AECOM Environment

First Quarter 2021 – January, February, March Operation, Maintenance, and Monitoring Report

CHEM-TROL Site
NYSDEC Site No. 9-15-015
Report.hw915015.2021-06-15.1Q2021OMM

Site:
CHEM-TROL Site
4800 Lake Avenue
Blasdell, New York 14219

Submitted to:
NYSDEC
Region 9 Office
270 Michigan Avenue
Buffalo, NY 14203

Prepared for:
Waste Management
100 Brandywine Boulevard, Suite 300
Newtown, PA 18940

Prepared by:
AECOM
257 West Genesee Street, Suite 400
Buffalo, New York 14202

June 15, 2021

AECOM Project No. 60652207.3

AECOM
257 West Genesee St.
Suite 400
Buffalo, NY 14202
www.aecom.com

716 856 5636 tel
716 856 2545 fax

June 15, 2021

SUBMITTED VIA ELECTRONIC MAIL

Mr. Glenn May, PG
NYSDEC
Region 9 Office
270 Michigan Avenue
Buffalo, NY 14203

RE: S.C. Holdings, Inc., 4818 Lake Avenue, Blasdell, New York 14219
First Quarter 2021 Operation, Maintenance, and Monitoring Report
Chem-Trol Site, NYSDEC Site No. 9-15-015, Report.hw915015.2021-06-15.1Q2021OMM

Dear Mr. May:

Enclosed please find the First Quarter 2021 (1Q21 – January, February, March) Operation, Maintenance, and Monitoring Report for the "Chem-Trol" project site. AECOM is submitting this quarterly monitoring report on behalf of our client, S.C. Holdings, Inc.

The enclosed report contains the following information for 1Q21:

- Operation, Maintenance and Monitoring Checklists
- Summary Tables of Analytical Results and Flow Readings
- Copies of Analytical Results and Chain-of-Custody Forms

A summary of each month within 1Q21 is as follows:

January 2021

On January 15, 2021, AECOM visited the site for the quarterly acid wash and found that the system was off upon arrival due to blower fan shaft failure. AECOM completed the flush-and-rinse acid wash of the air-stripper trays and scheduled a maintenance visit. Matrix visited the site that day and determined the blower fan required replacement. Replacement parts were ordered and the fan was replaced on February 5, 2021.

Due to these system repairs the January 2021 samples were collected on February 9, 2021; analytical data were received on February 18, 2021. As presented on Table 1 (February 9, 2021), there were no exceedances of the treatment or discharge requirements for any parameter in the effluent samples during this month.

AECOM also collected the 4Q20 quarterly groundwater levels on January 4, 2021.

February 2021

AECOM collected the monthly monitoring samples on February 23, 2021; analytical data were received on February 26, 2021. As presented on Table 1 (February 23, 2021), there were no exceedances of the treatment or discharge requirements for any parameter in the effluent samples during this month.

March, 2021

AECOM collected the monthly monitoring samples on March 25, 2021; analytical data were received on April 9, 2021. As presented on Table 1 (March 25, 2021), there were exceedances of the discharge requirements for total iron and total suspended solids observed in the aqueous effluent sample based on concentration but not on mass loading.

On March 25, 2021, AECOM performed a flush-and-rinse acid wash of the system. AECOM also collected the 1Q21 quarterly groundwater levels on March 25, 2021.

AECOM returned to site on April 26, 2021 and the system was sampled; analytical data were received on May 14, 2021. There were no exceedances of the treatment or discharge requirements for any parameter in the effluent samples from the April 26, 2021 sampling event.

If you have any questions regarding the information presented in this report please contact me at (716) 923-1300.

Very truly yours,
AECOM

James L. Kaczor
Project Manager

Enclosure

cc: Mr. Chad Moose (Waste Management) (electronic copy)
Ryan Donovan, (Waste Management) (electronic copy)
Mr. Brian Sadowski, NYSDEC (electronic copy)
60652207 Project File

January 2021

Operation, Maintenance & Monitoring Checklist

Groundwater Treatment System
CHEM-TROL Site
Town of Hamburg, New York

This summary inspection checklist is to be completed during each site inspection. Note all items, which require repair or maintenance. Use the last page to note any additional comments or unusual events.

General

Service by: Sean P. Connelly Weather/Temperature: Partly cloudy, 39 F
Date: 1/15/2021 Arrival Time: 08:00 Departure Time: 14:30

Reason for Service: Inspect system and perform monthly sampling

Inspection Items:	OK:	Comments:
Site Appearance/Condition	X	See comments section.
Building Exterior		
Overhead Door	X	Wood lintel decaying, header exposed.
Siding	X	Metal trim missing from lintel
Roof and Discharge Pipe	X	
Building Interior		
Indication of Spills or Leaks		Condensation on the floor; slight drip from air stripper
Building Heater	X	Breaker turned on. Was off on arrival.
Phone System	X	Disconnected
Exhaust Fan		Could not get fan to work.
Fire Extinguisher	X	
First Aid & Eye Wash	X	

Groundwater Treatment System

Air Stripper	**X**	Ratchet straps are used to keep the trays together. Several of the clips for the trays are rusted/broken.
Iron Removal Filter	**X**	Tank in-line but filter media removed; not required.
Flow Meters	**X**	See Notes.
Gauges	**X**	
Stripper Blower	**X**	
Indication of Alarm	**X**	

Groundwater Treatment Wells

EW-1 Pump	**X**	
EW-1 Transducer	**X**	
EW-1 Flow Meter	**X**	
EW-2 Pump	**X**	
EW-2 Transducer	**X**	
EW- 2 Flow Meter	**X**	
EW-3 Pump	**X**	
EW-3 Transducer	**X**	
EW-3 Flow Meter	**X**	

Effluent Discharge

Outfall	**X**	System was off upon arrival. There was no discharge at outfall.
Cleanout	**X**	Iron removal tank was full up to the bottom of the discharge pipe.

Instrumentation/Readings:

EW-1

Pumping Rate	0 GPM (see Notes section)
Water Level Above Transducer	Maxed Inches
Flow Meter Reading	8,444,688 Gallons

EW-2

Pumping Rate	0 GPM (see Notes section)
Water Level Above Transducer	Maxed Inches
Flow Meter Reading	28,528,520 Gallons

EW-3

Pumping Rate	0 GPM (see Notes section)
Water Level Above Transducer	Maxed Inches
Flow Meter Reading	15,696,380 Gallons

Air Stripper

Stripper Blower Pressure	0.0 Inches H2O

Effluent Flow

Total System Meter Reading	71,683,213 Gallons

Influent/Effluent Sampling

AQUEOUS:
Monthly monitoring samples of aqueous phase system influent and effluent were collected and submitted for the following analyses:

- VOCs by EPA Method 624 (CFR136 624)
- Iron by MCAWW 200.7
- TSS by MCAWW SM18-20 2540 D
- pH by MCAWW SM18-20 4500-H+B

pH measurements must be made in the field:

Influent pH 7.0 (field test strip)
Effluent pH 7.0 (field test strip)

Notes/Explanations
(Please include any additional information on those items that require attention as indicated above.)

Total system flow on system totalizer flow meter timed at 0.0 gpm. System was down upon arrival.

The SVE building overhead door flashing has wind and header damage.

The AS building overhead door flashing needs replacement.

The gate leading to the outfall is becoming overgrown by vegetation.

The most recent round of water levels (4Q2020) were collected on January 4, 2021.

The most recent acid wash was performed today, January 15, 2021.

Operation, Maintenance & Monitoring Checklist

Groundwater Treatment System
CHEM-TROL Site
Town of Hamburg, New York

This summary inspection checklist is to be completed during each site inspection. Note all items, which require repair or maintenance. Use the last page to note any additional comments or unusual events.

General

Service by: Dino Zack Weather/Temperature: Snow; 20 F
Date: 2/09/2021 Arrival Time: 09:00 Departure Time: 10:30

Reason for Service: Inspect system and perform monthly sampling

Inspection Items:	OK:	Comments:
Site Appearance/Condition	X	See comments section.
Building Exterior		
Overhead Door	X	Wood lintel decaying, header exposed.
Siding	X	Metal trim missing from lintel
Roof and Discharge Pipe	X	
Building Interior		
Indication of Spills or Leaks		
Building Heater	X	
Phone System	X	Disconnected
Exhaust Fan		
Fire Extinguisher	X	
First Aid & Eye Wash	X	

Groundwater Treatment System

Air Stripper	**X**	Ratchet straps are used to keep the trays together. Several of the clips for the trays are rusted/broken.
Iron Removal Filter	**X**	Tank in-line but filter media removed; not required.
Flow Meters	**X**	See Notes.
Gauges	**X**	
Stripper Blower	**X**	
Indication of Alarm	**X**	

Groundwater Treatment Wells

EW-1 Pump	**X**	
EW-1 Transducer	**X**	
EW-1 Flow Meter	**X**	
EW-2 Pump	**X**	
EW-2 Transducer	**X**	
EW- 2 Flow Meter	**X**	
EW-3 Pump	**X**	
EW-3 Transducer	**X**	
EW-3 Flow Meter	**X**	

Effluent Discharge

Outfall	**X**	System was on upon arrival. There was discharge at outfall.
Cleanout	**X**	Iron removal tank was full up to the bottom of the discharge pipe.

