mm) GC Column (2): CLP-2 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	TCX1 #	TCX2 #	DCBP1 #	DCBP2 #
TRC-SB-01 (0-0.5)	460-248693-1	83	91	87	94
TRC-SB-05 (0-0.5)	460-248693-2	86	92	88	95
TRC-SB-06 (0-0.5)	460-248693-3	83	89	78	91
TRC-SB-09 (0-0.5)	460-248693-4	156 *	170 *	158 *	177 *
TRC-SB-12 (0-0.5)	460-248693-5	86	91	81	94
TRC-SB-13 (0-0.5)	460-248693-6	80	86	79	85
TRC-SB-10 (0-0.5)	460-248693-7	88	95	92	97
TRC-SB-14 (0-0.5)	460-248693-8	88	95	93	95
TRC-SB-11 (0-0.5)	460-248693-9	85	91	94	93
TRC-SB-15 (0-0.5)	460-248693-10	94	100	96	99
	MB 460-818190/1-A	62	66	66	65
	LCS 460-818190/2-A	73	75	80	77
	LCSD 460-818190/3-A	73	77	70	78
	460-248664-F-1-E MS	88	95	94	98
	460-248664-F-1-F MSD	87	95	84	97

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

QC LIMITS
 10-133
 10-150

Column to be used to flag recovery values

FORM II 8081B

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Edison Job No.: 460-248693-1
 SDG No.: _____
 Client Sample ID: TRC-SB-01 (0-0.5) Lab Sample ID: 460-248693-1
 Instrument ID (1): CPESTGC5 Instrument ID (2): CPESTGC5
 Date Analyzed (1): 12/12/2021 22:02 Date Analyzed (2): 12/12/2021 22:02
 GC Column (1): Rtx-CLP ID: 0.53 (mm) GC Column (2): CLP-2 ID: 0.53 (mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDT	1		5.48	5.47	5.49	0.0022		25.3
	2		6.37	6.36	6.38	0.0028		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Edison Job No.: 460-248693-1
 SDG No.: _____
 Client Sample ID: TRC-SB-05 (0-0.5) Lab Sample ID: 460-248693-2
 Instrument ID (1): CPESTGC5 Instrument ID (2): CPESTGC5
 Date Analyzed (1): 12/12/2021 22:17 Date Analyzed (2): 12/12/2021 22:17
 GC Column (1): Rtx-CLP ID: 0.53 (mm) GC Column (2): CLP-2 ID: 0.53 (mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		4.47	4.45	4.47	0.0048		20.0
	2		5.55	5.54	5.56	0.0059		
4,4'-DDD	1		5.23	5.21	5.23	0.0079		21.3
	2		6.04	6.03	6.05	0.0098		
4,4'-DDT	1		5.48	5.47	5.49	0.0034		70.9
	2		6.37	6.36	6.38	0.0071		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Edison Job No.: 460-248693-1
 SDG No.: _____
 Client Sample ID: TRC-SB-06 (0-0.5) Lab Sample ID: 460-248693-3
 Instrument ID (1): CPESTGC5 Instrument ID (2): CPESTGC5
 Date Analyzed (1): 12/12/2021 22:32 Date Analyzed (2): 12/12/2021 22:32
 GC Column (1): Rtx-CLP ID: 0.53 (mm) GC Column (2): CLP-2 ID: 0.53 (mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		4.47	4.45	4.47	0.0033		29.1
	2		5.55	5.54	5.56	0.0044		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Edison Job No.: 460-248693-1
 SDG No.: _____
 Client Sample ID: TRC-SB-10 (0-0.5) Lab Sample ID: 460-248693-7
 Instrument ID (1): CPESTGC5 Instrument ID (2): CPESTGC5
 Date Analyzed (1): 12/12/2021 23:30 Date Analyzed (2): 12/12/2021 23:30
 GC Column (1): Rtx-CLP ID: 0.53 (mm) GC Column (2): CLP-2 ID: 0.53 (mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		4.47	4.45	4.47	0.0021		39.3
	2		5.55	5.54	5.56	0.0031		
4,4'-DDT	1		5.48	5.47	5.49	0.0036		58.5
	2		6.37	6.36	6.38	0.0067		

FORM II
PCBS SURROGATE RECOVERY

Lab Name: Eurofins Edison Job No.: 460-248693-1
 SDG No.: _____
 Matrix: Solid Level: Low
 GC Column (1): Rtx-CLP ID: 0.53 (mm) GC Column (2): CLP-2 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	TCX1 #	TCX2 #	DCBP1 #	DCBP2 #
TRC-SB-01 (0-0.5)	460-248693-1	90	55	92	81
TRC-SB-05 (0-0.5)	460-248693-2	88	70	96	81
TRC-SB-06 (0-0.5)	460-248693-3	90	52 *	89	74
TRC-SB-09 (0-0.5)	460-248693-4	168 *	103	203 *	170 *
TRC-SB-12 (0-0.5)	460-248693-5	96	60	90	75
TRC-SB-13 (0-0.5)	460-248693-6	100	73	95	87
TRC-SB-10 (0-0.5)	460-248693-7	111	110	107	87
TRC-SB-14 (0-0.5)	460-248693-8	103	69	96	83
TRC-SB-11 (0-0.5)	460-248693-9	86	75	88	77
TRC-SB-15 (0-0.5)	460-248693-10	105	66	101	89
	MB 460-818188/1-A	106	78	117	94
	LCS 460-818188/2-A	98	53 *	104	79
	LCSD 460-818188/3-A	108	61	118	86
	460-248664-F-1-B MS	94	99	99	74
	460-248664-F-1-C MSD	88	57	99	85

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

QC LIMITS
 54-150
 37-150

Column to be used to flag recovery values

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Edison Job No.: 460-248693-1
 SDG No.: _____
 Lab Sample ID: ICV 460-794200/7 Calibration Date: 08/03/2021 13:31
 Instrument ID: CPESTGC9 Calib Start Date: 08/03/2021 11:53
 GC Column: Rtx-CLP ID: 0.53 (mm) Calib End Date: 08/03/2021 13:11
 Lab File ID: 9F012291.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	0.0253	0.0260		1030	1000	2.6	20.0
PCB-1016 Peak 2	Ave	0.0487	0.0531		1090	1000	9.2	20.0
PCB-1016 Peak 3	Ave	0.0270	0.0291		1080	1000	7.8	20.0
PCB-1016 Peak 4	Ave	0.0712	0.0757		1060	1000	6.3	20.0
PCB-1016 Peak 5	Ave	0.0314	0.0333		1060	1000	6.0	20.0
PCB-1016 Peak 6	Ave	0.0190	0.0200		1050	1000	5.4	20.0
PCB-1016 Peak 7	Ave	0.0326	0.0337		1030	1000	3.3	20.0
PCB-1016 Peak 8	Ave	0.0145	0.0186		1280	1000	28.1*	20.0
PCB-1260 Peak 1	Ave	0.0464	0.0528		1140	1000	13.7	20.0
PCB-1260 Peak 2	Ave	0.0848	0.0960		1130	1000	13.2	20.0
PCB-1260 Peak 3	Ave	0.0433	0.0423		976	1000	-2.4	20.0
PCB-1260 Peak 4	Ave	0.0457	0.0467		1020	1000	2.3	20.0
PCB-1260 Peak 5	Ave	0.1033	0.1080		1050	1000	4.6	20.0
PCB-1260 Peak 6	Ave	0.0506	0.0569		1130	1000	12.5	20.0
PCB-1260 Peak 7	Ave	0.0343	0.0294		856	1000	-14.4	20.0
PCB-1260 Peak 8	Ave	0.0332	0.0288		866	1000	-13.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Edison Job No.: 460-248693-1
 SDG No.: _____
 Lab Sample ID: CCV 460-818456/4 Calibration Date: 12/12/2021 19:09
 Instrument ID: CPESTGC9 Calib Start Date: 08/03/2021 14:49
 GC Column: CLP-2 ID: 0.53 (mm) Calib End Date: 08/03/2021 14:49
 Lab File ID: 9F134285.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Ave	0.0117	0.0146		1250	1000	25.1*	20.0
PCB-1248 Peak 2	Ave	0.0254	0.0288		1130	1000	13.4	20.0
PCB-1248 Peak 3	Ave	0.0162	0.0164		1020	1000	1.6	20.0
PCB-1248 Peak 4	Ave	0.0157	0.0168		1070	1000	7.4	20.0
PCB-1248 Peak 5	Ave	0.0245	0.0278		1130	1000	13.5	20.0
PCB-1248 Peak 6	Ave	0.0235	0.0234		996	1000	-0.4	20.0
PCB-1248 Peak 7	Ave	0.0293	0.0347		1180	1000	18.3	20.0
PCB-1248 Peak 8	Ave	0.0150	0.0163		1080	1000	8.3	20.0

FORM II
HERBICIDES SURROGATE RECOVERY

Lab Name: Eurofins Edison Job No.: 460-248693-1
 SDG No.: _____
 Matrix: Solid Level: Low
 GC Column (1): CLP-2 ID: 0.53 (mm) GC Column (2): DB-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	DCPAA1 #	DCPAA2 #
TRC-SB-01 (0-0.5)	460-248693-1	132	124
TRC-SB-05 (0-0.5)	460-248693-2	119	107
TRC-SB-06 (0-0.5)	460-248693-3	205 *	146
TRC-SB-09 (0-0.5)	460-248693-4	191 *	135
TRC-SB-12 (0-0.5)	460-248693-5	202 *	143
TRC-SB-13 (0-0.5)	460-248693-6	192 *	137
TRC-SB-10 (0-0.5)	460-248693-7	155 *	129
TRC-SB-14 (0-0.5)	460-248693-8	179 *	135
TRC-SB-11 (0-0.5)	460-248693-9	186 *	148
TRC-SB-15 (0-0.5)	460-248693-10	197 *	140
	MB 460-818020/1-A	129	119
	LCS 460-818020/2-A	126	128
	LCSD 460-818020/3-A	131	129

DCPAA = 2,4-Dichlorophenylacetic acid

QC LIMITS
65-150

Column to be used to flag recovery values

FORM II 8151A

FORM VII
HERBICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Edison Job No.: 460-248693-1
 SDG No.: _____
 Lab Sample ID: CCVRT 460-818108/1 Calibration Date: 12/10/2021 10:48
 Instrument ID: CPESTGC15 Calib Start Date: 12/06/2021 13:07
 GC Column: CLP-2 ID: 0.53 (mm) Calib End Date: 12/06/2021 14:14
 Lab File ID: 15F0008998.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dalapon	Ave	109639	103365		471	500	-5.7	15.0
Dicamba	Ave	541947	572868		529	500	5.7	15.0
MCPA	Ave	957.1	964.7		50600	50200	0.8	15.0
Dichlorprop	Ave	156822	157929		503	500	0.7	15.0
Mecoprop	Ave	31.49	30.28		47600	49500	-3.8	15.0
2,4-D	Ave	158864	165639		526	505	4.3	15.0
Pentachlorophenol	Ave	1940817	1935276		249	250	-0.3	15.0
Silvex (2,4,5-TP)	Ave	737087	785215		538	505	6.5	15.0
2,4,5-T	Ave	553403	752099		680	500	35.9*	15.0
Dinoseb	Ave	548108	452585		417	505	-17.4*	15.0
2,4-DB	Ave	113324	107447		474	500	-5.2	15.0
Picloram	Ave	937700	1104020		278	236	17.7*	15.0
2,4-Dichlorophenylacetic acid	Ave	155778	161784		1040	1000	3.9	15.0

FORM VII
HERBICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Edison Job No.: 460-248693-1
 SDG No.: _____
 Lab Sample ID: CCV 460-818108/34 Calibration Date: 12/10/2021 19:23
 Instrument ID: CPESTGC15 Calib Start Date: 12/06/2021 13:07
 GC Column: CLP-2 ID: 0.53 (mm) Calib End Date: 12/06/2021 14:14
 Lab File ID: 15F0009031.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dalapon	Ave	109639	100308		457	500	-8.5	15.0
Dicamba	Ave	541947	573254		529	500	5.8	15.0
MCPA	Ave	957.1	1002		52500	50200	4.7	15.0
Dichlorprop	Ave	156822	165366		527	500	5.4	15.0
Mecoprop	Ave	31.49	33.42		52600	49500	6.1	15.0
2,4-D	Ave	158864	168063		534	505	5.8	15.0
Pentachlorophenol	Ave	1940817	1990473		256	250	2.6	15.0
Silvex (2,4,5-TP)	Ave	737087	786414		539	505	6.7	15.0
2,4,5-T	Ave	553403	684204		618	500	23.6*	15.0
Dinoseb	Ave	548108	524706		483	505	-4.3	15.0
2,4-DB	Ave	113324	116925		516	500	3.2	15.0
Picloram	Ave	937700	1050902		265	236	12.1	15.0
2,4-Dichlorophenylacetic acid	Ave	155778	165175		1060	1000	6.0	15.0

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Edison Job No.: 460-248693-1

SDG No.: _____

Concentration Units: ug/L

Analyte	RL	CCB 460-819195/112 12/16/2021 14:34		CCB 460-819195/124 12/16/2021 15:02		CCB 460-819195/158 12/16/2021 17:10		CCB 460-819195/170 12/16/2021 17:38	
		Found	C	Found	C	Found	C	Found	C
Aluminum	200	200	U	200	U	200	U	200	U
Antimony	10.0	10.0	U	10.0	U	10.0	U	10.0	U
Arsenic	10.0	10.0	U	10.0	U	10.0	U	10.0	U
Barium	20.0	20.0	U	20.0	U	20.0	U	20.0	U
Beryllium	4.0	4.0	U	4.0	U	4.0	U	4.0	U
Cadmium	10.0	10.0	U	10.0	U	10.0	U	10.0	U
Calcium	1000	1000	U	1000	U	1000	U	1000	U
Chromium	20.0	20.0	U	20.0	U	20.0	U	20.0	U
Cobalt	20.0	20.0	U	20.0	U	20.0	U	20.0	U
Copper	20.0	20.0	U	20.0	U	20.0	U	20.0	U
Iron	600	600	U	600	U	600	U	600	U
Lead	6.0	6.0	U	6.0	U	6.0	U	6.0	U
Magnesium	1000	1000	U	1000	U	1000	U	1000	U
Manganese	40.0	40.0	U	40.0	U	40.0	U	40.0	U
Nickel	20.0	20.0	U	20.0	U	20.0	U	20.0	U
Potassium	1000	1000	U	137.8	J	172.9	J	1000	U
Selenium	12.5	12.5	U	12.5	U	12.5	U	12.5	U
Silver	10.0	10.0	U	10.0	U	10.0	U	10.0	U
Sodium	1000	1000	U	1000	U	1000	U	1000	U
Thallium	4.0	4.0	U	4.0	U	4.0	U	4.0	U
Vanadium	20.0	20.0	U	20.0	U	20.0	U	20.0	U
Zinc	80.0	80.0	U	80.0	U	80.0	U	80.0	U

Italicized analytes were not requested for this sequence.

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 460-819071/2-A ^5

Lab Name: Eurofins Edison

Job No.: 460-248693-1

Sample Matrix: Solid

LCS Source: ME_LCSS_110_00004

Analyte	Solid (mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	7970	6360		79.8	47.2	153.1		6020B
Antimony	99.5	47.39		47.6	1.0	209.0		6020B
Arsenic	140	139.7		99.8	82.9	117.9		6020B
Barium	202	176.1		87.2	81.2	118.3		6020B
Beryllium	42.6	39.49		92.7	81.0	119.0		6020B
Cadmium	97.9	88.66		90.6	80.0	119.5		6020B
Calcium	4190	3896		93.0	79.2	121.0		6020B
Chromium	60.4	53.43		88.5	80.3	119.7		6020B
Cobalt	86.4	78.18		90.5	80.8	119.2		6020B
Copper	122	112.3		92.1	82.8	117.2		6020B
Iron	13800	12120		87.8	59.2	140.6		6020B
Lead	56.7	51.24		90.4	82.9	116.9		6020B
Magnesium	2260	1951		86.3	75.2	124.8		6020B
Manganese	457	394.6		86.4	79.6	120.6		6020B
Nickel	151	137.2		90.9	79.5	121.2		6020B
Potassium	2030	1702		83.8	70.0	130.0		6020B
Selenium	35.5	34.72		97.8	77.5	122.3		6020B
Silver	33.6	19.47		57.9	48.2	73.5		6020B
Thallium	69.3	62.49		90.2	79.4	120.6		6020B
Vanadium	44.9	39.51		88.0	78.0	121.8		6020B
Zinc	186	169.0		90.8	79.0	121.0		6020B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

Data Usability Summary Report

Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

MTA LIRR Arch St. Yard
Eurofins SDG#460-248782-1
January 18, 2022
Reissued: January 21, 2022
Sampling date: 12/9/2021

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

MTA LIRR Arch St. Yard
SDG# 460-248782-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package(reissued: January 21, 2022) for TRC, project located at MTA LIRR Arch St. Yard, Eurofins SDG#460-248782-1 submitted to Vali-Data of WNY, LLC on December 23, 2021. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines(NFG) and NYSDEC Analytical Services Protocols. The laboratory performed the analyses using USEPA method Volatile Organics (8260D), Semi-Volatile Organics (8270E, 8270E SIM), Pesticides (8081B), PCB (8082A), Herbicides (8151A) and Inorganics/Mercury (6020B, 7470A, 7471B).

ID	Sample ID	Laboratory ID
1	TRC-SB-02(0-0.5)	460-248782-1
2	TRC-DUP-1	460-248782-2
3	TRC-SB-04(0-0.5)	460-248782-3
4	TRC-SB-03(0-0.5)	460-248782-4
5	TRC-SB-07(0-0.5)	460-248782-5
6	TRC-SB-08(0-0.5)	460-248782-6
7	TRC-EB-12092021	460-248782-7
8	TRC-TB-12092021	460-248782-8

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples, MS/MSD and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of 1,1,2,2-Tetrachloroethane, 1,2,4-Trichlorobenzene, 1,2-Dibromo-3-chloropropane, 2-Hexane and 4-Methyl-2-pentanone was outside QC limits, high in LCS 460-818505/4 and should be qualified as estimated. These target analytes were not detected in the associated sample, so no further action is required.

MS/MSD

All criteria were met except the RPD of 1,1-Dichloroethane, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, trans-1,2-Dichloroethene, 1,1,2-Trichloro-1,2,2-trifluoroethane, 1,1-Dichloroethene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Acetone, Carbon disulfide, Cyclohexane, Methyl tert butyl ether, Methylcyclohexane, Methylene chloride, Trichloroethene, Trichlorofluoromethane and Chlorobenzene were outside QC limits between TRC-SB-02(0-0.5)MS and TRC-SB-02(0-0.5)MSD and should be qualified as estimated. These target analytes should be qualified as estimated in TRC-SB-02(0-0.5) and TRC-DUP-1. Several target analytes were outside QC limits in TRC-SB-02(0-0.5)MS/MSD and should be

qualified as estimated.

Target analyte	%Rec MS	%Rec MSD	Qualifier	Associated Sample
1,2,3-Trichlorobenzene	53	36	UJ	1, 2
1,2,4-Trichlorobenzene	62	40	UJ	1, 2
4-Methyl-2-pentanone	154	128	JH	None

Some target analytes were outside QC limits in the MS or the MSD but not both, so no further action is required.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on target analytes in which their %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except some target analytes were outside QC limits and should be qualified as estimated.

Ccal ID	Target Analyte	%D	Qualifier	Associated Sample
CCVIS 460-818505/3	Bromomethane	30.1	UJ/J	MB/LCS 460-818505, 1, 1MS/MSD
CCVIS 460-818505/3	1,1,2-Trichloroethane	24.9	UJ/J	MB/LCS 460-818505, 1, 1MS/MSD
CCVIS 460-818505/3	1,1,2,2-Tetrachloroethane	33.7	UJ/J	MB/LCS 460-818505, 1, 1MS/MSD

Some target analytes were outside laboratory QC limits but within NFG QC limits, so no further action is required.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples, MS/MSD and Initial Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All the criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Bis(2-ethyl hexyl)phthalate was outside QC limits, high in LCS/SD 480-818202/2-A,3-A and should be qualified as estimated.

Target analyte	%Rec LCS	%Rec LCSD	Qualifier	Associated sample
Bis(2-ethyl hexyl)phthalate	116	112	U at RL	1, 2, 4-6
Bis(2-ethyl hexyl)phthalate	116	112	JH	3

Some target analytes were outside QC limits in the LCS or the LCSD but not both, so no further action is required.

MS/MSD

All the criteria were met except several target analytes were outside QC limits in TRC-SB-02(0-0.5)MS/MSD and should be qualified as estimated.

Target Analyte	%Rec MS	%Rec MSD	%RPD	Qualifier	Associated Sample
2,2'-oxybis[1-chloropropane]	111	114	-	JH	none
2,4-Dinitrophenol	11	8	-	UJ	1, 2
3-Nitroaniline	103	107	-	JH	none
2,4-Dinitrotoluene	98	99	-	JH	none
Di-n-octyl phthalate	141	156	-	JH	none
Hexachlorocyclopentadiene	16	12	33	UJ	1, 2
Phenol	102	105	-	JH	none
4,6-Dinitro-3-methylphenol	-	-	38	UJ	1, 2

Some target analytes were outside QC limits in the MS or the MSD but not both, so no further action is required.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met except the %D of Benzaldehyde was outside QC limits in ICV 460-812235/11 off instrument CBNAMS12. This target analyte should be qualified as estimated in the soil samples and MB/LCS/LCSD 460-818202.

Alternate forms of regression were performed on some target analytes, with acceptable results except as mentioned above.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Compound Quantitation.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All the criteria were met except 4,4'-DDE and 4,4'-DDT were detected in TRC-DUP-1 but were not detected in TRC-SB-02(0-0.5).

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All the criteria were met.

COMPOUND QUANTITATION

All criteria were met the RPD of 4,4'-DDT was outside QC limits between the columns in TRC-SB-03(0-0.5), TRC-SB-07(0-0.5) and TRC-DUP-1 and should be qualified as estimated. The RPD of 4,4'-DDE was outside QC limits between the columns in TRC-SB-08(0-0.5) and should be qualified as estimated.

INITIAL CALIBRATION

All criteria were met.

CONTINUING CALIBRATION

All criteria were met.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration

- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Initial Calibration and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All the criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All the criteria were met.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met except the %D of one target analyte was outside QC limits in the initial calibration verification and should be qualified as estimated off the associated column in the associated samples, blanks and spikes.

Calibration ID	Target Analyte/Surrogate	Column	Qualifier	Associated Sample
ICV 460-818127/7	Aroclor 1016 peak 8	Rtx-CLP	UJ/J	MB/LCS/SD 460-818189, 1-6, 1MS/MSD

CONTINUING CALIBRATION

All criteria were met except the %D of one target analyte was outside QC limits in the continuing calibration and should be qualified as estimated off the associated column in the associated samples, blanks and spikes.

Calibration ID	Target Analyte/Surrogate	Column	Qualifier	Associated Sample
CCV 460-794200/7	Aroclor 1016 peak 8	Rtx-CLP	UJ/J	MB/LCS/LCSD 460-818293, 7

HERBICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
-

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in MS/MSD and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

MTA LIRR Arch St. Yard

SDG# 460-248782-1

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All the criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All the criteria were met except the %Rec of 2,4-D was outside QC limits, high off both columns in TRC-SB-02(0-0.5)MS/MSD and should be qualified as estimated. This target analyte was not detected in the associated samples, so no further action is required.

The RPD of 2,4-D was outside QC limits between the columns in TRC-SB-02(0-0.5)MS/MSD and should be qualified as estimated.

The concentration of 2,4-D off column CLP-2 exceeded the calibration range and is qualified with an 'E'.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

CONTINUING CALIBRATION

All criteria were met except the %D of one target analyte was outside QC limits. That target analyte should be qualified as estimated in the associated samples, blanks and spikes off the associated column.

CCal ID	Target Analyte	%D CLP-2	Qualifier	Associated Sample
CCV 460-818466/31	2,4,5-T	21.5	UJ/J	MB/LCS/LCSD 460-818240, 1MS/MSD

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD/Duplicate
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks, Laboratory Control Samples, MS/MSD/Duplicate and Compound Quantitation.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except a target analyte was outside QC limits above the MDL, but below

the reporting limits. This target analyte should be qualified as undetected at the reporting limit in associated samples in which it was detected above the MDL, and below the reporting limit. This target analyte should be qualified as estimated high in the associated samples in which it was detected above the reporting limit.

Blank ID	Target analyte	Concentration	Qualifier	Associated Sample
CCB 460-819195/27	K	207.1 ug/L	JH	1
CCB 460-819195/53	K	122.4 ug/L	JH	None
CCB 460-819195/158	K	172.9 ug/L	JH	None
CCB 460-819195/165	K	127.5 ug/L	JH	None
MB 460-819072	K	18.95 mg/kg	JH	1
MB 460-819082	K	137.4 ug/L	JH	none

LABORATORY CONTROL SAMPLE

All criteria were met except some target analytes were outside QC limits, low in the laboratory control samples and should be qualified as estimated.

LCS ID	Target Analyte	%Rec	Qualifier	Associated Sample
LCSSRM 460-819134	Sb	60.2	UJ/J	2-6
LCSSRM 460-819134	Ag	59.4	UJ/J	2-6
LCSSRM 460-819072	Ag	60.2	UJ/J	1

MS/MSD/DUPLICATE

All criteria were met except some target analytes were outside QC limits, low in TRC-SB-02(0-0.5)MS and should be qualified as estimated.

Target Analyte	%Rec	Qualifier	Associated Sample
Sb	43	J	1, 2
Mn	58	J	1, 2
V	63	J	1, 2
Zn	70	J	1, 2

FIELD DUPLICATE

All criteria were met.

SERIAL DILUTION

All criteria were met.

COMPOUND QUANTITATION

All criteria were met except Ca and Na were detected in TRC-EB-12092021 above the MDL, below the reporting limit and are qualified as estimated. These target analytes should be qualified in the associated samples, if detected.

Blank ID	Target Analyte	Concentration	Qualifier	Associated Sample
TRC-EB-12092021	Ca	62.6 ug/L	JH	none
TRC-EB-12092021	Na	410 ug/L	JH	1-6

CALIBRATION

All criteria were met.

CASE NARRATIVE

Client: TRC Environmental Corporation

Project: MTA LIRR Arch St Yard Supplemental RI

Report Number: 460-248782-1
Revised Report #1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

REVISED REPORT #1

The following report required a revision: 460-248782-1. Details are as follows:

VOC: ICV off instrument CVOAMS17 missing

SVOC:p. 1363 vs 1360 Benzaldehyde isn't qualified with an 'E' on the Form 1, when it is qualified on the raw data.

Pest: No lcal for Chlordane. There are ICVs and Ccals off both instruments

Metals: Raw data sample 460-248782-7 run at 18:14 is missing

RECEIPT

The samples were received on 12/09/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.6 C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. TRC-SB-02 (0-0.5) (460-248782-1), TRC-SB-02 (0-0.5) (460-248782-1[MS]), TRC-SB-02 (0-0.5) (460-248782-1[MSD]), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5), TRC-SB-08 (0-0.5) (460-248782-6) and TRC-EB-12092021 (460-248782-7) Cyanide container was received for Field Blank but test is not listed on the COC. Cyanide was placed on hold for all samples.

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The client requested the change in sample ID depths to 0-0.5.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 12/10/2021 and analyzed on 12/12/2021 and 12/13/2021.

Samples TRC-EB-12092021 (460-248782-7) and TRC-TB-12092021 (460-248782-8) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 12/10/2021.

The continuing calibration verification (CCV) analyzed in batch 460-818505 was outside the method criteria for the following analyte(s): Dichlorodifluoromethane (biased low) ; 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, Bromoform and Methyl acetate (biased high). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The laboratory control sample (LCS) for analytical batch 460-818505 recovered outside control limits for the following analytes:

1,1,2,2-Tetrachloroethane, 4-Methyl-2-pentanone (MIBK), 2-Hexanone, 1,4-Dioxane, 1,2,4-Trichlorobenzene and 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene failed the recovery criteria low for the MS of sample TRC-SB-02 (0-0.5)MS (460-248782-1) in batch 460-818505. Several analytes failed the recovery criteria high.

For the MSD of sample TRC-SB-02 (0-0.5)MSD (460-248782-1) in batch 460-818505, Several analytes failed the recovery criteria low. 4-Methyl-2-pentanone (MIBK) failed the recovery criteria high. Also, Several analytes exceeded the RPD limit.

No other difficulties were encountered during the Volatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 12/10/2021 and analyzed on 12/11/2021.

Sample TRC-EB-12092021 (460-248782-7) was analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared and analyzed on 12/11/2021.

