



A Division of Keystone Material Testing, LLC

February 3, 2020

BAGS Solid Waste Management District
15 North Main Street
Bainbridge, NY 13733-1299

Attn: Dolores Nabinger, Town Supervisor

Re: 2019 Annual Inspection and Report
BAGS Sanitary Landfill (Site No. 709003)
Town of Bainbridge
Chenango County, New York State
KES Project # 270.01014.8

Dear Ms. Nabinger:

Enclosed for your records please find the 2019 Annual Inspection Report. Please keep a copy for your records.

If you have any questions, or need additional information, please do not hesitate to contact our office.

Very truly yours,

Keystone Environmental Services

A handwritten signature in black ink, appearing to read 'Timothy W. Marble', is written over the printed name.

Timothy W. Marble
Senior Environmental Scientist

Enc.

Cc: Karen Cahill, NYSDEC Region 7(Electronic Copy)
File

2019 ANNUAL INSPECTION REPORT

**BAGS SANITARY LANDFILL (SITE NO. 709003)
TOWN OF BAINBRIDGE
CHENANGO COUNTY, NEW YORK**

**FEBRUARY 2019
KES PROJECT # 0270.01014.8
(FORMER HAWK ENGINEERING PROJECT No. 3045.09)**

Prepared For:
BAGS SOLID WASTE MANAGEMENT DISTRICT
15 NORTH MAIN STREET
BAINBRIDGE, NEW YORK 13733-1299

Prepared By:



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BAGS Solid Waste Management District
15 North Main Street
Bainbridge, New York 13733-1299

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1.0 BACKGROUND/GENERAL

Waste disposal operations ended on October 31, 1989 when the area reached capacity.

Waste generated within the Chenango County portion of the District (Towns of Bainbridge, Afton, and Guilford) is now taken to the Chenango County Landfill. Solid waste generated within the Delaware County portion of the District (Town of Sidney) is now taken to the Delaware County Sanitary Landfill in the Town of Walton. Waste generated within the Otsego County portion of the District (Towns of Otego and Unadilla) is now taken to the Oneonta Transfer Station.

The burning permit has not been renewed and therefore no burning is allowed at the site.

Tri-County Modelers continue to use an area east of the General Refuse Area for flying model airplanes.

2.0 OBSERVATIONS AND RECOMMENDATIONS

On December 17, 2019 Timothy W. Marble, Senior Environmental Scientist of Keystone Environmental Services, conducted a site inspection.

The following items were inspected:

- Monitoring well and surface water monitoring point locations and condition of wells;
- Condition of vegetation and stability of slopes;
- Site conditions and security;
- Integrity of caps and cell units;
- Condition of gas vents;
- Presence of leachate outbreaks; and
- Presence of animal burrows.

The following observations were made during the inspection:

- The new vehicle entrance drive gate installed closer to the intersection of Route 8, which was locked, properly controls access to the site. The roadway grade, alignment, and conditions are suitable for maintenance traffic. The new gate location eliminated any access by vehicles due to the surrounding grade. A swale was dug across the existing all-terrain vehicle (ATV) access trail entering the property to eliminate use. The previous ATV trail that existed on the opposite side of the entrance road has been blocked with boulders to eliminate access. The area was posted with signs to deter entrance. **We recommend that this area to be routinely inspected and maintained to control access.**
- Vegetation on the landfill is established and properly maintained (mowed). Vegetation around gas vents previously reported still remain all cleared. **We recommend that the gas vents be routinely inspected and maintained of vegetation.**

- Storm drainage control is provided by a combination of stone-lined swales, grass-lined swales, and a sedimentation pond, which are working properly. As stated in our last report, and visually observed during the site visit, standing water is present in the low area south of the stoned-lined swale and will need to be monitored. **We will continue to visually monitor the low area of standing water to see if it is a constant or seasonal occurrence and also monitor for any signs of settling. However, if there is future evidence of settling, immediate remedial action must be taken. The options for remedial action may include re-grading, re-capping, re-vegetation, and/or surface water diversion.**
- The interior and perimeter gas venting systems are all operational and continue to vent landfill gas to the atmosphere and the lower middle cell, known as the stabatrol disposal area. (refer to **Appendix F - Mapping** for the location of the gas vents). **To prevent water infiltration through the cap system, we recommend that the vents be routinely inspected and maintained repaired as soon as possible.**
- No leachate outbreaks were observed at the time of our site visit including the northern side of the landfill, which had an outbreak in 2007. The water quality monitoring lab personnel reported leachate was visually present and tested during the 2007 outbreak. **We will continue to visually monitor this area for leachate and any signs of settling. If there is future evidence of settling and/or seepage, water quality testing will be performed. If determined to be leachate, immediate remedial action shall be taken to control the outbreak. The options for remedial action may include re-grading, re-capping, re-vegetation, surface water diversion, and/or leachate collection.**
- No animal burrows were observed during the site visit.
- As reported in previous reports some perimeter vents and several interior vents on the eastern and western cell were surrounded by heavy vegetation along the southern wooded border of the eastern cell have been cleared of vegetation and still remain clear. (refer to **Appendix E – Photographs**). **We recommend that all vegetation within a ten-foot radius of the vents be cleared and maintained in order to prevent damage to the gas vents.**
- The landfill previously reported ATV and vehicle paths and ruts that were corrected continue to be minimized by the new boulders blocking the previous lower gate ATV access (refer to **Appendix E – Photographs**). **We recommend that this area is routinely inspected and maintained to control access.**
- The upgradient monitoring well W-7S is still damaged and is unable to be sampled. However, up gradient monitoring well W-8S was purged, recharged in a 24-hour period and was sampled. Monitoring well W-8S continues to be used as the up-gradient monitoring well to replace monitoring well W-7S.

- Clark Stone Products (Southern Property) has exceeded their active pit and have entered into a Consent Order due to the fact that they are encroaching on the landfill's property line. Clark Stone Products continues to stabilize and slope the north bank with established vegetation (refer to **Appendix E – Photographs**). **We will continue to visually monitor this area.**
- At the time of the previous inspection the access road and two areas at base of landfill where being used by a Contractor for access to the Sidney reservoir dam project and vehicle and heavy equipment staging, storage of materials and two fuel containers for refueling of heavy equipment. The reservoir project is complete and access road and two areas are clear (refer to **Appendix E – Photographs**).

Photographs of the site taken on December 17, 2019 are included in **Appendix E - Photographs**.

3.0 REQUEST FOR REDUCTION IN POST-CLOSURE ENVIRONMENTAL MONITORING BY GENERAL PART 360 VARIANCE

On June 2, 2002 Hawk Engineering, p.c. transmitted a request to the New York State Department of Environmental Conservation (NYSDEC) on behalf of the BAGS Solid Waste Management District to reduce the frequency of post-closure water quality monitoring, from annually for baseline parameters to annually for routine parameters and once every five (5) years for baseline parameters. NYSDEC approved the variance request on August 1, 2002 (refer to **Appendix A - Water Monitoring Protocol**).