Instrumentation/Readings:

EW-1

Pumping Rate	0 GPM (see Notes section)
Water Level Above Transducer	NA Inches
Flow Meter Reading	8,444,688 Gallons

EW-2

Pumping Rate	0 GPM (see Notes section)
Water Level Above Transducer	NA Inches
Flow Meter Reading	28,528,520 Gallons

EW-3

Pumping Rate	0 GPM (see Notes section)
Water Level Above Transducer	NA Inches
Flow Meter Reading	15,696,380 Gallons

Air Stripper

Stripper Blower Pressure	14 Inches H2O

Effluent Flow

Total System Meter Reading	71,706,320 Gallons

Influent/Effluent Sampling

AQUEOUS:
Monthly monitoring samples of aqueous phase system influent and effluent were collected and submitted for the following analyses:

- VOCs by EPA Method 624 (CFR136 624)
- Iron by MCAWW 200.7
- TSS by MCAWW SM18-20 2540 D
- pH by MCAWW SM18-20 4500-H+B

pH measurements must be made in the field:

Influent pH 6.7 (field test strip)
Effluent pH 6.7 (field test strip)

Notes/Explanations
(Please include any additional information on those items that require attention as indicated above.)

The system was up and running and samples were collected for January 2021.

Not able to read transducer elevations on control panel due to backlight not working.

Confirmed flow from each of the three pumping wells by individually isolating EW-1, EW-2, and EW-3 by temporarily closing influent valves.

The SVE building overhead door flashing has wind and header damage.

The AS building overhead door flashing needs replacement.

The gate leading to the outfall is becoming overgrown by vegetation.

Inspected pumping well headers; vines growing around EW-3; vines were killed but could not be removed from well header without proper equipment (hand pruners).

Snowmobile tracks observed on site (including cap).

The most recent round of water levels (4Q2020) were collected on January 4, 2021.

The most recent acid wash was performed January 15, 2021.

Table 1
February 9, 2021 Summary of Influent and Effluent Data

Chem-Trol Site
Town of Hamburg, New York

Parameters	Concentration				Mass Loading		
	Influent	Effluent	Discharge Limitations	Units	Effluent	Discharge Limitations	Units
Flow*	2,809	2,809	144,000	gpd	NA	NA	NA
pH	7.3	7.9	6.5 to 8.5	standard units	NA	NA	NA
Toluene	< 18	< 5.0	5	ug/L	< 0.0001	0.006	lbs/day
Chlorobenzene	< 19	< 5.0	10	ug/L	< 0.0001	0.012	lbs/day
cis-1,2-Dichloroethene	< 23	< 5.0	10	ug/L	< 0.0001	0.012	lbs/day
Benzene	< 24	< 5.0	5	ug/L	< 0.0001	0.006	lbs/day
1,1,1-Trichloroethane	< 15	< 5.0	10	ug/L	< 0.0001	0.012	lbs/day
Chloroethane	< 35	< 5.0	10	ug/L	< 0.0001	0.012	lbs/day
1,1-Dichloroethane	< 24	< 5.0	10	ug/L	< 0.0001	0.012	lbs/day
1,1-Dichloroethene	< 34	< 5.0	10	ug/L	< 0.0001	0.012	lbs/day
Trichloroethene	< 24	< 5.0	10	ug/L	< 0.0001	0.012	lbs/day
o-Chlorotoluene	2,600	< 5.0	10	ug/L	< 0.0001	0.012	lbs/day
Iron - Total	1,170	1,080	3,000	ug/L	0.03	3.61	lbs/day
TSS	18.8	4.8	20	mg/L	0.11		lbs/day

Notes:

*1) **Bold** typeface denotes exceedance of treatment requirements in the effluent sample.*

2) < indicates Not Detected at or above the laboratory reporting limit.

3) NA indicates Not Applicable.

4) "J" indicates an estimated concentration below the method detection limit.

5) E - Estimated Value, result above calibration curve

6) D - Dilution

7) Revision of monitoring parameters (inorganics and TSS) and discharge limitation (iron) approved by NYSDEC letter dated July 27, 2007.

** Average daily flow as measured January 4, 2021 through February 9, 2021.*

Table 2
February 9, 2021 Summary of Influent and Effluent Data

Chem-Trol Site
Town of Hamburg, New York

Instrumentation/Readings:	Current Report 2/9/2021	units	Prior Report 1/4/2021
EW-1			
Pumping Rate	0	GPM	0
Water Level Above Transducer	NA	Inches	293
Flow Meter Reading	8,444,688	gallons	8,444,688
EW-2			
Pumping Rate	0	GPM	0
Water Level Above Transducer	NA	Inches	194
Flow Meter Reading	28,528,520	gallons	28,528,520
EW-3			
Pumping Rate	0	GPM	0
Water Level Above Transducer	NA	Inches	217
Flow Meter Reading	15,696,380	gallons	15,696,380
Air Stripper			
Stripper Blower Pressure	14.0	inches H_2O	17.5
Effluent Flow			
Total System Meter Reading	71,706,320	gallons	71,608,015
Average System Flow Since Prior Report	2,809	gpd	
	117.0	gph	
	2.0	gpm	
Influent o-Chlorotoluene concentration	2,600	ug/L	
Current month mass removal	1.0	kilograms	

Note: NA indicates Not Available.
NW - Not working
ug/L - micrograms per liter

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ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-181003-1
Client Project/Site: ChemTrol Site: Monthly
Sampling Event: ChemTrol Monthly Groundwater

For:
Waste Management
600 New Ludlow Road
South Hadley, Massachusetts 01075

Attn: Ryan Donovan

Authorized for release by:
2/18/2021 4:44:00 PM
Joshua Velez, Project Management Assistant I
joshua.velez@eurofinset.com

Designee for

Lisa Shaffer, Senior Project Manager
(716)504-9816
Lisa.Shaffer@Eurofinset.com

Table of Contents

Definitions/Glossary

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181003-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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

Job ID: 480-181003-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-181003-1

Comments
No additional comments.

Receipt
The samples were received on 2/9/2021 9:45 AM. 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 2.7º C.

GC/MS VOA
Method 624.1: The following samples were diluted to bring the concentration of target analytes within the calibration range: Influent (480-181003-2), (480-181003-D-2 MS) and (480-181003-D-2 MSD). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Effluent (480-181003-1) and Influent (480-181003-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181003-1

Client Sample ID: Effluent — Lab Sample ID: 480-181003-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1080		50.0		ug/L	1		200.7 Rev 4.4	Total Recoverable
Total Suspended Solids	4.8		4.0		mg/L	1		SM 2540D	Total/NA
pH	7.9	HF	0.1		SU	1		SM 4500 H+ B	Total/NA
Temperature	21.0	HF	0.001		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: Influent — Lab Sample ID: 480-181003-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Chlorotoluene	2600	F1	13		ug/L	40		624.1	Total/NA
Iron	1170		50.0		ug/L	1		200.7 Rev 4.4	Total Recoverable
Total Suspended Solids	18.8		4.0		mg/L	1		SM 2540D	Total/NA
Total Suspended Solids	11.6		4.0		mg/L	1		SM 2540D	Total/NA
pH	7.3	HF	0.1		SU	1		SM 4500 H+ B	Total/NA
Temperature	21.0	HF	0.001		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 480-181003-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181003-1

Client Sample ID: Effluent

Date Collected: 02/09/21 09:15
Date Received: 02/09/21 09:45

Lab Sample ID: 480-181003-1

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			02/10/21 13:58	1
1,1-Dichloroethane	ND		5.0		ug/L			02/10/21 13:58	1
1,1-Dichloroethene	ND		5.0		ug/L			02/10/21 13:58	1
Benzene	ND		5.0		ug/L			02/10/21 13:58	1
Chlorobenzene	ND		5.0		ug/L			02/10/21 13:58	1
Chloroethane	ND		5.0		ug/L			02/10/21 13:58	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			02/10/21 13:58	1
Toluene	ND		5.0		ug/L			02/10/21 13:58	1
Trichloroethene	ND		5.0		ug/L			02/10/21 13:58	1
o-Chlorotoluene	ND		5.0		ug/L			02/10/21 13:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*68 - 130*		*02/10/21 13:58*	*1*
4-Bromofluorobenzene (Surr)	*96*		*76 - 123*		*02/10/21 13:58*	*1*
Toluene-d8 (Surr)	*97*		*77 - 120*		*02/10/21 13:58*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1080**		50.0		ug/L		02/10/21 09:14	02/10/21 19:53	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	**4.8**		4.0		mg/L			02/13/21 16:04	1
pH	**7.9**	**HF**	0.1		SU			02/09/21 23:47	1
Temperature	**21.0**	**HF**	0.001		Degrees C			02/09/21 23:47	1

Client Sample Results

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181003-1

Client Sample ID: Influent

Date Collected: 02/09/21 09:30
Date Received: 02/09/21 09:45

Lab Sample ID: 480-181003-2

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		15		ug/L			02/10/21 14:21	40
1,1-Dichloroethane	ND		24		ug/L			02/10/21 14:21	40
1,1-Dichloroethene	ND		34		ug/L			02/10/21 14:21	40
Benzene	ND		24		ug/L			02/10/21 14:21	40
Chlorobenzene	ND		19		ug/L			02/10/21 14:21	40
Chloroethane	ND		35		ug/L			02/10/21 14:21	40
cis-1,2-Dichloroethene	ND		23		ug/L			02/10/21 14:21	40
Toluene	ND		18		ug/L			02/10/21 14:21	40
Trichloroethene	ND		24		ug/L			02/10/21 14:21	40
o-Chlorotoluene	**2600**	**F1**	13		ug/L			02/10/21 14:21	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*68 - 130*		*02/10/21 14:21*	*40*
4-Bromofluorobenzene (Surr)	*100*		*76 - 123*		*02/10/21 14:21*	*40*
Toluene-d8 (Surr)	*94*		*77 - 120*		*02/10/21 14:21*	*40*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1170**		50.0		ug/L		02/10/21 09:14	02/10/21 20:04	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	**18.8**		4.0		mg/L			02/13/21 16:04	1
Total Suspended Solids	**11.6**		4.0		mg/L			02/16/21 17:53	1
pH	**7.3**	**HF**	0.1		SU			02/09/21 23:50	1
Temperature	**21.0**	**HF**	0.001		Degrees C			02/09/21 23:50	1