The continuing calibration verification (CCV) analyzed in batch 460-818324 was outside the method criteria for the following analyte(s): Di-n-octyl phthalate. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) associated with batch 460-818279 recovered above the upper control limit for 2,2'-oxybis[1-chloropropane] and Di-n-octyl phthalate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 460-818202 and analytical batch 460-818279 recovered outside control limits for the following analytes: 1,4-Dioxane, 3,3'-Dichlorobenzidine, Di-n-octyl phthalate and Bis(2-ethylhexyl) phthalate. The data have been reported.

2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol and Hexachlorocyclopentadiene failed the recovery criteria low for the MS of sample TRC-SB-02 (0-0.5)MS (460-248782-1) in batch 460-818279. 2,2'-oxybis[1-chloropropane], 3-Nitroaniline and Di-n-octyl phthalate failed the recovery criteria high.

For the MSD of sample TRC-SB-02 (0-0.5)MSD (460-248782-1) in batch 460-818279, 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol and Hexachlorocyclopentadiene failed the recovery criteria low. 2,2'-oxybis[1-chloropropane], 3-Nitroaniline, Benzo[k]fluoranthene and Di-n-octyl phthalate failed the recovery criteria high. Also, 4,6-Dinitro-2-methylphenol and Hexachlorocyclopentadiene exceeded the RPD limit.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM) - ISOTOPE DILUTION - 1,4 DIOXANE

Sample TRC-EB-12092021 (460-248782-7) was analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) - Isotope Dilution - 1,4 Dioxane in accordance with EPA SW-846 Method 8270E SIM 1,4Dioxane. The samples were prepared and analyzed on 12/11/2021.

No difficulties were encountered during the 1,4 Dioxane analysis.

All quality control parameters were within the acceptance limits.

PESTICIDES

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 12/10/2021 and analyzed on 12/12/2021 and 12/13/2021.

Sample TRC-EB-12092021 (460-248782-7) was analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 12/11/2021 and analyzed on 12/13/2021.

The %RPD between the primary and confirmation column exceeded 40% for 4,4'-DDT for the following samples: TRC-DUP-1 (460-248782-2), TRC-SB-03 (0-0.5) (460-248782-4) and TRC-SB-07 (0-0.5) (460-248782-5). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

No other difficulties were encountered during the Pesticides analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 12/10/2021 and analyzed on 12/12/2021 and 12/13/2021.

Sample TRC-EB-12092021 (460-248782-7) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The samples were prepared on 12/11/2021 and analyzed on 12/13/2021.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 12/11/2021 and analyzed on 12/12/2021 and 12/13/2021.

Sample TRC-EB-12092021 (460-248782-7) was analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 12/10/2021 and analyzed on 12/12/2021.

2,4-D exceeded the RPD limit for the MSD of sample TRC-SB-02 (0-0.5)MSD (460-248782-1) in batch 460-818466.

The closing continuing calibration verification (CCVC) associated with batch 460-818466 recovered above the upper control limit for 2,4,5-T on the secondary column. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. (CCV 460-818466/31)

No other difficulties were encountered during the herbicides analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 12/15/2021 and 12/16/2021 and analyzed on 12/16/2021 and 12/17/2021.

Sample TRC-EB-12092021 (460-248782-7) was analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 12/15/2021 and analyzed on 12/16/2021.

Chromium failed the recovery criteria low for the MS of sample 460-248302-23 in batch 460-819195. Several analytes failed the recovery criteria high.

Aluminum and Vanadium exceeded the RPD limit for the duplicate of sample 460-248302-23.

The method blank for preparation batch 460-819072 and analytical batch 460-819195 contained Potassium above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction and re-analysis of samples was not performed.

The equipment blank TRC-EB-12092021 (460-248782-7) contained Calcium and Sodium above the method detection limit (MDL). The result was confirmed by the analysis of the undigested sample.

Several analytes failed the recovery criteria low for the MS of sample TRC-SB-02 (0-0.5)MS (460-248782-1) in batch 460-819195. Calcium and Iron failed the recovery criteria high.

Several analytes failed the recovery criteria low for the MS of sample 460-248860-13 in batch 460-819484. Aluminum and Vanadium failed the recovery criteria high.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 12/15/2021.

Sample TRC-EB-12092021 (460-248782-7) was analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 12/14/2021.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples TRC-SB-02 (0-0.5) (460-248782-1), TRC-DUP-1 (460-248782-2), TRC-SB-04 (0-0.5) (460-248782-3), TRC-SB-03 (0-0.5) (460-248782-4), TRC-SB-07 (0-0.5) (460-248782-5) and TRC-SB-08 (0-0.5) (460-248782-6) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 12/14/2021.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248782-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.8

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0027	U	0.0027	0.00063	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
1,1,2,2-Tetrachloroethane	0.0027	U *	0.0027	0.00058	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0027	U	0.0027	0.00081	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
1,1,2-Trichloroethane	0.0027	U	0.0027	0.00048	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
1,1-Dichloroethane	0.0027	U	0.0027	0.00056	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
1,1-Dichloroethene	0.0027	U	0.0027	0.00061	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
1,2,3-Trichlorobenzene	0.0027	U	0.0027	0.00049	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
1,2,4-Trichlorobenzene	0.0027	U *	0.0027	0.00097	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
1,2-Dibromo-3-Chloropropane	0.0027	U *	0.0027	0.0012	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
1,2-Dichlorobenzene	0.0027	U	0.0027	0.00097	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
1,2-Dichloroethane	0.0027	U	0.0027	0.00080	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
1,2-Dichloropropane	0.0027	U	0.0027	0.0011	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
1,3-Dichlorobenzene	0.0027	U	0.0027	0.00098	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
1,4-Dichlorobenzene	0.0027	U	0.0027	0.00061	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
2-Butanone (MEK)	0.013	U	0.013	0.00099	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
2-Hexanone	0.013	U *	0.013	0.0046	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
4-Methyl-2-pentanone (MIBK)	0.013	U *	0.013	0.0042	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Acetone	0.016	U	0.016	0.015	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Benzene	0.0027	U	0.0027	0.00070	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Bromoform	0.0027	U	0.0027	0.0011	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Bromomethane	0.0054	U	0.0054	0.0027	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Carbon disulfide	0.0027	U	0.0027	0.00072	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Carbon tetrachloride	0.0027	U	0.0027	0.0010	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Chlorobenzene	0.0027	U	0.0027	0.00048	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Chlorobromomethane	0.0027	U	0.0027	0.00076	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Chlorodibromomethane	0.0027	U	0.0027	0.00052	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Chloroethane	0.0027	U	0.0027	0.0014	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Chloroform	0.0027	U	0.0027	0.0026	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Chloromethane	0.0027	U	0.0027	0.0012	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
cis-1,2-Dichloroethene	0.0027	U	0.0027	0.00097	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
cis-1,3-Dichloropropene	0.0027	U	0.0027	0.00074	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Cyclohexane	0.0027	U	0.0027	0.00060	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Dichlorobromomethane	0.0027	U	0.0027	0.00069	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Dichlorodifluoromethane	0.0027	U	0.0027	0.00091	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Ethylbenzene	0.0027	U	0.0027	0.00054	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Ethylene Dibromide	0.0027	U	0.0027	0.00049	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Isopropylbenzene	0.0027	U	0.0027	0.00077	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Methyl acetate	0.013	U	0.013	0.012	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Methyl tert-butyl ether	0.0027	U	0.0027	0.0014	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Methylcyclohexane	0.0027	U	0.0027	0.0013	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Methylene Chloride	0.0054	U	0.0054	0.0031	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
m-Xylene & p-Xylene	0.0027	U	0.0027	0.00047	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
o-Xylene	0.0027	U	0.0027	0.00052	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Styrene	0.0027	U	0.0027	0.00075	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Tetrachloroethene	0.0031		0.0027	0.00082	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Toluene	0.0027	U	0.0027	0.00063	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
trans-1,2-Dichloroethene	0.0027	U	0.0027	0.00066	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
trans-1,3-Dichloropropene	0.0027	U	0.0027	0.00072	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Trichloroethene	0.0027	U	0.0027	0.00087	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1

Eurofins Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248782-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.8

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.0027	U	0.0027	0.0011	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1
Vinyl chloride	0.0027	U	0.0027	0.0015	mg/Kg	☼	12/10/21 13:24	12/13/21 11:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		77 - 145	12/10/21 13:24	12/13/21 11:53	1
4-Bromofluorobenzene	115		70 - 139	12/10/21 13:24	12/13/21 11:53	1
Dibromofluoromethane (Surr)	113		48 - 150	12/10/21 13:24	12/13/21 11:53	1
Toluene-d8 (Surr)	109		80 - 120	12/10/21 13:24	12/13/21 11:53	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0052	J	0.36	0.0048	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
1,4-Dioxane	0.036	U *	0.036	0.031	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0065	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.024	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
2,4,5-Trichlorophenol	0.36	U	0.36	0.037	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
2,4,6-Trichlorophenol	0.14	U	0.14	0.046	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
2,4-Dichlorophenol	0.14	U	0.14	0.023	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
2,4-Dinitrotoluene	0.073	U	0.073	0.039	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
2,6-Dinitrotoluene	0.073	U	0.073	0.026	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
2-Methylnaphthalene	0.015	J	0.36	0.010	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
2-Methylphenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
2-Nitroaniline	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
2-Nitrophenol	0.36	U	0.36	0.036	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
3,3'-Dichlorobenzidine	0.14	U *	0.14	0.054	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
3-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
4-Chloroaniline	0.36	U	0.36	0.064	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
4-Methylphenol	0.36	U	0.36	0.023	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
4-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
4-Nitrophenol	0.73	U	0.73	0.059	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Acenaphthene	0.016	J	0.36	0.010	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Acenaphthylene	0.034	J	0.36	0.0036	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Acetophenone	0.36	U	0.36	0.018	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Anthracene	0.065	J	0.36	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Atrazine	0.14	U	0.14	0.021	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Benzaldehyde	0.36	U	0.36	0.060	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Benzo[a]anthracene	0.22		0.036	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Benzo[a]pyrene	0.22		0.036	0.0096	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Benzo[b]fluoranthene	0.37		0.036	0.0093	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Benzo[g,h,i]perylene	0.11	J	0.36	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Benzo[k]fluoranthene	0.11		0.036	0.0071	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248782-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.8

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Bis(2-ethylhexyl) phthalate	0.17	J *	0.36	0.019	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Butyl benzyl phthalate	0.085	J	0.36	0.017	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Caprolactam	0.36	U	0.36	0.056	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Carbazole	0.027	J	0.36	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Chrysene	0.21	J	0.36	0.0061	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Dibenz(a,h)anthracene	0.032	J	0.036	0.016	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Dibenzofuran	0.014	J	0.36	0.0051	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Diethyl phthalate	0.36	U	0.36	0.0052	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Dimethyl phthalate	0.36	U	0.36	0.082	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Di-n-butyl phthalate	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Di-n-octyl phthalate	0.36	U *	0.36	0.019	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Fluoranthene	0.36		0.36	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Fluorene	0.026	J	0.36	0.0049	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Hexachlorobutadiene	0.073	U	0.073	0.0077	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.032	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Hexachloroethane	0.036	U	0.036	0.012	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Indeno[1,2,3-cd]pyrene	0.13		0.036	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Isophorone	0.14	U	0.14	0.10	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Naphthalene	0.016	J	0.36	0.0062	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Nitrobenzene	0.036	U	0.036	0.0087	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.026	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
N-Nitrosodiphenylamine	0.36	U	0.36	0.030	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Pentachlorophenol	0.29	U	0.29	0.074	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Phenanthrene	0.20	J	0.36	0.0063	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Phenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1
Pyrene	0.35	J	0.36	0.0090	mg/Kg	☼	12/10/21 19:13	12/11/21 19:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		10 - 123	12/10/21 19:13	12/11/21 19:21	1
2-Fluorobiphenyl	89		14 - 103	12/10/21 19:13	12/11/21 19:21	1
2-Fluorophenol (Surr)	86		10 - 105	12/10/21 19:13	12/11/21 19:21	1
Nitrobenzene-d5 (Surr)	88		11 - 104	12/10/21 19:13	12/11/21 19:21	1
Phenol-d5 (Surr)	90		15 - 100	12/10/21 19:13	12/11/21 19:21	1
Terphenyl-d14 (Surr)	83		12 - 126	12/10/21 19:13	12/11/21 19:21	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0073	U	0.0073	0.0012	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
4,4'-DDE	0.0073	U	0.0073	0.00086	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
4,4'-DDT	0.0073	U	0.0073	0.0013	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
Aldrin	0.0073	U	0.0073	0.0011	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
alpha-BHC	0.0022	U	0.0022	0.00074	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
beta-BHC	0.0022	U	0.0022	0.00082	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
Chlordane (technical)	0.073	U	0.073	0.018	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
delta-BHC	0.0022	U	0.0022	0.00045	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
Dieldrin	0.0022	U	0.0022	0.00095	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
Endosulfan I	0.0073	U	0.0073	0.0011	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248782-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.8

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	0.0073	U	0.0073	0.0019	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
Endosulfan sulfate	0.0073	U	0.0073	0.00092	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
Endrin	0.0073	U	0.0073	0.0010	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
Endrin aldehyde	0.0073	U	0.0073	0.0017	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
Endrin ketone	0.0073	U	0.0073	0.0014	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00068	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
Heptachlor	0.0073	U	0.0073	0.00086	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
Heptachlor epoxide	0.0073	U	0.0073	0.0011	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
Methoxychlor	0.0073	U	0.0073	0.0017	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1
Toxaphene	0.073	U	0.073	0.026	mg/Kg	☼	12/10/21 17:52	12/12/21 23:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	83		10 - 150	12/10/21 17:52	12/12/21 23:53	1
DCB Decachlorobiphenyl	70		10 - 150	12/10/21 17:52	12/12/21 23:53	1
Tetrachloro-m-xylene	78		10 - 133	12/10/21 17:52	12/12/21 23:53	1
Tetrachloro-m-xylene	77		10 - 133	12/10/21 17:52	12/12/21 23:53	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/12/21 20:56	1
Aroclor 1221	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/12/21 20:56	1
Aroclor 1232	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/12/21 20:56	1
Aroclor 1242	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/12/21 20:56	1
Aroclor 1248	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/12/21 20:56	1
Aroclor 1254	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/12/21 20:56	1
Aroclor 1260	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/12/21 20:56	1
Aroclor-1262	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/12/21 20:56	1
Aroclor 1268	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/12/21 20:56	1
Polychlorinated biphenyls, Total	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/12/21 20:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	112		37 - 150	12/10/21 17:45	12/12/21 20:56	1
DCB Decachlorobiphenyl	101		37 - 150	12/10/21 17:45	12/12/21 20:56	1
Tetrachloro-m-xylene	104		54 - 150	12/10/21 17:45	12/12/21 20:56	1
Tetrachloro-m-xylene	91		54 - 150	12/10/21 17:45	12/12/21 20:56	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.036	U	0.036	0.0077	mg/Kg	☼	12/11/21 02:39	12/12/21 23:26	1
2,4-D	0.036	U	0.036	0.013	mg/Kg	☼	12/11/21 02:39	12/12/21 23:26	1
Silvex (2,4,5-TP)	0.036	U	0.036	0.0038	mg/Kg	☼	12/11/21 02:39	12/12/21 23:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	112		65 - 150	12/11/21 02:39	12/12/21 23:26	1
2,4-Dichlorophenylacetic acid	128		65 - 150	12/11/21 02:39	12/12/21 23:26	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6160		21.8	6.0	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Antimony	0.46	J	1.1	0.16	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Arsenic	6.8		1.1	0.11	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248782-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.8

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	72.5		2.2	0.16	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Beryllium	0.33	J	0.44	0.062	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Cadmium	0.52	J	1.1	0.12	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Calcium	49000		109	19.3	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Chromium	15.7		2.2	0.29	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Cobalt	5.5		2.2	0.16	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Copper	64.3		2.2	0.40	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Iron	15200		65.4	22.0	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Lead	129		0.65	0.22	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Magnesium	15600		109	11.1	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Manganese	205		4.4	0.44	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Nickel	15.2		2.2	0.51	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Potassium	969	B	109	13.2	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Selenium	0.35	J	1.4	0.14	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Silver	0.13	J	1.1	0.097	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Sodium	591		109	49.8	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Thallium	0.083	J	0.44	0.045	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Vanadium	33.8		2.2	0.22	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1
Zinc	180		8.7	3.3	mg/Kg	☼	12/15/21 18:47	12/16/21 10:57	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.15		0.017	0.0080	mg/Kg	☼	12/15/21 03:23	12/15/21 07:38	1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.7

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0023	U	0.0023	0.00054	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
1,1,2,2-Tetrachloroethane	0.0023	U	0.0023	0.00050	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0023	U	0.0023	0.00070	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
1,1,2-Trichloroethane	0.0023	U	0.0023	0.00041	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
1,1-Dichloroethane	0.0023	U	0.0023	0.00048	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
1,1-Dichloroethene	0.0023	U	0.0023	0.00052	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
1,2,3-Trichlorobenzene	0.0023	U	0.0023	0.00042	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
1,2,4-Trichlorobenzene	0.0023	U	0.0023	0.00083	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
1,2-Dibromo-3-Chloropropane	0.0023	U	0.0023	0.0011	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
1,2-Dichlorobenzene	0.0023	U	0.0023	0.00084	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
1,2-Dichloroethane	0.0023	U	0.0023	0.00069	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
1,2-Dichloropropane	0.0023	U	0.0023	0.00098	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
1,3-Dichlorobenzene	0.0023	U	0.0023	0.00085	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
1,4-Dichlorobenzene	0.0023	U	0.0023	0.00052	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
2-Butanone (MEK)	0.012	U	0.012	0.00085	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
2-Hexanone	0.012	U	0.012	0.0040	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
4-Methyl-2-pentanone (MIBK)	0.012	U	0.012	0.0036	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Acetone	0.014	U	0.014	0.013	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Benzene	0.0023	U	0.0023	0.00060	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Bromoform	0.0023	U	0.0023	0.00099	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.7

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	0.0046	U	0.0046	0.0023	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Carbon disulfide	0.0023	U	0.0023	0.00062	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Carbon tetrachloride	0.0023	U	0.0023	0.00090	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Chlorobenzene	0.0023	U	0.0023	0.00041	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Chlorobromomethane	0.0023	U	0.0023	0.00065	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Chlorodibromomethane	0.0023	U	0.0023	0.00045	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Chloroethane	0.0023	U	0.0023	0.0012	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Chloroform	0.0023	U	0.0023	0.0023	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Chloromethane	0.0023	U	0.0023	0.0010	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
cis-1,2-Dichloroethene	0.0023	U	0.0023	0.00083	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
cis-1,3-Dichloropropene	0.0023	U	0.0023	0.00063	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Cyclohexane	0.0023	U	0.0023	0.00051	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Dichlorobromomethane	0.0023	U	0.0023	0.00060	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Dichlorodifluoromethane	0.0023	U	0.0023	0.00078	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Ethylbenzene	0.0023	U	0.0023	0.00046	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Ethylene Dibromide	0.0023	U	0.0023	0.00042	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Isopropylbenzene	0.0023	U	0.0023	0.00066	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Methyl acetate	0.012	U	0.012	0.010	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Methyl tert-butyl ether	0.0023	U	0.0023	0.0012	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Methylcyclohexane	0.0023	U	0.0023	0.0012	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Methylene Chloride	0.0046	U	0.0046	0.0027	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
m-Xylene & p-Xylene	0.0023	U	0.0023	0.00040	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
o-Xylene	0.0023	U	0.0023	0.00045	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Styrene	0.0023	U	0.0023	0.00064	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Tetrachloroethene	0.0017	J	0.0023	0.00071	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Toluene	0.0023	U	0.0023	0.00054	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
trans-1,2-Dichloroethene	0.0023	U	0.0023	0.00057	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
trans-1,3-Dichloropropene	0.0023	U	0.0023	0.00062	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Trichloroethene	0.0023	U	0.0023	0.00074	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Trichlorofluoromethane	0.0023	U	0.0023	0.00094	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1
Vinyl chloride	0.0023	U	0.0023	0.0013	mg/Kg	☼	12/10/21 13:26	12/12/21 05:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		77 - 145	12/10/21 13:26	12/12/21 05:03	1
4-Bromofluorobenzene	103		70 - 139	12/10/21 13:26	12/12/21 05:03	1
Dibromofluoromethane (Surr)	107		48 - 150	12/10/21 13:26	12/12/21 05:03	1
Toluene-d8 (Surr)	100		80 - 120	12/10/21 13:26	12/12/21 05:03	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.010	J	0.36	0.0048	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
1,2,4,5-Tetrachlorobenzene	0.36	U	0.36	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
1,4-Dioxane	0.036	U *	0.036	0.032	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
2,2'-oxybis[1-chloropropane]	0.36	U	0.36	0.0065	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
2,3,4,6-Tetrachlorophenol	0.36	U	0.36	0.024	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
2,4,5-Trichlorophenol	0.36	U	0.36	0.037	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.046	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
2,4-Dichlorophenol	0.15	U	0.15	0.023	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
2,4-Dimethylphenol	0.36	U	0.36	0.016	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
2,4-Dinitrophenol	0.29	U	0.29	0.18	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.073	U	0.073	0.039	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
2,6-Dinitrotoluene	0.073	U	0.073	0.026	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
2-Chloronaphthalene	0.36	U	0.36	0.017	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
2-Chlorophenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
2-Methylnaphthalene	0.019	J	0.36	0.010	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
2-Methylphenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
2-Nitroaniline	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
2-Nitrophenol	0.36	U	0.36	0.036	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
3,3'-Dichlorobenzidine	0.15	U *	0.15	0.054	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
3-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
4,6-Dinitro-2-methylphenol	0.29	U	0.29	0.15	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
4-Bromophenyl phenyl ether	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
4-Chloro-3-methylphenol	0.36	U	0.36	0.020	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
4-Chloroaniline	0.36	U	0.36	0.064	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
4-Chlorophenyl phenyl ether	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
4-Methylphenol	0.36	U	0.36	0.023	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
4-Nitroaniline	0.36	U	0.36	0.041	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
4-Nitrophenol	0.73	U	0.73	0.059	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Acenaphthene	0.020	J	0.36	0.010	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Acenaphthylene	0.071	J	0.36	0.0036	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Acetophenone	0.36	U	0.36	0.018	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Anthracene	0.097	J	0.36	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Atrazine	0.15	U	0.15	0.021	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Benzaldehyde	0.36	U	0.36	0.060	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Benzo[a]anthracene	0.35		0.036	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Benzo[a]pyrene	0.37		0.036	0.0096	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Benzo[b]fluoranthene	0.60		0.036	0.0093	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Benzo[g,h,i]perylene	0.20	J	0.36	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Benzo[k]fluoranthene	0.29		0.036	0.0071	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Bis(2-chloroethoxy)methane	0.36	U	0.36	0.028	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Bis(2-chloroethyl)ether	0.036	U	0.036	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Bis(2-ethylhexyl) phthalate	0.21	J *	0.36	0.019	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Butyl benzyl phthalate	0.12	J	0.36	0.017	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Caprolactam	0.36	U	0.36	0.056	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Carbazole	0.042	J	0.36	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Chrysene	0.34	J	0.36	0.0061	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Dibenz(a,h)anthracene	0.051		0.036	0.016	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Dibenzofuran	0.020	J	0.36	0.0051	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Diethyl phthalate	0.36	U	0.36	0.0052	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Dimethyl phthalate	0.36	U	0.36	0.082	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Di-n-butyl phthalate	0.36	U	0.36	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Di-n-octyl phthalate	0.36	U *	0.36	0.019	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Fluoranthene	0.60		0.36	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Fluorene	0.022	J	0.36	0.0049	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Hexachlorobenzene	0.036	U	0.036	0.017	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Hexachlorobutadiene	0.073	U	0.073	0.0077	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Hexachlorocyclopentadiene	0.36	U	0.36	0.032	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Hexachloroethane	0.036	U	0.036	0.012	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Indeno[1,2,3-cd]pyrene	0.24		0.036	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	0.15	U	0.15	0.10	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Naphthalene	0.023	J	0.36	0.0062	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Nitrobenzene	0.036	U	0.036	0.0087	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
N-Nitrosodi-n-propylamine	0.036	U	0.036	0.026	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
N-Nitrosodiphenylamine	0.36	U	0.36	0.030	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Pentachlorophenol	0.29	U	0.29	0.074	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Phenanthrene	0.29	J	0.36	0.0063	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Phenol	0.36	U	0.36	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1
Pyrene	0.58		0.36	0.0090	mg/Kg	☼	12/10/21 19:13	12/11/21 18:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	96		10 - 123	12/10/21 19:13	12/11/21 18:36	1
2-Fluorobiphenyl	96		14 - 103	12/10/21 19:13	12/11/21 18:36	1
2-Fluorophenol (Surr)	91		10 - 105	12/10/21 19:13	12/11/21 18:36	1
Nitrobenzene-d5 (Surr)	94		11 - 104	12/10/21 19:13	12/11/21 18:36	1
Phenol-d5 (Surr)	93		15 - 100	12/10/21 19:13	12/11/21 18:36	1
Terphenyl-d14 (Surr)	87		12 - 126	12/10/21 19:13	12/11/21 18:36	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0073	U	0.0073	0.0012	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
4,4'-DDE	0.0026	J	0.0073	0.00086	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
4,4'-DDT	0.0036	J p	0.0073	0.0013	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
Aldrin	0.0073	U	0.0073	0.0011	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
alpha-BHC	0.0022	U	0.0022	0.00074	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
beta-BHC	0.0022	U	0.0022	0.00082	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
Chlordane (technical)	0.073	U	0.073	0.018	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
delta-BHC	0.0022	U	0.0022	0.00045	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
Dieldrin	0.0022	U	0.0022	0.00095	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
Endosulfan I	0.0073	U	0.0073	0.0011	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
Endosulfan II	0.0073	U	0.0073	0.0019	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
Endosulfan sulfate	0.0073	U	0.0073	0.00092	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
Endrin	0.0073	U	0.0073	0.0010	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
Endrin aldehyde	0.0073	U	0.0073	0.0017	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
Endrin ketone	0.0073	U	0.0073	0.0014	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
gamma-BHC (Lindane)	0.0022	U	0.0022	0.00068	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
Heptachlor	0.0073	U	0.0073	0.00086	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
Heptachlor epoxide	0.0073	U	0.0073	0.0011	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
Methoxychlor	0.0073	U	0.0073	0.0017	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1
Toxaphene	0.073	U	0.073	0.026	mg/Kg	☼	12/10/21 17:52	12/13/21 00:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		10 - 150	12/10/21 17:52	12/13/21 00:09	1
DCB Decachlorobiphenyl	74		10 - 150	12/10/21 17:52	12/13/21 00:09	1
Tetrachloro-m-xylene	86		10 - 133	12/10/21 17:52	12/13/21 00:09	1
Tetrachloro-m-xylene	86		10 - 133	12/10/21 17:52	12/13/21 00:09	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/13/21 03:53	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1221	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/13/21 03:53	1
Aroclor 1232	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/13/21 03:53	1
Aroclor 1242	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/13/21 03:53	1
Aroclor 1248	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/13/21 03:53	1
Aroclor 1254	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/13/21 03:53	1
Aroclor 1260	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/13/21 03:53	1
Aroclor-1262	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/13/21 03:53	1
Aroclor 1268	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/13/21 03:53	1
Polychlorinated biphenyls, Total	0.073	U	0.073	0.019	mg/Kg	☼	12/10/21 17:45	12/13/21 03:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	113		37 - 150				12/10/21 17:45	12/13/21 03:53	1
DCB Decachlorobiphenyl	107		37 - 150				12/10/21 17:45	12/13/21 03:53	1
Tetrachloro-m-xylene	104		54 - 150				12/10/21 17:45	12/13/21 03:53	1
Tetrachloro-m-xylene	95		54 - 150				12/10/21 17:45	12/13/21 03:53	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.036	U	0.036	0.0077	mg/Kg	☼	12/11/21 02:39	12/13/21 00:07	1
2,4-D	0.036	U	0.036	0.013	mg/Kg	☼	12/11/21 02:39	12/13/21 00:07	1
Silvex (2,4,5-TP)	0.036	U	0.036	0.0038	mg/Kg	☼	12/11/21 02:39	12/13/21 00:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	110		65 - 150				12/11/21 02:39	12/13/21 00:07	1
2,4-Dichlorophenylacetic acid	131		65 - 150				12/11/21 02:39	12/13/21 00:07	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6090		20.8	5.7	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Antimony	0.44	J	1.0	0.15	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Arsenic	5.8		1.0	0.11	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Barium	86.6		2.1	0.15	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Beryllium	0.31	J	0.42	0.059	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Cadmium	0.54	J	1.0	0.12	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Calcium	36700		104	18.4	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Chromium	16.0		2.1	0.28	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Cobalt	5.6		2.1	0.15	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Copper	68.0		2.1	0.38	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Iron	15800		62.3	21.0	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Lead	129		0.62	0.21	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Magnesium	10200		104	10.6	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Manganese	202		4.2	0.42	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Nickel	15.8		2.1	0.49	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Potassium	942		104	12.6	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Selenium	0.29	J	1.3	0.13	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Silver	0.12	J	1.0	0.092	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Sodium	636		104	47.5	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Thallium	0.094	J	0.42	0.043	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Vanadium	30.2		2.1	0.21	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1
Zinc	193		8.3	3.2	mg/Kg	☼	12/16/21 07:29	12/17/21 18:42	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248782-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.7