4.0 WATER QUALITY

- Microbac Laboratories, Inc. completed annual routine groundwater and surface water quality monitoring in the fourth quarter of 2019 (December 10, 2019 & December 30, 2019). The monitoring was completed in substantial compliance with the Water Quality Monitoring Protocol on monitoring wells W-2, W-3, W-4W-5, W-6D, W-8S, W-11D, W-12, W-13, Peckham House and Peckham Brook. Please note the following locations which were not sampled monitoring well W-6S had object interference in the casing and monitoring well W-7S was damaged. Monitoring well W-8S has been redeveloped, purged and sampled to replace the damaged up gradient monitoring well W-7S. Refer to **Appendix B – 2019 Water Quality Report** for water quality test results.

- Microbac Laboratories, Inc. completed 1,4-dioxane “Emerging Contaminants” additional groundwater water quality monitoring in the fourth quarter of 2019 (December 10, 2019) in accordance with NYSDEC request. The additional testing was based on an exceedance during the 2018 “Emerging Contaminants sampling” that was completed in accordance with NYSDEC initiative dated April 10, 2018. The monitoring was completed in substantial compliance with the Microbac sampling plan dated September 7, 2018 and addendum dated December 12, 2018. Monitoring wells W-2, W-3, and W-12 were redeveloped and sampled for 1,4-dioxane and all samples were sent to Test of America for analyses. Refer to **TABLE 2-1: 2019 ANALYTICAL SUMMARY**. Refer to **Appendix B – 2019 Water Quality Report** for water quality test results.
- Please note that annual sampling for 2019 was completed in the fourth quarter in accordance with the Water Quality Monitoring Protocol. The protocol requires the annual sampling to be alternated between the second and fourth quarters of every year (refer to **Appendix A - Water Monitoring Protocol**).

All the monitoring locations exhibited at least one (1) parameter exceedance in the most recent quarterly sampling, except Peckham Brook. The most common parameter exceedance in the monitoring wells were pH, iron, manganese and turbidity. Please note that increased turbidity can substantially alter groundwater results, causing spurious increases in analyzed metal concentrations. This is especially true for iron, aluminum, calcium, magnesium, manganese and silicon. An analytical summary table of the current years monitoring well and stream data (Table 2-1) is provided below. Table 2-1 highlights the current years exceedances, applicable water quality standards and as well as comments based on the previous year’s sampling exceedances provided in **Appendix C - 2011 – 2019 Water Quality Historical Results and Standards (6 NYCRR Parts 700-705)**.

BAGS Solid Waste Management District
15 North Main Street
Bainbridge, New York 13733-1299

TABLE 2-1: 2019 ANALYTICAL SUMMARY

Monitoring Well	Field Parameter	Water Quality Standards	Exceedance Results	Comments
W-2	Turbidity	5 NTU	5.72 NTU	Total manganese concentration decreased and are now within the applicable standards. Turbidity concentrations remain above the applicable standards. Well improved.
	1,4- Dioxane	1 ug/L	NA	No Exceedance of the DWQC recommended screening level
W-3	pH	6.5-8.5 SU	6.28 SU	pH, Ammonia (as N), total iron and total manganese concentrations remain above the applicable standards. Turbidity concentrations increased and are now above the applicable standards. Well remained the same.
	Turbidity	5 NTU	21.2 NTU	
	Ammonia (as N)	2 mg/L	2.15 mg/L	
	Iron, Total	.3 mg/L	15.4 mg/L	
	Manganese, Total	.3 mg/L	19.5 mg/L	
	1,4- Dioxane	1 ug/L	NA	No Exceedance of the DWQC recommended screening level
W-4	pH	6.5-8.5 SU	6.11 SU	pH and total iron concentrations increased and are now above the applicable standards. Well deteriorated
	Iron, Total	.3 mg/L	4.65 mg/L	
W-5	Ammonia (as N)	2 mg/L	5.78 mg/L	pH concentrations decreased and are now within the applicable standards. Ammonia (as N), total iron, total manganese and turbidity concentrations remain above the applicable standards. Well slightly improved.
	Iron, Total	.3 mg/L	14.1 mg/L	
	Manganese, Total	.3 mg/L	10.6 mg/L	
	Turbidity	5 NTU	5.77 NTU	
W-6D	pH	6.5-8.5 SU	6.45 SU	pH and turbidity concentrations remain above the applicable standards. Total iron concentrations decreased and are now within the applicable standards. Well improved.
	Turbidity	5 NTU	15.6 NTU	
W-6S	Not sampled	NA	NA	Well was reported to have interference in the casing which didn't allow sampling.
W-8S	pH	6.5-8.5 SU	10.4 SU	pH and total sodium concentrations remain above the applicable standards. Total iron concentrations decreased and are now within the applicable standards. Turbidity concentrations increased and are now above the applicable standards. Well slightly improved.
	Sodium, Total	20 mg/L	39.4 mg/L	
	Turbidity	5 NTU	28.6 NTU	
W-11D	Turbidity	5 NTU	46.2 NTU	Color and total phenols concentrations decreased and are now within the applicable standards. Total iron concentrations increased and are now above the applicable standards. Well slightly improved.
	Iron, Total	.3 mg/L	6.57 mg/L	
W-12	pH	6.5-8.5 SU	6.1 SU	pH and total manganese concentrations remain above the applicable standards. Turbidity concentration increased and are now above the applicable standards. Well slightly deteriorated.
	Turbidity	5 NTU	7.28 NTU	
	Manganese, Total	.3 mg/L	1.79 mg/L	
	1,4- Dioxane	1 ug/L	NA	No Exceedance of the DWQC recommended screening level.
W-13	Iron, Total	.3 mg/L	2.01 mg/L	pH and total phenols concentrations decreased and are now within the applicable standards. Turbidity concentrations increased and are now above the applicable standards. Total iron and total manganese concentrations remain above the applicable standards. Well slightly improved.
	Manganese, Total	.3 mg/L	9.91 mg/L	
	Turbidity	5 NTU	28.6 NTU	
Peckham House	Coliform, Total	PRESENT	PRESENT	Total Coliform was PRESENT. E. Coli were below the applicable standards. House deteriorated.
Peckham Brook	No Exceedances	NA	NA	pH, Turbidity and total iron concentrations decreased and are now within the applicable standards. Stream improved.

The 2019 Annual Water Quality routine sampling results indicate that the water quality at BAGS Landfill has improved when compared to the 2018 Annual Water Quality routine sampling results and 1,4-dioxane "Emerging Contaminants" additional groundwater water quality monitoring results. The water quality at the up-gradient monitoring well W-7S could not be compared as the well was previously damaged. Instead the up-gradient monitoring well W-8S has been redeveloped to replace monitoring well W-7S. The water quality of the up-gradient monitoring well W-8S has slightly improved when compared to its 2018 Water Quality routine results. Please refer to Table 2-1 2019 Analytical Summary above and the historical water quality monitoring results [(refer to **Appendix C - 2011 – 2019 Water Quality Historical Results and Standards (6 NYCRR Parts 700-705)**].