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181003-1

Client Sample ID: Trip Blank

Date Collected: 02/09/21 09:00
Date Received: 02/09/21 09:45

Lab Sample ID: 480-181003-3

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			02/10/21 14:45	1
1,1-Dichloroethane	ND		5.0		ug/L			02/10/21 14:45	1
1,1-Dichloroethene	ND		5.0		ug/L			02/10/21 14:45	1
Benzene	ND		5.0		ug/L			02/10/21 14:45	1
Chlorobenzene	ND		5.0		ug/L			02/10/21 14:45	1
Chloroethane	ND		5.0		ug/L			02/10/21 14:45	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			02/10/21 14:45	1
Toluene	ND		5.0		ug/L			02/10/21 14:45	1
Trichloroethene	ND		5.0		ug/L			02/10/21 14:45	1
o-Chlorotoluene	ND		5.0		ug/L			02/10/21 14:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*68 - 130*		*02/10/21 14:45*	*1*
4-Bromofluorobenzene (Surr)	*97*		*76 - 123*		*02/10/21 14:45*	*1*
Toluene-d8 (Surr)	*95*		*77 - 120*		*02/10/21 14:45*	*1*

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-568898/9
Matrix: Water
Analysis Batch: 568898

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	ND		5.0		ug/L			02/10/21 11:36	1
1,1-Dichloroethane	ND		5.0		ug/L			02/10/21 11:36	1
1,1-Dichloroethene	ND		5.0		ug/L			02/10/21 11:36	1
Benzene	ND		5.0		ug/L			02/10/21 11:36	1
Chlorobenzene	ND		5.0		ug/L			02/10/21 11:36	1
Chloroethane	ND		5.0		ug/L			02/10/21 11:36	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			02/10/21 11:36	1
Toluene	ND		5.0		ug/L			02/10/21 11:36	1
Trichloroethene	ND		5.0		ug/L			02/10/21 11:36	1
o-Chlorotoluene	ND		5.0		ug/L			02/10/21 11:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*68 - 130*		*02/10/21 11:36*	*1*
4-Bromofluorobenzene (Surr)	*98*		*76 - 123*		*02/10/21 11:36*	*1*
Toluene-d8 (Surr)	*96*		*77 - 120*		*02/10/21 11:36*	*1*

Lab Sample ID: LCS 480-568898/7
Matrix: Water
Analysis Batch: 568898

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	21.0		ug/L		105	52 - 162
1,1-Dichloroethane	20.0	20.8		ug/L		104	59 - 155
1,1-Dichloroethene	20.0	21.2		ug/L		106	1 - 234
Benzene	20.0	21.0		ug/L		105	37 - 151
Chlorobenzene	20.0	20.4		ug/L		102	37 - 160
Chloroethane	20.0	20.3		ug/L		102	14 - 230
Toluene	20.0	22.1		ug/L		110	47 - 150
Trichloroethene	20.0	20.9		ug/L		104	71 - 157

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*68 - 130*
4-Bromofluorobenzene (Surr)	*99*		*76 - 123*
Toluene-d8 (Surr)	*108*		*77 - 120*

Lab Sample ID: 480-181003-2 MS
Matrix: Water
Analysis Batch: 568898

Client Sample ID: Influent
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		800	804		ug/L		100	52 - 162
1,1-Dichloroethane	ND		800	839		ug/L		105	59 - 155
1,1-Dichloroethene	ND		800	788		ug/L		99	1 - 234
Benzene	ND		800	812		ug/L		102	37 - 151
Chlorobenzene	ND		800	823		ug/L		103	37 - 160
Chloroethane	ND		800	898		ug/L		112	14 - 230
Toluene	ND		800	829		ug/L		104	47 - 150
Trichloroethene	ND		800	819		ug/L		102	71 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*115*		*68 - 130*
4-Bromofluorobenzene (Surr)	*100*		*76 - 123*
Toluene-d8 (Surr)	*101*		*77 - 120*

Lab Sample ID: 480-181003-2 MSD
Matrix: Water
Analysis Batch: 568898

Client Sample ID: Influent
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		800	762		ug/L		95	52 - 162	5	15
1,1-Dichloroethane	ND		800	820		ug/L		103	59 - 155	2	15
1,1-Dichloroethene	ND		800	732		ug/L		92	1 - 234	7	15
Benzene	ND		800	800		ug/L		100	37 - 151	1	15
Chlorobenzene	ND		800	775		ug/L		97	37 - 160	6	15
Chloroethane	ND		800	839		ug/L		105	14 - 230	7	15
Toluene	ND		800	771		ug/L		96	47 - 150	7	15
Trichloroethene	ND		800	776		ug/L		97	71 - 157	5	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*99*		*68 - 130*
4-Bromofluorobenzene (Surr)	*100*		*76 - 123*
Toluene-d8 (Surr)	*99*		*77 - 120*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-568931/1-A
Matrix: Water
Analysis Batch: 569132

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 568931

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		50.0		ug/L		02/10/21 09:14	02/10/21 18:50	1

Lab Sample ID: LCS 480-568931/2-A
Matrix: Water
Analysis Batch: 569132

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 568931

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	10000	9791		ug/L		98	85 - 115

Lab Sample ID: 480-181003-1 MS
Matrix: Water
Analysis Batch: 569132

Client Sample ID: Effluent
Prep Type: Total Recoverable
Prep Batch: 568931

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1080		10000	10940		ug/L		99	70 - 130

Lab Sample ID: 480-181003-1 MSD
Matrix: Water
Analysis Batch: 569132

Client Sample ID: Effluent
Prep Type: Total Recoverable
Prep Batch: 568931

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	1080		10000	10890		ug/L		98	70 - 130	0	20

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 480-569403/1
Matrix: Water
Analysis Batch: 569403

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0		mg/L			02/13/21 16:04	1

Lab Sample ID: LCS 480-569403/2
Matrix: Water
Analysis Batch: 569403

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			2590	2593		mg/L		100	88 - 110		

Lab Sample ID: MB 480-569708/1
Matrix: Water
Analysis Batch: 569708

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0		mg/L			02/16/21 17:53	1

Lab Sample ID: LCS 480-569708/2
Matrix: Water
Analysis Batch: 569708

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			2560	2503		mg/L		98	88 - 110		

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-568983/23
Matrix: Water
Analysis Batch: 568983

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.1		SU		101	99 - 101		

Lab Sample ID: LCS 480-568983/45
Matrix: Water
Analysis Batch: 568983

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.1		SU		101	99 - 101		

QC Association Summary

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181003-1

GC/MS VOA

Analysis Batch: 568898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181003-1	Effluent	Total/NA	Water	624.1	
480-181003-2	Influent	Total/NA	Water	624.1	
480-181003-3	Trip Blank	Total/NA	Water	624.1	
MB 480-568898/9	Method Blank	Total/NA	Water	624.1	
LCS 480-568898/7	Lab Control Sample	Total/NA	Water	624.1	
480-181003-2 MS	Influent	Total/NA	Water	624.1	
480-181003-2 MSD	Influent	Total/NA	Water	624.1	

Metals

Prep Batch: 568931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181003-1	Effluent	Total Recoverable	Water	200.7	
480-181003-2	Influent	Total Recoverable	Water	200.7	
MB 480-568931/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 480-568931/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
480-181003-1 MS	Effluent	Total Recoverable	Water	200.7	
480-181003-1 MSD	Effluent	Total Recoverable	Water	200.7	

Analysis Batch: 569132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181003-1	Effluent	Total Recoverable	Water	200.7 Rev 4.4	568931
480-181003-2	Influent	Total Recoverable	Water	200.7 Rev 4.4	568931
MB 480-568931/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	568931
LCS 480-568931/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	568931
480-181003-1 MS	Effluent	Total Recoverable	Water	200.7 Rev 4.4	568931
480-181003-1 MSD	Effluent	Total Recoverable	Water	200.7 Rev 4.4	568931

General Chemistry

Analysis Batch: 568983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181003-1	Effluent	Total/NA	Water	SM 4500 H+ B	
480-181003-2	Influent	Total/NA	Water	SM 4500 H+ B	
LCS 480-568983/23	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCS 480-568983/45	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 569403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181003-1	Effluent	Total/NA	Water	SM 2540D	
480-181003-2	Influent	Total/NA	Water	SM 2540D	
MB 480-569403/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 480-569403/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 569708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181003-2	Influent	Total/NA	Water	SM 2540D	
MB 480-569708/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 480-569708/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Lab Chronicle

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181003-1

Client Sample ID: Effluent
Date Collected: 02/09/21 09:15
Date Received: 02/09/21 09:45

Lab Sample ID: 480-181003-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	568898	02/10/21 13:58	RJF	TAL BUF
Total Recoverable	Prep	200.7			568931	02/10/21 09:14	ADM	TAL BUF
Total Recoverable	Analysis	200.7 Rev 4.4		1	569132	02/10/21 19:53	AMH	TAL BUF
Total/NA	Analysis	SM 2540D		1	569403	02/13/21 16:04	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	568983	02/09/21 23:47	KMF	TAL BUF

Client Sample ID: Influent
Date Collected: 02/09/21 09:30
Date Received: 02/09/21 09:45

Lab Sample ID: 480-181003-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		40	568898	02/10/21 14:21	RJF	TAL BUF
Total Recoverable	Prep	200.7			568931	02/10/21 09:14	ADM	TAL BUF
Total Recoverable	Analysis	200.7 Rev 4.4		1	569132	02/10/21 20:04	AMH	TAL BUF
Total/NA	Analysis	SM 2540D		1	569708	02/16/21 17:53	CSS	TAL BUF
Total/NA	Analysis	SM 2540D		1	569403	02/13/21 16:04	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	568983	02/09/21 23:50	KMF	TAL BUF