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.15		0.016	0.0077	mg/Kg	☼	12/15/21 03:23	12/15/21 07:51	1

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248782-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.2

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0016	U	0.0016	0.00036	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
1,1,2,2-Tetrachloroethane	0.0016	U	0.0016	0.00033	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0016	U	0.0016	0.00047	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
1,1,2-Trichloroethane	0.0016	U	0.0016	0.00028	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
1,1-Dichloroethane	0.0016	U	0.0016	0.00032	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
1,1-Dichloroethene	0.0016	U	0.0016	0.00035	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
1,2,3-Trichlorobenzene	0.0016	U	0.0016	0.00028	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
1,2,4-Trichlorobenzene	0.0016	U	0.0016	0.00056	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
1,2-Dibromo-3-Chloropropane	0.0016	U	0.0016	0.00072	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
1,2-Dichlorobenzene	0.0016	U	0.0016	0.00056	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
1,2-Dichloroethane	0.0016	U	0.0016	0.00046	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
1,2-Dichloropropane	0.0016	U	0.0016	0.00066	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
1,3-Dichlorobenzene	0.0016	U	0.0016	0.00057	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
1,4-Dichlorobenzene	0.0016	U	0.0016	0.00035	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
2-Butanone (MEK)	0.0078	U	0.0078	0.00057	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
2-Hexanone	0.0078	U	0.0078	0.0027	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
4-Methyl-2-pentanone (MIBK)	0.0078	U	0.0078	0.0024	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Acetone	0.0095		0.0094	0.0089	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Benzene	0.0016	U	0.0016	0.00040	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Bromoform	0.0016	U	0.0016	0.00066	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Bromomethane	0.0031	U	0.0031	0.0016	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Carbon disulfide	0.0016	U	0.0016	0.00041	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Carbon tetrachloride	0.0016	U	0.0016	0.00060	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Chlorobenzene	0.0016	U	0.0016	0.00028	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Chlorobromomethane	0.0016	U	0.0016	0.00044	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Chlorodibromomethane	0.0016	U	0.0016	0.00030	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Chloroethane	0.0016	U	0.0016	0.00081	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Chloroform	0.0016	U	0.0016	0.0015	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Chloromethane	0.0016	U	0.0016	0.00068	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
cis-1,2-Dichloroethene	0.0016	U	0.0016	0.00056	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
cis-1,3-Dichloropropene	0.0016	U	0.0016	0.00043	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Cyclohexane	0.0016	U	0.0016	0.00034	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Dichlorobromomethane	0.0016	U	0.0016	0.00040	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Dichlorodifluoromethane	0.0016	U	0.0016	0.00053	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Ethylbenzene	0.0016	U	0.0016	0.00031	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Ethylene Dibromide	0.0016	U	0.0016	0.00028	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Isopropylbenzene	0.0016	U	0.0016	0.00044	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Methyl acetate	0.0078	U	0.0078	0.0067	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Methyl tert-butyl ether	0.0016	U	0.0016	0.00080	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Methylcyclohexane	0.0016	U	0.0016	0.00078	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Methylene Chloride	0.0031	U	0.0031	0.0018	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
m-Xylene & p-Xylene	0.00044	J	0.0016	0.00027	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248782-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	0.0016	U	0.0016	0.00030	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Styrene	0.0016	U	0.0016	0.00043	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Tetrachloroethene	0.00050	J	0.0016	0.00048	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Toluene	0.00061	J	0.0016	0.00036	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
trans-1,2-Dichloroethene	0.0016	U	0.0016	0.00038	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
trans-1,3-Dichloropropene	0.0016	U	0.0016	0.00041	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Trichloroethene	0.0016	U	0.0016	0.00050	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Trichlorofluoromethane	0.0016	U	0.0016	0.00063	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Vinyl chloride	0.0016	U	0.0016	0.00085	mg/Kg	☼	12/10/21 13:27	12/12/21 05:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		77 - 145				12/10/21 13:27	12/12/21 05:26	1
4-Bromofluorobenzene	108		70 - 139				12/10/21 13:27	12/12/21 05:26	1
Dibromofluoromethane (Surr)	102		48 - 150				12/10/21 13:27	12/12/21 05:26	1
Toluene-d8 (Surr)	99		80 - 120				12/10/21 13:27	12/12/21 05:26	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0068	J	0.38	0.0051	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
1,2,4,5-Tetrachlorobenzene	0.38	U	0.38	0.012	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
1,4-Dioxane	0.038	U *	0.038	0.034	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
2,2'-oxybis[1-chloropropane]	0.38	U	0.38	0.0069	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
2,3,4,6-Tetrachlorophenol	0.38	U	0.38	0.026	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
2,4,5-Trichlorophenol	0.38	U	0.38	0.039	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.049	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
2,4-Dichlorophenol	0.15	U	0.15	0.025	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
2,4-Dimethylphenol	0.38	U	0.38	0.017	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
2,4-Dinitrophenol	0.31	U	0.31	0.19	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
2,4-Dinitrotoluene	0.078	U	0.078	0.041	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
2,6-Dinitrotoluene	0.078	U	0.078	0.028	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
2-Chloronaphthalene	0.38	U	0.38	0.018	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
2-Chlorophenol	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
2-Methylnaphthalene	0.026	J	0.38	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
2-Methylphenol	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
2-Nitroaniline	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
2-Nitrophenol	0.38	U	0.38	0.038	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
3,3'-Dichlorobenzidine	0.15	U *	0.15	0.058	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
3-Nitroaniline	0.38	U	0.38	0.043	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
4,6-Dinitro-2-methylphenol	0.31	U	0.31	0.16	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
4-Bromophenyl phenyl ether	0.38	U	0.38	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
4-Chloro-3-methylphenol	0.38	U	0.38	0.022	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
4-Chloroaniline	0.38	U	0.38	0.068	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
4-Chlorophenyl phenyl ether	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
4-Methylphenol	0.38	U	0.38	0.024	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
4-Nitroaniline	0.38	U	0.38	0.044	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
4-Nitrophenol	0.78	U	0.78	0.063	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Acenaphthene	0.037	J	0.38	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Acenaphthylene	0.038	J	0.38	0.0039	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Acetophenone	0.38	U	0.38	0.019	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Anthracene	0.13	J	0.38	0.012	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248782-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.2

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Atrazine	0.15	U	0.15	0.023	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Benzaldehyde	0.38	U	0.38	0.063	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Benzo[a]anthracene	0.55		0.038	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Benzo[a]pyrene	0.51		0.038	0.010	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Benzo[b]fluoranthene	0.74		0.038	0.0099	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Benzo[g,h,i]perylene	0.22	J	0.38	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Benzo[k]fluoranthene	0.36		0.038	0.0075	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Bis(2-chloroethoxy)methane	0.38	U	0.38	0.030	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Bis(2-chloroethyl)ether	0.038	U	0.038	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Bis(2-ethylhexyl) phthalate	0.62	*	0.38	0.020	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Butyl benzyl phthalate	1.7		0.38	0.018	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Caprolactam	0.38	U	0.38	0.060	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Carbazole	0.045	J	0.38	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Chrysene	0.52		0.38	0.0065	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Dibenz(a,h)anthracene	0.073		0.038	0.017	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Dibenzofuran	0.026	J	0.38	0.0054	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Diethyl phthalate	0.38	U	0.38	0.0056	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Dimethyl phthalate	0.38	U	0.38	0.087	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Di-n-butyl phthalate	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Di-n-octyl phthalate	0.38	U *	0.38	0.020	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Fluoranthene	0.85		0.38	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Fluorene	0.033	J	0.38	0.0052	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Hexachlorobenzene	0.038	U	0.038	0.018	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Hexachlorobutadiene	0.078	U	0.078	0.0082	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Hexachlorocyclopentadiene	0.38	U	0.38	0.034	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Hexachloroethane	0.038	U	0.038	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Indeno[1,2,3-cd]pyrene	0.29		0.038	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Isophorone	0.15	U	0.15	0.11	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Naphthalene	0.035	J	0.38	0.0066	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Nitrobenzene	0.038	U	0.038	0.0092	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
N-Nitrosodi-n-propylamine	0.038	U	0.038	0.028	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
N-Nitrosodiphenylamine	0.38	U	0.38	0.032	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Pentachlorophenol	0.31	U	0.31	0.079	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Phenanthrene	0.44		0.38	0.0067	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Phenol	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1
Pyrene	1.0		0.38	0.0095	mg/Kg	☼	12/10/21 19:13	12/11/21 18:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	87		10 - 123	12/10/21 19:13	12/11/21 18:59	1
2-Fluorobiphenyl	95		14 - 103	12/10/21 19:13	12/11/21 18:59	1
2-Fluorophenol (Surr)	88		10 - 105	12/10/21 19:13	12/11/21 18:59	1
Nitrobenzene-d5 (Surr)	91		11 - 104	12/10/21 19:13	12/11/21 18:59	1
Phenol-d5 (Surr)	92		15 - 100	12/10/21 19:13	12/11/21 18:59	1
Terphenyl-d14 (Surr)	86		12 - 126	12/10/21 19:13	12/11/21 18:59	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0078	U	0.0078	0.0013	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
4,4'-DDE	0.0058	J	0.0078	0.00092	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
4,4'-DDT	0.0078	U	0.0078	0.0014	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248782-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.2

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.0078	U	0.0078	0.0012	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
alpha-BHC	0.0023	U	0.0023	0.00079	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
beta-BHC	0.0023	U	0.0023	0.00087	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
Chlordane (technical)	0.059	J	0.078	0.019	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
delta-BHC	0.0023	U	0.0023	0.00048	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
Dieldrin	0.0023	U	0.0023	0.0010	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
Endosulfan I	0.0078	U	0.0078	0.0012	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
Endosulfan II	0.0078	U	0.0078	0.0020	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
Endosulfan sulfate	0.0078	U	0.0078	0.00097	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
Endrin	0.0078	U	0.0078	0.0011	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
Endrin aldehyde	0.0078	U	0.0078	0.0018	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
Endrin ketone	0.0078	U	0.0078	0.0015	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
gamma-BHC (Lindane)	0.0023	U	0.0023	0.00072	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
Heptachlor	0.0078	U	0.0078	0.00092	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
Heptachlor epoxide	0.0078	U	0.0078	0.0012	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
Methoxychlor	0.0078	U	0.0078	0.0018	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1
Toxaphene	0.078	U	0.078	0.028	mg/Kg	☼	12/10/21 17:52	12/13/21 00:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	93		10 - 150	12/10/21 17:52	12/13/21 00:25	1
DCB Decachlorobiphenyl	71		10 - 150	12/10/21 17:52	12/13/21 00:25	1
Tetrachloro-m-xylene	83		10 - 133	12/10/21 17:52	12/13/21 00:25	1
Tetrachloro-m-xylene	82		10 - 133	12/10/21 17:52	12/13/21 00:25	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:15	1
Aroclor 1221	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:15	1
Aroclor 1232	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:15	1
Aroclor 1242	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:15	1
Aroclor 1248	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:15	1
Aroclor 1254	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:15	1
Aroclor 1260	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:15	1
Aroclor-1262	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:15	1
Aroclor 1268	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:15	1
Polychlorinated biphenyls, Total	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	117		37 - 150	12/10/21 17:45	12/13/21 04:15	1
DCB Decachlorobiphenyl	108		37 - 150	12/10/21 17:45	12/13/21 04:15	1
Tetrachloro-m-xylene	111		54 - 150	12/10/21 17:45	12/13/21 04:15	1
Tetrachloro-m-xylene	100		54 - 150	12/10/21 17:45	12/13/21 04:15	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.039	U	0.039	0.0082	mg/Kg	☼	12/11/21 02:39	12/13/21 00:21	1
2,4-D	0.039	U	0.039	0.014	mg/Kg	☼	12/11/21 02:39	12/13/21 00:21	1
Silvex (2,4,5-TP)	0.039	U	0.039	0.0040	mg/Kg	☼	12/11/21 02:39	12/13/21 00:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	114		65 - 150	12/11/21 02:39	12/13/21 00:21	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-04 (0-0.5)

Date Collected: 12/09/21 09:10

Date Received: 12/09/21 19:00

Lab Sample ID: 460-248782-3

Matrix: Solid

Percent Solids: 86.2

Method: 8151A - Herbicides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	137		65 - 150	12/11/21 02:39	12/13/21 00:21	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5940		22.3	6.1	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Antimony	0.50	J	1.1	0.16	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Arsenic	6.0		1.1	0.11	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Barium	73.9		2.2	0.16	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Beryllium	0.58		0.45	0.064	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Cadmium	0.28	J	1.1	0.13	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Calcium	46100		112	19.7	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Chromium	23.2		2.2	0.30	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Cobalt	6.9		2.2	0.17	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Copper	304		2.2	0.41	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Iron	15500		66.9	22.5	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Lead	121		0.67	0.22	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Magnesium	8260		112	11.4	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Manganese	188		4.5	0.45	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Nickel	18.7		2.2	0.52	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Potassium	1020		112	13.5	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Selenium	0.27	J	1.4	0.14	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Silver	0.19	J	1.1	0.099	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Sodium	335		112	51.0	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Thallium	0.089	J	0.45	0.046	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Vanadium	29.7		2.2	0.23	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1
Zinc	709		8.9	3.4	mg/Kg	☼	12/16/21 07:29	12/17/21 18:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.019	0.0091	mg/Kg	☼	12/15/21 03:23	12/15/21 07:52	1

Client Sample ID: TRC-SB-03 (0-0.5)

Date Collected: 12/09/21 09:30

Date Received: 12/09/21 19:00

Lab Sample ID: 460-248782-4

Matrix: Solid

Percent Solids: 85.0

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0020	U	0.0020	0.00046	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
1,1,2,2-Tetrachloroethane	0.0020	U	0.0020	0.00042	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0020	U	0.0020	0.00059	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
1,1,2-Trichloroethane	0.0020	U	0.0020	0.00035	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
1,1-Dichloroethane	0.0020	U	0.0020	0.00041	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
1,1-Dichloroethene	0.0020	U	0.0020	0.00044	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
1,2,3-Trichlorobenzene	0.0020	U	0.0020	0.00036	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
1,2,4-Trichlorobenzene	0.0020	U	0.0020	0.00071	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
1,2-Dibromo-3-Chloropropane	0.0020	U	0.0020	0.00091	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
1,2-Dichlorobenzene	0.0020	U	0.0020	0.00071	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
1,2-Dichloroethane	0.0020	U	0.0020	0.00058	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
1,2-Dichloropropane	0.0020	U	0.0020	0.00083	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
1,3-Dichlorobenzene	0.0020	U	0.0020	0.00072	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248782-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.0

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0020	U	0.0020	0.00044	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
2-Butanone (MEK)	0.0071	J	0.0099	0.00073	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
2-Hexanone	0.0099	U	0.0099	0.0034	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
4-Methyl-2-pentanone (MIBK)	0.0099	U	0.0099	0.0031	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Acetone	0.041		0.012	0.011	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Benzene	0.0020	U	0.0020	0.00051	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Bromoform	0.0020	U	0.0020	0.00084	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Bromomethane	0.0039	U	0.0039	0.0020	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Carbon disulfide	0.00091	J	0.0020	0.00052	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Carbon tetrachloride	0.0020	U	0.0020	0.00076	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Chlorobenzene	0.0020	U	0.0020	0.00035	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Chlorobromomethane	0.0020	U	0.0020	0.00055	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Chlorodibromomethane	0.0020	U	0.0020	0.00038	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Chloroethane	0.0020	U	0.0020	0.0010	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Chloroform	0.0020	U	0.0020	0.0019	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Chloromethane	0.0020	U	0.0020	0.00086	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
cis-1,2-Dichloroethene	0.0020	U	0.0020	0.00071	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
cis-1,3-Dichloropropene	0.0020	U	0.0020	0.00054	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Cyclohexane	0.0020	U	0.0020	0.00044	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Dichlorobromomethane	0.0020	U	0.0020	0.00051	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Dichlorodifluoromethane	0.0020	U	0.0020	0.00067	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Ethylbenzene	0.0020	U	0.0020	0.00039	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Ethylene Dibromide	0.0020	U	0.0020	0.00036	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Isopropylbenzene	0.0020	U	0.0020	0.00056	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Methyl acetate	0.0099	U	0.0099	0.0085	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Methyl tert-butyl ether	0.0020	U	0.0020	0.0010	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Methylcyclohexane	0.0020	U	0.0020	0.00098	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Methylene Chloride	0.0039	U	0.0039	0.0023	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
m-Xylene & p-Xylene	0.00038	J	0.0020	0.00034	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
o-Xylene	0.0020	U	0.0020	0.00038	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Styrene	0.0020	U	0.0020	0.00055	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Tetrachloroethene	0.0020	U	0.0020	0.00060	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Toluene	0.0020	U	0.0020	0.00046	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
trans-1,2-Dichloroethene	0.0020	U	0.0020	0.00049	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
trans-1,3-Dichloropropene	0.0020	U	0.0020	0.00052	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Trichloroethene	0.0020	U	0.0020	0.00063	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Trichlorofluoromethane	0.0020	U	0.0020	0.00080	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1
Vinyl chloride	0.0020	U	0.0020	0.0011	mg/Kg	☼	12/10/21 13:27	12/12/21 05:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		77 - 145	12/10/21 13:27	12/12/21 05:49	1
4-Bromofluorobenzene	104		70 - 139	12/10/21 13:27	12/12/21 05:49	1
Dibromofluoromethane (Surr)	103		48 - 150	12/10/21 13:27	12/12/21 05:49	1
Toluene-d8 (Surr)	99		80 - 120	12/10/21 13:27	12/12/21 05:49	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.017	J	0.39	0.0052	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
1,2,4,5-Tetrachlorobenzene	0.39	U	0.39	0.012	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
1,4-Dioxane	0.039	U *	0.039	0.034	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248782-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.0

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2'-oxybis[1-chloropropane]	0.39	U	0.39	0.0070	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
2,3,4,6-Tetrachlorophenol	0.39	U	0.39	0.026	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
2,4,5-Trichlorophenol	0.39	U	0.39	0.040	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
2,4,6-Trichlorophenol	0.16	U	0.16	0.050	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
2,4-Dichlorophenol	0.16	U	0.16	0.025	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
2,4-Dimethylphenol	0.39	U	0.39	0.017	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
2,4-Dinitrophenol	0.31	U	0.31	0.19	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
2,4-Dinitrotoluene	0.079	U	0.079	0.042	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
2,6-Dinitrotoluene	0.079	U	0.079	0.028	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
2-Chloronaphthalene	0.39	U	0.39	0.018	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
2-Chlorophenol	0.39	U	0.39	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
2-Methylnaphthalene	0.057	J	0.39	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
2-Methylphenol	0.39	U	0.39	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
2-Nitroaniline	0.39	U	0.39	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
2-Nitrophenol	0.39	U	0.39	0.039	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
3,3'-Dichlorobenzidine	0.16	U *	0.16	0.059	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
3-Nitroaniline	0.39	U	0.39	0.044	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
4,6-Dinitro-2-methylphenol	0.31	U	0.31	0.16	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
4-Bromophenyl phenyl ether	0.39	U	0.39	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
4-Chloro-3-methylphenol	0.39	U	0.39	0.022	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
4-Chloroaniline	0.39	U	0.39	0.069	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
4-Chlorophenyl phenyl ether	0.39	U	0.39	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
4-Methylphenol	0.39	U	0.39	0.024	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
4-Nitroaniline	0.39	U	0.39	0.045	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
4-Nitrophenol	0.79	U	0.79	0.063	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Acenaphthene	0.12	J	0.39	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Acenaphthylene	0.035	J	0.39	0.0039	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Acetophenone	0.39	U	0.39	0.019	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Anthracene	0.30	J	0.39	0.012	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Atrazine	0.16	U	0.16	0.023	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Benzaldehyde	0.39	U	0.39	0.064	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Benzo[a]anthracene	0.66		0.039	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Benzo[a]pyrene	0.61		0.039	0.010	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Benzo[b]fluoranthene	0.80		0.039	0.010	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Benzo[g,h,i]perylene	0.28	J	0.39	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Benzo[k]fluoranthene	0.28		0.039	0.0076	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Bis(2-chloroethoxy)methane	0.39	U	0.39	0.030	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Bis(2-chloroethyl)ether	0.039	U	0.039	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Bis(2-ethylhexyl) phthalate	0.12	J *	0.39	0.021	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Butyl benzyl phthalate	2.4		0.39	0.018	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Caprolactam	0.39	U	0.39	0.061	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Carbazole	0.10	J	0.39	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Chrysene	0.61		0.39	0.0066	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Dibenz(a,h)anthracene	0.077		0.039	0.017	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Dibenzofuran	0.080	J	0.39	0.0055	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Diethyl phthalate	0.39	U	0.39	0.0056	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Dimethyl phthalate	0.39	U	0.39	0.088	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Di-n-butyl phthalate	0.39	U	0.39	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Di-n-octyl phthalate	0.39	U *	0.39	0.021	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248782-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.0

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	1.3		0.39	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Fluorene	0.13	J	0.39	0.0053	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Hexachlorobenzene	0.039	U	0.039	0.018	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Hexachlorobutadiene	0.079	U	0.079	0.0083	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Hexachlorocyclopentadiene	0.39	U	0.39	0.034	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Hexachloroethane	0.039	U	0.039	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Indeno[1,2,3-cd]pyrene	0.36		0.039	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Isophorone	0.16	U	0.16	0.11	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Naphthalene	0.084	J	0.39	0.0067	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Nitrobenzene	0.039	U	0.039	0.0093	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
N-Nitrosodi-n-propylamine	0.039	U	0.039	0.028	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
N-Nitrosodiphenylamine	0.39	U	0.39	0.032	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Pentachlorophenol	0.31	U	0.31	0.080	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Phenanthrene	1.1		0.39	0.0068	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Phenol	0.39	U	0.39	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1
Pyrene	1.3		0.39	0.0097	mg/Kg	☼	12/10/21 19:13	12/11/21 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	89		10 - 123	12/10/21 19:13	12/11/21 17:51	1
2-Fluorobiphenyl	92		14 - 103	12/10/21 19:13	12/11/21 17:51	1
2-Fluorophenol (Surr)	89		10 - 105	12/10/21 19:13	12/11/21 17:51	1
Nitrobenzene-d5 (Surr)	91		11 - 104	12/10/21 19:13	12/11/21 17:51	1
Phenol-d5 (Surr)	91		15 - 100	12/10/21 19:13	12/11/21 17:51	1
Terphenyl-d14 (Surr)	86		12 - 126	12/10/21 19:13	12/11/21 17:51	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.025		0.0079	0.0013	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
4,4'-DDE	0.020		0.0079	0.00093	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
4,4'-DDT	0.0048	J p	0.0079	0.0014	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
Aldrin	0.0079	U	0.0079	0.0012	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
alpha-BHC	0.0024	U	0.0024	0.00080	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
beta-BHC	0.0024	U	0.0024	0.00088	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
Chlordane (technical)	0.14		0.079	0.019	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
delta-BHC	0.0024	U	0.0024	0.00048	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
Dieldrin	0.0024	U	0.0024	0.0010	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
Endosulfan I	0.0079	U	0.0079	0.0012	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
Endosulfan II	0.0079	U	0.0079	0.0020	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
Endosulfan sulfate	0.0079	U	0.0079	0.00099	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
Endrin	0.0079	U	0.0079	0.0011	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
Endrin aldehyde	0.0079	U	0.0079	0.0019	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
Endrin ketone	0.0079	U	0.0079	0.0015	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
gamma-BHC (Lindane)	0.0024	U	0.0024	0.00073	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
Heptachlor	0.0079	U	0.0079	0.00093	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
Heptachlor epoxide	0.0079	U	0.0079	0.0012	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
Methoxychlor	0.0079	U	0.0079	0.0018	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1
Toxaphene	0.079	U	0.079	0.028	mg/Kg	☼	12/10/21 17:52	12/13/21 00:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		10 - 150	12/10/21 17:52	12/13/21 00:41	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248782-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.0

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	83		10 - 150	12/10/21 17:52	12/13/21 00:41	1
Tetrachloro-m-xylene	89		10 - 133	12/10/21 17:52	12/13/21 00:41	1
Tetrachloro-m-xylene	90		10 - 133	12/10/21 17:52	12/13/21 00:41	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.079	U	0.079	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:37	1
Aroclor 1221	0.079	U	0.079	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:37	1
Aroclor 1232	0.079	U	0.079	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:37	1
Aroclor 1242	0.079	U	0.079	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:37	1
Aroclor 1248	0.079	U	0.079	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:37	1
Aroclor 1254	0.079	U	0.079	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:37	1
Aroclor 1260	0.079	U	0.079	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:37	1
Aroclor-1262	0.079	U	0.079	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:37	1
Aroclor 1268	0.079	U	0.079	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:37	1
Polychlorinated biphenyls, Total	0.079	U	0.079	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	110		37 - 150	12/10/21 17:45	12/13/21 04:37	1
DCB Decachlorobiphenyl	112		37 - 150	12/10/21 17:45	12/13/21 04:37	1
Tetrachloro-m-xylene	102		54 - 150	12/10/21 17:45	12/13/21 04:37	1
Tetrachloro-m-xylene	98		54 - 150	12/10/21 17:45	12/13/21 04:37	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.039	U	0.039	0.0083	mg/Kg	☼	12/11/21 02:39	12/13/21 00:34	1
2,4-D	0.039	U	0.039	0.014	mg/Kg	☼	12/11/21 02:39	12/13/21 00:34	1
Silvex (2,4,5-TP)	0.039	U	0.039	0.0041	mg/Kg	☼	12/11/21 02:39	12/13/21 00:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	108		65 - 150	12/11/21 02:39	12/13/21 00:34	1
2,4-Dichlorophenylacetic acid	130		65 - 150	12/11/21 02:39	12/13/21 00:34	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6540		22.6	6.2	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Antimony	0.98	J	1.1	0.17	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Arsenic	6.6		1.1	0.12	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Barium	92.2		2.3	0.16	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Beryllium	0.36	J	0.45	0.064	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Cadmium	0.69	J	1.1	0.13	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Calcium	32500		113	20.0	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Chromium	21.3		2.3	0.30	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Cobalt	5.3		2.3	0.17	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Copper	82.8		2.3	0.42	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Iron	15600		67.8	22.8	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Lead	153		0.68	0.23	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Magnesium	5610		113	11.5	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Manganese	226		4.5	0.46	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Nickel	17.8		2.3	0.53	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-03 (0-0.5)

Date Collected: 12/09/21 09:30

Date Received: 12/09/21 19:00

Lab Sample ID: 460-248782-4

Matrix: Solid

Percent Solids: 85.0

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	1290		113	13.7	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Selenium	0.58	J	1.4	0.14	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Silver	0.25	J	1.1	0.10	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Sodium	707		113	51.7	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Thallium	0.11	J	0.45	0.046	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Vanadium	28.3		2.3	0.23	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1
Zinc	167		9.0	3.4	mg/Kg	☼	12/16/21 07:29	12/17/21 18:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.26		0.020	0.0094	mg/Kg	☼	12/15/21 03:23	12/15/21 07:54	1

Client Sample ID: TRC-SB-07 (0-0.5)