For evaluation of groundwater flow with respect to groundwater quality, the following excerpts are provided from Empire Soil Investigations, Inc.'s Phase II Investigation Report, BAGS Landfill, 1988:

- "The direction of groundwater flow is to the east - southeast following the local topography and flow in the Unadilla basin." p. 23.
- "Hydraulic conductivity tests performed in borings W-5, W-11S, W-12, W-13, and W-14 indicate that the sand and gravel deposits have permeabilities which range from 8×10^{-1} cm/s to 1×10^{-4} cm/s." p. 24.
- "The mean hydraulic conductivity of the sand and gravel deposits is 1×10^{-2} cm/sec." p. 24.
- "... the average linear velocity of groundwater flow through the sand and gravel unit is about 5 ft/day." p. 24.

5.0 FINAL COVER CONSTRUCTION AND CERTIFICATION HISTORY

On March 7, 1991, NYSDEC approved the BAGS Sanitary Landfill latest Closure Plan amendment dated February 22, 1991.

Final cover construction activities in 1991 included site grading and installation of the gas venting system. Final cover construction in 1992, included site grading, finishing of the gas venting system, the geotextile filter fabric, barrier soil layer, PVC membrane layer, protection layer, topsoil and seeding (Emergency Expansion Area only). Topsoil and seeding on the General Refuse Area and the Stabatrol Area were completed in 1993.

An interim Construction Certification Report was prepared by Hawk Engineering, p.c. for the work completed up to August 14, 1992, and was transmitted to the NYSDEC on August 27, 1992. On December 10, 1992, the NYSDEC approved the interim Construction Certification Report subject to the remaining work being completed in 1993. The remaining work was completed and final inspection of the closure of BAGS Sanitary Landfill was made on June 24, 1993. The final Construction Certification Report was prepared by Hawk Engineering, p.c. and was transmitted on July 23, 1992. The NYSDEC approved the final Construction Certification Report on August 31, 1993.

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6.0 POST-CLOSURE MONITORING AND MAINTENANCE

Post-closure monitoring and maintenance activities should continue to take place in accordance with 6 NYCRR Part 360 requirements and the recommendations made in the Engineering Report Closure Plan (Hawk Engineering, p.c., 1990) (refer to **Appendix D - Post-Closure Monitoring and Maintenance Operations**).

APPENDIX A

WATER QUALITY MONITORING PROTOCOL

**WATER QUALITY MONITORING PROTOCOL
BAGS SANITARY LANDFILL
TOWN OF BAINBRIDGE
CHENANGO COUNTY, NEW YORK STATE**

January 26, 2020

A. SCHEDULE

<u>SAMPLE POINT</u>	<u>TEST</u>	<u>SCHEDULE</u>
Monitoring Well W-2	Routine/Baseline	Annually/Once every five years
Monitoring Well W-3	Routine/Baseline	Annually/Once every five years
Monitoring Well W-4	Routine/Baseline	Annually/Once every five years
Monitoring Well W-5	Routine/Baseline	Annually/Once every five years
Monitoring Well W-6S	Routine/Baseline	Annually/Once every five years
Monitoring Well W-6D	Routine/Baseline	Annually/Once every five years
Monitoring Well W-8S (New upgradient)	Routine/Baseline	Annually/Once every five years
Monitoring Well W-11D	Routine/Baseline	Annually/Once every five years
Monitoring Well W-12	Routine/Baseline	Annually/Once every five years
Monitoring Well W-13	Routine/Baseline	Annually/Once every five years
Peckham House Well	Bacterial	Annually (July)
Peckham Brook (downstream sample point only)	Routine/Baseline	Annually/Once every five years
Leachate (if available)	Routine/Baseline	Annually/Once every five years

Monitoring of the wells shall be in accordance with the following schedule (schedule has been revised to reflect the 2013 sampling event completion during the fourth quarter of the year and the New upgradient Well W-8S)

SAMPLING SCHEDULE

<u>Year</u>	<u>Quarter</u>			
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
2013	-	-	-	BL
2014	-	-	-	R
2015	-	R	-	-
2016	-	-	-	R
2017	-	R	-	-
2018	-	-	-	BL
2019	-	-	-	R

R = Routine (Part 360) parameters

BL = Baseline (Part 360) parameters

APPENDIX B
2019 WATER QUALITY REPORT



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

BAGS Landfill

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733

Project Name: Annual Routine - 2019

Project / PO Number: N/A
Received: 12/10/2019
Reported: 01/03/2020

Analytical Testing Parameters

Client Sample ID: MW-2
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-01

Collected By: Thomas Webster
Collection Date: 12/09/2019 15:53

Field Parameters	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
SM2510 B-2011								
Conductivity at 25°C	65.2	5.00	umhos/cm	1			12/09/19 1553	TDW
SM2550 B-2010								
Temperature	8.8		°C	1	Y1		12/09/19 1553	TDW
SM4500 H+ B-2011								
pH	7.54	0.01	S.U.	1	Y1		12/09/19 1553	TDW
SM4500-O C-2001								
Oxidation-Reduction Potential-REDOX	22.0		mV	1			12/09/19 1553	TDW
SM9221 B-2006								
Turbidity	5.72		NTU	1			12/09/19 1553	TDW

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	0.688	0.0500	mg/L	1		12/10/19 1315	12/10/19 1644	KED
Nitrate-Nitrite as N	0.688	0.0500	mg/L	1		12/10/19 1315	12/10/19 1644	KED
Nitrite as N	<0.0250	0.0250	mg/L	1		12/10/19 1315	12/10/19 1428	KED
SM5210 B-2011								
Biochemical Oxygen Demand (BOD5)	<3.00	3.00	mg/L	1		12/10/19 1345	12/15/19 0841	FJF

Analyses Subcontracted to: Microbac Laboratories Inc., - Marietta, OH

Anions by Ion Chromatography	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 300.0, Rv 2.1								
Chloride	1.8	0.2	mg/L	1			12/18/19 1844	KWD
Sulfate as SO4	4.9	1.0	mg/L	1			12/18/19 1844	KWD
Inorganics								
Calculation								
Hardness (as CaCO3)	24.9	2.65	mg/L	1		12/12/19 0639	12/12/19 1823	LSJ

Microbac Laboratories, Inc.