Client Sample ID: Trip Blank
Date Collected: 02/09/21 09:00
Date Received: 02/09/21 09:45

Lab Sample ID: 480-181003-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	568898	02/10/21 14:45	RJF	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181003-1

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-21

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
624.1		Water	o-Chlorotoluene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181003-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Recoverable Metals	EPA	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181003-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-181003-1	Effluent	Water	02/09/21 09:15	02/09/21 09:45	
480-181003-2	Influent	Water	02/09/21 09:30	02/09/21 09:45	
480-181003-3	Trip Blank	Water	02/09/21 09:00	02/09/21 09:45	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: DLZ	Lab PM: Shaffer, Lisa E	Carrier Tracking No(s):	COC No: 480-151975-28522.1
Client Contact: Mr. Dino Zack	Phone: 716 866 8222	E-Mail: Lisa.Shaffer@Eurofinset.com		Page: Page 1 of 1
Company: AECOM				Job #:
Address: 257 West Genesee Street Suite 400	Due Date Requested:			
City: Buffalo	TAT Requested (days): STD			
State, Zip: NY, 14202-2657				
Phone: 215-269-2114(Tel) 215-699-8315(Fax)	PO #: 5070005494			
Email: dino.zack@aecom.com	WO #:			
Project Name: ChemTrol Site/NY22 Event Desc: ChemTrol Monthly Groundwat	Project #: 48002447			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - Iron	624.1_PREC - 624	2540D - Total Suspended Solids	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	N	N		
Effluent	2/9/21	0915	G	Water	N	N	1	3	1	1		
Influent	2/9/21	0930	G	Water	N	N	1	3	1	1		
Trip Blank	2/9/21	0900	-	Water	N	N		1				

480-181003 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Dino Zack	Date/Time: 2/9/21 0945	Company: AECom	Received by: [signature] Date/Time: 2/9/21 0945 Company: TAS
Relinquished by:	Date/Time:	Company:	Received by: Date/Time: Company:
Relinquished by:	Date/Time:	Company:	Received by: Date/Time: Company:

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #1 2.7

Ver: 01/16/2019

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2/18/2021

February 2021

Operation, Maintenance & Monitoring Checklist

Groundwater Treatment System
CHEM-TROL Site
Town of Hamburg, New York

This summary inspection checklist is to be completed during each site inspection. Note all items, which require repair or maintenance. Use the last page to note any additional comments or unusual events.

General

Service by: Sean P. Connelly Weather/Temperature: Snowing, 31 F
Date: 2/23/2021 Arrival Time: 07:15 Departure Time: 8:30

Reason for Service: Inspect system and perform monthly sampling

Inspection Items:	OK:	Comments:
Site Appearance/Condition	X	See comments section.
Building Exterior		
Overhead Door	X	Wood lintel decaying, header exposed.
Siding	X	Metal trim missing from lintel
Roof and Discharge Pipe	X	
Building Interior		
Indication of Spills or Leaks		Condensation on the floor; slight drip from air stripper
Building Heater	X	Breaker turned on. Was off on arrival.
Phone System	X	Disconnected
Exhaust Fan		Could not get fan to work.
Fire Extinguisher	X	
First Aid & Eye Wash	X	

Groundwater Treatment System

Air Stripper	**X**	Ratchet straps are used to keep the trays together. Several of the clips for the trays are rusted/broken.
Iron Removal Filter	**X**	Tank in-line but filter media removed; not required.
Flow Meters	**X**	See Notes.
Gauges	**X**	
Stripper Blower	**X**	
Indication of Alarm	**X**	

Groundwater Treatment Wells

EW-1 Pump	**X**	
EW-1 Transducer	**X**	
EW-1 Flow Meter	**X**	
EW-2 Pump	**X**	
EW-2 Transducer	**X**	
EW- 2 Flow Meter	**X**	
EW-3 Pump	**X**	
EW-3 Transducer	**X**	
EW-3 Flow Meter	**X**	

Effluent Discharge

Outfall	**X**	System was on upon arrival. There was discharge at outfall.
Cleanout	**X**	Iron removal tank was full up to the bottom of the discharge pipe.

Instrumentation/Readings:

EW-1

Pumping Rate	0 GPM (see Notes section)
Water Level Above Transducer	266 Inches
Flow Meter Reading	8,444,688 Gallons

EW-2

Pumping Rate	0 GPM (see Notes section)
Water Level Above Transducer	168 Inches
Flow Meter Reading	28,528,520 Gallons

EW-3

Pumping Rate	0 GPM (see Notes section)
Water Level Above Transducer	187 Inches
Flow Meter Reading	15,696,380 Gallons

Air Stripper

Stripper Blower Pressure	17.5 Inches H2O

Effluent Flow

Total System Meter Reading	71,783,625 Gallons

Influent/Effluent Sampling

AQUEOUS:
Monthly monitoring samples of aqueous phase system influent and effluent were collected and submitted for the following analyses:

- VOCs by EPA Method 624 (CFR136 624)
- Iron by MCAWW 200.7
- TSS by MCAWW SM18-20 2540 D
- pH by MCAWW SM18-20 4500-H+B

pH measurements must be made in the field:

Influent pH 7.0 (field test strip)
Effluent pH 7.0 (field test strip)

Notes/Explanations
(Please include any additional information on those items that require attention as indicated above.)

The system was up and running and the February 2021 samples were able to be collected today.

Total system flow on system totalizer flow meter timed at 4.0 gpm. During visit, individually closed EW-1, EW-2, and EW-3 influent valve to test flow by reading response on transducer elevation; noted rise in transducer elevation when valve was closed and drop when valve was opened confirming well was pumping.

The SVE building overhead door flashing has wind and header damage.

The AS building overhead door flashing needs replacement.

The gate leading to the outfall is becoming overgrown by vegetation.

The most recent round of water levels (4Q2020) were collected on January 4, 2021.

The most recent acid wash was performed on January 15, 2021 by AECOM.

Table 1
February 23, 2021 Summary of Influent and Effluent Data

Chem-Trol Site
Town of Hamburg, New York

Parameters	Concentration				Mass Loading		
	Influent	Effluent	Discharge Limitations	Units	Effluent	Discharge Limitations	Units
Flow*	5,522	5,522	144,000	gpd	NA	NA	NA
pH	7.5	7.9	6.5 to 8.5	standard units	NA	NA	NA
Toluene	< 18	< 5.0	5	ug/L	< 0.0002	0.006	lbs/day
Chlorobenzene	< 19	< 5.0	10	ug/L	< 0.0002	0.012	lbs/day
cis-1,2-Dichloroethene	< 23	< 5.0	10	ug/L	< 0.0002	0.012	lbs/day
Benzene	< 24	< 5.0	5	ug/L	< 0.0002	0.006	lbs/day
1,1,1-Trichloroethane	< 15	< 5.0	10	ug/L	< 0.0002	0.012	lbs/day
Chloroethane	< 35	< 5.0	10	ug/L	< 0.0002	0.012	lbs/day
1,1-Dichloroethane	< 24	< 5.0	10	ug/L	< 0.0002	0.012	lbs/day
1,1-Dichloroethene	< 34	< 5.0	10	ug/L	< 0.0002	0.012	lbs/day
Trichloroethene	< 24	< 5.0	10	ug/L	< 0.0002	0.012	lbs/day
o-Chlorotoluene	2,500	< 5.0	10	ug/L	< 0.0002	0.012	lbs/day
Iron - Total	1,100	754	3,000	ug/L	0.03	3.61	lbs/day
TSS	5.2	< 4.0	20	mg/L	< 0.18		lbs/day

Notes:

*1) **Bold** typeface denotes exceedance of treatment requirements in the effluent sample.*

2) < indicates Not Detected at or above the laboratory reporting limit.

3) NA indicates Not Applicable.

4) "J" indicates an estimated concentration below the method detection limit.

5) E - Estimated Value, result above calibration curve

6) D - Dilution

7) Revision of monitoring parameters (inorganics and TSS) and discharge limitation (iron) approved by NYSDEC letter dated July 27, 2007.

** Average daily flow as measured February 9, 2021 through February 23, 2021.*

Table 2
February 23, 2021 Summary of Influent and Effluent Data

Chem-Trol Site
Town of Hamburg, New York

Instrumentation/Readings:	Current Report 2/23/2021	units	Prior Report 2/9/2021
EW-1			
Pumping Rate	0	GPM	0
Water Level Above Transducer	266	Inches	NA
Flow Meter Reading	8,444,688	gallons	8,444,688
EW-2			
Pumping Rate	0	GPM	0
Water Level Above Transducer	168	Inches	NA
Flow Meter Reading	28,528,520	gallons	28,528,520
EW-3			
Pumping Rate	0	GPM	0
Water Level Above Transducer	187	Inches	NA
Flow Meter Reading	15,696,380	gallons	15,696,380
Air Stripper			
Stripper Blower Pressure	17.5	inches H_2O	14.0
Effluent Flow			
Total System Meter Reading	71,783,625	gallons	71,706,320
Average System Flow Since Prior Report	5,522	gpd	
	230.1	gph	
	3.8	gpm	
Influent o-Chlorotoluene concentration	2,500	ug/L	
Current month mass removal	0.7	kilograms	

Note: NA indicates Not Available.
NW - Not working
ug/L - micrograms per liter

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-181361-1
Client Project/Site: ChemTrol Site: Monthly
Sampling Event: ChemTrol Monthly Groundwater

For:
Waste Management
600 New Ludlow Road
South Hadley, Massachusetts 01075

Attn: Ryan Donovan

Authorized for release by:
2/26/2021 3:30:28 PM
Joshua Velez, Project Management Assistant I
joshua.velez@eurofinset.com

Designee for

Lisa Shaffer, Senior Project Manager
(716)504-9816
Lisa.Shaffer@Eurofinset.com

Table of Contents

Definitions/Glossary

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181361-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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

Job ID: 480-181361-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-181361-1

Comments
No additional comments.