Date Collected: 12/09/21 10:00

Date Received: 12/09/21 19:00

Lab Sample ID: 460-248782-5

Matrix: Solid

Percent Solids: 86.8

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0015	U	0.0015	0.00035	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
1,1,2,2-Tetrachloroethane	0.0015	U	0.0015	0.00032	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0015	U	0.0015	0.00045	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
1,1,2-Trichloroethane	0.0015	U	0.0015	0.00027	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
1,1-Dichloroethane	0.0015	U	0.0015	0.00031	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
1,1-Dichloroethene	0.0015	U	0.0015	0.00034	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
1,2,3-Trichlorobenzene	0.0015	U	0.0015	0.00027	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
1,2,4-Trichlorobenzene	0.0015	U	0.0015	0.00054	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
1,2-Dibromo-3-Chloropropane	0.0015	U	0.0015	0.00069	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
1,2-Dichlorobenzene	0.0015	U	0.0015	0.00054	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
1,2-Dichloroethane	0.0015	U	0.0015	0.00044	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
1,2-Dichloropropane	0.0015	U	0.0015	0.00063	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
1,3-Dichlorobenzene	0.0015	U	0.0015	0.00055	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
1,4-Dichlorobenzene	0.0015	U	0.0015	0.00034	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
2-Butanone (MEK)	0.0075	U	0.0075	0.00055	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
2-Hexanone	0.0075	U	0.0075	0.0026	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
4-Methyl-2-pentanone (MIBK)	0.0075	U	0.0075	0.0023	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Acetone	0.0090	U	0.0090	0.0086	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Benzene	0.0015	U	0.0015	0.00039	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Bromoform	0.0015	U	0.0015	0.00064	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Bromomethane	0.0030	U	0.0030	0.0015	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Carbon disulfide	0.0015	U	0.0015	0.00040	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Carbon tetrachloride	0.0015	U	0.0015	0.00058	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Chlorobenzene	0.0015	U	0.0015	0.00027	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Chlorobromomethane	0.0015	U	0.0015	0.00042	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Chlorodibromomethane	0.0015	U	0.0015	0.00029	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Chloroethane	0.0015	U	0.0015	0.00078	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Chloroform	0.0015	U	0.0015	0.0015	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Chloromethane	0.0015	U	0.0015	0.00065	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
cis-1,2-Dichloroethene	0.0015	U	0.0015	0.00054	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
cis-1,3-Dichloropropene	0.0015	U	0.0015	0.00041	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Cyclohexane	0.0015	U	0.0015	0.00033	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248782-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.8

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	0.0015	U	0.0015	0.00039	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Dichlorodifluoromethane	0.0015	U	0.0015	0.00051	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Ethylbenzene	0.0015	U	0.0015	0.00030	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Ethylene Dibromide	0.0015	U	0.0015	0.00027	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Isopropylbenzene	0.0015	U	0.0015	0.00043	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Methyl acetate	0.0075	U	0.0075	0.0065	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Methyl tert-butyl ether	0.0015	U	0.0015	0.00077	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Methylcyclohexane	0.0015	U	0.0015	0.00075	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Methylene Chloride	0.0030	U	0.0030	0.0017	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
m-Xylene & p-Xylene	0.0015	U	0.0015	0.00026	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
o-Xylene	0.0015	U	0.0015	0.00029	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Styrene	0.0015	U	0.0015	0.00042	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Tetrachloroethene	0.0015	U	0.0015	0.00046	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Toluene	0.0015	U	0.0015	0.00035	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
trans-1,2-Dichloroethene	0.0015	U	0.0015	0.00037	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
trans-1,3-Dichloropropene	0.0015	U	0.0015	0.00040	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Trichloroethene	0.0015	U	0.0015	0.00048	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Trichlorofluoromethane	0.0015	U	0.0015	0.00061	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1
Vinyl chloride	0.0015	U	0.0015	0.00082	mg/Kg	☼	12/10/21 13:28	12/12/21 06:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		77 - 145	12/10/21 13:28	12/12/21 06:12	1
4-Bromofluorobenzene	108		70 - 139	12/10/21 13:28	12/12/21 06:12	1
Dibromofluoromethane (Surr)	108		48 - 150	12/10/21 13:28	12/12/21 06:12	1
Toluene-d8 (Surr)	103		80 - 120	12/10/21 13:28	12/12/21 06:12	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.015	J	0.38	0.0051	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
1,2,4,5-Tetrachlorobenzene	0.38	U	0.38	0.012	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
1,4-Dioxane	0.038	U *	0.038	0.033	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
2,2'-oxybis[1-chloropropane]	0.38	U	0.38	0.0069	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
2,3,4,6-Tetrachlorophenol	0.38	U	0.38	0.026	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
2,4,5-Trichlorophenol	0.38	U	0.38	0.039	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.049	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
2,4-Dichlorophenol	0.15	U	0.15	0.024	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
2,4-Dimethylphenol	0.38	U	0.38	0.017	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
2,4-Dinitrophenol	0.31	U	0.31	0.19	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
2,4-Dinitrotoluene	0.077	U	0.077	0.041	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
2,6-Dinitrotoluene	0.077	U	0.077	0.028	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
2-Chloronaphthalene	0.38	U	0.38	0.018	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
2-Chlorophenol	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
2-Methylnaphthalene	0.048	J	0.38	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
2-Methylphenol	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
2-Nitroaniline	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
2-Nitrophenol	0.38	U	0.38	0.038	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
3,3'-Dichlorobenzidine	0.15	U *	0.15	0.058	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
3-Nitroaniline	0.38	U	0.38	0.043	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
4,6-Dinitro-2-methylphenol	0.31	U	0.31	0.16	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
4-Bromophenyl phenyl ether	0.38	U	0.38	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248782-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.8

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	0.38	U	0.38	0.021	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
4-Chloroaniline	0.38	U	0.38	0.068	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
4-Chlorophenyl phenyl ether	0.38	U	0.38	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
4-Methylphenol	0.38	U	0.38	0.024	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
4-Nitroaniline	0.38	U	0.38	0.044	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
4-Nitrophenol	0.77	U	0.77	0.062	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Acenaphthene	0.036	J	0.38	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Acenaphthylene	0.039	J	0.38	0.0038	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Acetophenone	0.38	U	0.38	0.019	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Anthracene	0.16	J	0.38	0.012	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Atrazine	0.15	U	0.15	0.022	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Benzaldehyde	0.38	U	0.38	0.063	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Benzo[a]anthracene	0.34		0.038	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Benzo[a]pyrene	0.33		0.038	0.010	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Benzo[b]fluoranthene	0.42		0.038	0.0099	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Benzo[g,h,i]perylene	0.17	J	0.38	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Benzo[k]fluoranthene	0.14		0.038	0.0075	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Bis(2-chloroethoxy)methane	0.38	U	0.38	0.030	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Bis(2-chloroethyl)ether	0.038	U	0.038	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Bis(2-ethylhexyl) phthalate	0.095	J *	0.38	0.020	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Butyl benzyl phthalate	0.026	J	0.38	0.018	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Caprolactam	0.38	U	0.38	0.059	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Carbazole	0.037	J	0.38	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Chrysene	0.30	J	0.38	0.0064	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Dibenz(a,h)anthracene	0.039		0.038	0.017	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Dibenzofuran	0.035	J	0.38	0.0054	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Diethyl phthalate	0.38	U	0.38	0.0055	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Dimethyl phthalate	0.38	U	0.38	0.087	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Di-n-butyl phthalate	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Di-n-octyl phthalate	0.38	U *	0.38	0.020	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Fluoranthene	0.62		0.38	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Fluorene	0.070	J	0.38	0.0052	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Hexachlorobenzene	0.038	U	0.038	0.018	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Hexachlorobutadiene	0.077	U	0.077	0.0081	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Hexachlorocyclopentadiene	0.38	U	0.38	0.033	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Hexachloroethane	0.038	U	0.038	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Indeno[1,2,3-cd]pyrene	0.20		0.038	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Isophorone	0.15	U	0.15	0.11	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Naphthalene	0.069	J	0.38	0.0066	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Nitrobenzene	0.038	U	0.038	0.0092	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
N-Nitrosodi-n-propylamine	0.038	U	0.038	0.028	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
N-Nitrosodiphenylamine	0.38	U	0.38	0.031	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Pentachlorophenol	0.31	U	0.31	0.078	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Phenanthrene	0.52		0.38	0.0067	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Phenol	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1
Pyrene	0.67		0.38	0.0095	mg/Kg	☼	12/10/21 19:13	12/11/21 18:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		10 - 123	12/10/21 19:13	12/11/21 18:14	1
2-Fluorobiphenyl	92		14 - 103	12/10/21 19:13	12/11/21 18:14	1

Eurofins Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248782-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.8

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	89		10 - 105	12/10/21 19:13	12/11/21 18:14	1
Nitrobenzene-d5 (Surr)	88		11 - 104	12/10/21 19:13	12/11/21 18:14	1
Phenol-d5 (Surr)	90		15 - 100	12/10/21 19:13	12/11/21 18:14	1
Terphenyl-d14 (Surr)	86		12 - 126	12/10/21 19:13	12/11/21 18:14	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0077	U	0.0077	0.0013	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
4,4'-DDE	0.0041	J	0.0077	0.00091	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
4,4'-DDT	0.0031	J p	0.0077	0.0014	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
Aldrin	0.0077	U	0.0077	0.0012	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
alpha-BHC	0.0023	U	0.0023	0.00078	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
beta-BHC	0.0023	U	0.0023	0.00086	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
Chlordane (technical)	0.077	U	0.077	0.019	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
delta-BHC	0.0023	U	0.0023	0.00047	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
Dieldrin	0.0023	U	0.0023	0.0010	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
Endosulfan I	0.0077	U	0.0077	0.0012	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
Endosulfan II	0.0077	U	0.0077	0.0020	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
Endosulfan sulfate	0.0077	U	0.0077	0.00097	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
Endrin	0.0077	U	0.0077	0.0011	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
Endrin aldehyde	0.0077	U	0.0077	0.0018	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
Endrin ketone	0.0077	U	0.0077	0.0015	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
gamma-BHC (Lindane)	0.0023	U	0.0023	0.00071	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
Heptachlor	0.0077	U	0.0077	0.00091	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
Heptachlor epoxide	0.0077	U	0.0077	0.0012	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
Methoxychlor	0.0077	U	0.0077	0.0018	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1
Toxaphene	0.077	U	0.077	0.028	mg/Kg	☼	12/10/21 17:52	12/13/21 00:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	90		10 - 150	12/10/21 17:52	12/13/21 00:57	1
DCB Decachlorobiphenyl	73		10 - 150	12/10/21 17:52	12/13/21 00:57	1
Tetrachloro-m-xylene	88		10 - 133	12/10/21 17:52	12/13/21 00:57	1
Tetrachloro-m-xylene	88		10 - 133	12/10/21 17:52	12/13/21 00:57	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.077	U	0.077	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:59	1
Aroclor 1221	0.077	U	0.077	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:59	1
Aroclor 1232	0.077	U	0.077	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:59	1
Aroclor 1242	0.077	U	0.077	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:59	1
Aroclor 1248	0.077	U	0.077	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:59	1
Aroclor 1254	0.077	U	0.077	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:59	1
Aroclor 1260	0.077	U	0.077	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:59	1
Aroclor-1262	0.077	U	0.077	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:59	1
Aroclor 1268	0.077	U	0.077	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:59	1
Polychlorinated biphenyls, Total	0.077	U	0.077	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 04:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	99		37 - 150	12/10/21 17:45	12/13/21 04:59	1
DCB Decachlorobiphenyl	103		37 - 150	12/10/21 17:45	12/13/21 04:59	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248782-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 86.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	95		54 - 150	12/10/21 17:45	12/13/21 04:59	1
Tetrachloro-m-xylene	91		54 - 150	12/10/21 17:45	12/13/21 04:59	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.038	U	0.038	0.0082	mg/Kg	☼	12/11/21 02:39	12/13/21 00:48	1
2,4-D	0.038	U	0.038	0.014	mg/Kg	☼	12/11/21 02:39	12/13/21 00:48	1
Silvex (2,4,5-TP)	0.038	U	0.038	0.0040	mg/Kg	☼	12/11/21 02:39	12/13/21 00:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	106		65 - 150	12/11/21 02:39	12/13/21 00:48	1
2,4-Dichlorophenylacetic acid	122		65 - 150	12/11/21 02:39	12/13/21 00:48	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5190		22.6	6.2	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Antimony	0.35	J	1.1	0.16	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Arsenic	4.7		1.1	0.12	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Barium	68.8		2.3	0.16	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Beryllium	0.30	J	0.45	0.064	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Cadmium	0.29	J	1.1	0.13	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Calcium	50300		113	20.0	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Chromium	15.9		2.3	0.30	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Cobalt	4.2		2.3	0.17	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Copper	45.3		2.3	0.42	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Iron	12400		67.8	22.8	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Lead	74.0		0.68	0.23	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Magnesium	8650		113	11.5	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Manganese	176		4.5	0.46	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Nickel	13.3		2.3	0.53	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Potassium	906		113	13.7	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Selenium	0.27	J	1.4	0.14	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Silver	0.15	J	1.1	0.10	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Sodium	187		113	51.6	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Thallium	0.079	J	0.45	0.046	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Vanadium	20.3		2.3	0.23	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1
Zinc	122		9.0	3.4	mg/Kg	☼	12/16/21 07:29	12/17/21 18:53	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14		0.017	0.0081	mg/Kg	☼	12/15/21 03:23	12/15/21 07:56	1

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248782-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.9

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.0029	U	0.0029	0.00067	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
1,1,2,2-Tetrachloroethane	0.0029	U	0.0029	0.00062	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248782-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.9

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0029	U	0.0029	0.00087	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
1,1,2-Trichloroethane	0.0029	U	0.0029	0.00051	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
1,1-Dichloroethane	0.0029	U	0.0029	0.00059	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
1,1-Dichloroethene	0.0029	U	0.0029	0.00065	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
1,2,3-Trichlorobenzene	0.0029	U	0.0029	0.00052	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
1,2,4-Trichlorobenzene	0.0029	U	0.0029	0.0010	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
1,2-Dibromo-3-Chloropropane	0.0029	U	0.0029	0.0013	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
1,2-Dichlorobenzene	0.0029	U	0.0029	0.0010	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
1,2-Dichloroethane	0.0029	U	0.0029	0.00085	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
1,2-Dichloropropane	0.0029	U	0.0029	0.0012	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
1,3-Dichlorobenzene	0.0029	U	0.0029	0.0011	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
1,4-Dichlorobenzene	0.0029	U	0.0029	0.00065	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
2-Butanone (MEK)	0.014	U	0.014	0.0011	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
2-Hexanone	0.014	U	0.014	0.0049	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
4-Methyl-2-pentanone (MIBK)	0.014	U	0.014	0.0045	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Acetone	0.026		0.017	0.016	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Benzene	0.0029	U	0.0029	0.00074	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Bromoform	0.0029	U	0.0029	0.0012	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Bromomethane	0.0058	U	0.0058	0.0029	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Carbon disulfide	0.0029	U	0.0029	0.00077	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Carbon tetrachloride	0.0029	U	0.0029	0.0011	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Chlorobenzene	0.0029	U	0.0029	0.00051	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Chlorobromomethane	0.0029	U	0.0029	0.00081	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Chlorodibromomethane	0.0029	U	0.0029	0.00056	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Chloroethane	0.0029	U	0.0029	0.0015	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Chloroform	0.0029	U	0.0029	0.0028	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Chloromethane	0.0029	U	0.0029	0.0013	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
cis-1,2-Dichloroethene	0.0029	U	0.0029	0.0010	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
cis-1,3-Dichloropropene	0.0029	U	0.0029	0.00079	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Cyclohexane	0.0029	U	0.0029	0.00064	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Dichlorobromomethane	0.0029	U	0.0029	0.00074	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Dichlorodifluoromethane	0.0029	U	0.0029	0.00097	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Ethylbenzene	0.0029	U	0.0029	0.00057	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Ethylene Dibromide	0.0029	U	0.0029	0.00052	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Isopropylbenzene	0.0029	U	0.0029	0.00082	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Methyl acetate	0.014	U	0.014	0.012	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Methyl tert-butyl ether	0.0029	U	0.0029	0.0015	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Methylcyclohexane	0.0029	U	0.0029	0.0014	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Methylene Chloride	0.0058	U	0.0058	0.0033	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
m-Xylene & p-Xylene	0.0029	U	0.0029	0.00050	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
o-Xylene	0.0029	U	0.0029	0.00056	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Styrene	0.0029	U	0.0029	0.00080	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Tetrachloroethene	0.0029	U	0.0029	0.00088	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Toluene	0.0029	U	0.0029	0.00067	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
trans-1,2-Dichloroethene	0.0029	U	0.0029	0.00071	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
trans-1,3-Dichloropropene	0.0029	U	0.0029	0.00077	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Trichloroethene	0.0029	U	0.0029	0.00092	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Trichlorofluoromethane	0.0029	U	0.0029	0.0012	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1
Vinyl chloride	0.0029	U	0.0029	0.0016	mg/Kg	☼	12/10/21 13:29	12/12/21 06:34	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248782-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		77 - 145	12/10/21 13:29	12/12/21 06:34	1
4-Bromofluorobenzene	110		70 - 139	12/10/21 13:29	12/12/21 06:34	1
Dibromofluoromethane (Surr)	109		48 - 150	12/10/21 13:29	12/12/21 06:34	1
Toluene-d8 (Surr)	102		80 - 120	12/10/21 13:29	12/12/21 06:34	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.38	U	0.38	0.0051	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
1,2,4,5-Tetrachlorobenzene	0.38	U	0.38	0.012	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
1,4-Dioxane	0.038	U *	0.038	0.034	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
2,2'-oxybis[1-chloropropane]	0.38	U	0.38	0.0070	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
2,3,4,6-Tetrachlorophenol	0.38	U	0.38	0.026	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
2,4,5-Trichlorophenol	0.38	U	0.38	0.039	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
2,4,6-Trichlorophenol	0.15	U	0.15	0.049	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
2,4-Dichlorophenol	0.15	U	0.15	0.025	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
2,4-Dimethylphenol	0.38	U	0.38	0.017	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
2,4-Dinitrophenol	0.31	U	0.31	0.19	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
2,4-Dinitrotoluene	0.078	U	0.078	0.041	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
2,6-Dinitrotoluene	0.078	U	0.078	0.028	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
2-Chloronaphthalene	0.38	U	0.38	0.018	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
2-Chlorophenol	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
2-Methylnaphthalene	0.38	U	0.38	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
2-Methylphenol	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
2-Nitroaniline	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
2-Nitrophenol	0.38	U	0.38	0.039	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
3,3'-Dichlorobenzidine	0.15	U *	0.15	0.058	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
3-Nitroaniline	0.38	U	0.38	0.043	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
4,6-Dinitro-2-methylphenol	0.31	U	0.31	0.16	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
4-Bromophenyl phenyl ether	0.38	U	0.38	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
4-Chloro-3-methylphenol	0.38	U	0.38	0.022	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
4-Chloroaniline	0.38	U	0.38	0.068	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
4-Chlorophenyl phenyl ether	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
4-Methylphenol	0.38	U	0.38	0.024	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
4-Nitroaniline	0.38	U	0.38	0.044	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
4-Nitrophenol	0.78	U	0.78	0.063	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Acenaphthene	0.029	J	0.38	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Acenaphthylene	0.018	J	0.38	0.0039	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Acetophenone	0.38	U	0.38	0.019	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Anthracene	0.093	J	0.38	0.012	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Atrazine	0.15	U	0.15	0.023	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Benzaldehyde	0.38	U	0.38	0.064	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Benzo[a]anthracene	0.35		0.038	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Benzo[a]pyrene	0.30		0.038	0.010	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Benzo[b]fluoranthene	0.38		0.038	0.010	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Benzo[g,h,i]perylene	0.19	J	0.38	0.011	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Benzo[k]fluoranthene	0.14		0.038	0.0076	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Bis(2-chloroethoxy)methane	0.38	U	0.38	0.030	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Bis(2-chloroethyl)ether	0.038	U	0.038	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Bis(2-ethylhexyl) phthalate	0.060	J *	0.38	0.020	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Butyl benzyl phthalate	0.38	U	0.38	0.018	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248782-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	0.38	U	0.38	0.060	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Carbazole	0.028	J	0.38	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Chrysene	0.31	J	0.38	0.0065	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Dibenz(a,h)anthracene	0.054		0.038	0.017	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Dibenzofuran	0.015	J	0.38	0.0054	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Diethyl phthalate	0.38	U	0.38	0.0056	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Dimethyl phthalate	0.38	U	0.38	0.088	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Di-n-butyl phthalate	0.38	U	0.38	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Di-n-octyl phthalate	0.38	U *	0.38	0.020	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Fluoranthene	0.57		0.38	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Fluorene	0.028	J	0.38	0.0052	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Hexachlorobenzene	0.038	U	0.038	0.018	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Hexachlorobutadiene	0.078	U	0.078	0.0082	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Hexachlorocyclopentadiene	0.38	U	0.38	0.034	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Hexachloroethane	0.038	U	0.038	0.013	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Indeno[1,2,3-cd]pyrene	0.21		0.038	0.015	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Isophorone	0.15	U	0.15	0.11	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Naphthalene	0.011	J	0.38	0.0067	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Nitrobenzene	0.038	U	0.038	0.0092	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
N-Nitrosodi-n-propylamine	0.038	U	0.038	0.028	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
N-Nitrosodiphenylamine	0.38	U	0.38	0.032	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Pentachlorophenol	0.31	U	0.31	0.079	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Phenanthrene	0.38		0.38	0.0068	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Phenol	0.38	U	0.38	0.014	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1
Pyrene	0.68		0.38	0.0096	mg/Kg	☼	12/10/21 19:13	12/11/21 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		10 - 123	12/10/21 19:13	12/11/21 15:13	1
2-Fluorobiphenyl	93		14 - 103	12/10/21 19:13	12/11/21 15:13	1
2-Fluorophenol (Surr)	86		10 - 105	12/10/21 19:13	12/11/21 15:13	1
Nitrobenzene-d5 (Surr)	91		11 - 104	12/10/21 19:13	12/11/21 15:13	1
Phenol-d5 (Surr)	90		15 - 100	12/10/21 19:13	12/11/21 15:13	1
Terphenyl-d14 (Surr)	93		12 - 126	12/10/21 19:13	12/11/21 15:13	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0078	U	0.0078	0.0013	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
4,4'-DDE	0.0090		0.0078	0.00092	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
4,4'-DDT	0.0078	U	0.0078	0.0014	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
Aldrin	0.0078	U	0.0078	0.0012	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
alpha-BHC	0.0023	U	0.0023	0.00079	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
beta-BHC	0.0023	U	0.0023	0.00087	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
Chlordane (technical)	0.078	U	0.078	0.019	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
delta-BHC	0.0023	U	0.0023	0.00048	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
Dieldrin	0.0023	U	0.0023	0.0010	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
Endosulfan I	0.0078	U	0.0078	0.0012	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
Endosulfan II	0.0078	U	0.0078	0.0020	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
Endosulfan sulfate	0.0078	U	0.0078	0.00098	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
Endrin	0.0078	U	0.0078	0.0011	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
Endrin aldehyde	0.0078	U	0.0078	0.0018	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248782-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.9

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin ketone	0.0078	U	0.0078	0.0015	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
gamma-BHC (Lindane)	0.0023	U	0.0023	0.00072	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
Heptachlor	0.0078	U	0.0078	0.00092	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
Heptachlor epoxide	0.0078	U	0.0078	0.0012	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
Methoxychlor	0.0078	U	0.0078	0.0018	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1
Toxaphene	0.078	U	0.078	0.028	mg/Kg	☼	12/10/21 17:52	12/13/21 01:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		10 - 150	12/10/21 17:52	12/13/21 01:13	1
DCB Decachlorobiphenyl	79		10 - 150	12/10/21 17:52	12/13/21 01:13	1
Tetrachloro-m-xylene	89		10 - 133	12/10/21 17:52	12/13/21 01:13	1
Tetrachloro-m-xylene	85		10 - 133	12/10/21 17:52	12/13/21 01:13	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 05:21	1
Aroclor 1221	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 05:21	1
Aroclor 1232	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 05:21	1
Aroclor 1242	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 05:21	1
Aroclor 1248	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 05:21	1
Aroclor 1254	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 05:21	1
Aroclor 1260	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 05:21	1
Aroclor-1262	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 05:21	1
Aroclor 1268	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 05:21	1
Polychlorinated biphenyls, Total	0.078	U	0.078	0.021	mg/Kg	☼	12/10/21 17:45	12/13/21 05:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	110		37 - 150	12/10/21 17:45	12/13/21 05:21	1
DCB Decachlorobiphenyl	112		37 - 150	12/10/21 17:45	12/13/21 05:21	1
Tetrachloro-m-xylene	99		54 - 150	12/10/21 17:45	12/13/21 05:21	1
Tetrachloro-m-xylene	96		54 - 150	12/10/21 17:45	12/13/21 05:21	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.039	U	0.039	0.0082	mg/Kg	☼	12/11/21 02:39	12/13/21 01:01	1
2,4-D	0.039	U	0.039	0.014	mg/Kg	☼	12/11/21 02:39	12/13/21 01:01	1
Silvex (2,4,5-TP)	0.039	U	0.039	0.0040	mg/Kg	☼	12/11/21 02:39	12/13/21 01:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	109		65 - 150	12/11/21 02:39	12/13/21 01:01	1
2,4-Dichlorophenylacetic acid	125		65 - 150	12/11/21 02:39	12/13/21 01:01	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5690		22.6	6.2	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Antimony	0.26	J	1.1	0.17	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Arsenic	5.8		1.1	0.12	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Barium	97.3		2.3	0.16	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Beryllium	0.31	J	0.45	0.064	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Cadmium	0.31	J	1.1	0.13	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Calcium	45100		113	20.0	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248782-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.9

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	20.0		2.3	0.30	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Cobalt	4.7		2.3	0.17	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Copper	25.2		2.3	0.42	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Iron	31400		67.8	22.8	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Lead	83.3		0.68	0.23	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Magnesium	7940		113	11.5	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Manganese	207		4.5	0.46	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Nickel	15.8		2.3	0.53	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Potassium	638		113	13.7	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Selenium	0.24 J		1.4	0.14	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Silver	0.19 J		1.1	0.10	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Sodium	156		113	51.6	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Thallium	0.13 J		0.45	0.046	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Vanadium	20.7		2.3	0.23	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1
Zinc	180		9.0	3.4	mg/Kg	☼	12/16/21 07:29	12/17/21 18:56	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.44		0.019	0.0090	mg/Kg	☼	12/15/21 03:23	12/15/21 07:58	1

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248782-7

Date Collected: 12/09/21 11:00

Matrix: Water

Date Received: 12/09/21 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/10/21 23:27	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/10/21 23:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			12/10/21 23:27	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			12/10/21 23:27	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/10/21 23:27	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			12/10/21 23:27	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			12/10/21 23:27	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			12/10/21 23:27	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			12/10/21 23:27	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			12/10/21 23:27	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			12/10/21 23:27	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/10/21 23:27	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			12/10/21 23:27	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			12/10/21 23:27	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			12/10/21 23:27	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			12/10/21 23:27	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			12/10/21 23:27	1
Acetone	5.0	U	5.0	4.4	ug/L			12/10/21 23:27	1
Benzene	1.0	U	1.0	0.20	ug/L			12/10/21 23:27	1
Bromoform	1.0	U	1.0	0.54	ug/L			12/10/21 23:27	1
Bromomethane	1.0	U	1.0	0.55	ug/L			12/10/21 23:27	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			12/10/21 23:27	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/10/21 23:27	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/10/21 23:27	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248782-7

Date Collected: 12/09/21 11:00

Matrix: Water

Date Received: 12/09/21 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			12/10/21 23:27	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/10/21 23:27	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/10/21 23:27	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/10/21 23:27	1
Chloromethane	1.0	U	1.0	0.40	ug/L			12/10/21 23:27	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/10/21 23:27	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			12/10/21 23:27	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			12/10/21 23:27	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/10/21 23:27	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			12/10/21 23:27	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			12/10/21 23:27	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			12/10/21 23:27	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			12/10/21 23:27	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			12/10/21 23:27	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			12/10/21 23:27	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			12/10/21 23:27	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/10/21 23:27	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			12/10/21 23:27	1
o-Xylene	1.0	U	1.0	0.36	ug/L			12/10/21 23:27	1
Styrene	1.0	U	1.0	0.42	ug/L			12/10/21 23:27	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			12/10/21 23:27	1
Toluene	1.0	U	1.0	0.38	ug/L			12/10/21 23:27	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/10/21 23:27	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			12/10/21 23:27	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/10/21 23:27	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			12/10/21 23:27	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/10/21 23:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 123		12/10/21 23:27	1
4-Bromofluorobenzene	101		76 - 120		12/10/21 23:27	1
Dibromofluoromethane (Surr)	103		77 - 124		12/10/21 23:27	1
Toluene-d8 (Surr)	105		80 - 120		12/10/21 23:27	1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.016	ug/L		12/11/21 09:24	12/11/21 19:52	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	45		10 - 150				12/11/21 09:24	12/11/21 19:52	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		12/11/21 08:01	12/11/21 17:46	1
1,2,4,5-Tetrachlorobenzene	10	U	10	1.2	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,3,4,6-Tetrachlorophenol	10	U	10	0.75	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		12/11/21 08:01	12/11/21 17:46	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248782-7