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: MW-2
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-01

Collected By: Thomas Webster
Collection Date: 12/09/2019 15:53

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 420.1, Rv 1978								
Phenols - 4AAP	<0.0056	0.0056	mg/L	1		12/19/19 0931	12/19/19 0945	SWB
SM2320 B-1997								
Alkalinity, Total	23.8	20.0	mg/L	1		12/12/19 0928	12/12/19 1157	ART
SM2540 C-1997								
Total Dissolved Solids - TDS	<20.0	20.0	mg/L	1		12/13/19 1019	12/13/19 1154	AWE
SM5310 C-2011								
Total Organic Carbon - TOC	2.19	1.00	mg/L	1		12/13/19 0732	12/13/19 1611	DIH

Total Metals - ICP	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 200.7, Rv. 4.4								
Cadmium	<0.00160	0.00160	mg/L	1		12/12/19 0639	12/12/19 1823	LSJ
Calcium	7.28	0.400	mg/L	1		12/12/19 0639	12/12/19 1823	LSJ
Iron	0.181	0.0800	mg/L	1		12/12/19 0639	12/12/19 1823	LSJ
Magnesium	1.63	0.400	mg/L	1		12/12/19 0639	12/12/19 1823	LSJ
Manganese	0.107	0.00800	mg/L	1		12/12/19 0639	12/12/19 1823	LSJ
Potassium	1.11	0.800	mg/L	1		12/12/19 0639	12/12/19 1823	LSJ
Sodium	2.31	0.400	mg/L	1		12/12/19 0639	12/12/19 1823	LSJ

Total Metals - ICP/MS	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 200.8, Rv. 5.4								
Lead	<0.001	0.001	mg/L	1		12/12/19 0851	12/19/19 1630	KXH

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 350.1, Rv 2.0								
Ammonia as N	<0.0500	0.0500	mg/L	1		12/13/19 0929	12/13/19 1300	CLW
EPA 351.2, Rv 2.0								
Total Kjeldahl Nitrogen (TKN)	<0.200	0.200	mg/L	1		12/12/19 1434	12/18/19 1152	CLW
Hach 8000								
Chemical Oxygen Demand (COD)	11.1	5.00	mg/L	1		12/13/19 1735	12/13/19 1935	CCM

Microbac Laboratories, Inc.

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: MWV-3
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-02

Collected By: Thomas Webster
Collection Date: 12/09/2019 13:38

Field Parameters	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
SM2510 B-2011								
Conductivity at 25°C	429	5.00	umhos/cm	1			12/09/19 1338	TDW
SM2550 B-2010								
Temperature	7.6		°C	1	Y1		12/09/19 1338	TDW
SM4500 H+ B-2011								
pH	6.28	0.01	S.U.	1	Y1		12/09/19 1338	TDW
SM4500-O C-2001								
Oxidation-Reduction Potential-REDOX	-24.0		mV	1			12/09/19 1338	TDW
SM9221 B-2006								
Turbidity	21.2		NTU	1			12/09/19 1338	TDW

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	<0.0500	0.0500	mg/L	1		12/10/19 1315	12/10/19 1645	KED
Nitrate-Nitrite as N	<0.0500	0.0500	mg/L	1	A21	12/10/19 1315	12/10/19 1645	KED
Nitrite as N	<0.0250	0.0250	mg/L	1	A21	12/10/19 1315	12/10/19 1429	KED
SM5210 B-2011								
Biochemical Oxygen Demand (BOD5)	<3.00	3.00	mg/L	1		12/10/19 1345	12/15/19 0841	FJF

Analyses Subcontracted to: Microbac Laboratories Inc., - Marietta, OH

Anions by Ion Chromatography	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 300.0, Rv 2.1								
Chloride	0.9	0.2	mg/L	1			12/18/19 1903	KWD
Sulfate as SO4	18.2	1.0	mg/L	1			12/18/19 1903	KWD
Inorganics								
Calculation								
Hardness (as CaCO3)	182	2.65	mg/L	1		12/12/19 0639	12/12/19 1833	LSJ
EPA 420.1, Rv 1978								
Phenols - 4AAP	<0.0056	0.0056	mg/L	1		12/19/19 0931	12/19/19 0945	SWB
SM2320 B-1997								
Alkalinity, Total	202	20.0	mg/L	1		12/12/19 0928	12/12/19 1202	ART

Microbac Laboratories, Inc.

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: MW-3
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-02

Collected By: Thomas Webster
Collection Date: 12/09/2019 13:38

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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SM2540 C-1997

Total Dissolved Solids - TDS	194	20.0	mg/L	1		12/13/19 1019	12/13/19 1154	AWE
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SM5310 C-2011

Total Organic Carbon - TOC	27.6	2.00	mg/L	2		12/13/19 0732	12/14/19 1232	DIH
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Total Metals - ICP	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 200.7, Rv. 4.4

Cadmium	<0.00160	0.00160	mg/L	1		12/12/19 0639	12/12/19 1833	LSJ
Calcium	56.8	0.400	mg/L	1		12/12/19 0639	12/12/19 1833	LSJ
Iron	15.4	0.0800	mg/L	1		12/12/19 0639	12/12/19 1833	LSJ
Magnesium	9.86	0.400	mg/L	1		12/12/19 0639	12/12/19 1833	LSJ
Manganese	19.5	0.00800	mg/L	1		12/12/19 0639	12/12/19 1833	LSJ
Potassium	1.80	0.800	mg/L	1		12/12/19 0639	12/12/19 1833	LSJ
Sodium	3.75	0.400	mg/L	1		12/12/19 0639	12/12/19 1833	LSJ

Total Metals - ICP/MS	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 200.8, Rv. 5.4

Lead	0.014	0.005	mg/L	5	AC	12/12/19 0851	12/24/19 0926	JYH
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Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 350.1, Rv 2.0

Ammonia as N	2.15	0.0500	mg/L	1		12/13/19 0929	12/13/19 1301	CLW
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EPA 351.2, Rv 2.0

Total Kjeldahl Nitrogen (TKN)	3.72	0.200	mg/L	1		12/12/19 1434	12/18/19 1157	CLW
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Hach 8000

Chemical Oxygen Demand (COD)	93.5	5.00	mg/L	1		12/12/19 1830	12/12/19 2030	CCM
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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: MW-4
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-03

Collected By: Thomas Webster
Collection Date: 12/09/2019 14:15

Field Parameters	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
SM2510 B-2011								
Conductivity at 25°C	185	5.00	umhos/cm	1			12/09/19 1415	TDW
SM2550 B-2010								
Temperature	8.6		°C	1	Y1		12/09/19 1415	TDW
SM4500 H+ B-2011								
pH	6.11	0.01	S.U.	1	Y1		12/09/19 1415	TDW
SM4500-O C-2001								
Oxidation-Reduction Potential-REDOX	96.0		mV	1			12/09/19 1415	TDW
SM9221 B-2006								
Turbidity	3.74		NTU	1			12/09/19 1415	TDW

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	0.435	0.0500	mg/L	1		12/10/19 1315	12/10/19 1646	KED
Nitrate-Nitrite as N	0.435	0.0500	mg/L	1		12/10/19 1315	12/10/19 1646	KED
Nitrite as N	<0.0250	0.0250	mg/L	1		12/10/19 1315	12/10/19 1429	KED
SM5210 B-2011								
Biochemical Oxygen Demand (BOD5)	<3.00	3.00	mg/L	1	K1	12/10/19 1345	12/15/19 0841	FJF

Analyses Subcontracted to: Microbac Laboratories Inc., - Marietta, OH

Anions by Ion Chromatography	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 300.0, Rv 2.1								
Chloride	1.8	0.2	mg/L	1			12/18/19 1921	KWD
Sulfate as SO4	6.1	1.0	mg/L	1			12/18/19 1921	KWD