Receipt
The samples were received on 2/23/2021 4:15 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 5.4º C.

GC/MS VOA
Method 624.1: The following samples were diluted to bring the concentration of target analytes within the calibration range: Influent (480-181361-2), (480-181361-D-2 MS) and (480-181361-D-2 MSD). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Effluent (480-181361-1) and Influent (480-181361-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181361-1

Client Sample ID: Effluent — Lab Sample ID: 480-181361-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	754		50.0		ug/L	1		200.7 Rev 4.4	Total Recoverable
pH	7.9	HF	0.1		SU	1		SM 4500 H+ B	Total/NA
Temperature	20.8	HF	0.001		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: Influent — Lab Sample ID: 480-181361-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Chlorotoluene	2500	F1	13		ug/L	40		624.1	Total/NA
Iron	1100		50.0		ug/L	1		200.7 Rev 4.4	Total Recoverable
Total Suspended Solids	5.2		4.0		mg/L	1		SM 2540D	Total/NA
pH	7.5	HF	0.1		SU	1		SM 4500 H+ B	Total/NA
Temperature	20.7	HF	0.001		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 480-181361-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181361-1

Client Sample ID: Effluent

Date Collected: 02/23/21 07:45
Date Received: 02/23/21 16:15

Lab Sample ID: 480-181361-1

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			02/24/21 22:43	1
1,1-Dichloroethane	ND		5.0		ug/L			02/24/21 22:43	1
1,1-Dichloroethene	ND		5.0		ug/L			02/24/21 22:43	1
Benzene	ND		5.0		ug/L			02/24/21 22:43	1
Chlorobenzene	ND		5.0		ug/L			02/24/21 22:43	1
Chloroethane	ND		5.0		ug/L			02/24/21 22:43	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			02/24/21 22:43	1
Toluene	ND		5.0		ug/L			02/24/21 22:43	1
Trichloroethene	ND		5.0		ug/L			02/24/21 22:43	1
o-Chlorotoluene	ND		5.0		ug/L			02/24/21 22:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 130*		*02/24/21 22:43*	*1*
4-Bromofluorobenzene (Surr)	*92*		*76 - 123*		*02/24/21 22:43*	*1*
Toluene-d8 (Surr)	*96*		*77 - 120*		*02/24/21 22:43*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**754**		50.0		ug/L		02/25/21 10:55	02/25/21 18:17	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0		mg/L			02/24/21 15:20	1
pH	**7.9**	**HF**	0.1		SU			02/25/21 14:12	1
Temperature	**20.8**	**HF**	0.001		Degrees C			02/25/21 14:12	1

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181361-1

Client Sample ID: Influent

Date Collected: 02/23/21 08:15
Date Received: 02/23/21 16:15

Lab Sample ID: 480-181361-2

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		15		ug/L			02/24/21 23:08	40
1,1-Dichloroethane	ND		24		ug/L			02/24/21 23:08	40
1,1-Dichloroethene	ND	F2	34		ug/L			02/24/21 23:08	40
Benzene	ND		24		ug/L			02/24/21 23:08	40
Chlorobenzene	ND		19		ug/L			02/24/21 23:08	40
Chloroethane	ND	F2	35		ug/L			02/24/21 23:08	40
cis-1,2-Dichloroethene	ND		23		ug/L			02/24/21 23:08	40
Toluene	ND		18		ug/L			02/24/21 23:08	40
Trichloroethene	ND		24		ug/L			02/24/21 23:08	40
o-Chlorotoluene	**2500**	**F1**	13		ug/L			02/24/21 23:08	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*68 - 130*		*02/24/21 23:08*	*40*
4-Bromofluorobenzene (Surr)	*99*		*76 - 123*		*02/24/21 23:08*	*40*
Toluene-d8 (Surr)	*96*		*77 - 120*		*02/24/21 23:08*	*40*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1100**		50.0		ug/L		02/25/21 10:55	02/25/21 18:21	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	**5.2**		4.0		mg/L			02/24/21 15:20	1
pH	**7.5**	**HF**	0.1		SU			02/25/21 14:15	1
Temperature	**20.7**	**HF**	0.001		Degrees C			02/25/21 14:15	1

Client Sample Results

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181361-1

Client Sample ID: Trip Blank

Date Collected: 02/23/21 00:00
Date Received: 02/23/21 16:15

Lab Sample ID: 480-181361-3

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			02/24/21 23:31	1
1,1-Dichloroethane	ND		5.0		ug/L			02/24/21 23:31	1
1,1-Dichloroethene	ND		5.0		ug/L			02/24/21 23:31	1
Benzene	ND		5.0		ug/L			02/24/21 23:31	1
Chlorobenzene	ND		5.0		ug/L			02/24/21 23:31	1
Chloroethane	ND		5.0		ug/L			02/24/21 23:31	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			02/24/21 23:31	1
Toluene	ND		5.0		ug/L			02/24/21 23:31	1
Trichloroethene	ND		5.0		ug/L			02/24/21 23:31	1
o-Chlorotoluene	ND		5.0		ug/L			02/24/21 23:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 130*		*02/24/21 23:31*	*1*
4-Bromofluorobenzene (Surr)	*97*		*76 - 123*		*02/24/21 23:31*	*1*
Toluene-d8 (Surr)	*86*		*77 - 120*		*02/24/21 23:31*	*1*

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-570484/10
Matrix: Water
Analysis Batch: 570484

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	ND		5.0		ug/L			02/24/21 21:08	1
1,1-Dichloroethane	ND		5.0		ug/L			02/24/21 21:08	1
1,1-Dichloroethene	ND		5.0		ug/L			02/24/21 21:08	1
Benzene	ND		5.0		ug/L			02/24/21 21:08	1
Chlorobenzene	ND		5.0		ug/L			02/24/21 21:08	1
Chloroethane	ND		5.0		ug/L			02/24/21 21:08	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			02/24/21 21:08	1
Toluene	ND		5.0		ug/L			02/24/21 21:08	1
Trichloroethene	ND		5.0		ug/L			02/24/21 21:08	1
o-Chlorotoluene	ND		5.0		ug/L			02/24/21 21:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*68 - 130*		*02/24/21 21:08*	*1*
4-Bromofluorobenzene (Surr)	*93*		*76 - 123*		*02/24/21 21:08*	*1*
Toluene-d8 (Surr)	*97*		*77 - 120*		*02/24/21 21:08*	*1*

Lab Sample ID: LCS 480-570484/8
Matrix: Water
Analysis Batch: 570484

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	17.8		ug/L		89	52 - 162
1,1-Dichloroethane	20.0	21.6		ug/L		108	59 - 155
1,1-Dichloroethene	20.0	21.1		ug/L		105	1 - 234
Benzene	20.0	20.2		ug/L		101	37 - 151
Chlorobenzene	20.0	20.3		ug/L		101	37 - 160
Chloroethane	20.0	20.5		ug/L		102	14 - 230
Toluene	20.0	19.1		ug/L		95	47 - 150
Trichloroethene	20.0	20.1		ug/L		101	71 - 157

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*68 - 130*
4-Bromofluorobenzene (Surr)	*100*		*76 - 123*
Toluene-d8 (Surr)	*95*		*77 - 120*

Lab Sample ID: 480-181361-2 MS
Matrix: Water
Analysis Batch: 570484

Client Sample ID: Influent
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		800	809		ug/L		101	52 - 162
1,1-Dichloroethane	ND		800	836		ug/L		105	59 - 155
1,1-Dichloroethene	ND	F2	800	981		ug/L		123	1 - 234
Benzene	ND		800	847		ug/L		106	37 - 151
Chlorobenzene	ND		800	845		ug/L		106	37 - 160
Chloroethane	ND	F2	800	947		ug/L		118	14 - 230
Toluene	ND		800	823		ug/L		103	47 - 150
Trichloroethene	ND		800	845		ug/L		106	71 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 130*
4-Bromofluorobenzene (Surr)	*88*		*76 - 123*
Toluene-d8 (Surr)	*98*		*77 - 120*

Lab Sample ID: 480-181361-2 MSD
Matrix: Water
Analysis Batch: 570484

Client Sample ID: Influent
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		800	798		ug/L		100	52 - 162	1	15
1,1-Dichloroethane	ND		800	816		ug/L		102	59 - 155	2	15
1,1-Dichloroethene	ND	F2	800	817	F2	ug/L		102	1 - 234	18	15
Benzene	ND		800	808		ug/L		101	37 - 151	5	15
Chlorobenzene	ND		800	802		ug/L		100	37 - 160	5	15
Chloroethane	ND	F2	800	785	F2	ug/L		98	14 - 230	19	15
Toluene	ND		800	776		ug/L		97	47 - 150	6	15
Trichloroethene	ND		800	789		ug/L		99	71 - 157	7	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*98*		*68 - 130*
4-Bromofluorobenzene (Surr)	*104*		*76 - 123*
Toluene-d8 (Surr)	*97*		*77 - 120*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-570541/1-A
Matrix: Water
Analysis Batch: 570687

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 570541

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		50.0		ug/L		02/25/21 10:55	02/25/21 18:09	1

Lab Sample ID: LCS 480-570541/2-A
Matrix: Water
Analysis Batch: 570687

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 570541

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	10000	9195		ug/L		92	85 - 115

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 480-570473/1
Matrix: Water
Analysis Batch: 570473

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0		mg/L			02/24/21 15:20	1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 480-570473/2
Matrix: Water
Analysis Batch: 570473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	3340	3331		mg/L		100	88 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-570628/1
Matrix: Water
Analysis Batch: 570628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.1		SU		101	99 - 101