Date Collected: 12/09/21 11:00

Matrix: Water

Date Received: 12/09/21 19:00

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	20	U	20	2.6	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		12/11/21 08:01	12/11/21 17:46	1
2,6-Dinitrotoluene	2.0	U	2.0	0.83	ug/L		12/11/21 08:01	12/11/21 17:46	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		12/11/21 08:01	12/11/21 17:46	1
2-Chlorophenol	10	U	10	0.38	ug/L		12/11/21 08:01	12/11/21 17:46	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		12/11/21 08:01	12/11/21 17:46	1
2-Methylphenol	10	U	10	0.67	ug/L		12/11/21 08:01	12/11/21 17:46	1
2-Nitroaniline	10	U	10	0.47	ug/L		12/11/21 08:01	12/11/21 17:46	1
2-Nitrophenol	10	U	10	0.75	ug/L		12/11/21 08:01	12/11/21 17:46	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		12/11/21 08:01	12/11/21 17:46	1
3-Nitroaniline	10	U	10	1.9	ug/L		12/11/21 08:01	12/11/21 17:46	1
4,6-Dinitro-2-methylphenol	20	U	20	3.0	ug/L		12/11/21 08:01	12/11/21 17:46	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		12/11/21 08:01	12/11/21 17:46	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		12/11/21 08:01	12/11/21 17:46	1
4-Chloroaniline	10	U	10	1.9	ug/L		12/11/21 08:01	12/11/21 17:46	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		12/11/21 08:01	12/11/21 17:46	1
4-Methylphenol	10	U	10	0.65	ug/L		12/11/21 08:01	12/11/21 17:46	1
4-Nitroaniline	10	U	10	1.2	ug/L		12/11/21 08:01	12/11/21 17:46	1
4-Nitrophenol	20	U	20	4.0	ug/L		12/11/21 08:01	12/11/21 17:46	1
Acenaphthene	10	U	10	1.1	ug/L		12/11/21 08:01	12/11/21 17:46	1
Acenaphthylene	10	U	10	0.82	ug/L		12/11/21 08:01	12/11/21 17:46	1
Acetophenone	10	U	10	2.3	ug/L		12/11/21 08:01	12/11/21 17:46	1
Anthracene	10	U	10	1.3	ug/L		12/11/21 08:01	12/11/21 17:46	1
Atrazine	2.0	U	2.0	1.3	ug/L		12/11/21 08:01	12/11/21 17:46	1
Benzaldehyde	10	U	10	2.1	ug/L		12/11/21 08:01	12/11/21 17:46	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		12/11/21 08:01	12/11/21 17:46	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		12/11/21 08:01	12/11/21 17:46	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		12/11/21 08:01	12/11/21 17:46	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		12/11/21 08:01	12/11/21 17:46	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		12/11/21 08:01	12/11/21 17:46	1
Bis(2-chloroethoxy)methane	10	U	10	0.59	ug/L		12/11/21 08:01	12/11/21 17:46	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.63	ug/L		12/11/21 08:01	12/11/21 17:46	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80	ug/L		12/11/21 08:01	12/11/21 17:46	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		12/11/21 08:01	12/11/21 17:46	1
Caprolactam	10	U	10	2.2	ug/L		12/11/21 08:01	12/11/21 17:46	1
Carbazole	10	U	10	0.68	ug/L		12/11/21 08:01	12/11/21 17:46	1
Chrysene	2.0	U	2.0	0.91	ug/L		12/11/21 08:01	12/11/21 17:46	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		12/11/21 08:01	12/11/21 17:46	1
Dibenzofuran	10	U	10	1.1	ug/L		12/11/21 08:01	12/11/21 17:46	1
Diethyl phthalate	10	U	10	0.98	ug/L		12/11/21 08:01	12/11/21 17:46	1
Dimethyl phthalate	10	U	10	0.77	ug/L		12/11/21 08:01	12/11/21 17:46	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		12/11/21 08:01	12/11/21 17:46	1
Di-n-octyl phthalate	10	U	10	0.75	ug/L		12/11/21 08:01	12/11/21 17:46	1
Fluoranthene	10	U	10	0.84	ug/L		12/11/21 08:01	12/11/21 17:46	1
Fluorene	10	U	10	0.91	ug/L		12/11/21 08:01	12/11/21 17:46	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		12/11/21 08:01	12/11/21 17:46	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		12/11/21 08:01	12/11/21 17:46	1
Hexachlorocyclopentadiene	10	U	10	3.6	ug/L		12/11/21 08:01	12/11/21 17:46	1
Hexachloroethane	2.0	U	2.0	0.80	ug/L		12/11/21 08:01	12/11/21 17:46	1

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248782-7

Date Collected: 12/09/21 11:00

Matrix: Water

Date Received: 12/09/21 19:00

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.94	ug/L		12/11/21 08:01	12/11/21 17:46	1
Isophorone	10	U	10	0.80	ug/L		12/11/21 08:01	12/11/21 17:46	1
Naphthalene	2.0	U	2.0	0.54	ug/L		12/11/21 08:01	12/11/21 17:46	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		12/11/21 08:01	12/11/21 17:46	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		12/11/21 08:01	12/11/21 17:46	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		12/11/21 08:01	12/11/21 17:46	1
Pentachlorophenol	20	U	20	1.4	ug/L		12/11/21 08:01	12/11/21 17:46	1
Phenanthrene	10	U	10	1.3	ug/L		12/11/21 08:01	12/11/21 17:46	1
Phenol	10	U	10	0.29	ug/L		12/11/21 08:01	12/11/21 17:46	1
Pyrene	10	U	10	1.6	ug/L		12/11/21 08:01	12/11/21 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	96		33 - 150	12/11/21 08:01	12/11/21 17:46	1
2-Fluorobiphenyl	92		42 - 127	12/11/21 08:01	12/11/21 17:46	1
2-Fluorophenol (Surr)	48		18 - 72	12/11/21 08:01	12/11/21 17:46	1
Nitrobenzene-d5 (Surr)	98		46 - 137	12/11/21 08:01	12/11/21 17:46	1
Phenol-d5 (Surr)	30		10 - 50	12/11/21 08:01	12/11/21 17:46	1
Terphenyl-d14 (Surr)	96		39 - 150	12/11/21 08:01	12/11/21 17:46	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.020	U	0.020	0.0030	ug/L		12/11/21 09:12	12/13/21 00:23	1
alpha-BHC	0.020	U	0.020	0.0070	ug/L		12/11/21 09:12	12/13/21 00:23	1
beta-BHC	0.020	U	0.020	0.015	ug/L		12/11/21 09:12	12/13/21 00:23	1
delta-BHC	0.020	U	0.020	0.0050	ug/L		12/11/21 09:12	12/13/21 00:23	1
gamma-BHC (Lindane)	0.020	U	0.020	0.012	ug/L		12/11/21 09:12	12/13/21 00:23	1
Chlordane (technical)	0.50	U	0.50	0.055	ug/L		12/11/21 09:12	12/13/21 00:23	1
4,4'-DDD	0.020	U	0.020	0.0060	ug/L		12/11/21 09:12	12/13/21 00:23	1
4,4'-DDE	0.020	U	0.020	0.0020	ug/L		12/11/21 09:12	12/13/21 00:23	1
4,4'-DDT	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/13/21 00:23	1
Dieldrin	0.020	U	0.020	0.0030	ug/L		12/11/21 09:12	12/13/21 00:23	1
Endosulfan I	0.020	U	0.020	0.0020	ug/L		12/11/21 09:12	12/13/21 00:23	1
Endosulfan II	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/13/21 00:23	1
Endosulfan sulfate	0.020	U	0.020	0.0060	ug/L		12/11/21 09:12	12/13/21 00:23	1
Endrin	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/13/21 00:23	1
Endrin aldehyde	0.020	U	0.020	0.0080	ug/L		12/11/21 09:12	12/13/21 00:23	1
Endrin ketone	0.020	U	0.020	0.0080	ug/L		12/11/21 09:12	12/13/21 00:23	1
Heptachlor	0.020	U	0.020	0.0030	ug/L		12/11/21 09:12	12/13/21 00:23	1
Heptachlor epoxide	0.020	U	0.020	0.0050	ug/L		12/11/21 09:12	12/13/21 00:23	1
Methoxychlor	0.020	U	0.020	0.0040	ug/L		12/11/21 09:12	12/13/21 00:23	1
Toxaphene	0.50	U	0.50	0.11	ug/L		12/11/21 09:12	12/13/21 00:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		10 - 150	12/11/21 09:12	12/13/21 00:23	1
Tetrachloro-m-xylene	70		10 - 150	12/11/21 09:12	12/13/21 00:23	1
DCB Decachlorobiphenyl	72		10 - 150	12/11/21 09:12	12/13/21 00:23	1
DCB Decachlorobiphenyl	83		10 - 150	12/11/21 09:12	12/13/21 00:23	1

Eurofins Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248782-7

Date Collected: 12/09/21 11:00

Matrix: Water

Date Received: 12/09/21 19:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 08:07	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		12/11/21 09:19	12/13/21 08:07	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		12/11/21 09:19	12/13/21 08:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	68		10 - 138	12/11/21 09:19	12/13/21 08:07	1
DCB Decachlorobiphenyl	73		10 - 138	12/11/21 09:19	12/13/21 08:07	1
Tetrachloro-m-xylene	94		10 - 150	12/11/21 09:19	12/13/21 08:07	1
Tetrachloro-m-xylene	66		10 - 150	12/11/21 09:19	12/13/21 08:07	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	1.2	U	1.2	0.13	ug/L		12/10/21 23:07	12/12/21 21:38	1
Silvex (2,4,5-TP)	1.2	U	1.2	0.11	ug/L		12/10/21 23:07	12/12/21 21:38	1
2,4,5-T	1.2	U	1.2	0.12	ug/L		12/10/21 23:07	12/12/21 21:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	111		28 - 150	12/10/21 23:07	12/12/21 21:38	1
2,4-Dichlorophenylacetic acid	113		28 - 150	12/10/21 23:07	12/12/21 21:38	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	2.0	U	2.0	0.29	ug/L		12/15/21 21:40	12/16/21 18:14	1
Aluminum	40.0	U	40.0	19.5	ug/L		12/15/21 21:40	12/16/21 18:14	1
Arsenic	2.0	U	2.0	0.89	ug/L		12/15/21 21:40	12/16/21 18:14	1
Barium	4.0	U	4.0	0.91	ug/L		12/15/21 21:40	12/16/21 18:14	1
Beryllium	0.80	U	0.80	0.13	ug/L		12/15/21 21:40	12/16/21 18:14	1
Calcium	62.6	J	500	53.6	ug/L		12/15/21 21:40	12/16/21 18:14	1
Cadmium	2.0	U	2.0	0.39	ug/L		12/15/21 21:40	12/16/21 18:14	1
Cobalt	4.0	U	4.0	0.71	ug/L		12/15/21 21:40	12/16/21 18:14	1
Chromium	4.0	U	4.0	2.5	ug/L		12/15/21 21:40	12/16/21 18:14	1
Copper	4.0	U	4.0	2.5	ug/L		12/15/21 21:40	12/16/21 18:14	1
Iron	120	U	120	58.2	ug/L		12/15/21 21:40	12/16/21 18:14	1
Potassium	200	U	200	112	ug/L		12/15/21 21:40	12/16/21 18:14	1
Magnesium	200	U	200	46.9	ug/L		12/15/21 21:40	12/16/21 18:14	1
Manganese	8.0	U	8.0	1.5	ug/L		12/15/21 21:40	12/16/21 18:14	1
Sodium	410	J	500	163	ug/L		12/15/21 21:40	12/16/21 18:14	1
Nickel	4.0	U	4.0	0.91	ug/L		12/15/21 21:40	12/16/21 18:14	1
Lead	1.2	U	1.2	0.84	ug/L		12/15/21 21:40	12/16/21 18:14	1
Antimony	2.0	U	2.0	0.76	ug/L		12/15/21 21:40	12/16/21 18:14	1
Selenium	2.5	U	2.5	0.59	ug/L		12/15/21 21:40	12/16/21 18:14	1
Thallium	0.80	U	0.80	0.21	ug/L		12/15/21 21:40	12/16/21 18:14	1
Vanadium	4.0	U	4.0	0.68	ug/L		12/15/21 21:40	12/16/21 18:14	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248782-7

Date Collected: 12/09/21 11:00

Matrix: Water

Date Received: 12/09/21 19:00

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	16.0	U	16.0	6.5	ug/L		12/15/21 21:40	12/16/21 18:14	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.091	ug/L		12/14/21 12:34	12/14/21 14:12	1

Client Sample ID: TRC-TB-12092021

Lab Sample ID: 460-248782-8

Date Collected: 12/09/21 11:05

Matrix: Water

Date Received: 12/09/21 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/10/21 22:26	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/10/21 22:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			12/10/21 22:26	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			12/10/21 22:26	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/10/21 22:26	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			12/10/21 22:26	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			12/10/21 22:26	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			12/10/21 22:26	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			12/10/21 22:26	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			12/10/21 22:26	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			12/10/21 22:26	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/10/21 22:26	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			12/10/21 22:26	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			12/10/21 22:26	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			12/10/21 22:26	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			12/10/21 22:26	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			12/10/21 22:26	1
Acetone	5.0	U	5.0	4.4	ug/L			12/10/21 22:26	1
Benzene	1.0	U	1.0	0.20	ug/L			12/10/21 22:26	1
Bromoform	1.0	U	1.0	0.54	ug/L			12/10/21 22:26	1
Bromomethane	1.0	U	1.0	0.55	ug/L			12/10/21 22:26	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			12/10/21 22:26	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/10/21 22:26	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/10/21 22:26	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			12/10/21 22:26	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/10/21 22:26	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/10/21 22:26	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/10/21 22:26	1
Chloromethane	1.0	U	1.0	0.40	ug/L			12/10/21 22:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/10/21 22:26	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			12/10/21 22:26	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			12/10/21 22:26	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/10/21 22:26	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			12/10/21 22:26	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			12/10/21 22:26	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			12/10/21 22:26	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			12/10/21 22:26	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			12/10/21 22:26	1

Eurofins Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248782-1

Client Sample ID: TRC-TB-12092021

Lab Sample ID: 460-248782-8

Date Collected: 12/09/21 11:05

Matrix: Water

Date Received: 12/09/21 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			12/10/21 22:26	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			12/10/21 22:26	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/10/21 22:26	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			12/10/21 22:26	1
o-Xylene	1.0	U	1.0	0.36	ug/L			12/10/21 22:26	1
Styrene	1.0	U	1.0	0.42	ug/L			12/10/21 22:26	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			12/10/21 22:26	1
Toluene	1.0	U	1.0	0.38	ug/L			12/10/21 22:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/10/21 22:26	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			12/10/21 22:26	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/10/21 22:26	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			12/10/21 22:26	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/10/21 22:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		75 - 123		12/10/21 22:26	1
4-Bromofluorobenzene	100		76 - 120		12/10/21 22:26	1
Dibromofluoromethane (Surr)	102		77 - 124		12/10/21 22:26	1
Toluene-d8 (Surr)	105		80 - 120		12/10/21 22:26	1

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Edison Job No.: 460-248782-1

SDG No.: _____

Matrix: Solid Level: Low Lab File ID: V12414.D

Lab ID: LCS 460-818505/4 Client ID: _____

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	0.0200	0.0195	97	78-132	
1,1,2,2-Tetrachloroethane	0.0200	0.0278	139	69-123	*
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0200	0.0245	122	78-136	
1,1,2-Trichloroethane	0.0200	0.0226	113	75-120	
1,1-Dichloroethane	0.0200	0.0225	112	76-129	
1,1-Dichloroethene	0.0200	0.0245	122	77-132	
1,2,3-Trichlorobenzene	0.0200	0.0252	126	65-144	
1,2,4-Trichlorobenzene	0.0200	0.0243	121	75-120	*
1,2-Dibromo-3-Chloropropane	0.0200	0.0269	135	60-126	*
1,2-Dichlorobenzene	0.0200	0.0237	119	80-120	
1,2-Dichloroethane	0.0200	0.0186	93	70-132	
1,2-Dichloropropane	0.0200	0.0226	113	73-124	
1,3-Dichlorobenzene	0.0200	0.0240	120	80-120	
1,4-Dichlorobenzene	0.0200	0.0236	118	80-120	
2-Butanone (MEK)	0.100	0.110	110	75-120	
2-Hexanone	0.100	0.130	130	78-120	*
4-Methyl-2-pentanone (MIBK)	0.100	0.130	130	80-122	*
Acetone	0.100	0.100	100	63-131	
Benzene	0.0200	0.0227	114	80-123	
Bromoform	0.0200	0.0258	129	48-142	
Bromomethane	0.0200	0.0259	129	46-150	
Carbon disulfide	0.0200	0.0247	124	67-136	
Carbon tetrachloride	0.0200	0.0200	100	72-136	
Chlorobenzene	0.0200	0.0229	114	80-120	
Chlorobromomethane	0.0200	0.0227	114	76-127	
Chlorodibromomethane	0.0200	0.0221	111	62-128	
Chloroethane	0.0200	0.0209	104	49-150	
Chloroform	0.0200	0.0223	111	79-126	
Chloromethane	0.0200	0.0196	98	48-150	
cis-1,2-Dichloroethene	0.0200	0.0222	111	80-123	
cis-1,3-Dichloropropene	0.0200	0.0227	113	72-120	
Cyclohexane	0.0200	0.0235	118	80-132	
Dichlorobromomethane	0.0200	0.0203	102	73-124	
Dichlorodifluoromethane	0.0200	0.0165	83	40-146	
Ethylbenzene	0.0200	0.0225	113	80-120	
Ethylene Dibromide	0.0200	0.0220	110	79-120	
Isopropylbenzene	0.0200	0.0230	115	80-120	
Methyl acetate	0.0400	0.0501	125	58-143	
Methyl tert-butyl ether	0.0200	0.0231	115	80-125	
Methylcyclohexane	0.0200	0.0235	118	79-133	
Methylene Chloride	0.0200	0.0224	112	76-127	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Edison

Job No.: 460-248782-1

SDG No.: _____

Matrix: Solid

Level: Low

Lab File ID: V12431.D

Lab ID: 460-248782-1 MS

Client ID: TRC-SB-02 (0-0.5) MS

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	0.0324	0.0027 U	0.0336	104	78-132	
1,1,2,2-Tetrachloroethane	0.0324	0.0027 U	0.0402	124	69-123	*
1,1,2-Trichloro-1,2,2-trifluor oethane	0.0324	0.0027 U	0.0410	127	78-136	
1,1,2-Trichloroethane	0.0324	0.0027 U	0.0401	124	75-120	*
1,1-Dichloroethane	0.0324	0.0027 U	0.0426	131	76-129	*
1,1-Dichloroethene	0.0324	0.0027 U	0.0422	130	77-132	
1,2,3-Trichlorobenzene	0.0324	0.0027 U	0.0172	53	65-144	*
1,2,4-Trichlorobenzene	0.0324	0.0027 U	0.0201	62	75-120	*
1,2-Dibromo-3-Chloropropane	0.0324	0.0027 U	0.0326	101	60-126	
1,2-Dichlorobenzene	0.0324	0.0027 U	0.0324	100	80-120	
1,2-Dichloroethane	0.0324	0.0027 U	0.0316	98	70-132	
1,2-Dichloropropane	0.0324	0.0027 U	0.0409	126	73-124	*
1,3-Dichlorobenzene	0.0324	0.0027 U	0.0339	105	80-120	
1,4-Dichlorobenzene	0.0324	0.0027 U	0.0333	103	80-120	
2-Butanone (MEK)	0.162	0.013 U	0.191	118	75-120	
2-Hexanone	0.162	0.013 U	0.249	154	78-120	*
4-Methyl-2-pentanone (MIBK)	0.162	0.013 U	0.249	154	80-122	*
Acetone	0.162	0.016 U	0.185	114	63-131	
Benzene	0.0324	0.0027 U	0.0367	113	80-123	
Bromoform	0.0324	0.0027 U	0.0371	115	48-142	
Bromomethane	0.0324	0.0054 U	0.0378	117	46-150	
Carbon disulfide	0.0324	0.0027 U	0.0419	129	67-136	
Carbon tetrachloride	0.0324	0.0027 U	0.0343	106	72-136	
Chlorobenzene	0.0324	0.0027 U	0.0360	111	80-120	
Chlorobromomethane	0.0324	0.0027 U	0.0382	118	76-127	
Chlorodibromomethane	0.0324	0.0027 U	0.0384	119	62-128	
Chloroethane	0.0324	0.0027 U	0.0293	91	49-150	
Chloroform	0.0324	0.0027 U	0.0357	110	79-126	
Chloromethane	0.0324	0.0027 U	0.0261	81	48-150	
cis-1,2-Dichloroethene	0.0324	0.0027 U	0.0390	120	80-123	
cis-1,3-Dichloropropene	0.0324	0.0027 U	0.0384	119	72-120	
Cyclohexane	0.0324	0.0027 U	0.0348	108	80-132	
Dichlorobromomethane	0.0324	0.0027 U	0.0359	111	73-124	
Dichlorodifluoromethane	0.0324	0.0027 U	0.0214	66	40-146	
Ethylbenzene	0.0324	0.0027 U	0.0353	109	80-120	
Ethylene Dibromide	0.0324	0.0027 U	0.0352	109	79-120	
Isopropylbenzene	0.0324	0.0027 U	0.0341	105	80-120	
Methyl acetate	0.0648	0.013 U	0.0914	141	58-143	
Methyl tert-butyl ether	0.0324	0.0027 U	0.0392	121	80-125	
Methylcyclohexane	0.0324	0.0027 U	0.0314	97	79-133	
Methylene Chloride	0.0324	0.0054 U	0.0399	123	76-127	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: V12431.D
 Lab ID: 460-248782-1 MS Client ID: TRC-SB-02 (0-0.5) MS

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC	QC LIMITS REC	#
m-Xylene & p-Xylene	0.0324	0.0027 U	0.0360	111	80-120	
o-Xylene	0.0324	0.0027 U	0.0380	117	80-120	
Styrene	0.0324	0.0027 U	0.0367	113	80-120	
Tetrachloroethene	0.0324	0.0031	0.0364	103	78-123	
Toluene	0.0324	0.0027 U	0.0348	108	80-120	
trans-1,2-Dichloroethene	0.0324	0.0027 U	0.0418	129	78-128	*
trans-1,3-Dichloropropene	0.0324	0.0027 U	0.0361	111	68-120	
Trichloroethene	0.0324	0.0027 U	0.0366	113	79-120	
Trichlorofluoromethane	0.0324	0.0027 U	0.0270	83	67-142	
Vinyl chloride	0.0324	0.0027 U	0.0304	94	56-147	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Edison

Job No.: 460-248782-1

SDG No.: _____

Matrix: Solid Level: Low

Lab File ID: V12432.D

Lab ID: 460-248782-1 MSD

Client ID: TRC-SB-02 (0-0.5) MSD

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1,1-Trichloroethane	0.0315	0.0265	84	24	30	78-132	
1,1,2,2-Tetrachloroethane	0.0315	0.0332	106	19	30	69-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0315	0.0251	80	48	30	78-136	*
1,1,2-Trichloroethane	0.0315	0.0360	114	11	30	75-120	
1,1-Dichloroethane	0.0315	0.0311	99	31	30	76-129	*
1,1-Dichloroethene	0.0315	0.0280	89	41	30	77-132	*
1,2,3-Trichlorobenzene	0.0315	0.0112	36	42	30	65-144	*
1,2,4-Trichlorobenzene	0.0315	0.0127	40	45	30	75-120	*
1,2-Dibromo-3-Chloropropane	0.0315	0.0269	85	19	30	60-126	
1,2-Dichlorobenzene	0.0315	0.0219	70	39	30	80-120	*
1,2-Dichloroethane	0.0315	0.0261	83	19	30	70-132	
1,2-Dichloropropane	0.0315	0.0310	98	28	30	73-124	
1,3-Dichlorobenzene	0.0315	0.0230	73	38	30	80-120	*
1,4-Dichlorobenzene	0.0315	0.0226	72	38	30	80-120	*
2-Butanone (MEK)	0.157	0.166	105	14	30	75-120	
2-Hexanone	0.157	0.184	117	30	30	78-120	
4-Methyl-2-pentanone (MIBK)	0.157	0.202	128	21	30	80-122	*
Acetone	0.157	0.136	86	31	30	63-131	*
Benzene	0.0315	0.0331	105	10	30	80-123	
Bromoform	0.0315	0.0309	98	18	30	48-142	
Bromomethane	0.0315	0.0304	97	22	30	46-150	
Carbon disulfide	0.0315	0.0265	84	45	30	67-136	*
Carbon tetrachloride	0.0315	0.0260	83	27	30	72-136	
Chlorobenzene	0.0315	0.0279	89	25	30	80-120	
Chlorobromomethane	0.0315	0.0294	93	26	30	76-127	
Chlorodibromomethane	0.0315	0.0341	108	12	30	62-128	
Chloroethane	0.0315	0.0233	74	23	30	49-150	
Chloroform	0.0315	0.0291	92	21	30	79-126	
Chloromethane	0.0315	0.0219	69	18	30	48-150	
cis-1,2-Dichloroethene	0.0315	0.0289	92	30	30	80-123	
cis-1,3-Dichloropropene	0.0315	0.0332	105	15	30	72-120	
Cyclohexane	0.0315	0.0254	81	31	30	80-132	*
Dichlorobromomethane	0.0315	0.0275	87	26	30	73-124	
Dichlorodifluoromethane	0.0315	0.0186	59	14	30	40-146	
Ethylbenzene	0.0315	0.0275	87	25	30	80-120	
Ethylene Dibromide	0.0315	0.0307	98	14	30	79-120	
Isopropylbenzene	0.0315	0.0254	81	29	30	80-120	
Methyl acetate	0.0630	0.0711	113	25	30	58-143	
Methyl tert-butyl ether	0.0315	0.0277	88	34	30	80-125	*
Methylcyclohexane	0.0315	0.0215	68	37	30	79-133	*
Methylene Chloride	0.0315	0.0262	83	41	30	76-127	*

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: V12432.D
 Lab ID: 460-248782-1 MSD Client ID: TRC-SB-02 (0-0.5) MSD

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
m-Xylene & p-Xylene	0.0315	0.0277	88	26	30	80-120	
o-Xylene	0.0315	0.0288	91	28	30	80-120	
Styrene	0.0315	0.0278	88	27	30	80-120	
Tetrachloroethene	0.0315	0.0307	88	17	30	78-123	
Toluene	0.0315	0.0290	92	18	30	80-120	
trans-1,2-Dichloroethene	0.0315	0.0256	81	48	30	78-128	*
trans-1,3-Dichloropropene	0.0315	0.0317	101	13	30	68-120	
Trichloroethene	0.0315	0.0262	83	33	30	79-120	*
Trichlorofluoromethane	0.0315	0.0208	66	26	30	67-142	*
Vinyl chloride	0.0315	0.0240	76	23	30	56-147	

Column to be used to flag recovery and RPD values

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Edison Job No.: 460-248782-1

SDG No.: _____

Lab Sample ID: CCVIS 460-818505/3 Calibration Date: 12/13/2021 06:54

Instrument ID: CVOAMS7 Calib Start Date: 12/04/2021 00:01

GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 12/04/2021 04:34

Lab File ID: V12413.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.7765	0.5746	0.1000	14.8	20.0	-26.0*	20.0
Chlorodifluoromethane	Ave	0.0931	0.0758		16.3	20.0	-18.5	20.0
Chloromethane	Ave	0.6082	0.5204	0.1000	17.1	20.0	-14.4	20.0
Vinyl chloride	Ave	0.6483	0.6188	0.1000	19.1	20.0	-4.6	20.0
Butadiene	Ave	0.6309	0.6631		21.0	20.0	5.1	20.0
Bromomethane	Ave	0.3145	0.4091	0.1000	26.0	20.0	30.1	50.0
Chloroethane	Ave	0.4092	0.4235	0.1000	20.7	20.0	3.5	50.0
Dichlorofluoromethane	Ave	0.9349	1.039		22.2	20.0	11.2	20.0
Trichlorofluoromethane	Ave	0.9142	0.9357	0.1000	20.5	20.0	2.4	20.0
Pentane	Ave	0.0957	0.1207		50.5	40.0	26.2*	20.0
Ethanol	Ave	0.0799	0.1084		1080	800	35.6	50.0
Ethyl ether	Ave	0.4206	0.5085		24.2	20.0	20.9*	20.0
2-Methyl-1,3-butadiene	Qua2		0.5470		24.3	20.0	21.4*	20.0
1,2-Dichloro-1,1,2-trifluoro ethane	Ave	0.4372	0.4824		22.1	20.0	10.3	20.0
1,1,1-Trifluoro-2,2-dichloro ethane	Ave	0.7000	0.8027		22.9	20.0	14.7	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.5097	0.6020	0.1000	23.6	20.0	18.1	20.0
Acrolein	Ave	2.027	1.812		272	304	-10.6	50.0
1,1-Dichloroethene	Ave	0.4628	0.5472	0.1000	23.6	20.0	18.2	20.0
Acetone	Ave	1.554	1.633	0.0500	105	100	5.0	50.0
Iodomethane	QuaF		0.6793		27.3	20.0	36.4*	20.0
Isopropyl alcohol	Ave	1.068	1.503		281	200	40.7	50.0
Carbon disulfide	Ave	1.679	2.012	0.1000	24.0	20.0	19.9	50.0
3-Chloro-1-propene	Ave	0.9740	1.045		21.4	20.0	7.2	20.0
Methyl acetate	Ave	0.4025	0.5087	0.1000	50.6	40.0	26.4*	20.0
Acetonitrile	QuaF		1.244		292	200	45.8*	20.0
Methylene Chloride	Ave	0.5532	0.6060	0.1000	21.9	20.0	9.5	20.0
2-Methyl-2-propanol	Ave	1.964	2.530		258	200	28.8	50.0
Methyl tert-butyl ether	Ave	1.569	1.780	0.1000	22.7	20.0	13.4	20.0
trans-1,2-Dichloroethene	Ave	0.5385	0.6186	0.1000	23.0	20.0	14.9	20.0
Acrylonitrile	Ave	4.942	5.694		230	200	15.2	20.0
Hexane	Ave	0.7828	1.024		26.2	20.0	30.8*	20.0
Isopropyl ether	Ave	1.462	1.630		22.3	20.0	11.5	20.0
1,1-Dichloroethane	Ave	0.9324	0.9438	0.2000	20.2	20.0	1.2	20.0
Vinyl acetate	Ave	0.8945	0.999		44.7	40.0	11.7	20.0
2-Chloro-1,3-butadiene	Ave	0.4501	0.5017		22.3	20.0	11.5	20.0
Tert-butyl ethyl ether	Ave	0.6515	0.7046		21.6	20.0	8.1	20.0
2,2-Dichloropropane	Ave	0.2709	0.2605		19.2	20.0	-3.9	20.0
2-Butanone (MEK)	Ave	0.6006	0.6736	0.0500	112	100	12.2	50.0
cis-1,2-Dichloroethene	Ave	0.5535	0.5817	0.1000	21.0	20.0	5.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Edison Job No.: 460-248782-1