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
Calculation								
Hardness (as CaCO3)	94.7	2.65	mg/L	1		12/12/19 0639	12/12/19 1836	LSJ
EPA 420.1, Rv 1978								
Phenols - 4AAP	<0.0056	0.0056	mg/L	1		12/19/19 0931	12/19/19 0945	SWB
SM2320 B-1997								
Alkalinity, Total	85.5	20.0	mg/L	1		12/12/19 0928	12/12/19 1208	ART

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: MW-4
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-03

Collected By: Thomas Webster
Collection Date: 12/09/2019 14:15

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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SM2540 C-1997

Total Dissolved Solids - TDS	106	20.0	mg/L	1		12/13/19 0749	12/13/19 1014	AWE
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SM5310 C-2011

Total Organic Carbon - TOC	7.53	1.00	mg/L	1		12/13/19 0732	12/13/19 1700	DIH
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Total Metals - ICP	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 200.7, Rv. 4.4

Cadmium	<0.00160	0.00160	mg/L	1		12/12/19 0639	12/12/19 1836	LSJ
Calcium	27.7	0.400	mg/L	1		12/12/19 0639	12/12/19 1836	LSJ
Iron	4.65	0.0800	mg/L	1		12/12/19 0639	12/12/19 1836	LSJ
Magnesium	6.23	0.400	mg/L	1		12/12/19 0639	12/12/19 1836	LSJ
Manganese	0.133	0.00800	mg/L	1		12/12/19 0639	12/12/19 1836	LSJ
Potassium	1.31	0.800	mg/L	1		12/12/19 0639	12/12/19 1836	LSJ
Sodium	3.46	0.400	mg/L	1		12/12/19 0639	12/12/19 1836	LSJ

Total Metals - ICP/MS	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 200.8, Rv. 5.4

Lead	0.003	0.001	mg/L	1		12/12/19 0851	12/19/19 1636	KXH
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Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 350.1, Rv 2.0

Ammonia as N	<0.0500	0.0500	mg/L	1		12/13/19 0929	12/13/19 1302	CLW
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EPA 351.2, Rv 2.0

Total Kjeldahl Nitrogen (TKN)	0.353	0.200	mg/L	1		12/12/19 1434	12/18/19 1159	CLW
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Hach 8000

Chemical Oxygen Demand (COD)	20.7	5.00	mg/L	1		12/12/19 1830	12/12/19 2030	CCM
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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: MW-5
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-04

Collected By: Thomas Webster
Collection Date: 12/09/2019 15:36

Field Parameters	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
SM2510 B-2011								
Conductivity at 25°C	445	5.00	umhos/cm	1			12/09/19 1536	TDW
SM2550 B-2010								
Temperature	9.5		°C	1	Y1		12/09/19 1536	TDW
SM4500 H+ B-2011								
pH	6.70	0.01	S.U.	1	Y1		12/09/19 1536	TDW
SM4500-O C-2001								
Oxidation-Reduction Potential-REDOX	-44.0		mV	1			12/09/19 1536	TDW
SM9221 B-2006								
Turbidity	5.77		NTU	1			12/09/19 1536	TDW

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	<0.0500	0.0500	mg/L	1		12/10/19 1315	12/10/19 1646	KED
Nitrate-Nitrite as N	<0.0500	0.0500	mg/L	1	A21	12/10/19 1315	12/10/19 1646	KED
Nitrite as N	<0.0250	0.0250	mg/L	1	A21	12/10/19 1315	12/10/19 1430	KED
SM5210 B-2011								
Biochemical Oxygen Demand (BOD5)	<3.00	3.00	mg/L	1	K1	12/10/19 1345	12/15/19 0841	FJF

Analyses Subcontracted to: Microbac Laboratories Inc., - Marietta, OH

Anions by Ion Chromatography	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 300.0, Rv 2.1								
Chloride	1.6	0.2	mg/L	1			12/18/19 2034	KWD
Sulfate as SO4	5.9	1.0	mg/L	1			12/18/19 2034	KWD

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
Calculation								
Hardness (as CaCO3)	175	2.65	mg/L	1		12/12/19 0639	12/12/19 1839	LSJ
EPA 420.1, Rv 1978								
Phenols - 4AAP	<0.0056	0.0056	mg/L	1		12/19/19 0931	12/19/19 0945	SWB
SM2320 B-1997								
Alkalinity, Total	215	20.0	mg/L	1		12/12/19 0928	12/12/19 1214	ART

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: MW-5
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-04

Collected By: Thomas Webster
Collection Date: 12/09/2019 15:38

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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SM2540 C-1997

Total Dissolved Solids - TDS	204	20.0	mg/L	1		12/13/19 0749	12/13/19 1014	AWE
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SM5310 C-2011

Total Organic Carbon - TOC	34.0	2.00	mg/L	2		12/13/19 0732	12/14/19 1254	DIH
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Total Metals - ICP	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 200.7, Rv. 4.4

Cadmium	<0.00160	0.00160	mg/L	1		12/12/19 0639	12/12/19 1839	LSJ
Calcium	52.5	0.400	mg/L	1		12/12/19 0639	12/12/19 1839	LSJ
Iron	14.1	0.0800	mg/L	1		12/12/19 0639	12/12/19 1839	LSJ
Magnesium	10.6	0.400	mg/L	1		12/12/19 0639	12/12/19 1839	LSJ
Manganese	9.41	0.00800	mg/L	1		12/12/19 0639	12/12/19 1839	LSJ
Potassium	4.59	0.800	mg/L	1		12/12/19 0639	12/12/19 1839	LSJ
Sodium	5.16	0.400	mg/L	1		12/12/19 0639	12/12/19 1839	LSJ

Total Metals - ICP/MS	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 200.8, Rv. 5.4

Lead	0.002	0.001	mg/L	1		12/12/19 0851	12/19/19 1639	KXH
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Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 350.1, Rv 2.0

Ammonia as N	5.78	0.100	mg/L	2		12/13/19 0929	12/13/19 1346	CLW
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EPA 351.2, Rv 2.0

Total Kjeldahl Nitrogen (TKN)	6.56	0.200	mg/L	1		12/12/19 1434	12/18/19 1200	CLW
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Hach 8000

Chemical Oxygen Demand (COD)	25.5	5.00	mg/L	1		12/12/19 1830	12/12/19 2030	CCM
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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: MW-6D
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-05

Collected By: Thomas Webster
Collection Date: 12/09/2019 13:05

Field Parameters	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
SM2510 B-2011								
Conductivity at 25°C	95.2	5.00	umhos/cm	1			12/09/19 1305	TDW
SM2550 B-2010								
Temperature	7.5		°C	1	Y1		12/09/19 1305	TDW
SM4500 H+ B-2011								
pH	6.45	0.01	S.U.	1	Y1		12/09/19 1305	TDW
SM4500-O C-2001								
Oxidation-Reduction Potential-REDOX	104		mV	1			12/09/19 1305	TDW
SM9221 B-2006								
Turbidity	15.6		NTU	1			12/09/19 1305	TDW