QC Association Summary

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181361-1

GC/MS VOA

Analysis Batch: 570484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181361-1	Effluent	Total/NA	Water	624.1	
480-181361-2	Influent	Total/NA	Water	624.1	
480-181361-3	Trip Blank	Total/NA	Water	624.1	
MB 480-570484/10	Method Blank	Total/NA	Water	624.1	
LCS 480-570484/8	Lab Control Sample	Total/NA	Water	624.1	
480-181361-2 MS	Influent	Total/NA	Water	624.1	
480-181361-2 MSD	Influent	Total/NA	Water	624.1	

Metals

Prep Batch: 570541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181361-1	Effluent	Total Recoverable	Water	200.7	
480-181361-2	Influent	Total Recoverable	Water	200.7	
MB 480-570541/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 480-570541/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

Analysis Batch: 570687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181361-1	Effluent	Total Recoverable	Water	200.7 Rev 4.4	570541
480-181361-2	Influent	Total Recoverable	Water	200.7 Rev 4.4	570541
MB 480-570541/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	570541
LCS 480-570541/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	570541

General Chemistry

Analysis Batch: 570473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181361-1	Effluent	Total/NA	Water	SM 2540D	
480-181361-2	Influent	Total/NA	Water	SM 2540D	
MB 480-570473/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 480-570473/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 570628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181361-1	Effluent	Total/NA	Water	SM 4500 H+ B	
480-181361-2	Influent	Total/NA	Water	SM 4500 H+ B	
LCS 480-570628/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181361-1

Client Sample ID: Effluent

Lab Sample ID: 480-181361-1

Date Collected: 02/23/21 07:45

Matrix: Water

Date Received: 02/23/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	570484	02/24/21 22:43	WJD	TAL BUF
Total Recoverable	Prep	200.7			570541	02/25/21 10:55	ADM	TAL BUF
Total Recoverable	Analysis	200.7 Rev 4.4		1	570687	02/25/21 18:17	AMH	TAL BUF
Total/NA	Analysis	SM 2540D		1	570473	02/24/21 15:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	570628	02/25/21 14:12	KEB	TAL BUF

Client Sample ID: Influent

Lab Sample ID: 480-181361-2

Date Collected: 02/23/21 08:15

Matrix: Water

Date Received: 02/23/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		40	570484	02/24/21 23:08	WJD	TAL BUF
Total Recoverable	Prep	200.7			570541	02/25/21 10:55	ADM	TAL BUF
Total Recoverable	Analysis	200.7 Rev 4.4		1	570687	02/25/21 18:21	AMH	TAL BUF
Total/NA	Analysis	SM 2540D		1	570473	02/24/21 15:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	570628	02/25/21 14:15	KEB	TAL BUF

Client Sample ID: Trip Blank

Lab Sample ID: 480-181361-3

Date Collected: 02/23/21 00:00

Matrix: Water

Date Received: 02/23/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	570484	02/24/21 23:31	WJD	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181361-1

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-21

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
624.1		Water	o-Chlorotoluene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181361-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Recoverable Metals	EPA	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Waste Management
Project/Site: ChemTrol Site: Monthly

Job ID: 480-181361-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-181361-1	Effluent	Water	02/23/21 07:45	02/23/21 16:15	
480-181361-2	Influent	Water	02/23/21 08:15	02/23/21 16:15	
480-181361-3	Trip Blank	Water	02/23/21 00:00	02/23/21 16:15	

Chain of Custody Record

420213

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Shaffer, Lisa E	Site Contact: Chad Moore	Date: 2/23/21	COC No:
Company Name: Waste Management	Tel/Email: Lisa.Shaffer@Evironmental	Lab Contact:	Carrier:	1 of 1 COCs
Address: Tullytown Landfill 444 Otter Valley Rd	**Analysis Turnaround Time**			Sampler:
City/State/Zip: Morrisville PA, 19067	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
Phone: 215-269-2114	TAT if different from Below STD			Walk-in Client:
Fax: 215-694-8315	☐ 2 weeks			Lab Sampling:
Project Name: Chem-Tool	☐ 1 week			
Site: NY22	☐ 2 days			Job / SDG No.:
PO# 5070005494	☐ 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)	2007 Iron	624.1 Rec	2540D - TSS	SM4500 NH3-PH	Sample Specific Notes:
Effluent	2/23/21	0745	G	W	6	N	N	1	3	1	1	
Influent	↓	0815	G	W	6	N	N	1	3	1	1	
Trip Blank	↓	-	-	W	1	N	N		1			

480-181361 Chain of Custody

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

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 & Comments:

5.4 # 1 ICE

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Sean P. Connelly	Accom	2/23/21/1645			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA	2/23/21 1615

March 2021

Operation, Maintenance & Monitoring Checklist

Groundwater Treatment System
CHEM-TROL Site
Town of Hamburg, New York

This summary inspection checklist is to be completed during each site inspection. Note all items, which require repair or maintenance. Use the last page to note any additional comments or unusual events.

General

Service by: Sean P. Connelly Weather/Temperature: Clear, 58 F
Date: 03/25/2021 Arrival Time: 08:30 Departure Time: 15:30

Reason for Service: Inspect system and perform monthly sampling

Inspection Items:	OK:	Comments:
Site Appearance/Condition	X	See comments section.
Building Exterior		
Overhead Door	X	Wood lintel decaying, header exposed.
Siding	X	Metal trim missing from lintel
Roof and Discharge Pipe	X	
Building Interior		
Indication of Spills or Leaks		Shed flooded with roughly 4" of water.
Building Heater	X	Breaker turned on. Was off on arrival.
Phone System	X	Disconnected
Exhaust Fan		Could not get fan to work.
Fire Extinguisher	X	
First Aid & Eye Wash	X	

Groundwater Treatment System

Air Stripper	**X**	Ratchet straps are used to keep the trays together. Several of the clips for the trays are rusted/broken.
Iron Removal Filter	**X**	Tank in-line but filter media removed; not required.
Flow Meters	**X**	See Notes.
Gauges	**X**	
Stripper Blower	**X**	
Indication of Alarm	**X**	

Groundwater Treatment Wells

EW-1 Pump	**X**	
EW-1 Transducer	**X**	
EW-1 Flow Meter	**X**	
EW-2 Pump	**X**	
EW-2 Transducer	**X**	
EW- 2 Flow Meter	**X**	
EW-3 Pump	**X**	
EW-3 Transducer	**X**	
EW-3 Flow Meter	**X**	

Effluent Discharge

Outfall	**X**	System was on upon arrival. There was minimal discharge at outfall. Dug out outfall and rerouted discharge pipe in shed through the wall to bypass clogged elbow pipe. Resulted in adequate discharge at outfall.
Cleanout	**X**	Iron removal tank was full up to the bottom of the discharge pipe.

Instrumentation/Readings:

EW-1

Pumping Rate	0 GPM (see Notes section)
Water Level Above Transducer	267 Inches
Flow Meter Reading	8,444,688 Gallons

EW-2

Pumping Rate	0 GPM (see Notes section)
Water Level Above Transducer	171 Inches
Flow Meter Reading	28,528,520 Gallons

EW-3

Pumping Rate	0 GPM (see Notes section)
Water Level Above Transducer	192 Inches
Flow Meter Reading	15,696,380 Gallons

Air Stripper

Stripper Blower Pressure	17.5 Inches H2O

Effluent Flow

Total System Meter Reading	71,986,517 Gallons

Influent/Effluent Sampling

AQUEOUS:
Monthly monitoring samples of aqueous phase system influent and effluent were collected and submitted for the following analyses:

- VOCs by EPA Method 624 (CFR136 624)
- Iron by MCAWW 200.7
- TSS by MCAWW SM18-20 2540 D
- pH by MCAWW SM18-20 4500-H+B

pH measurements must be made in the field:

Influent pH 7.0 (field test strip)
Effluent pH 7.0 (field test strip)

Notes/Explanations
(Please include any additional information on those items that require attention as indicated above.)

The system was on upon arrival today and the monthly monitoring samples were collected. Samples were delivered directly to Eurofins TestAmerica, Amherst, NY following collection.

Total system flow on system totalizer flow meter timed at 3.5 gpm. During visit, individually closed EW-1, EW-2, and EW-3 influent valve to test flow by reading response on transducer elevation; noted rise in transducer elevation when valve was closed and drop when valve was opened confirming well was pumping.

The SVE building overhead door flashing has wind and header damage.

The AS building overhead door flashing needs replacement.

The gate leading to the outfall is becoming overgrown by vegetation.

The most recent round of water levels (1Q2021) were collected today, 3/25/21.

The most recent acid wash was performed today, 3/25/21 by AECOM.

Table 1
March 25, 2021 Summary of Influent and Effluent Data

Chem-Trol Site
Town of Hamburg, New York

Parameters	Concentration				Mass Loading		
	Influent	Effluent	Discharge Limitations	Units	Effluent	Discharge Limitations	Units
Flow*	6,340	6,340	144,000	gpd	NA	NA	NA
pH	6.9	7.5	6.5 to 8.5	standard units	NA	NA	NA
Toluene	< 18	< 5.0	5	ug/L	< 0.0003	0.006	lbs/day
Chlorobenzene	< 19	< 5.0	10	ug/L	< 0.0003	0.012	lbs/day
cis-1,2-Dichloroethene	< 23	< 5.0	10	ug/L	< 0.0003	0.012	lbs/day
Benzene	< 24	< 5.0	5	ug/L	< 0.0003	0.006	lbs/day
1,1,1-Trichloroethane	< 15	< 5.0	10	ug/L	< 0.0003	0.012	lbs/day
Chloroethane	< 35	< 5.0	10	ug/L	< 0.0003	0.012	lbs/day
1,1-Dichloroethane	31	< 5.0	10	ug/L	< 0.0003	0.012	lbs/day
1,1-Dichloroethene	< 34	< 5.0	10	ug/L	< 0.0003	0.012	lbs/day
Trichloroethene	< 24	< 5.0	10	ug/L	< 0.0003	0.012	lbs/day
o-Chlorotoluene	2,100	< 5.0	10	ug/L	< 0.0003	0.012	lbs/day
Iron - Total	1,090	**4,800**	3,000	ug/L	0.25	3.61	lbs/day
TSS	13.6	**111**	20	mg/L	5.88		lbs/day

Notes:

*1) **Bold** typeface denotes exceedance of treatment requirements in the effluent sample.*

2) < indicates Not Detected at or above the laboratory reporting limit.