SDG No.: _____

Lab Sample ID: CCVIS 460-818505/3 Calibration Date: 12/13/2021 06:54

Instrument ID: CVOAMS7 Calib Start Date: 12/04/2021 00:01

GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 12/04/2021 04:34

Lab File ID: V12413.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl acetate	Ave	0.5231	0.5746		43.9	40.0	9.8	20.0
Methyl acrylate	Qua2		0.4708		24.6	20.0	23.1*	20.0
Propionitrile	Ave	0.5809	0.7424		256	200	27.8*	20.0
Chlorobromomethane	Ave	0.2671	0.2827		21.2	20.0	5.9	20.0
Tetrahydrofuran	Ave	0.6514	0.7486		46.0	40.0	14.9	20.0
Methacrylonitrile	Ave	0.2199	0.2569		234	200	16.8	20.0
Chloroform	Ave	0.9212	0.8887	0.2000	19.3	20.0	-3.5	20.0
Cyclohexane	Ave	0.8144	0.8830	0.1000	21.7	20.0	8.4	50.0
1,1,1-Trichloroethane	Ave	0.8558	0.7727	0.1000	18.1	20.0	-9.7	20.0
Carbon tetrachloride	Ave	0.7321	0.6930	0.1000	18.9	20.0	-5.4	20.0
1,1-Dichloropropene	Ave	0.7176	0.7450		20.8	20.0	3.8	20.0
Isobutyl alcohol	QuaF		0.5319		475	500	-5.0	20.0
Benzene	Ave	2.921	3.098	0.5000	21.2	20.0	6.1	20.0
Isopropyl acetate	Ave	1.498	1.512		20.2	20.0	1.0	20.0
Tert-amyl methyl ether	Ave	1.531	1.662		21.7	20.0	8.6	20.0
1,2-Dichloroethane	Ave	0.7190	0.6355	0.1000	17.7	20.0	-11.6	20.0
n-Heptane	Ave	0.8066	0.9144		22.7	20.0	13.4	20.0
n-Butanol	Ave	0.1981	0.2329		588	500	17.5	50.0
Trichloroethene	Ave	0.5241	0.5253	0.2000	20.0	20.0	0.2	20.0
Ethyl acrylate	Qua2		1.442		22.9	20.0	14.6	20.0
Methylcyclohexane	Ave	0.8984	1.001	0.1000	22.3	20.0	11.4	50.0
1,2-Dichloropropane	Ave	0.4705	0.5147	0.1000	21.9	20.0	9.4	20.0
Methyl methacrylate	Ave	0.1349	0.1682		49.9	40.0	24.7*	20.0
1,4-Dioxane	Ave	2.436	2.779		456	400	14.1	50.0
Dibromomethane	Ave	0.3022	0.2861		18.9	20.0	-5.3	20.0
n-Propyl acetate	Ave	0.6675	0.8198		24.6	20.0	22.8*	20.0
Dichlorobromomethane	Ave	0.6508	0.6332	0.2000	19.5	20.0	-2.7	20.0
2-Nitropropane	Ave	0.1380	0.1406		40.8	40.0	1.9	20.0
2-Chloroethyl vinyl ether	Ave	0.2511	0.3019		24.1	20.0	20.3*	20.0
Epichlorohydrin	Ave	0.4219	0.5347		507	400	26.7*	20.0
cis-1,3-Dichloropropene	Ave	1.119	1.186	0.2000	21.2	20.0	6.0	50.0
4-Methyl-2-pentanone (MIBK)	Ave	3.565	4.605	0.0500	129	100	29.2	50.0
Toluene	Ave	3.167	3.333	0.4000	21.0	20.0	5.2	20.0
trans-1,3-Dichloropropene	Ave	1.001	1.211	0.1000	24.2	20.0	21.0	50.0
Ethyl methacrylate	Ave	0.5303	0.6895		26.0	20.0	30.0*	20.0
1,1,2-Trichloroethane	Ave	0.4814	0.6014	0.1000	25.0	20.0	24.9*	20.0
Tetrachloroethene	Ave	0.7421	0.8239	0.2000	22.2	20.0	11.0	20.0
1,3-Dichloropropane	Ave	0.9928	1.113		22.4	20.0	12.1	20.0
2-Hexanone	Ave	2.315	2.906	0.0500	126	100	25.5	50.0
n-Butyl acetate	Ave	0.1755	0.2036		23.2	20.0	16.0	20.0
Chlorodibromomethane	Ave	0.6406	0.6895	0.1000	21.5	20.0	7.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Edison Job No.: 460-248782-1

SDG No.: _____

Lab Sample ID: CCVIS 460-818505/3 Calibration Date: 12/13/2021 06:54

Instrument ID: CVOAMS7 Calib Start Date: 12/04/2021 00:01

GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 12/04/2021 04:34

Lab File ID: V12413.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethylene Dibromide	Ave	0.5907	0.6226	0.1000	21.1	20.0	5.4	20.0
Chlorobenzene	Ave	1.839	1.928	0.5000	21.0	20.0	4.9	20.0
Ethylbenzene	Ave	0.9661	1.017	0.1000	21.1	20.0	5.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.6365	0.6707		21.1	20.0	5.4	20.0
m-Xylene & p-Xylene	Ave	1.179	1.270	0.1000	21.5	20.0	7.7	20.0
n-Butyl acrylate	Qua2		0.5093		25.7	20.0	28.4*	20.0
o-Xylene	Ave	1.089	1.219	0.3000	22.4	20.0	12.0	20.0
Styrene	Ave	1.794	2.089	0.3000	23.3	20.0	16.4	20.0
Amyl acetate (mixed isomers)	Qua2		2.145		26.2	20.0	30.9*	20.0
Bromoform	Ave	0.4067	0.4964	0.1000	24.4	20.0	22.1*	20.0
Isopropylbenzene	Ave	2.989	3.496	0.1000	23.4	20.0	17.0	20.0
Bromobenzene	Ave	1.420	1.713		24.1	20.0	20.7*	20.0
1,1,2,2-Tetrachloroethane	Ave	1.430	1.912	0.3000	26.7	20.0	33.7*	20.0
N-Propylbenzene	Ave	1.582	1.832		23.2	20.0	15.8	20.0
1,2,3-Trichloropropane	Ave	0.4634	0.5861		25.3	20.0	26.5*	20.0
trans-1,4-Dichloro-2-butene	Qua2		0.5501		26.9	20.0	34.4*	20.0
2-Chlorotoluene	Ave	1.373	1.580		23.0	20.0	15.1	20.0
4-Ethyltoluene	Ave	5.629	6.803		24.2	20.0	20.9*	20.0
1,3,5-Trimethylbenzene	Ave	4.962	5.594		22.5	20.0	12.7	20.0
4-Chlorotoluene	Ave	4.594	5.382		23.4	20.0	17.1	20.0
Butyl Methacrylate	Qua2		1.702		27.4	20.0	36.9*	20.0
tert-Butylbenzene	Ave	4.314	4.886		22.7	20.0	13.3	20.0
1,2,4-Trimethylbenzene	Ave	4.858	5.760		23.7	20.0	18.6	20.0
sec-Butylbenzene	Ave	6.227	7.357		23.6	20.0	18.1	20.0
1,3-Dichlorobenzene	Ave	2.697	3.067	0.6000	22.7	20.0	13.7	20.0
4-Isopropyltoluene	Ave	5.353	5.991		22.4	20.0	11.9	20.0
1,4-Dichlorobenzene	Ave	2.794	3.109	0.5000	22.3	20.0	11.3	20.0
1,2,3-Trimethylbenzene	Ave	5.097	5.478		21.5	20.0	7.5	20.0
Benzyl chloride	Qua2		0.6743		26.1	20.0	30.4	50.0
Indan	Ave	1.688	1.932		22.9	20.0	14.4	20.0
p-Diethylbenzene	Ave	2.764	3.030		21.9	20.0	9.6	20.0
n-Butylbenzene	Ave	2.833	2.955		20.9	20.0	4.3	20.0
1,2-Dichlorobenzene	Ave	2.669	2.848	0.4000	21.3	20.0	6.7	20.0
1,2,4,5-Tetramethylbenzene	Ave	4.687	5.025		21.4	20.0	7.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.3647	0.4352	0.0500	23.9	20.0	19.4	50.0
1,3,5-Trichlorobenzene	Ave	2.203	2.326		21.1	20.0	5.6	20.0
1,2,4-Trichlorobenzene	Ave	1.999	2.157	0.2000	21.6	20.0	7.9	20.0
Hexachlorobutadiene	Ave	1.085	1.130		20.8	20.0	4.1	20.0
Naphthalene	Ave	4.789	5.700		23.8	20.0	19.0	50.0
1,2,3-Trichlorobenzene	Ave	1.909	2.074		21.7	20.0	8.6	20.0
Dibromofluoromethane (Surr)	Ave	0.3037	0.2945		48.5	50.0	-3.0	20.0

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: L347832.d
 Lab ID: LCS 460-818202/2-A Client ID: _____

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
1,1'-Biphenyl	3.33	3.36	101	65-110	
1,2,4,5-Tetrachlorobenzene	3.33	3.31	99	64-110	
1,4-Dioxane	3.33	2.82	85	31-81	*
2,2'-oxybis[1-chloropropane]	3.33	3.63	109	49-109	
2,3,4,6-Tetrachlorophenol	3.33	3.43	103	58-113	
2,4,5-Trichlorophenol	3.33	3.28	98	64-112	
2,4,6-Trichlorophenol	3.33	3.37	101	63-113	
2,4-Dichlorophenol	3.33	3.27	98	66-113	
2,4-Dimethylphenol	3.33	3.20	96	63-107	
2,4-Dinitrophenol	6.67	6.63	100	25-150	
2,4-Dinitrotoluene	3.33	3.51	105	65-124	
2,6-Dinitrotoluene	3.33	3.51	105	67-121	
2-Chloronaphthalene	3.33	3.32	100	65-109	
2-Chlorophenol	3.33	3.07	92	63-106	
2-Methylnaphthalene	3.33	3.08	92	64-108	
2-Methylphenol	3.33	3.20	96	63-108	
2-Nitroaniline	3.33	3.50	105	59-119	
2-Nitrophenol	3.33	3.24	97	64-112	
3,3'-Dichlorobenzidine	3.33	3.43	103	17-101	*
3-Nitroaniline	3.33	3.40	102	31-102	
4,6-Dinitro-2-methylphenol	6.67	7.03	105	44-136	
4-Bromophenyl phenyl ether	3.33	3.45	104	67-113	
4-Chloro-3-methylphenol	3.33	3.34	100	66-114	
4-Chloroaniline	3.33	3.19	96	20-98	
4-Chlorophenyl phenyl ether	3.33	3.39	102	66-110	
4-Methylphenol	3.33	3.10	93	61-108	
4-Nitroaniline	3.33	3.33	100	50-110	
4-Nitrophenol	6.67	7.18	108	47-123	
Acenaphthene	3.33	3.43	103	53-110	
Acenaphthylene	3.33	3.25	97	64-108	
Acetophenone	3.33	3.09	93	61-103	
Anthracene	3.33	3.42	103	67-114	
Atrazine	1.33	1.43	107	44-145	
Benzaldehyde	1.33	1.36	102	43-150	
Benzo[a]anthracene	3.33	3.35	100	67-115	
Benzo[a]pyrene	3.33	3.33	100	73-123	
Benzo[b]fluoranthene	3.33	3.46	104	70-125	
Benzo[g,h,i]perylene	3.33	3.42	103	61-113	
Benzo[k]fluoranthene	3.33	3.58	107	67-115	
Bis(2-chloroethoxy)methane	3.33	3.31	99	62-107	
Bis(2-chloroethyl)ether	3.33	3.30	99	60-107	
Bis(2-ethylhexyl) phthalate	3.33	3.88	116	59-111	*

Column to be used to flag recovery and RPD values

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: L347833.d
 Lab ID: LCSD 460-818202/3-A Client ID: _____

COMPOUND	SPIKE ADDED (mg/Kg)	LCSD CONCENTRATION (mg/Kg)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1'-Biphenyl	3.33	3.22	97	4	30	65-110	
1,2,4,5-Tetrachlorobenzene	3.33	3.12	94	6	30	64-110	
1,4-Dioxane	3.33	2.68	81	5	30	31-81	
2,2'-oxybis[1-chloropropane]	3.33	3.52	106	3	30	49-109	
2,3,4,6-Tetrachlorophenol	3.33	3.24	97	6	30	58-113	
2,4,5-Trichlorophenol	3.33	3.12	94	5	30	64-112	
2,4,6-Trichlorophenol	3.33	3.25	98	4	30	63-113	
2,4-Dichlorophenol	3.33	3.15	95	4	30	66-113	
2,4-Dimethylphenol	3.33	3.06	92	5	30	63-107	
2,4-Dinitrophenol	6.67	6.57	99	1	30	25-150	
2,4-Dinitrotoluene	3.33	3.44	103	2	30	65-124	
2,6-Dinitrotoluene	3.33	3.36	101	4	30	67-121	
2-Chloronaphthalene	3.33	3.17	95	5	30	65-109	
2-Chlorophenol	3.33	2.94	88	4	30	63-106	
2-Methylnaphthalene	3.33	3.00	90	3	30	64-108	
2-Methylphenol	3.33	3.04	91	5	30	63-108	
2-Nitroaniline	3.33	3.40	102	3	30	59-119	
2-Nitrophenol	3.33	3.06	92	6	30	64-112	
3,3'-Dichlorobenzidine	3.33	3.26	98	5	30	17-101	
3-Nitroaniline	3.33	3.26	98	4	30	31-102	
4,6-Dinitro-2-methylphenol	6.67	6.61	99	6	30	44-136	
4-Bromophenyl phenyl ether	3.33	3.26	98	6	30	67-113	
4-Chloro-3-methylphenol	3.33	3.22	97	4	30	66-114	
4-Chloroaniline	3.33	3.05	91	5	30	20-98	
4-Chlorophenyl phenyl ether	3.33	3.24	97	5	30	66-110	
4-Methylphenol	3.33	2.97	89	4	30	61-108	
4-Nitroaniline	3.33	3.26	98	2	30	50-110	
4-Nitrophenol	6.67	7.08	106	1	30	47-123	
Acenaphthene	3.33	3.32	100	3	30	53-110	
Acenaphthylene	3.33	3.06	92	6	30	64-108	
Acetophenone	3.33	2.93	88	6	30	61-103	
Anthracene	3.33	3.27	98	4	30	67-114	
Atrazine	1.33	1.38	104	3	30	44-145	
Benzaldehyde	1.33	1.30	98	4	30	43-150	
Benzo[a]anthracene	3.33	3.23	97	3	30	67-115	
Benzo[a]pyrene	3.33	3.15	95	5	30	73-123	
Benzo[b]fluoranthene	3.33	3.28	98	5	30	70-125	
Benzo[g,h,i]perylene	3.33	3.14	94	9	30	61-113	
Benzo[k]fluoranthene	3.33	3.39	102	5	30	67-115	
Bis(2-chloroethoxy)methane	3.33	3.15	94	5	30	62-107	
Bis(2-chloroethyl)ether	3.33	3.10	93	6	30	60-107	
Bis(2-ethylhexyl) phthalate	3.33	3.72	112	4	30	59-111	*

Column to be used to flag recovery and RPD values

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Edison

Job No.: 460-248782-1

SDG No.: _____

Matrix: Solid Level: Low

Lab File ID: L347858.d

Lab ID: 460-248782-1 MS

Client ID: TRC-SB-02 (0-0.5) MS

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC	QC LIMITS REC	#
1,1'-Biphenyl	3.63	0.0052 J	3.70	102	65-110	
1,2,4,5-Tetrachlorobenzene	3.63	0.36 U	3.62	100	64-110	
1,4-Dioxane	3.63	0.036 U	2.36	65	31-81	
2,2'-oxybis[1-chloropropane]	3.63	0.36 U	4.04	111	49-109	*
2,3,4,6-Tetrachlorophenol	3.63	0.36 U	3.69	102	58-113	
2,4,5-Trichlorophenol	3.63	0.36 U	3.66	101	64-112	
2,4,6-Trichlorophenol	3.63	0.14 U	3.67	101	63-113	
2,4-Dichlorophenol	3.63	0.14 U	3.71	102	66-113	
2,4-Dimethylphenol	3.63	0.36 U	3.62	100	63-107	
2,4-Dinitrophenol	7.25	0.29 U	0.820	11	25-150	*
2,4-Dinitrotoluene	3.63	0.073 U	3.55	98	65-124	
2,6-Dinitrotoluene	3.63	0.073 U	3.59	99	67-121	
2-Chloronaphthalene	3.63	0.36 U	3.70	102	65-109	
2-Chlorophenol	3.63	0.36 U	3.57	98	63-106	
2-Methylnaphthalene	3.63	0.015 J	3.41	93	64-108	
2-Methylphenol	3.63	0.36 U	3.66	101	63-108	
2-Nitroaniline	3.63	0.36 U	3.85	106	59-119	
2-Nitrophenol	3.63	0.36 U	3.24	89	64-112	
3,3'-Dichlorobenzidine	3.63	0.14 U	2.49	69	17-101	
3-Nitroaniline	3.63	0.36 U	3.72	103	31-102	*
4,6-Dinitro-2-methylphenol	7.25	0.29 U	0.929	13	44-136	*
4-Bromophenyl phenyl ether	3.63	0.36 U	3.62	100	67-113	
4-Chloro-3-methylphenol	3.63	0.36 U	3.75	103	66-114	
4-Chloroaniline	3.63	0.36 U	2.42	67	20-98	
4-Chlorophenyl phenyl ether	3.63	0.36 U	3.69	102	66-110	
4-Methylphenol	3.63	0.36 U	3.56	98	61-108	
4-Nitroaniline	3.63	0.36 U	3.29	91	50-110	
4-Nitrophenol	7.25	0.73 U	8.11	112	47-123	
Acenaphthene	3.63	0.016 J	3.20	88	53-110	
Acenaphthylene	3.63	0.034 J	3.62	99	64-108	
Acetophenone	3.63	0.36 U	3.36	93	61-103	
Anthracene	3.63	0.065 J	3.73	101	67-114	
Atrazine	1.45	0.14 U	1.41	97	44-145	
Benzaldehyde	1.45	0.36 U	1.38	95	43-150	
Benzo[a]anthracene	3.63	0.22	3.83	100	67-115	
Benzo[a]pyrene	3.63	0.22	3.80	99	73-123	
Benzo[b]fluoranthene	3.63	0.37	4.62	117	70-125	
Benzo[g,h,i]perylene	3.63	0.11 J	2.45	64	61-113	
Benzo[k]fluoranthene	3.63	0.11	4.25	114	67-115	
Bis(2-chloroethoxy)methane	3.63	0.36 U	3.65	101	62-107	
Bis(2-chloroethyl)ether	3.63	0.036 U	3.63	100	60-107	
Bis(2-ethylhexyl) phthalate	3.63	0.17 J	3.92	104	59-111	

Column to be used to flag recovery and RPD values

FORM III 8270E

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: L347858.d
 Lab ID: 460-248782-1 MS Client ID: TRC-SB-02 (0-0.5) MS

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC	QC LIMITS REC	#
Butyl benzyl phthalate	3.63	0.085 J	3.77	102	62-113	
Caprolactam	1.45	0.36 U	1.58	109	59-140	
Carbazole	3.63	0.027 J	3.69	101	64-113	
Chrysene	3.63	0.21 J	3.75	98	71-122	
Dibenz (a,h) anthracene	3.63	0.032 J	2.78	76	66-119	
Dibenzofuran	3.63	0.014 J	3.70	102	65-108	
Diethyl phthalate	3.63	0.36 U	3.70	102	63-109	
Dimethyl phthalate	3.63	0.36 U	3.68	101	65-109	
Di-n-butyl phthalate	3.63	0.36 U	3.64	100	66-114	
Di-n-octyl phthalate	3.63	0.36 U	5.13	141	65-122	*
Fluoranthene	3.63	0.36	3.88	97	61-106	
Fluorene	3.63	0.026 J	3.76	103	65-109	
Hexachlorobenzene	3.63	0.036 U	3.51	97	61-113	
Hexachlorobutadiene	3.63	0.073 U	3.37	93	62-109	
Hexachlorocyclopentadiene	3.63	0.36 U	0.592	16	42-118	*
Hexachloroethane	3.63	0.036 U	3.01	83	61-102	
Indeno[1,2,3-cd]pyrene	3.63	0.13	2.93	77	62-121	
Isophorone	3.63	0.14 U	3.63	100	63-107	
Naphthalene	3.63	0.016 J	3.50	96	63-106	
Nitrobenzene	3.63	0.036 U	3.55	98	63-110	
N-Nitrosodi-n-propylamine	3.63	0.036 U	3.70	102	61-108	
N-Nitrosodiphenylamine	3.63	0.36 U	3.66	101	67-113	
Pentachlorophenol	7.25	0.29 U	7.36	101	44-126	
Phenanthrene	3.63	0.20 J	3.86	101	66-112	
Phenol	3.63	0.36 U	3.72	102	63-110	
Pyrene	3.63	0.35 J	3.91	98	61-111	

Column to be used to flag recovery and RPD values

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Edison

Job No.: 460-248782-1

SDG No.:

Matrix: Solid Level: Low

Lab File ID: L347859.d

Lab ID: 460-248782-1 MSD

Client ID: TRC-SB-02 (0-0.5) MSD

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1'-Biphenyl	3.63	3.87	106	4	30	65-110	
1,2,4,5-Tetrachlorobenzene	3.63	3.70	102	2	30	64-110	
1,4-Dioxane	3.63	2.59	71	10	30	31-81	
2,2'-oxybis[1-chloropropane]	3.63	4.13	114	2	30	49-109	*
2,3,4,6-Tetrachlorophenol	3.63	3.94	108	7	30	58-113	
2,4,5-Trichlorophenol	3.63	3.92	108	7	30	64-112	
2,4,6-Trichlorophenol	3.63	3.87	107	5	30	63-113	
2,4-Dichlorophenol	3.63	3.82	105	3	30	66-113	
2,4-Dimethylphenol	3.63	3.68	101	2	30	63-107	
2,4-Dinitrophenol	7.26	0.615	8	29	30	25-150	*
2,4-Dinitrotoluene	3.63	3.59	99	1	30	65-124	
2,6-Dinitrotoluene	3.63	3.65	101	2	30	67-121	
2-Chloronaphthalene	3.63	3.87	106	4	30	65-109	
2-Chlorophenol	3.63	3.64	100	2	30	63-106	
2-Methylnaphthalene	3.63	3.47	95	2	30	64-108	
2-Methylphenol	3.63	3.73	103	2	30	63-108	
2-Nitroaniline	3.63	3.95	109	3	30	59-119	
2-Nitrophenol	3.63	3.02	83	7	30	64-112	
3,3'-Dichlorobenzidine	3.63	2.55	70	2	30	17-101	
3-Nitroaniline	3.63	3.89	107	4	30	31-102	*
4,6-Dinitro-2-methylphenol	7.26	0.633	9	38	30	44-136	*
4-Bromophenyl phenyl ether	3.63	3.66	101	1	30	67-113	
4-Chloro-3-methylphenol	3.63	3.83	105	2	30	66-114	
4-Chloroaniline	3.63	2.32	64	4	30	20-98	
4-Chlorophenyl phenyl ether	3.63	3.71	102	1	30	66-110	
4-Methylphenol	3.63	3.58	99	0	30	61-108	
4-Nitroaniline	3.63	3.43	94	4	30	50-110	
4-Nitrophenol	7.26	8.44	116	4	30	47-123	
Acenaphthene	3.63	3.30	90	3	30	53-110	
Acenaphthylene	3.63	3.71	101	2	30	64-108	
Acetophenone	3.63	3.39	93	1	30	61-103	
Anthracene	3.63	3.79	103	2	30	67-114	
Atrazine	1.45	1.31	90	7	30	44-145	
Benzaldehyde	1.45	1.31	90	5	30	43-150	
Benzo[a]anthracene	3.63	3.93	102	2	30	67-115	
Benzo[a]pyrene	3.63	3.97	103	4	30	73-123	
Benzo[b]fluoranthene	3.63	4.77	121	3	30	70-125	
Benzo[g,h,i]perylene	3.63	2.60	68	6	30	61-113	
Benzo[k]fluoranthene	3.63	4.62	124	8	30	67-115	*
Bis(2-chloroethoxy)methane	3.63	3.64	100	0	30	62-107	
Bis(2-chloroethyl)ether	3.63	3.75	103	3	30	60-107	
Bis(2-ethylhexyl) phthalate	3.63	4.02	106	2	30	59-111	

Column to be used to flag recovery and RPD values

FORM III 8270E

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Edison

Job No.: 460-248782-1

SDG No.: _____

Matrix: Solid Level: Low

Lab File ID: L347859.d

Lab ID: 460-248782-1 MSD

Client ID: TRC-SB-02 (0-0.5) MSD

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Butyl benzyl phthalate	3.63	3.93	106	4	30	62-113	
Caprolactam	1.45	1.24	86	24	30	59-140	
Carbazole	3.63	3.78	103	2	30	64-113	
Chrysene	3.63	3.89	101	4	30	71-122	
Dibenz (a,h) anthracene	3.63	2.95	80	6	30	66-119	
Dibenzofuran	3.63	3.84	105	4	30	65-108	
Diethyl phthalate	3.63	3.74	103	1	30	63-109	
Dimethyl phthalate	3.63	3.78	104	3	30	65-109	
Di-n-butyl phthalate	3.63	3.64	100	0	30	66-114	
Di-n-octyl phthalate	3.63	5.65	156	10	30	65-122	*
Fluoranthene	3.63	4.13	104	6	30	61-106	
Fluorene	3.63	3.86	106	3	30	65-109	
Hexachlorobenzene	3.63	3.63	100	3	30	61-113	
Hexachlorobutadiene	3.63	3.42	94	1	30	62-109	
Hexachlorocyclopentadiene	3.63	0.425	12	33	30	42-118	*
Hexachloroethane	3.63	2.94	81	2	30	61-102	
Indeno[1,2,3-cd]pyrene	3.63	3.07	81	5	30	62-121	
Isophorone	3.63	3.70	102	2	30	63-107	
Naphthalene	3.63	3.62	99	4	30	63-106	
Nitrobenzene	3.63	3.68	101	4	30	63-110	
N-Nitrosodi-n-propylamine	3.63	3.75	103	1	30	61-108	
N-Nitrosodiphenylamine	3.63	3.84	106	5	30	67-113	
Pentachlorophenol	7.26	7.56	104	3	30	44-126	
Phenanthrene	3.63	3.95	103	2	30	66-112	
Phenol	3.63	3.82	105	3	30	63-110	
Pyrene	3.63	4.17	105	6	30	61-111	

Column to be used to flag recovery and RPD values

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Edison Job No.: 460-248782-1