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	0.499	0.0500	mg/L	1		12/10/19 1315	12/10/19 1647	KED
Nitrate-Nitrite as N	0.499	0.0500	mg/L	1		12/10/19 1315	12/10/19 1647	KED
Nitrite as N	<0.0250	0.0250	mg/L	1		12/10/19 1315	12/10/19 1431	KED
SM5210 B-2011								
Biochemical Oxygen Demand (BOD5)	<3.00	3.00	mg/L	1	K1	12/10/19 1345	12/15/19 0841	FJF

Analyses Subcontracted to: Microbac Laboratories Inc., - Marietta, OH

Anions by Ion Chromatography	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 300.0, Rv 2.1								
Chloride	1.6	0.2	mg/L	1			12/18/19 2052	KWD
Sulfate as SO4	4.5	1.0	mg/L	1			12/18/19 2052	KWD
Inorganics								
Calculation								
Hardness (as CaCO3)	42.5	2.65	mg/L	1		12/12/19 0639	12/12/19 1843	LSJ
EPA 420.1, Rv 1978								
Phenols - 4AAP	<0.0056	0.0056	mg/L	1		12/19/19 0931	12/19/19 0945	SWB
SM2320 B-1997								
Alkalinity, Total	42.0	20.0	mg/L	1		12/12/19 0928	12/12/19 1221	ART

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: MW-6D
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-06

Collected By: Thomas Webster
Collection Date: 12/09/2019 13:05

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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SM2540 C-1997

Total Dissolved Solids - TDS	38.0	20.0	mg/L	1		12/13/19 0749	12/13/19 1014	AWE
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SM5310 C-2011

Total Organic Carbon - TOC	1.82	1.00	mg/L	1		12/13/19 0732	12/13/19 1744	DIH
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Total Metals - ICP	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 200.7, Rv. 4.4

Cadmium	<0.00160	0.00160	mg/L	1		12/12/19 0639	12/12/19 1843	LSJ
Calcium	13.7	0.400	mg/L	1		12/12/19 0639	12/12/19 1843	LSJ
Iron	0.125	0.0800	mg/L	1		12/12/19 0639	12/12/19 1843	LSJ
Magnesium	1.99	0.400	mg/L	1		12/12/19 0639	12/12/19 1843	LSJ
Manganese	0.0141	0.00800	mg/L	1		12/12/19 0639	12/12/19 1843	LSJ
Potassium	<0.800	0.800	mg/L	1		12/12/19 0639	12/12/19 1843	LSJ
Sodium	2.24	0.400	mg/L	1		12/12/19 0639	12/12/19 1843	LSJ

Total Metals - ICP/MS	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 200.8, Rv. 5.4

Lead	<0.001	0.001	mg/L	1		12/12/19 0851	12/19/19 1643	KXH
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Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 350.1, Rv 2.0

Ammonia as N	<0.0500	0.0500	mg/L	1		12/13/19 0929	12/13/19 1347	CLW
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EPA 351.2, Rv 2.0

Total Kjeldahl Nitrogen (TKN)	<0.200	0.200	mg/L	1		12/12/19 1434	12/18/19 1201	CLW
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Hach 8000

Chemical Oxygen Demand (COD)	<5.00	5.00	mg/L	1		12/13/19 1735	12/13/19 1935	CCM
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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: MWA-8
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-07

Collected By: Thomas Webster
Collection Date: 12/09/2019 16:18

Field Parameters	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
SM2510 B-2011								
Conductivity at 25°C	236	5.00	umhos/cm	1			12/09/19 1618	TDW
SM2550 B-2010								
Temperature	15.6		°C	1	Y1		12/09/19 1618	TDW
SM4500 H+ B-2011								
pH	10.4	0.01	S.U.	1	Y1		12/09/19 1618	TDW
SM4500-O C-2001								
Oxidation-Reduction Potential-REDOX	-12.0		mV	1			12/09/19 1618	TDW
SM9221 B-2006								
Turbidity	28.6		NTU	1			12/09/19 1618	TDW

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	<0.0500	0.0500	mg/L	1		12/10/19 1315	12/10/19 1650	KED
Nitrate-Nitrite as N	<0.0500	0.0500	mg/L	1		12/10/19 1315	12/10/19 1650	KED
Nitrite as N	<0.0250	0.0250	mg/L	1		12/10/19 1315	12/10/19 1433	KED
SM5210 B-2011								
Biochemical Oxygen Demand (BOD5)	<3.00	3.00	mg/L	1	K1	12/10/19 1345	12/15/19 0841	FJF

Analyses Subcontracted to: Microbac Laboratories Inc., - Marietta, OH

Anions by Ion Chromatography	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 300.0, Rv 2.1								
Chloride	3.9	0.2	mg/L	1			12/18/19 2110	KWD
Sulfate as SO4	21.9	1.0	mg/L	1			12/18/19 2110	KWD

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
Calculation								
Hardness (as CaCO3)	18.6	2.65	mg/L	1		12/12/19 0639	12/12/19 1846	LSJ
EPA 420.1, Rv 1978								
Phenols - 4AAP	<0.0056	0.0056	mg/L	1		12/19/19 0931	12/19/19 0945	SWB
SM2320 B-1997								
Alkalinity, Total	78.4	20.0	mg/L	1		12/12/19 0928	12/12/19 1226	ART

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CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: MW-8
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-07

Collected By: Thomas Webster
Collection Date: 12/09/2019 16:18

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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SM2540 C-1997

Total Dissolved Solids - TDS	124	20.0	mg/L	1		12/13/19 0749	12/13/19 1014	AWE
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SM5310 C-2011

Total Organic Carbon - TOC	1.54	1.00	mg/L	1		12/13/19 0732	12/13/19 1805	DIH
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Total Metals - ICP

EPA 200.7, Rv. 4.4

Cadmium	<0.00160	0.00160	mg/L	1		12/12/19 0639	12/12/19 1846	LSJ
Calcium	7.45	0.400	mg/L	1		12/12/19 0639	12/12/19 1846	LSJ
Iron	<0.0800	0.0800	mg/L	1		12/12/19 0639	12/12/19 1846	LSJ
Magnesium	<0.400	0.400	mg/L	1		12/12/19 0639	12/12/19 1846	LSJ
Manganese	<0.00800	0.00800	mg/L	1		12/12/19 0639	12/12/19 1846	LSJ
Potassium	2.18	0.800	mg/L	1		12/12/19 0639	12/12/19 1846	LSJ
Sodium	39.4	0.400	mg/L	1		12/12/19 0639	12/12/19 1846	LSJ

Total Metals - ICP/MS

EPA 200.8, Rv. 5.4

Lead	<0.001	0.001	mg/L	1		12/12/19 0851	12/19/19 1646	KXH
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Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 350.1, Rv 2.0

Ammonia as N	<0.0500	0.0500	mg/L	1		12/13/19 0929	12/13/19 1304	CLW
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EPA 351.2, Rv 2.0