3) NA indicates Not Applicable.

4) "J" indicates an estimated concentration below the method detection limit.

5) E - Estimated Value, result above calibration curve

6) D - Dilution

7) Revision of monitoring parameters (inorganics and TSS) and discharge limitation (iron) approved by NYSDEC letter dated July 27, 2007.

** Average daily flow as measured February 23, 2021 through March 25, 2021.*

Table 2
March 25, 2021 Summary of Influent and Effluent Data

Chem-Trol Site
Town of Hamburg, New York

Instrumentation/Readings:	Current Report 3/25/2021	units	Prior Report 2/23/2021
EW-1			
Pumping Rate	0	GPM	0
Water Level Above Transducer	267	Inches	266
Flow Meter Reading	8,444,688	gallons	8,444,688
EW-2			
Pumping Rate	0	GPM	0
Water Level Above Transducer	171	Inches	168
Flow Meter Reading	28,528,520	gallons	28,528,520
EW-3			
Pumping Rate	0	GPM	0
Water Level Above Transducer	192	Inches	187
Flow Meter Reading	15,696,380	gallons	15,696,380
Air Stripper			
Stripper Blower Pressure	17.5	inches H_2O	17.5
Effluent Flow			
Total System Meter Reading	71,986,517	gallons	71,783,625
Average System Flow Since Prior Report	6,340	gpd	
	264.2	gph	
	4.4	gpm	
Influent o-Chlorotoluene concentration	2,100	ug/L	
Current month mass removal	1.6	kilograms	

Note: NA indicates Not Available.
NW - Not working
ug/L - micrograms per liter

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ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-182603-1
Client Project/Site: ChemTrol Site
Sampling Event: ChemTrol Monthly Groundwater

For:
Waste Management
600 New Ludlow Road
South Hadley, Massachusetts 01075

Attn: Ryan Donovan

Katelyn Ferguson

Authorized for release by:
4/9/2021 9:35:04 PM
Katelyn Ferguson, Project Manager I
katelyn.ferguson@Eurofinset.com

Designee for

Orlette Johnson, Senior Project Manager
(484)685-0864
Orlette.Johnson@Eurofinset.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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

Job ID: 480-182603-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-182603-1

Comments
No additional comments.

Receipt
The samples were received on 3/26/2021 8:00 AM. 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 3.1º C.

GC/MS VOA
Method 624.1: The following samples were diluted to bring the concentration of target analytes within the calibration range: Influent (480-182603-2), (480-182603-D-2 MS) and (480-182603-D-2 MSD). Elevated reporting limits (RLs) are provided.

Method 624.1: The results reported for the following sample does not concur with results previously reported for this site: Influent (480-182603-2). Reanalysis was performed, and the results confirmed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 200.7 Rev 4.4: The Total Iron result reported for the following sample did not concur with results previously reported for this site: Effluent (480-182603-1). Reanalysis was performed, and the result confirmed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method SM 2540D: The results reported for the following sample do not concur with results previously reported for this site: Effluent (480-182603-1). Reanalysis was performed, and the result(s) confirmed.

Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Effluent (480-182603-1) and Influent (480-182603-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Waste Management
Project/Site: ChemTrol Site

Job ID: 480-182603-1

Client Sample ID: Effluent — Lab Sample ID: 480-182603-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	4800		50.0		ug/L	1		200.7 Rev 4.4	Total Recoverable
Total Suspended Solids	111		4.0		mg/L	1		SM 2540D	Total/NA
pH	7.5	HF	0.1		SU	1		SM 4500 H+ B	Total/NA
Temperature	19.2	HF	0.001		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: Influent — Lab Sample ID: 480-182603-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	31		24		ug/L	40		624.1	Total/NA
o-Chlorotoluene	2100	F1	13		ug/L	40		624.1	Total/NA
Iron	1090		50.0		ug/L	1		200.7 Rev 4.4	Total Recoverable
Total Suspended Solids	13.6		4.0		mg/L	1		SM 2540D	Total/NA
pH	6.9	HF	0.1		SU	1		SM 4500 H+ B	Total/NA
Temperature	18.9	HF	0.001		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 480-182603-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample ID: Effluent

Date Collected: 03/25/21 08:00
Date Received: 03/26/21 08:00

Lab Sample ID: 480-182603-1

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			03/31/21 17:36	1
1,1-Dichloroethane	ND		5.0		ug/L			03/31/21 17:36	1
1,1-Dichloroethene	ND		5.0		ug/L			03/31/21 17:36	1
Benzene	ND		5.0		ug/L			03/31/21 17:36	1
Chlorobenzene	ND		5.0		ug/L			03/31/21 17:36	1
Chloroethane	ND		5.0		ug/L			03/31/21 17:36	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			03/31/21 17:36	1
Toluene	ND		5.0		ug/L			03/31/21 17:36	1
Trichloroethene	ND		5.0		ug/L			03/31/21 17:36	1
o-Chlorotoluene	ND		5.0		ug/L			03/31/21 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*68 - 130*		*03/31/21 17:36*	*1*
4-Bromofluorobenzene (Surr)	*100*		*76 - 123*		*03/31/21 17:36*	*1*
Toluene-d8 (Surr)	*99*		*77 - 120*		*03/31/21 17:36*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**4800**		50.0		ug/L		03/31/21 09:10	03/31/21 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	**111**		4.0		mg/L			04/01/21 16:10	1
pH	**7.5**	**HF**	0.1		SU			03/30/21 16:52	1
Temperature	**19.2**	**HF**	0.001		Degrees C			03/30/21 16:52	1

Client Sample ID: Influent

Date Collected: 03/25/21 09:30
Date Received: 03/26/21 08:00

Lab Sample ID: 480-182603-2

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		15		ug/L			03/31/21 18:00	40
1,1-Dichloroethane	**31**		24		ug/L			03/31/21 18:00	40
1,1-Dichloroethene	ND		34		ug/L			03/31/21 18:00	40
Benzene	ND		24		ug/L			03/31/21 18:00	40
Chlorobenzene	ND		19		ug/L			03/31/21 18:00	40
Chloroethane	ND		35		ug/L			03/31/21 18:00	40
cis-1,2-Dichloroethene	ND		23		ug/L			03/31/21 18:00	40
Toluene	ND		18		ug/L			03/31/21 18:00	40
Trichloroethene	ND		24		ug/L			03/31/21 18:00	40
o-Chlorotoluene	**2100**	**F1**	13		ug/L			03/31/21 18:00	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*68 - 130*		*03/31/21 18:00*	*40*
4-Bromofluorobenzene (Surr)	*101*		*76 - 123*		*03/31/21 18:00*	*40*
Toluene-d8 (Surr)	*99*		*77 - 120*		*03/31/21 18:00*	*40*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1090**		50.0		ug/L		03/31/21 09:10	03/31/21 15:02	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	**13.6**		4.0		mg/L			03/30/21 13:07	1
pH	**6.9**	**HF**	0.1		SU			03/30/21 16:54	1
Temperature	**18.9**	**HF**	0.001		Degrees C			03/30/21 16:54	1

Client: Waste Management
Project/Site: ChemTrol Site

Job ID: 480-182603-1

Client Sample ID: Trip Blank

Date Collected: 03/25/21 00:00
Date Received: 03/26/21 08:00

Lab Sample ID: 480-182603-3

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			03/31/21 18:24	1
1,1-Dichloroethane	ND		5.0		ug/L			03/31/21 18:24	1
1,1-Dichloroethene	ND		5.0		ug/L			03/31/21 18:24	1
Benzene	ND		5.0		ug/L			03/31/21 18:24	1
Chlorobenzene	ND		5.0		ug/L			03/31/21 18:24	1
Chloroethane	ND		5.0		ug/L			03/31/21 18:24	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			03/31/21 18:24	1
Toluene	ND		5.0		ug/L			03/31/21 18:24	1
Trichloroethene	ND		5.0		ug/L			03/31/21 18:24	1
o-Chlorotoluene	ND		5.0		ug/L			03/31/21 18:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*68 - 130*		*03/31/21 18:24*	*1*
4-Bromofluorobenzene (Surr)	*99*		*76 - 123*		*03/31/21 18:24*	*1*
Toluene-d8 (Surr)	*99*		*77 - 120*		*03/31/21 18:24*	*1*

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-574557/7
Matrix: Water
Analysis Batch: 574557

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	ND		5.0		ug/L			03/31/21 14:05	1
1,1-Dichloroethane	ND		5.0		ug/L			03/31/21 14:05	1
1,1-Dichloroethene	ND		5.0		ug/L			03/31/21 14:05	1
Benzene	ND		5.0		ug/L			03/31/21 14:05	1
Chlorobenzene	ND		5.0		ug/L			03/31/21 14:05	1
Chloroethane	ND		5.0		ug/L			03/31/21 14:05	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			03/31/21 14:05	1
Toluene	ND		5.0		ug/L			03/31/21 14:05	1
Trichloroethene	ND		5.0		ug/L			03/31/21 14:05	1
o-Chlorotoluene	ND		5.0		ug/L			03/31/21 14:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 130*		*03/31/21 14:05*	*1*
4-Bromofluorobenzene (Surr)	*103*		*76 - 123*		*03/31/21 14:05*	*1*
Toluene-d8 (Surr)	*100*		*77 - 120*		*03/31/21 14:05*	*1*