SDG No.: _____

Lab Sample ID: ICV 460-812235/11 Calibration Date: 11/09/2021 12:53

Instrument ID: CBNAMS12 Calib Start Date: 11/09/2021 09:30

GC Column: Rtxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/09/2021 12:31

Lab File ID: L346932.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6029	0.5505		45700	50000	-8.7	30.0
N-Nitrosodimethylamine	Ave	0.9926	0.9316		46900	50000	-6.1	30.0
Pyridine	Ave	1.546	1.409		91100	100000	-8.9	30.0
Benzaldehyde	Ave	1.254	0.6981	0.0100	11100	20000	-44.3*	30.0
Phenol	Ave	1.932	1.853	0.8000	48000	50000	-4.1	30.0
Aniline	Ave	2.314	2.192		47400	50000	-5.3	30.0
Bis(2-chloroethyl)ether	Ave	1.396	1.384	0.7000	49600	50000	-0.9	30.0
2-Chlorophenol	Ave	1.431	1.366	0.8000	47700	50000	-4.6	30.0
n-Decane	Ave	2.007	1.914		47700	50000	-4.6	30.0
1,3-Dichlorobenzene	Ave	1.510	1.425		47200	50000	-5.6	30.0
1,4-Dichlorobenzene	Ave	1.532	1.458		47600	50000	-4.8	30.0
Benzyl alcohol	Ave	0.9621	0.9043		47000	50000	-6.0	30.0
1,2-Dichlorobenzene	Ave	1.446	1.379		47700	50000	-4.6	30.0
2-Methylphenol	Ave	1.301	1.226	0.7000	47100	50000	-5.8	30.0
2,2'-oxybis[1-chloropropane]	Ave	2.624	2.550	0.0100	48600	50000	-2.8	30.0
N-Methylaniline	Ave	2.273	2.096		46100	50000	-7.8	30.0
3 & 4 Methylphenol	Ave	1.498	1.428		47700	50000	-4.7	30.0
4-Methylphenol	Ave	1.498	1.428	0.6000	47700	50000	-4.7	30.0
Acetophenone	Ave	2.051	1.954	0.0100	47600	50000	-4.8	30.0
N-Nitrosodi-n-propylamine	Ave	1.070	1.018	0.5000	47600	50000	-4.8	30.0
Hexachloroethane	Ave	0.6214	0.5901	0.3000	47500	50000	-5.0	30.0
Nitrobenzene	Ave	0.6771	0.6661	0.2000	49200	50000	-1.6	30.0
n,n'-Dimethylaniline	Ave	2.096	2.080		49600	50000	-0.7	30.0
Isophorone	Ave	0.7331	0.6982	0.4000	47600	50000	-4.8	30.0
2-Nitrophenol	Ave	0.1932	0.1855	0.1000	48000	50000	-4.0	30.0
2,4-Dimethylphenol	Ave	0.3243	0.3132	0.2000	48300	50000	-3.4	30.0
Bis(2-chloroethoxy)methane	Ave	0.4520	0.4291	0.3000	47500	50000	-5.1	30.0
Benzoic acid	Lin2		0.2004		45400	50000	-9.1	30.0
2,4-Dichlorophenol	Ave	0.2879	0.2825	0.2000	49100	50000	-1.9	30.0
1,2,4-Trichlorobenzene	Ave	0.3090	0.3118		50500	50000	0.9	30.0
Naphthalene	Ave	1.044	0.9927	0.7000	47500	50000	-5.0	30.0
4-Chloroaniline	Ave	0.4524	0.4372	0.0100	48300	50000	-3.4	30.0
Hexachlorobutadiene	Ave	0.1904	0.1880	0.0100	49400	50000	-1.2	30.0
Caprolactam	Ave	0.0922	0.0955	0.0100	20700	20000	3.6	30.0
4-Chloro-3-methylphenol	Ave	0.3132	0.3012	0.2000	48100	50000	-3.8	30.0
2-Methylnaphthalene	Ave	0.6970	0.6608	0.4000	47400	50000	-5.2	30.0
1-Methylnaphthalene	Ave	0.6376	0.6207		48700	50000	-2.6	30.0
Hexachlorocyclopentadiene	Ave	0.4559	0.4659	0.0500	51100	50000	2.2	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5687	0.5948	0.0100	52300	50000	4.6	30.0
2-tertbutyl-4-methylphenol	Ave	0.4280	0.4189		48900	50000	-2.1	30.0
2,4,6-Trichlorophenol	Ave	0.3891	0.4054	0.2000	52100	50000	4.2	30.0

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Client Sample ID: TRC-DUP-1 Lab Sample ID: 460-248782-2
 Instrument ID (1): CPESTGC4 Instrument ID (2): CPESTGC4
 Date Analyzed (1): 12/13/2021 00:09 Date Analyzed (2): 12/13/2021 00:09
 GC Column (1): Rtx-CLP ID: 0.53 (mm) GC Column (2): CLP-2 ID: 0.53 (mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		4.01	3.99	4.01	0.0026		9.6
	2		5.04	5.03	5.05	0.0024		
4,4'-DDT	1		4.98	4.97	4.99	0.0036		58.7
	2		5.96	5.94	5.96	0.0065		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Client Sample ID: TRC-SB-03 (0-0.5) Lab Sample ID: 460-248782-4
 Instrument ID (1): CPESTGC4 Instrument ID (2): CPESTGC4
 Date Analyzed (1): 12/13/2021 00:41 Date Analyzed (2): 12/13/2021 00:41
 GC Column (1): Rtx-CLP ID: 0.53 (mm) GC Column (2): CLP-2 ID: 0.53 (mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		4.01	3.99	4.01	0.020		3.8
	2		5.04	5.03	5.05	0.019		
4,4'-DDD	1		4.69	4.68	4.70	0.025		0.1
	2		5.60	5.58	5.60	0.025		
4,4'-DDT	1		4.98	4.97	4.99	0.0048		58.7
	2		5.96	5.94	5.96	0.0088		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Client Sample ID: TRC-SB-07 (0-0.5) Lab Sample ID: 460-248782-5
 Instrument ID (1): CPESTGC4 Instrument ID (2): CPESTGC4
 Date Analyzed (1): 12/13/2021 00:57 Date Analyzed (2): 12/13/2021 00:57
 GC Column (1): Rtx-CLP ID: 0.53 (mm) GC Column (2): CLP-2 ID: 0.53 (mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		4.01	3.99	4.01	0.0035		18.0
	2		5.04	5.03	5.05	0.0041		
4,4'-DDT	1		4.98	4.97	4.99	0.0031		49.9
	2		5.96	5.94	5.96	0.0052		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Client Sample ID: TRC-SB-08 (0-0.5) Lab Sample ID: 460-248782-6
 Instrument ID (1): CPESTGC4 Instrument ID (2): CPESTGC4
 Date Analyzed (1): 12/13/2021 01:13 Date Analyzed (2): 12/13/2021 01:13
 GC Column (1): Rtx-CLP ID: 0.53 (mm) GC Column (2): CLP-2 ID: 0.53 (mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		4.01	3.99	4.01	0.0064		34.0
	2		5.04	5.03	5.05	0.0090		

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Lab Sample ID: ICV 460-818127/7 Calibration Date: 12/10/2021 13:01
 Instrument ID: CPESTGC8 Calib Start Date: 12/10/2021 11:11
 GC Column: Rtx-CLP ID: 0.53 (mm) Calib End Date: 12/10/2021 12:39
 Lab File ID: 8F123478.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	0.0267	0.0269		1010	1000	0.7	20.0
PCB-1016 Peak 2	Ave	0.0549	0.0551		1000	1000	0.2	20.0
PCB-1016 Peak 3	Ave	0.0350	0.0350		1000	1000	0.0	20.0
PCB-1016 Peak 4	Ave	0.1039	0.1072		1030	1000	3.3	20.0
PCB-1016 Peak 5	Ave	0.0435	0.0435		1000	1000	0.0	20.0
PCB-1016 Peak 6	Ave	0.0268	0.0273		1020	1000	1.6	20.0
PCB-1016 Peak 7	Ave	0.0469	0.0471		1000	1000	0.4	20.0
PCB-1016 Peak 8	Ave	0.0190	0.0239		1260	1000	25.7*	20.0
PCB-1260 Peak 1	Ave	0.0607	0.0677		1120	1000	11.6	20.0
PCB-1260 Peak 2	Ave	0.1109	0.1217		1100	1000	9.7	20.0
PCB-1260 Peak 3	Ave	0.0568	0.0513		904	1000	-9.6	20.0
PCB-1260 Peak 4	Ave	0.0576	0.0569		988	1000	-1.2	20.0
PCB-1260 Peak 5	Ave	0.1373	0.1342		977	1000	-2.3	20.0
PCB-1260 Peak 6	Ave	0.0650	0.0701		1080	1000	7.9	20.0
PCB-1260 Peak 7	Ave	0.0444	0.0363		817	1000	-18.3	20.0
PCB-1260 Peak 8	Ave	0.0415	0.0336		810	1000	-19.0	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Lab Sample ID: ICV 460-794200/7 Calibration Date: 08/03/2021 13:31
 Instrument ID: CPESTGC9 Calib Start Date: 08/03/2021 11:53
 GC Column: Rtx-CLP ID: 0.53 (mm) Calib End Date: 08/03/2021 13:11
 Lab File ID: 9F012291.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	0.0253	0.0260		1030	1000	2.6	20.0
PCB-1016 Peak 2	Ave	0.0487	0.0531		1090	1000	9.2	20.0
PCB-1016 Peak 3	Ave	0.0270	0.0291		1080	1000	7.8	20.0
PCB-1016 Peak 4	Ave	0.0712	0.0757		1060	1000	6.3	20.0
PCB-1016 Peak 5	Ave	0.0314	0.0333		1060	1000	6.0	20.0
PCB-1016 Peak 6	Ave	0.0190	0.0200		1050	1000	5.4	20.0
PCB-1016 Peak 7	Ave	0.0326	0.0337		1030	1000	3.3	20.0
PCB-1016 Peak 8	Ave	0.0145	0.0186		1280	1000	28.1*	20.0
PCB-1260 Peak 1	Ave	0.0464	0.0528		1140	1000	13.7	20.0
PCB-1260 Peak 2	Ave	0.0848	0.0960		1130	1000	13.2	20.0
PCB-1260 Peak 3	Ave	0.0433	0.0423		976	1000	-2.4	20.0
PCB-1260 Peak 4	Ave	0.0457	0.0467		1020	1000	2.3	20.0
PCB-1260 Peak 5	Ave	0.1033	0.1080		1050	1000	4.6	20.0
PCB-1260 Peak 6	Ave	0.0506	0.0569		1130	1000	12.5	20.0
PCB-1260 Peak 7	Ave	0.0343	0.0294		856	1000	-14.4	20.0
PCB-1260 Peak 8	Ave	0.0332	0.0288		866	1000	-13.4	20.0

FORM III
HERBICIDES MATRIX SPIKE RECOVERY

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: 15F0009063.D
 Lab ID: 460-248782-1 MS Client ID: TRC-SB-02 (0-0.5) MS

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC	QC LIMITS REC	#
2,4,5-T	0.0453	0.036 U	0.0494	109	59-150	
2,4,5-T	0.0453	0.036 U	0.0579	128	59-150	
2,4-D	0.181	0.036 U	0.210	116	50-130	
2,4-D	0.181	0.036 U	0.303	167	50-130	*
Silvex (2,4,5-TP)	0.0453	0.036 U	0.0666	147	58-150	
Silvex (2,4,5-TP)	0.0453	0.036 U	0.0525	116	58-150	

Column to be used to flag recovery and RPD values

FORM III
HERBICIDES MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: 15F0009064.D
 Lab ID: 460-248782-1 MSD Client ID: TRC-SB-02 (0-0.5) MSD

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
2,4,5-T	0.0454	0.0516	114	4	30	59-150	
2,4,5-T	0.0454	0.0622	137	7	30	59-150	
2,4-D	0.182	0.206	113	38	30	50-130	*
2,4-D	0.182	0.428	236	68	30	50-130	E *
Silvex (2,4,5-TP)	0.0454	0.0664	146	0	30	58-150	
Silvex (2,4,5-TP)	0.0454	0.0581	128	10	30	58-150	

Column to be used to flag recovery and RPD values

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Client Sample ID: TRC-SB-02 (0-0.5) MS Lab Sample ID: 460-248782-1 MS
 Instrument ID (1): CPESTGC15 Instrument ID (2): CPESTGC15
 Date Analyzed (1): 12/12/2021 22:59 Date Analyzed (2): 12/12/2021 22:59
 GC Column (1): CLP-2 ID: 0.53 (mm) GC Column (2): DB-5 ID: 0.53 (mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,4-D	1		4.06	3.98	4.12	0.303		36.3
	2		4.42	4.34	4.48	0.210		
Silvex (2,4,5-TP)	1		4.61	4.54	4.68	0.0525		23.7
	2		5.33	5.26	5.40	0.0666		
2,4,5-T	1		5.06	4.99	5.13	0.0579		15.9
	2		5.54	5.46	5.60	0.0494		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Client Sample ID: TRC-SB-02 (0-0.5) MSD Lab Sample ID: 460-248782-1 MSD
 Instrument ID (1): CPESTGC15 Instrument ID (2): CPESTGC15
 Date Analyzed (1): 12/12/2021 23:13 Date Analyzed (2): 12/12/2021 23:13
 GC Column (1): CLP-2 ID: 0.53 (mm) GC Column (2): DB-5 ID: 0.53 (mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,4-D	1		4.06	3.98	4.12	0.428		70.0
	2		4.42	4.34	4.48	0.206		
Silvex (2,4,5-TP)	1		4.61	4.54	4.68	0.0581		13.3
	2		5.33	5.26	5.40	0.0664		
2,4,5-T	1		5.06	4.99	5.13	0.0622		18.6
	2		5.54	5.46	5.60	0.0516		

FORM VII
HERBICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Lab Sample ID: CCV 460-818466/31 Calibration Date: 12/13/2021 09:32
 Instrument ID: CPESTGC15 Calib Start Date: 12/06/2021 13:07
 GC Column: CLP-2 ID: 0.53 (mm) Calib End Date: 12/06/2021 14:14
 Lab File ID: 15F0009073.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dalapon	Ave	109639	98475		449	500	-10.2	15.0
Dicamba	Ave	541947	562181		519	500	3.7	15.0
MCPA	Ave	957.1	988.3		51800	50200	3.3	15.0
Dichlorprop	Ave	156822	139630		445	500	-11.0	15.0
Mecoprop	Ave	31.49	23.30		36700	49500	-26.0*	15.0
2,4-D	Ave	158864	142319		452	505	-10.4	15.0
Pentachlorophenol	Ave	1940817	1925825		248	250	-0.8	15.0
Silvex (2,4,5-TP)	Ave	737087	709227		486	505	-3.8	15.0
2,4,5-T	Ave	553403	672628		608	500	21.5*	15.0
Dinoseb	Ave	548108	445341		410	505	-18.7*	15.0
2,4-DB	Ave	113324	102596		453	500	-9.5	15.0
Picloram	Ave	937700	888827		224	236	-5.2	15.0
2,4-Dichlorophenylacetic acid	Ave	155778	148336		952	1000	-4.8	15.0

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Edison

Job No.: 460-248782-1

SDG No.: _____

Concentration Units: ug/L

Analyte	RL	ICB 460-819195/8 12/16/2021 09:44		CCB 460-819195/17 12/16/2021 10:45		CCB 460-819195/27 12/16/2021 11:11		CCB 460-819195/53 12/16/2021 12:13	
		Found	C	Found	C	Found	C	Found	C
Aluminum	200	200	U	200	U	200	U	200	U
Antimony	10.0	10.0	U	10.0	U	10.0	U	10.0	U
Arsenic	10.0	10.0	U	10.0	U	10.0	U	10.0	U
Barium	20.0	20.0	U	20.0	U	20.0	U	20.0	U
Beryllium	4.0	4.0	U	4.0	U	4.0	U	4.0	U
Cadmium	10.0	10.0	U	10.0	U	10.0	U	10.0	U
Calcium	1000	1000	U	1000	U	1000	U	1000	U
Chromium	20.0	20.0	U	20.0	U	20.0	U	20.0	U
Cobalt	20.0	20.0	U	20.0	U	20.0	U	20.0	U
Copper	20.0	20.0	U	20.0	U	20.0	U	20.0	U
Iron	600	600	U	600	U	600	U	600	U
Lead	6.0	6.0	U	6.0	U	6.0	U	6.0	U
Magnesium	1000	1000	U	1000	U	1000	U	1000	U
Manganese	40.0	40.0	U	40.0	U	40.0	U	40.0	U
Nickel	20.0	20.0	U	20.0	U	20.0	U	20.0	U
Potassium	1000	1000	U	1000	U	207.1	J	122.4	J
Selenium	12.5	12.5	U	12.5	U	12.5	U	12.5	U
Silver	10.0	10.0	U	10.0	U	10.0	U	10.0	U
Sodium	1000	1000	U	1000	U	1000	U	1000	U
Thallium	4.0	4.0	U	4.0	U	4.0	U	4.0	U
Vanadium	20.0	20.0	U	20.0	U	20.0	U	20.0	U
Zinc	80.0	80.0	U	80.0	U	80.0	U	80.0	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Edison

Job No.: 460-248782-1

SDG No.: _____

Concentration Units: ug/L

Analyte	RL	CCB 460-819195/65 12/16/2021 12:41		CCB 460-819195/147 12/16/2021 16:21		CCB 460-819195/158 12/16/2021 17:10		CCB 460-819195/181 12/16/2021 18:04	
		Found	C	Found	C	Found	C	Found	C
Aluminum	200	40.0	U	200	U	200	U	40.0	U
Antimony	10.0	2.0	U	10.0	U	10.0	U	2.0	U
Arsenic	10.0	2.0	U	10.0	U	10.0	U	2.0	U
Barium	20.0	4.0	U	20.0	U	20.0	U	4.0	U
Beryllium	4.0	0.80	U	4.0	U	4.0	U	0.80	U
Cadmium	10.0	2.0	U	10.0	U	10.0	U	2.0	U
Calcium	1000	500	U	1000	U	1000	U	500	U
Chromium	20.0	4.0	U	20.0	U	20.0	U	4.0	U
Cobalt	20.0	4.0	U	20.0	U	20.0	U	4.0	U
Copper	20.0	4.0	U	20.0	U	20.0	U	4.0	U
Iron	600	120	U	600	U	600	U	120	U
Lead	6.0	1.2	U	6.0	U	6.0	U	1.2	U
Magnesium	1000	200	U	1000	U	1000	U	200	U
Manganese	40.0	8.0	U	40.0	U	40.0	U	8.0	U
Nickel	20.0	4.0	U	20.0	U	20.0	U	4.0	U
Potassium	1000	127.5	J	1000	U	172.9	J	200	U
Selenium	12.5	2.5	U	12.5	U	12.5	U	2.5	U
Silver	10.0	2.0	U	10.0	U	10.0	U	2.0	U
Sodium	1000	500	U	1000	U	1000	U	500	U
Thallium	4.0	0.80	U	4.0	U	4.0	U	0.80	U
Vanadium	20.0	4.0	U	20.0	U	20.0	U	4.0	U
Zinc	80.0	16.0	U	80.0	U	80.0	U	16.0	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Concentration Units: mg/Kg Lab Sample ID: MB 460-819072/1-A
 Instrument Code: ICPMS5 Batch No.: 819195

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	20.0	U		6020B
7440-38-2	Arsenic	1.0	U		6020B
7440-39-3	Barium	2.0	U		6020B
7440-41-7	Beryllium	0.40	U		6020B
7440-43-9	Cadmium	1.0	U		6020B
7440-70-2	Calcium	100	U		6020B
7440-47-3	Chromium	2.0	U		6020B
7440-48-4	Cobalt	2.0	U		6020B
7440-50-8	Copper	2.0	U		6020B
7439-89-6	Iron	60.0	U		6020B
7439-95-4	Magnesium	100	U		6020B
7439-96-5	Manganese	4.0	U		6020B
7440-02-0	Nickel	2.0	U		6020B
7440-09-7	Potassium	18.95	J		6020B
7439-92-1	Lead	0.60	U		6020B
7440-36-0	Antimony	1.0	U		6020B
7440-22-4	Silver	1.0	U		6020B
7782-49-2	Selenium	1.3	U		6020B
7440-23-5	Sodium	100	U		6020B
7440-28-0	Thallium	0.40	U		6020B
7440-62-2	Vanadium	2.0	U		6020B
7440-66-6	Zinc	8.0	U		6020B

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins Edison Job No.: 460-248782-1
 SDG No.: _____
 Concentration Units: ug/L Lab Sample ID: MB 460-819082/1-A
 Instrument Code: ICPMS5 Batch No.: 819195

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	40.0	U		6020B
7440-38-2	Arsenic	2.0	U		6020B
7440-39-3	Barium	4.0	U		6020B
7440-41-7	Beryllium	0.80	U		6020B
7440-43-9	Cadmium	2.0	U		6020B
7440-70-2	Calcium	500	U		6020B
7440-47-3	Chromium	4.0	U		6020B
7440-48-4	Cobalt	4.0	U		6020B
7440-50-8	Copper	4.0	U		6020B
7439-89-6	Iron	120	U		6020B
7439-95-4	Magnesium	200	U		6020B
7439-96-5	Manganese	8.0	U		6020B
7440-02-0	Nickel	4.0	U		6020B
7440-09-7	Potassium	137.4	J		6020B
7439-92-1	Lead	1.2	U		6020B
7440-36-0	Antimony	2.0	U		6020B
7440-22-4	Silver	2.0	U		6020B
7782-49-2	Selenium	2.5	U		6020B
7440-23-5	Sodium	500	U		6020B
7440-28-0	Thallium	0.80	U		6020B
7440-62-2	Vanadium	4.0	U		6020B
7440-66-6	Zinc	16.0	U		6020B

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: TRC-SB-02 (0-0.5) MS

Lab ID: 460-248782-1 MS

Lab Name: Eurofins Edison

Job No.: 460-248782-1

SDG No.: _____

Matrix: Solid

Concentration Units: mg/Kg

% Solids: 91.9

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	6667	6160	544	93	75-125	4	6020B
Antimony	2.80	0.46 J	5.44	43	75-125	N	6020B
Arsenic	15.56	6.8	10.9	80	75-125		6020B
Barium	82.65	72.5	10.9	93	75-125	4	6020B
Beryllium	5.63	0.33 J	5.44	97	75-125		6020B
Cadmium	5.34	0.52 J	5.44	89	75-125		6020B
Calcium	49980	49000	544	179	75-125	4	6020B
Chromium	27.09	15.7	10.9	105	75-125		6020B
Cobalt	10.06	5.5	5.44	85	75-125		6020B
Copper	68.29	64.3	10.9	36	75-125	4	6020B
Iron	16630	15200	544	271	75-125	4	6020B
Lead	132.0	129	5.44	63	75-125	4	6020B
Magnesium	10020	15600	544	-1017	75-125	4	6020B
Manganese	236.6	205	54.4	58	75-125	N	6020B
Nickel	25.46	15.2	10.9	94	75-125		6020B
Potassium	1481	969	544	94	75-125		6020B
Selenium	10.39	0.35 J	10.9	92	75-125		6020B
Silver	5.19	0.13 J	5.44	93	75-125		6020B
Sodium	1074	591	544	89	75-125		6020B
Thallium	4.05	0.083 J	4.35	91	75-125		6020B
Vanadium	40.61	33.8	10.9	63	75-125	N	6020B
Zinc	217.9	180	54.4	70	75-125	N	6020B
Mercury	0.219	0.15	0.0837	87	80-120		7471B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 460-819072/2-A ^5

Lab Name: Eurofins Edison

Job No.: 460-248782-1

Sample Matrix: Solid

LCS Source: ME_LCSS_110_00004

Analyte	Solid (mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	7970	6373		80.0	47.2	153.1		6020B
Arsenic	140	146.9		105.0	82.9	117.9		6020B
Barium	202	178.8		88.5	81.2	118.3		6020B
Beryllium	42.6	43.34		101.7	81.0	119.0		6020B
Cadmium	97.9	94.81		96.8	80.0	119.5		6020B
Calcium	4190	3879		92.6	79.2	121.0		6020B
Chromium	60.4	61.58		102.0	80.3	119.7		6020B
Cobalt	86.4	87.04		100.7	80.8	119.2		6020B
Copper	122	122.4		100.4	82.8	117.2		6020B
Iron	13800	13390		97.0	59.2	140.6		6020B
Magnesium	2260	2047		90.6	75.2	124.8		6020B
Manganese	457	413.6		90.5	79.6	120.6		6020B
Nickel	151	154.0		102.0	79.5	121.2		6020B
Potassium	2030	1692		83.4	70.0	130.0		6020B
Lead	56.7	53.55		94.4	82.9	116.9		6020B
Antimony	99.5	72.09		72.5	1.0	209.0		6020B
Silver	33.6	20.24		60.2	48.2	73.5		6020B
Selenium	35.5	37.50		105.6	77.5	122.3		6020B
Sodium	129	500	U	71.3	70.7	129.5		6020B
Thallium	69.3	67.03		96.7	79.4	120.6		6020B
Vanadium	44.9	44.50		99.1	78.0	121.8		6020B
Zinc	186	184.7		99.3	79.0	121.0		6020B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 460-819134/2-A ^5

Lab Name: Eurofins Edison

Job No.: 460-248782-1

Sample Matrix: Solid

LCS Source: ME_LCSS_110_00004

Analyte	Solid (mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	7970	6853		86.0	47.2	153.1		6020B
Arsenic	140	141.2		100.9	82.9	117.9		6020B
Barium	202	193.4		95.7	81.2	118.3		6020B
Beryllium	42.6	41.82		98.2	81.0	119.0		6020B
Cadmium	97.9	97.57		99.7	80.0	119.5		6020B
Calcium	4190	4062		96.9	79.2	121.0		6020B
Chromium	60.4	58.05		96.1	80.3	119.7		6020B
Cobalt	86.4	86.87		100.5	80.8	119.2		6020B
Copper	122	119.6		98.0	82.8	117.2		6020B
Iron	13800	12880		93.3	59.2	140.6		6020B
Magnesium	2260	2058		91.1	75.2	124.8		6020B
Manganese	457	437.8		95.8	79.6	120.6		6020B
Nickel	151	152.0		100.7	79.5	121.2		6020B
Potassium	2030	1763		86.8	70.0	130.0		6020B
Lead	56.7	55.73		98.3	82.9	116.9		6020B
Antimony	99.5	59.88		60.2	1.0	209.0		6020B
Silver	33.6	19.97		59.4	48.2	73.5		6020B
Selenium	35.5	36.55		103.0	77.5	122.3		6020B
Sodium	129	500	U	124.9	70.7	129.5		6020B
Thallium	69.3	68.45		98.8	79.4	120.6		6020B
Vanadium	44.9	42.24		94.1	78.0	121.8		6020B
Zinc	186	180.0		96.8	79.0	121.0		6020B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

Data Usability Summary Report

Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

MTA LIRR Arch St. Yard
Eurofins SDG#460-248770-1
January 13, 2022
Sampling date: 12/9/2021

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

MTA LIRR Arch St. Yard
SDG# 480-188609-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for TRC, project located at MTA LIRR Arch St. Yard, Eurofins #460-248770-1 submitted to Vali-Data of WNY, LLC on December 23, 2021. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines(NFG), NYSDEC; 'Guidelines for Sampling and Analysis of PFAS'(1/2021) and NYSDEC Analytical Services Protocols. The laboratory performed the analysis using USEPA method Perfluorinated Hydrocarbons (537 modified).

ID	Sample ID	Laboratory ID
1	TRC-SB-02(0-0.5)	460-248770-1
2	TRC-DUP-1	460-248770-2
3	TRC-SB-04(0-0.5)	460-248770-3
4	TRC-SB-03(0-0.5)	460-248770-4
5	TRC-SB-07(0-0.5)	460-248770-5
6	TRC-SB-08(0-0.5)	460-248770-6
7	TRC-EB-12022021	460-248770-7

PFC IDA

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS)
- Surrogate Recoveries
- Blanks
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Surrogate Recoveries, Blanks and Compound Quantitation.

MTA LIRR Arch St. Yard

SDG# 480-188609-1

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE RECOVERIES

All criteria were met except the %Rec of M2-8:2FTS was outside QC limits in some of the samples and should be qualified as estimated. The associated target analytes should be qualified as estimated.

Sample ID	Surrogate	%Rec	Qualifier	Associated Target Analyte
2	M2-8:2 FTS	153	UJ	8:2 FTS
1MS	M2-8:2 FTS	164	J	8:2 FTS
1MSD	M2-8:2 FTS	163	J	8:2 FTS

BLANKS

All the criteria were met except some target analytes were detected above the MDL, below the reporting limit and are qualified as estimated in ICB 200-174497/11. These target analytes should be qualified as undetected at the reporting limit in associated samples in which they were detected below the reporting limit. These target analytes should be qualified as estimated high in associated samples in which they were detected above the reporting limit but below 10x the blank concentration.