Lab Sample ID: LCS 480-574557/5
Matrix: Water
Analysis Batch: 574557

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	18.4		ug/L		92	52 - 162
1,1-Dichloroethane	20.0	20.8		ug/L		104	59 - 155
1,1-Dichloroethene	20.0	20.0		ug/L		100	1 - 234
Benzene	20.0	20.0		ug/L		100	37 - 151
Chlorobenzene	20.0	20.3		ug/L		102	37 - 160
Chloroethane	20.0	17.5		ug/L		87	14 - 230
Toluene	20.0	20.0		ug/L		100	47 - 150
Trichloroethene	20.0	20.5		ug/L		102	71 - 157

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*68 - 130*
4-Bromofluorobenzene (Surr)	*102*		*76 - 123*
Toluene-d8 (Surr)	*100*		*77 - 120*

Lab Sample ID: 480-182603-2 MS
Matrix: Water
Analysis Batch: 574557

Client Sample ID: Influent
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		800	868		ug/L		108	52 - 162
1,1-Dichloroethane	31		800	873		ug/L		105	59 - 155
1,1-Dichloroethene	ND		800	873		ug/L		109	1 - 234
Benzene	ND		800	845		ug/L		106	37 - 151
Chlorobenzene	ND		800	844		ug/L		105	37 - 160
Chloroethane	ND		800	865		ug/L		108	14 - 230
Toluene	ND		800	839		ug/L		105	47 - 150
Trichloroethene	ND		800	836		ug/L		105	71 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 130*
4-Bromofluorobenzene (Surr)	*102*		*76 - 123*
Toluene-d8 (Surr)	*102*		*77 - 120*

Lab Sample ID: 480-182603-2 MSD
Matrix: Water
Analysis Batch: 574557

Client Sample ID: Influent
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		800	833		ug/L		104	52 - 162	4	15
1,1-Dichloroethane	31		800	846		ug/L		102	59 - 155	3	15
1,1-Dichloroethene	ND		800	818		ug/L		102	1 - 234	6	15
Benzene	ND		800	779		ug/L		97	37 - 151	8	15
Chlorobenzene	ND		800	822		ug/L		103	37 - 160	3	15
Chloroethane	ND		800	788		ug/L		99	14 - 230	9	15
Toluene	ND		800	804		ug/L		101	47 - 150	4	15
Trichloroethene	ND		800	804		ug/L		101	71 - 157	4	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*98*		*68 - 130*
4-Bromofluorobenzene (Surr)	*101*		*76 - 123*
Toluene-d8 (Surr)	*101*		*77 - 120*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-574472/1-A
Matrix: Water
Analysis Batch: 574643

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 574472

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		50.0		ug/L		03/31/21 09:10	03/31/21 14:13	1

Lab Sample ID: LCS 480-574472/2-A
Matrix: Water
Analysis Batch: 574643

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 574472

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	10000	9975		ug/L		100	85 - 115

Lab Sample ID: 480-182603-1 MS
Matrix: Water
Analysis Batch: 574643

Client Sample ID: Effluent
Prep Type: Total Recoverable
Prep Batch: 574472

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	4800		10000	14540		ug/L		97	70 - 130

Lab Sample ID: 480-182603-1 MSD
Matrix: Water
Analysis Batch: 574643

Client Sample ID: Effluent
Prep Type: Total Recoverable
Prep Batch: 574472

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	4800		10000	14630		ug/L		98	70 - 130	1	20

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 480-574371/1
Matrix: Water
Analysis Batch: 574371

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0		mg/L			03/30/21 13:07	1

Lab Sample ID: LCS 480-574371/2
Matrix: Water
Analysis Batch: 574371

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			2240	2177		mg/L		97	88 - 110		

Lab Sample ID: MB 480-574767/1
Matrix: Water
Analysis Batch: 574767

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0		mg/L			04/01/21 16:10	1

Lab Sample ID: LCS 480-574767/2
Matrix: Water
Analysis Batch: 574767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			2230	2224		mg/L		100	88 - 110		

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-574527/1
Matrix: Water
Analysis Batch: 574527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.0		SU		100	99 - 101		

QC Association Summary

Client: Waste Management
Project/Site: ChemTrol Site

Job ID: 480-182603-1

GC/MS VOA

Analysis Batch: 574557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-182603-1	Effluent	Total/NA	Water	624.1	
480-182603-2	Influent	Total/NA	Water	624.1	
480-182603-3	Trip Blank	Total/NA	Water	624.1	
MB 480-574557/7	Method Blank	Total/NA	Water	624.1	
LCS 480-574557/5	Lab Control Sample	Total/NA	Water	624.1	
480-182603-2 MS	Influent	Total/NA	Water	624.1	
480-182603-2 MSD	Influent	Total/NA	Water	624.1	

Metals

Prep Batch: 574472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-182603-1	Effluent	Total Recoverable	Water	200.7	
480-182603-2	Influent	Total Recoverable	Water	200.7	
MB 480-574472/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 480-574472/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
480-182603-1 MS	Effluent	Total Recoverable	Water	200.7	
480-182603-1 MSD	Effluent	Total Recoverable	Water	200.7	

Analysis Batch: 574643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-182603-1	Effluent	Total Recoverable	Water	200.7 Rev 4.4	574472
480-182603-2	Influent	Total Recoverable	Water	200.7 Rev 4.4	574472
MB 480-574472/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	574472
LCS 480-574472/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	574472
480-182603-1 MS	Effluent	Total Recoverable	Water	200.7 Rev 4.4	574472
480-182603-1 MSD	Effluent	Total Recoverable	Water	200.7 Rev 4.4	574472

General Chemistry

Analysis Batch: 574371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-182603-2	Influent	Total/NA	Water	SM 2540D	
MB 480-574371/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 480-574371/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 574527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-182603-1	Effluent	Total/NA	Water	SM 4500 H+ B	
480-182603-2	Influent	Total/NA	Water	SM 4500 H+ B	
LCS 480-574527/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 574767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-182603-1	Effluent	Total/NA	Water	SM 2540D	
MB 480-574767/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 480-574767/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Lab Chronicle

Client: Waste Management
Project/Site: ChemTrol Site

Job ID: 480-182603-1

Client Sample ID: Effluent
Lab Sample ID: 480-182603-1
Date Collected: 03/25/21 08:00
Matrix: Water
Date Received: 03/26/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	574557	03/31/21 17:36	WJD	TAL BUF
Total Recoverable	Prep	200.7			574472	03/31/21 09:10	KMP	TAL BUF
Total Recoverable	Analysis	200.7 Rev 4.4		1	574643	03/31/21 14:32	AMH	TAL BUF
Total/NA	Analysis	SM 2540D		1	574767	04/01/21 16:10	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	574527	03/30/21 16:52	KEB	TAL BUF

Client Sample ID: Influent
Lab Sample ID: 480-182603-2
Date Collected: 03/25/21 09:30
Matrix: Water
Date Received: 03/26/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		40	574557	03/31/21 18:00	WJD	TAL BUF
Total Recoverable	Prep	200.7			574472	03/31/21 09:10	KMP	TAL BUF
Total Recoverable	Analysis	200.7 Rev 4.4		1	574643	03/31/21 15:02	AMH	TAL BUF
Total/NA	Analysis	SM 2540D		1	574371	03/30/21 13:07	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	574527	03/30/21 16:54	KEB	TAL BUF

Client Sample ID: Trip Blank
Lab Sample ID: 480-182603-3
Date Collected: 03/25/21 00:00
Matrix: Water
Date Received: 03/26/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	574557	03/31/21 18:24	WJD	TAL BUF

Laboratory References:
TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Waste Management
Project/Site: ChemTrol Site

Job ID: 480-182603-1

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	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
624.1		Water	o-Chlorotoluene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: Waste Management
Project/Site: ChemTrol Site

Job ID: 480-182603-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Recoverable Metals	EPA	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Waste Management
Project/Site: ChemTrol Site

Job ID: 480-182603-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-182603-1	Effluent	Water	03/25/21 08:00	03/26/21 08:00	
480-182603-2	Influent	Water	03/25/21 09:30	03/26/21 08:00	
480-182603-3	Trip Blank	Water	03/25/21 00:00	03/26/21 08:00	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: S. Connolly	Lab PM: Shaffer, Lisa E	Carrier Tracking No(s):	COC No: 480-155308-28522.1
Client Contact: Chad Moose	Phone: (716)393-0870	E-Mail: Lisa.Shaffer@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Waste Management	PWSID:	**Analysis Requested**		Job #:
Address: Tullytown Landfill 444 Oxford Valley Road	Due Date Requested:			
City: Morrisville	TAT Requested (days): STD			
State, Zip: PA, 19067	Compliance Project: Δ Yes Δ No			
Phone: 215-269-2114(Tel) 215-699-8315(Fax)	PO #: Purchase Order Requested			
Email: cmoose@wm.com	WO #:			
Project Name: ChemTrol Site/NY22 Event Desc: ChemTrol Monthly Groundwate	Project #: 48002447			
Site: New York	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - Iron	624.1_PREC - 624	2540D - Total Suspended Solids	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
				Preservation Code:	X	X	D	A	N	N	X	
Effluent	3/25/21	0800	G	Water	N	N	1	3	1	1		
Influent	3/25/21	0930	G	Water	N	N	1	3	1	1		
Trip Blank	3/25/21	–	G	Water	N	N		1				

480-182603 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ______ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
S. P. Connolly	3/25/21 @1630	Aeon	Kate Prg	3/26/21 @0800	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.1 #1

Ver: 11/01/2020