Target Analyte	Concentration (ng/L)	Qualifier	Associated Sample
PFDA	6.4	U at RL	1-6
PFBS	4.88	U at RL	none
PFHxS	7.11	U at RL	1-6
NMeFOSAA	69.2	U at RL	1-6
NEtFOSAA	48.5	U at RL	4, 6

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met except PFOSA was detected in TRC-SB-02(0-0.5) but was not detected in TRC-DUP-1.

MTA LIRR Arch St. Yard

SDG# 480-188609-1

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All criteria were met.

COMPOUND QUANTITATION

All the criteria were met except a target analyte was detected above the MDL, below the reporting limit and is qualified as estimated in TRC-EB-12022021. This target analyte should be qualified as undetected at the reporting limit in associated samples in which it was detected below the reporting limit. This target analyte should be qualified as estimated high in associated samples in which it was detected above the reporting limit but below 10x the blank concentration.

Target Analyte	Concentration (ng/L)	Qualifier	Associated Sample
PFOS	.63	U at RL	6
PFOS	.63	JH	1-5

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on target analytes in which the %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

CASE NARRATIVE

Client: TRC Environmental Corporation

Project: MTA LIRR Arch St Yard Supplemental RI

Report Number: 460-248770-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 12/09/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.8 C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The client requested the change in sample ID depths to 0-0.5.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples TRC-SB-02 (0-0.5) (460-248770-1), TRC-DUP-1 (460-248770-2), TRC-SB-04 (0-0.5) (460-248770-3), TRC-SB-03 (0-0.5) (460-248770-4), TRC-SB-07 (0-0.5) (460-248770-5) and TRC-SB-08 (0-0.5) (460-248770-6) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with Method 537 (modified). The samples were prepared on 12/15/2021 and analyzed on 12/16/2021.

Sample TRC-EB-12092021 (460-248770-7) was analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with Method 537 (modified). The samples were prepared on 12/13/2021 and analyzed on 12/14/2021.

The "I" qualifier associated with sample TRC-EB-12092021 (460-248770-7) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

M2-8:2 FTS Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: TRC-SB-02 (0-0.5) (460-248770-1[MS]), TRC-SB-02 (0-0.5) (460-248770-1[MSD]) and TRC-DUP-1 (460-248770-2). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

The "I" qualifier associated with samples TRC-DUP-1 (460-248770-2), TRC-SB-03 (0-0.5) (460-248770-4) and TRC-SB-08 (0-0.5) (460-248770-6) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

No other difficulties were encountered during the PFAS analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples TRC-SB-02 (0-0.5) (460-248770-1), TRC-DUP-1 (460-248770-2), TRC-SB-04 (0-0.5) (460-248770-3), TRC-SB-03 (0-0.5) (460-248770-4), TRC-SB-07 (0-0.5) (460-248770-5) and TRC-SB-08 (0-0.5) (460-248770-6) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 12/13/2021.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-02 (0-0.5)

Lab Sample ID: 460-248770-1

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.3

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.17	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluoropentanoic acid (PFPeA)	0.21	U	0.21	0.042	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorohexanoic acid (PFHxA)	0.050	J	0.21	0.024	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluoroheptanoic acid (PFHpA)	0.052	J	0.21	0.021	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorooctanoic acid (PFOA)	0.48		0.21	0.027	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorononanoic acid (PFNA)	0.063	J	0.21	0.019	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorodecanoic acid (PFDA)	0.13	J	0.21	0.013	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluoroundecanoic acid (PFUnA)	0.10	J	0.21	0.021	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorododecanoic acid (PFDoA)	0.10	J	0.21	0.022	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorotridecanoic acid (PFTriA)	0.055	J	0.21	0.016	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorotetradecanoic acid (PFTeA)	0.056	J	0.21	0.025	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.010	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorohexanesulfonic acid (PFHxS)	0.089	J	0.21	0.015	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.021	J	0.21	0.016	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorooctanesulfonic acid (PFOS)	2.26		0.21	0.017	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorodecanesulfonic acid (PFDS)	0.063	J	0.21	0.013	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
Perfluorooctanesulfonamide (PFOSA)	0.033	J	0.21	0.018	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.066	J	2.14	0.040	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.14	U	2.14	0.049	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.14	U	2.14	0.033	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.14	U	2.14	0.017	ug/Kg	☼	12/15/21 10:51	12/16/21 13:38	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	75		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C4 PFHpA	87		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C4 PFOA	90		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C4 PFOS	74		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C5 PFNA	92		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C4 PFBA	93		25 - 150	12/15/21 10:51	12/16/21 13:38	1
13C2 PFHxA	87		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C2 PFDA	90		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C2 PFUnA	96		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C2 PFDoA	82		50 - 150	12/15/21 10:51	12/16/21 13:38	1
13C8 FOSA	63		25 - 150	12/15/21 10:51	12/16/21 13:38	1
13C5 PFPeA	88		25 - 150	12/15/21 10:51	12/16/21 13:38	1
13C2 PFTeDA	92		50 - 150	12/15/21 10:51	12/16/21 13:38	1
d3-NMeFOSAA	109		50 - 150	12/15/21 10:51	12/16/21 13:38	1
d5-NEtFOSAA	128		50 - 150	12/15/21 10:51	12/16/21 13:38	1
M2-6:2 FTS	98		25 - 150	12/15/21 10:51	12/16/21 13:38	1
M2-8:2 FTS	137		25 - 150	12/15/21 10:51	12/16/21 13:38	1
13C3 PFBS	81		50 - 150	12/15/21 10:51	12/16/21 13:38	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-DUP-1

Lab Sample ID: 460-248770-2

Date Collected: 12/09/21 08:45

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 91.5

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.53	U	0.53	0.17	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluoropentanoic acid (PFPeA)	0.21	U	0.21	0.041	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluorohexanoic acid (PFHxA)	0.055	J	0.21	0.023	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluoroheptanoic acid (PFHpA)	0.042	J	0.21	0.021	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluorooctanoic acid (PFOA)	0.45		0.21	0.027	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluorononanoic acid (PFNA)	0.079	J	0.21	0.019	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluorodecanoic acid (PFDA)	0.12	J	0.21	0.013	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluoroundecanoic acid (PFUnA)	0.11	J	0.21	0.021	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluorododecanoic acid (PFDoA)	0.11	J	0.21	0.022	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluorotridecanoic acid (PFTriA)	0.054	J	0.21	0.016	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluorotetradecanoic acid (PFTeA)	0.043	J	0.21	0.024	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.0099	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluorohexanesulfonic acid (PFHxS)	0.080	J	0.21	0.015	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.025	J	0.21	0.016	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluorooctanesulfonic acid (PFOS)	2.22		0.21	0.017	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluorodecanesulfonic acid (PFDS)	0.058	J	0.21	0.013	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.018	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.064	J	2.12	0.039	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.12	U	2.12	0.049	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.12	U	2.12	0.033	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.12	U	2.12	0.017	ug/Kg	☼	12/15/21 10:51	12/16/21 14:02	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	74		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C4 PFHpA	89		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C4 PFOA	87		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C4 PFOS	72		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C5 PFNA	88		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C4 PFBA	83		25 - 150				12/15/21 10:51	12/16/21 14:02	1
13C2 PFHxA	80		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C2 PFDA	87		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C2 PFUnA	92		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C2 PFDoA	81		50 - 150				12/15/21 10:51	12/16/21 14:02	1
13C8 FOSA	59		25 - 150				12/15/21 10:51	12/16/21 14:02	1
13C5 PFPeA	85		25 - 150				12/15/21 10:51	12/16/21 14:02	1
13C2 PFTeDA	87		50 - 150				12/15/21 10:51	12/16/21 14:02	1
d3-NMeFOSAA	115		50 - 150				12/15/21 10:51	12/16/21 14:02	1
d5-NEtFOSAA	127		50 - 150				12/15/21 10:51	12/16/21 14:02	1
M2-6:2 FTS	102		25 - 150				12/15/21 10:51	12/16/21 14:02	1
M2-8:2 FTS	153	*	25 - 150				12/15/21 10:51	12/16/21 14:02	1
13C3 PFBS	71		50 - 150				12/15/21 10:51	12/16/21 14:02	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-04 (0-0.5)

Lab Sample ID: 460-248770-3

Date Collected: 12/09/21 09:10

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.8

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.56	U	0.56	0.18	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluoropentanoic acid (PFPeA)	0.23	U	0.23	0.044	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorohexanoic acid (PFHxA)	0.029	J	0.23	0.025	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluoroheptanoic acid (PFHpA)	0.23	U	0.23	0.023	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorooctanoic acid (PFOA)	0.072	J	0.23	0.028	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorononanoic acid (PFNA)	0.030	J	0.23	0.020	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorodecanoic acid (PFDA)	0.081	J	0.23	0.014	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluoroundecanoic acid (PFUnA)	0.057	J	0.23	0.023	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorododecanoic acid (PFDoA)	0.061	J	0.23	0.024	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorotridecanoic acid (PFTriA)	0.034	J	0.23	0.017	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorotetradecanoic acid (PFTeA)	0.027	J	0.23	0.026	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorobutanesulfonic acid (PFBS)	0.23	U	0.23	0.010	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorohexanesulfonic acid (PFHxS)	0.019	J	0.23	0.016	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.23	U	0.23	0.017	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorooctanesulfonic acid (PFOS)	0.35		0.23	0.018	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorodecanesulfonic acid (PFDS)	0.029	J	0.23	0.014	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Perfluorooctanesulfonamide (PFOSA)	0.23	U	0.23	0.019	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.20	J	2.25	0.042	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.25	U	2.25	0.052	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.25	U	2.25	0.035	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.25	U	2.25	0.018	ug/Kg	☼	12/15/21 10:51	12/16/21 14:10	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	79		50 - 150				12/15/21 10:51	12/16/21 14:10	1
13C4 PFHpA	84		50 - 150				12/15/21 10:51	12/16/21 14:10	1
13C4 PFOA	82		50 - 150				12/15/21 10:51	12/16/21 14:10	1
13C4 PFOS	71		50 - 150				12/15/21 10:51	12/16/21 14:10	1
13C5 PFNA	85		50 - 150				12/15/21 10:51	12/16/21 14:10	1
13C4 PFBA	85		25 - 150				12/15/21 10:51	12/16/21 14:10	1
13C2 PFHxA	84		50 - 150				12/15/21 10:51	12/16/21 14:10	1
13C2 PFDA	82		50 - 150				12/15/21 10:51	12/16/21 14:10	1
13C2 PFUnA	88		50 - 150				12/15/21 10:51	12/16/21 14:10	1
13C2 PFDoA	84		50 - 150				12/15/21 10:51	12/16/21 14:10	1
13C8 FOSA	63		25 - 150				12/15/21 10:51	12/16/21 14:10	1
13C5 PFPeA	85		25 - 150				12/15/21 10:51	12/16/21 14:10	1
13C2 PFTeDA	90		50 - 150				12/15/21 10:51	12/16/21 14:10	1
d3-NMeFOSAA	81		50 - 150				12/15/21 10:51	12/16/21 14:10	1
d5-NEtFOSAA	103		50 - 150				12/15/21 10:51	12/16/21 14:10	1
M2-6:2 FTS	78		25 - 150				12/15/21 10:51	12/16/21 14:10	1
M2-8:2 FTS	92		25 - 150				12/15/21 10:51	12/16/21 14:10	1
13C3 PFBS	79		50 - 150				12/15/21 10:51	12/16/21 14:10	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-03 (0-0.5)

Lab Sample ID: 460-248770-4

Date Collected: 12/09/21 09:30

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 85.5

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.58	U	0.58	0.19	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluoropentanoic acid (PFPeA)	0.23	U	0.23	0.045	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluorohexanoic acid (PFHxA)	0.027	J	0.23	0.026	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluoroheptanoic acid (PFHpA)	0.024	J	0.23	0.023	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluorooctanoic acid (PFOA)	0.21	J	0.23	0.029	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluorononanoic acid (PFNA)	0.058	J	0.23	0.021	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluorodecanoic acid (PFDA)	0.11	J	0.23	0.014	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluoroundecanoic acid (PFUnA)	0.11	J	0.23	0.023	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluorododecanoic acid (PFDoA)	0.11	J	0.23	0.024	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluorotridecanoic acid (PFTriA)	0.067	J	0.23	0.017	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluorotetradecanoic acid (PFTeA)	0.054	J	0.23	0.027	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluorobutanesulfonic acid (PFBS)	0.23	U	0.23	0.011	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluorohexanesulfonic acid (PFHxS)	0.058	J	0.23	0.016	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.23	U	0.23	0.017	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluorooctanesulfonic acid (PFOS)	1.71		0.23	0.019	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluorodecanesulfonic acid (PFDS)	0.070	J	0.23	0.014	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
Perfluorooctanesulfonamide (PFOSA)	0.11	J	0.23	0.020	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.13	J	2.32	0.043	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.26	J	2.32	0.053	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.32	U	2.32	0.036	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.32	U	2.32	0.019	ug/Kg	☼	12/15/21 10:51	12/16/21 14:19	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	64		50 - 150	12/15/21 10:51	12/16/21 14:19	1
13C4 PFHpA	81		50 - 150	12/15/21 10:51	12/16/21 14:19	1
13C4 PFOA	80		50 - 150	12/15/21 10:51	12/16/21 14:19	1
13C4 PFOS	61		50 - 150	12/15/21 10:51	12/16/21 14:19	1
13C5 PFNA	83		50 - 150	12/15/21 10:51	12/16/21 14:19	1
13C4 PFBA	79		25 - 150	12/15/21 10:51	12/16/21 14:19	1
13C2 PFHxA	77		50 - 150	12/15/21 10:51	12/16/21 14:19	1
13C2 PFDA	83		50 - 150	12/15/21 10:51	12/16/21 14:19	1
13C2 PFUnA	90		50 - 150	12/15/21 10:51	12/16/21 14:19	1
13C2 PFDoA	79		50 - 150	12/15/21 10:51	12/16/21 14:19	1
13C8 FOSA	63		25 - 150	12/15/21 10:51	12/16/21 14:19	1
13C5 PFPeA	75		25 - 150	12/15/21 10:51	12/16/21 14:19	1
13C2 PFTeDA	89		50 - 150	12/15/21 10:51	12/16/21 14:19	1
d3-NMeFOSAA	82		50 - 150	12/15/21 10:51	12/16/21 14:19	1
d5-NEtFOSAA	96		50 - 150	12/15/21 10:51	12/16/21 14:19	1
M2-6:2 FTS	72		25 - 150	12/15/21 10:51	12/16/21 14:19	1
M2-8:2 FTS	83		25 - 150	12/15/21 10:51	12/16/21 14:19	1
13C3 PFBS	63		50 - 150	12/15/21 10:51	12/16/21 14:19	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-07 (0-0.5)

Lab Sample ID: 460-248770-5

Date Collected: 12/09/21 10:00

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 87.2

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.57	U	0.57	0.18	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluoropentanoic acid (PFPeA)	0.23	U	0.23	0.044	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluorohexanoic acid (PFHxA)	0.032	J	0.23	0.025	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluoroheptanoic acid (PFHpA)	0.23	U	0.23	0.023	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluorooctanoic acid (PFOA)	0.050	J	0.23	0.029	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluorononanoic acid (PFNA)	0.021	J	0.23	0.021	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluorodecanoic acid (PFDA)	0.068	J	0.23	0.014	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluoroundecanoic acid (PFUnA)	0.066	J	0.23	0.023	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluorododecanoic acid (PFDoA)	0.12	J	0.23	0.024	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluorotridecanoic acid (PFTriA)	0.065	J	0.23	0.017	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluorotetradecanoic acid (PFTeA)	0.072	J	0.23	0.026	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluorobutanesulfonic acid (PFBS)	0.23	U	0.23	0.011	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluorohexanesulfonic acid (PFHxS)	0.023	J	0.23	0.016	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.23	U	0.23	0.017	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluorooctanesulfonic acid (PFOS)	0.29		0.23	0.018	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluorodecanesulfonic acid (PFDS)	0.032	J	0.23	0.014	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Perfluorooctanesulfonamide (PFOSA)	0.23	U	0.23	0.019	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.042	J	2.28	0.042	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.28	U	2.28	0.052	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.28	U	2.28	0.035	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.28	U	2.28	0.018	ug/Kg	☼	12/15/21 10:51	12/16/21 14:27	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	80		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C4 PFHpA	81		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C4 PFOA	84		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C4 PFOS	75		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C5 PFNA	92		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C4 PFBA	88		25 - 150				12/15/21 10:51	12/16/21 14:27	1
13C2 PFHxA	87		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C2 PFDA	80		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C2 PFUnA	91		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C2 PFDoA	91		50 - 150				12/15/21 10:51	12/16/21 14:27	1
13C8 FOSA	67		25 - 150				12/15/21 10:51	12/16/21 14:27	1
13C5 PFPeA	87		25 - 150				12/15/21 10:51	12/16/21 14:27	1
13C2 PFTeDA	104		50 - 150				12/15/21 10:51	12/16/21 14:27	1
d3-NMeFOSAA	82		50 - 150				12/15/21 10:51	12/16/21 14:27	1
d5-NEtFOSAA	96		50 - 150				12/15/21 10:51	12/16/21 14:27	1
M2-6:2 FTS	78		25 - 150				12/15/21 10:51	12/16/21 14:27	1
M2-8:2 FTS	92		25 - 150				12/15/21 10:51	12/16/21 14:27	1
13C3 PFBS	83		50 - 150				12/15/21 10:51	12/16/21 14:27	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-SB-08 (0-0.5)

Lab Sample ID: 460-248770-6

Date Collected: 12/09/21 10:20

Matrix: Solid

Date Received: 12/09/21 19:00

Percent Solids: 82.9

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.58	U	0.58	0.19	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluoropentanoic acid (PFPeA)	0.23	U	0.23	0.046	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluorohexanoic acid (PFHxA)	0.23	U	0.23	0.026	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluoroheptanoic acid (PFHpA)	0.23	U	0.23	0.023	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluorooctanoic acid (PFOA)	0.029	J	0.23	0.029	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluorononanoic acid (PFNA)	0.23	U	0.23	0.021	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluorodecanoic acid (PFDA)	0.040	J	0.23	0.014	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluoroundecanoic acid (PFUnA)	0.060	J	0.23	0.023	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluorododecanoic acid (PFDoA)	0.090	J	0.23	0.025	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluorotridecanoic acid (PFTriA)	0.047	J	0.23	0.018	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluorotetradecanoic acid (PFTeA)	0.049	J	0.23	0.027	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluorobutanesulfonic acid (PFBS)	0.23	U	0.23	0.011	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluorohexanesulfonic acid (PFHxS)	0.016	J	0.23	0.016	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.23	U	0.23	0.018	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluorooctanesulfonic acid (PFOS)	0.14	J	0.23	0.019	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluorodecanesulfonic acid (PFDS)	0.060	J	0.23	0.014	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Perfluorooctanesulfonamide (PFOSA)	0.23	U	0.23	0.020	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.094	J	2.34	0.043	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.061	J	2.34	0.054	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.34	U	2.34	0.036	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.34	U	2.34	0.019	ug/Kg	☼	12/15/21 10:51	12/16/21 14:35	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	89		50 - 150				12/15/21 10:51	12/16/21 14:35	1
13C4 PFHpA	91		50 - 150				12/15/21 10:51	12/16/21 14:35	1
13C4 PFOA	90		50 - 150				12/15/21 10:51	12/16/21 14:35	1
13C4 PFOS	82		50 - 150				12/15/21 10:51	12/16/21 14:35	1
13C5 PFNA	89		50 - 150				12/15/21 10:51	12/16/21 14:35	1
13C4 PFBA	92		25 - 150				12/15/21 10:51	12/16/21 14:35	1
13C2 PFHxA	87		50 - 150				12/15/21 10:51	12/16/21 14:35	1
13C2 PFDA	91		50 - 150				12/15/21 10:51	12/16/21 14:35	1
13C2 PFUnA	93		50 - 150				12/15/21 10:51	12/16/21 14:35	1
13C2 PFDoA	87		50 - 150				12/15/21 10:51	12/16/21 14:35	1
13C8 FOSA	81		25 - 150				12/15/21 10:51	12/16/21 14:35	1
13C5 PFPeA	89		25 - 150				12/15/21 10:51	12/16/21 14:35	1
13C2 PFTeDA	102		50 - 150				12/15/21 10:51	12/16/21 14:35	1
d3-NMeFOSAA	78		50 - 150				12/15/21 10:51	12/16/21 14:35	1
d5-NEtFOSAA	97		50 - 150				12/15/21 10:51	12/16/21 14:35	1
M2-6:2 FTS	83		25 - 150				12/15/21 10:51	12/16/21 14:35	1
M2-8:2 FTS	95		25 - 150				12/15/21 10:51	12/16/21 14:35	1
13C3 PFBS	86		50 - 150				12/15/21 10:51	12/16/21 14:35	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: MTA LIRR Arch St Yard Supplemental RI

Job ID: 460-248770-1

Client Sample ID: TRC-EB-12092021

Lab Sample ID: 460-248770-7

Date Collected: 12/09/21 11:00

Matrix: Water

Date Received: 12/09/21 19:00

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.24	U	4.24	0.76	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluoropentanoic acid (PFPeA)	1.70	U	1.70	0.40	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorohexanoic acid (PFHxA)	1.70	U	1.70	0.38	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluoroheptanoic acid (PFHpA)	1.70	U	1.70	0.20	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorooctanoic acid (PFOA)	1.70	U	1.70	0.36	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorononanoic acid (PFNA)	1.70	U	1.70	0.24	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorodecanoic acid (PFDA)	1.70	U	1.70	0.26	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluoroundecanoic acid (PFUnA)	1.70	U	1.70	0.29	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorododecanoic acid (PFDoA)	1.70	U	1.70	0.33	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorotridecanoic acid (PFTriA)	1.70	U	1.70	0.37	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorotetradecanoic acid (PFTeA)	1.70	U	1.70	0.54	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorobutanesulfonic acid (PFBS)	1.70	U	1.70	0.21	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorohexanesulfonic acid (PFHxS)	1.70	U	1.70	0.26	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.70	U	1.70	0.20	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorooctanesulfonic acid (PFOS)	0.63	J	1.70	0.25	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorodecanesulfonic acid (PFDS)	1.70	U	1.70	0.26	ng/L		12/13/21 13:06	12/14/21 16:25	1
Perfluorooctanesulfonamide (PFOSA)	1.70	U	1.70	0.49	ng/L		12/13/21 13:06	12/14/21 16:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.24	U	4.24	0.77	ng/L		12/13/21 13:06	12/14/21 16:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.24	U	4.24	0.63	ng/L		12/13/21 13:06	12/14/21 16:25	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.24	U	4.24	0.93	ng/L		12/13/21 13:06	12/14/21 16:25	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.70	U	1.70	0.33	ng/L		12/13/21 13:06	12/14/21 16:25	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	99		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C4 PFHpA	94		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C4 PFOA	98		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C4 PFOS	96		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C5 PFNA	105		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C4 PFBA	91		25 - 150				12/13/21 13:06	12/14/21 16:25	1
13C2 PFHxA	97		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C2 PFDA	96		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C2 PFUnA	104		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C2 PFDoA	82		50 - 150				12/13/21 13:06	12/14/21 16:25	1
13C8 FOSA	79		25 - 150				12/13/21 13:06	12/14/21 16:25	1
13C5 PFPeA	94		25 - 150				12/13/21 13:06	12/14/21 16:25	1
13C2 PFTeDA	80		50 - 150				12/13/21 13:06	12/14/21 16:25	1
d3-NMeFOSAA	83		50 - 150				12/13/21 13:06	12/14/21 16:25	1
d5-NEtFOSAA	91		50 - 150				12/13/21 13:06	12/14/21 16:25	1
M2-6:2 FTS	89		25 - 150				12/13/21 13:06	12/14/21 16:25	1
M2-8:2 FTS	93		25 - 150				12/13/21 13:06	12/14/21 16:25	1
13C3 PFBS	96		50 - 150				12/13/21 13:06	12/14/21 16:25	1

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-248770-1

SDG No.: _____

Matrix: Solid Level: Low

GC Column (1): C-18 ID: 4.6 (mm)

Client Sample ID	Lab Sample ID	PFOS #	PFNA #	PFDA #	M282FTS #	PFOSA #	d3NMFOS #	PFUnA #	d5NEFOS #
TRC-SB-02 (0-0.5)	460-248770-1	74	92	90	137	63	109	96	128
TRC-DUP-1	460-248770-2	72	88	87	153 *	59	115	92	127
TRC-SB-04 (0-0.5)	460-248770-3	71	85	82	92	63	81	88	103
TRC-SB-03 (0-0.5)	460-248770-4	61	83	83	83	63	82	90	96
TRC-SB-07 (0-0.5)	460-248770-5	75	92	80	92	67	82	91	96
TRC-SB-08 (0-0.5)	460-248770-6	82	89	91	95	81	78	93	97
	MB 200-174963/1-A	88	92	89	80	80	82	78	85
	LCS 200-174963/2-A	76	90	72	75	70	76	74	69
TRC-SB-02 (0-0.5) MS	460-248770-1 MS	75	98	89	164 *	63	128	102	149
TRC-SB-02 (0-0.5) MSD	460-248770-1 MSD	79	99	94	163 *	65	127	104	139

QC LIMITS

PFOS = 13C4 PFOS	50-150
PFNA = 13C5 PFNA	50-150
PFDA = 13C2 PFDA	50-150
M282FTS = M2-8:2 FTS	25-150
PFOSA = 13C8 FOSA	25-150
d3NMFOS = d3-NMeFOSAA	50-150
PFUnA = 13C2 PFUnA	50-150
d5NEFOS = d5-NEtFOSAA	50-150

Column to be used to flag recovery values

FORM II 537 (modified)

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-248770-1

SDG No.: _____

Client Sample ID: TRC-EB-12092021 Lab Sample ID: 460-248770-7

Matrix: Water Lab File ID: PA211214A28.d

Analysis Method: 537 (modified) Date Collected: 12/09/2021 11:00

Extraction Method: 3535 Date Extracted: 12/13/2021 13:06

Sample wt/vol: 294.6 (mL) Date Analyzed: 12/14/2021 16:25

Con. Extract Vol.: 10 (mL) Dilution Factor: 1

Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)

% Moisture: _____ GPC Cleanup: (Y/N) N

Analysis Batch No.: 174910 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.24	U	4.24	0.76
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.70	U	1.70	0.40
307-24-4	Perfluorohexanoic acid (PFHxA)	1.70	U	1.70	0.38
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.70	U	1.70	0.20
335-67-1	Perfluorooctanoic acid (PFOA)	1.70	U	1.70	0.36
375-95-1	Perfluorononanoic acid (PFNA)	1.70	U	1.70	0.24
335-76-2	Perfluorodecanoic acid (PFDA)	1.70	U	1.70	0.26
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.70	U	1.70	0.29
307-55-1	Perfluorododecanoic acid (PFDoA)	1.70	U	1.70	0.33
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.70	U	1.70	0.37
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.70	U	1.70	0.54
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.70	U	1.70	0.21
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.70	U	1.70	0.26
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	1.70	U	1.70	0.20
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.63	J	1.70	0.25
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.70	U	1.70	0.26
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.70	U	1.70	0.49
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.24	U	4.24	0.77
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.24	U	4.24	0.63
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.24	U	4.24	0.93
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.70	U	1.70	0.33

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-248770-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: ICB 200-174497/11
 Matrix: Water Lab File ID: PA211203ICAL11.d
 Analysis Method: 537 (modified) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/03/2021 14:01
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 174497 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.13	U	0.13	0.022
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.050	U	0.050	0.012
307-24-4	Perfluorohexanoic acid (PFHxA)	0.050	U	0.050	0.011
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.050	U	0.050	0.0060
335-67-1	Perfluorooctanoic acid (PFOA)	0.050	U	0.050	0.011
375-95-1	Perfluorononanoic acid (PFNA)	0.050	U	0.050	0.0070
335-76-2	Perfluorodecanoic acid (PFDA)	0.00640	J	0.050	0.0062
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.050	U	0.050	0.0086
307-55-1	Perfluorododecanoic acid (PFDoA)	0.050	U	0.050	0.0096
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.050	U	0.050	0.0074
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.050	U	0.050	0.012
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.00488	J	0.050	0.0046
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.00711	J	0.050	0.0071
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.050	U	0.050	0.0059
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.050	U	0.050	0.0073
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.050	U	0.050	0.0058
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.050	U	0.050	0.0084
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.0692	J	0.13	0.019
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.0485	J	0.13	0.019
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.13	U	0.13	0.015
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.050	U	0.050	0.0080