Total Kjeldahl Nitrogen (TKN)	<0.200	0.200	mg/L	1		12/12/19 1434	12/18/19 1202	CLW
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Hach 8000

Chemical Oxygen Demand (COD)	169	125	mg/L	25	M	12/17/19 1600	12/17/19 1800	CCM
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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: MVA-11
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-08

Collected By: Thomas Webster
Collection Date: 12/09/2019 12:34

Field Parameters	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
SM2510 B-2011								
Conductivity at 25°C	138	5.00	umhos/cm	1			12/09/19 1234	TDW
SM2550 B-2010								
Temperature	1.0		°C	1	Y1		12/09/19 1234	TDW
SM4500 H+ B-2011								
pH	6.94	0.01	S.U.	1	Y1		12/09/19 1234	TDW
SM4500-O C-2001								
Oxidation-Reduction Potential-REDOX	97.0		mV	1			12/09/19 1234	TDW
SM9221 B-2006								
Turbidity	46.2		NTU	1			12/09/19 1234	TDW

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	0.345	0.0500	mg/L	1		12/10/19 1315	12/10/19 1650	KED
Nitrate-Nitrite as N	0.345	0.0500	mg/L	1	A21	12/10/19 1315	12/10/19 1650	KED
Nitrite as N	<0.0250	0.0250	mg/L	1	A21	12/10/19 1315	12/10/19 1434	KED
SM5210 B-2011								
Biochemical Oxygen Demand (BOD5)	<3.00	3.00	mg/L	1	K1	12/10/19 1345	12/15/19 0841	FJF

Analyses Subcontracted to: Microbac Laboratories Inc., - Marietta, OH

Anions by Ion Chromatography	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 300.0, Rv 2.1								
Chloride	2.1	0.2	mg/L	1			12/18/19 2128	KWD
Sulfate as SO4	6.9	1.0	mg/L	1			12/18/19 2128	KWD

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
Calculation								
Hardness (as CaCO3)	74.5	2.65	mg/L	1		12/12/19 0639	12/12/19 1849	LSJ
EPA 420.1, Rv 1978								
Phenols - 4AAP	<0.0056	0.0056	mg/L	1		12/19/19 0931	12/19/19 0945	SWB
SM2320 B-1997								
Alkalinity, Total	60.8	20.0	mg/L	1		12/12/19 0928	12/12/19 1230	ART

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: Mvy-11
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-08

Collected By: Thomas Webster
Collection Date: 12/09/2019 12:34

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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SM2540 C-1997

Total Dissolved Solids - TDS	100	20.0	mg/L	1		12/13/19 0749	12/13/19 1014	AWE
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SM5310 C-2011

Total Organic Carbon - TOC	1.74	1.00	mg/L	1		12/13/19 0732	12/13/19 1847	DIH
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Total Metals - ICP

	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 200.7, Rv. 4.4

Cadmium	<0.00160	0.00160	mg/L	1		12/12/19 0639	12/12/19 1849	LSJ
Calcium	21.2	0.400	mg/L	1		12/12/19 0639	12/12/19 1849	LSJ
Iron	6.57	0.0800	mg/L	1		12/12/19 0639	12/12/19 1849	LSJ
Magnesium	5.21	0.400	mg/L	1		12/12/19 0639	12/12/19 1849	LSJ
Manganese	0.176	0.00800	mg/L	1		12/12/19 0639	12/12/19 1849	LSJ
Potassium	1.21	0.800	mg/L	1		12/12/19 0639	12/12/19 1849	LSJ
Sodium	2.37	0.400	mg/L	1		12/12/19 0639	12/12/19 1849	LSJ

Total Metals - ICP/MS

	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 200.8, Rv. 5.4

Lead	0.013	0.001	mg/L	1		12/12/19 0851	12/19/19 1649	KXH
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Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 350.1, Rv 2.0

Ammonia as N	<0.0500	0.0500	mg/L	1		12/13/19 0929	12/13/19 1305	CLW
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EPA 351.2, Rv 2.0

Total Kjeldahl Nitrogen (TKN)	<0.200	0.200	mg/L	1		12/12/19 1434	12/18/19 1203	CLW
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Hach 8000

Chemical Oxygen Demand (COD)	39.2	5.00	mg/L	1		12/12/19 1830	12/12/19 2030	CCM
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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: MWV12
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-09

Collected By: Thomas Webster
Collection Date: 12/09/2019 12:02

Field Parameters	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
SM2510 B-2011								
Conductivity at 25°C	162	5.00	umhos/cm	1			12/09/19 1202	TDW
SM2550 B-2010								
Temperature	7.4		°C	1	Y1		12/09/19 1202	TDW
SM4500 H+ B-2011								
pH	6.10	0.01	S.U.	1	Y1		12/09/19 1202	TDW
SM4500-O C-2001								
Oxidation-Reduction Potential-REDOX	136		mV	1			12/09/19 1202	TDW
SM9221 B-2006								
Turbidity	7.28		NTU	1			12/09/19 1202	TDW

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	<0.0500	0.0500	mg/L	1		12/10/19 1315	12/10/19 1651	KED
Nitrate-Nitrite as N	<0.0500	0.0500	mg/L	1	A21	12/10/19 1315	12/10/19 1651	KED
Nitrite as N	<0.0250	0.0250	mg/L	1	A21	12/10/19 1315	12/10/19 1435	KED
SM5210 B-2011								
Biochemical Oxygen Demand (BOD5)	<3.00	3.00	mg/L	1	K1	12/10/19 1345	12/15/19 0841	FJF

Analyses Subcontracted to: Microbac Laboratories Inc., - Marietta, OH

Anions by Ion Chromatography	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 300.0, Rv 2.1								
Chloride	2.0	0.2	mg/L	1			12/18/19 2223	KWD
Sulfate as SO4	6.5	1.0	mg/L	1			12/18/19 2223	KWD

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
Calculation								
Hardness (as CaCO3)	75.3	2.65	mg/L	1		12/12/19 0638	12/12/19 1515	LSJ
EPA 420.1, Rv 1978								
Phenols - 4AAP	<0.0056	0.0056	mg/L	1		12/19/19 0931	12/19/19 0945	SWB
SM2320 B-1997								
Alkalinity, Total	72.8	20.0	mg/L	1		12/12/19 0928	12/12/19 1236	ART

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: MVV-12
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-09

Collected By: Thomas Webster
Collection Date: 12/09/2019 12:02

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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SM2540 C-1997

Total Dissolved Solids - TDS	110	20.0	mg/L	1		12/13/19 0749	12/13/19 1014	AWE
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SM5310 C-2011

Total Organic Carbon - TOC	3.04	1.00	mg/L	1		12/13/19 0732	12/13/19 1908	DIH
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Total Metals - ICP

Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 200.7, Rv. 4.4

Cadmium	<0.00160	0.00160	mg/L	1		12/12/19 0638	12/12/19 1515	LSJ
Calcium	24.5	0.400	mg/L	1		12/12/19 0638	12/12/19 1515	LSJ
Iron	0.215	0.0800	mg/L	1		12/12/19 0638	12/12/19 1515	LSJ
Magnesium	3.45	0.400	mg/L	1		12/12/19 0638	12/12/19 1515	LSJ
Manganese	1.79	0.00800	mg/L	1		12/12/19 0638	12/12/19 1515	LSJ
Potassium	0.877	0.800	mg/L	1		12/12/19 0638	12/12/19 1515	LSJ
Sodium	2.70	0.400	mg/L	1		12/12/19 0638	12/12/19 1515	LSJ

Total Metals - ICP/MS

Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 200.8, Rv. 5.4

Lead	<0.001	0.001	mg/L	1		12/12/19 0851	12/19/19 1652	KXH
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Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 350.1, Rv 2.0

Ammonia as N	<0.0500	0.0500	mg/L	1		12/13/19 0929	12/13/19 1306	CLW
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EPA 351.2, Rv 2.0

Total Kjeldahl Nitrogen (TKN)	<0.200	0.200	mg/L	1		12/12/19 1434	12/18/19 1204	CLW
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Hach 8000

Chemical Oxygen Demand (COD)	9.98	5.00	mg/L	1		12/13/19 1735	12/13/19 1935	CCM
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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: NYN-13
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-10

Collected By: Thomas Webster
Collection Date: 12/09/2019 14:52

Field Parameters	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
SM2510 B-2011								
Conductivity at 25°C	453	5.00	umhos/cm	1			12/09/19 1452	TDW
SM2550 B-2010								
Temperature	9.6		°C	1	Y1		12/09/19 1452	TDW
SM4500 H+ B-2011								
pH	6.58	0.01	S.U.	1	Y1		12/09/19 1452	TDW
SM4500-O C-2001								
Oxidation-Reduction Potential-REDOX	-34.0		mV	1			12/09/19 1452	TDW
SM9221 B-2006								
Turbidity	28.6		NTU	1			12/09/19 1452	TDW

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	<0.0500	0.0500	mg/L	1		12/10/19 1315	12/10/19 1652	KED
Nitrate-Nitrite as N	<0.0500	0.0500	mg/L	1		12/10/19 1315	12/10/19 1652	KED
Nitrite as N	<0.0250	0.0250	mg/L	1		12/10/19 1315	12/10/19 1436	KED
SM5210 B-2011								
Biochemical Oxygen Demand (BOD5)	<3.00	3.00	mg/L	1	K1	12/10/19 1345	12/15/19 0841	FJF

Analyses Subcontracted to: Microbac Laboratories Inc., - Marietta, OH

Anions by Ion Chromatography	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 300.0, Rv 2.1								
Chloride	3.2	0.2	mg/L	1			12/18/19 2241	KWD
Sulfate as SO4	10.8	1.0	mg/L	1			12/18/19 2241	KWD

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
Calculation								
Hardness (as CaCO3)	231	2.65	mg/L	1		12/12/19 0638	12/12/19 1518	LSJ
EPA 420.1, Rv 1978								
Phenols - 4AAP	<0.0056	0.0056	mg/L	1		12/19/19 0931	12/19/19 0945	SWB
SM2320 B-1997								
Alkalinity, Total	217	20.0	mg/L	1		12/12/19 0928	12/12/19 1241	ART

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: MW-13
Sample Matrix: Aqueous
Lab Sample ID: J9L0400-10

Collected By: Thomas Webster
Collection Date: 12/09/2019 14:52

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
SM2540 C-1997								
Total Dissolved Solids - TDS	258	20.0	mg/L	1		12/13/19 0749	12/13/19 1014	AWE

SM5310 C-2011

Total Organic Carbon - TOC	6.07	1.00	mg/L	1		12/13/19 0732	12/13/19 1934	DIH
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Total Metals - ICP

EPA 200.7, Rv. 4.4

Cadmium	<0.00160	0.00160	mg/L	1		12/12/19 0638	12/12/19 1518	LSJ
Calcium	76.0	0.400	mg/L	1		12/12/19 0638	12/12/19 1518	LSJ
Iron	2.01	0.0800	mg/L	1		12/12/19 0638	12/12/19 1518	LSJ
Magnesium	9.93	0.400	mg/L	1		12/12/19 0638	12/12/19 1518	LSJ
Manganese	9.91	0.00800	mg/L	1		12/12/19 0638	12/12/19 1518	LSJ
Potassium	1.13	0.800	mg/L	1		12/12/19 0638	12/12/19 1518	LSJ
Sodium	5.41	0.400	mg/L	1		12/12/19 0638	12/12/19 1518	LSJ

Total Metals - ICP/MS

EPA 200.8, Rv. 5.4

Lead	0.002	0.001	mg/L	1		12/12/19 0851	12/19/19 1702	KXH
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Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 350.1, Rv 2.0								
Ammonia as N	0.683	0.0500	mg/L	1		12/13/19 0929	12/13/19 1309	CLW
EPA 351.2, Rv 2.0								
Total Kjeldahl Nitrogen (TKN)	1.60	0.200	mg/L	1		12/12/19 1434	12/18/19 1205	CLW
Hach 8000								
Chemical Oxygen Demand (COD)	51.4	5.00	mg/L	1		12/12/19 1830	12/12/19 2030	CCM

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: Pecknam Brook

Sample Matrix: Aqueous

Lab Sample ID: J9L0400-11

Collected By: Thomas Webster

Collection Date: 12/09/2019 16:33

Field Parameters	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
SM2510 B-2011								
Conductivity at 25°C	51.0	5.00	umhos/cm	1			12/09/19 1633	TDW
SM2550 B-2010								
Temperature	3.6		°C	1	Y1		12/09/19 1633	TDW
SM4500 H+ B-2011								
pH	7.05	0.01	S.U.	1	Y1		12/09/19 1633	TDW
SM4500-O C-2001								
Oxidation-Reduction Potential-REDOX	70.0		mV	1			12/09/19 1633	TDW
SM9221 B-2006								
Turbidity	3.87		NTU	1			12/09/19 1633	TDW

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	0.107	0.0500	mg/L	1		12/10/19 1315	12/10/19 1652	KED
Nitrate-Nitrite as N	0.107	0.0500	mg/L	1		12/10/19 1315	12/10/19 1652	KED
Nitrite as N	<0.0250	0.0250	mg/L	1		12/10/19 1315	12/10/19 1436	KED
SM5210 B-2011								
Biochemical Oxygen Demand (BOD5)	<3.00	3.00	mg/L	1	K1	12/10/19 1345	12/15/19 0841	FJF

Analyses Subcontracted to: Microbac Laboratories Inc., - Marietta, OH

Anions by Ion Chromatography	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
EPA 300.0, Rv 2.1								
Chloride	1.6	0.2	mg/L	1			12/18/19 2259	KWD
Sulfate as SO4	5.1	1.0	mg/L	1			12/18/19 2259	KWD

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
Calculation								
Hardness (as CaCO3)	19.1	2.65	mg/L	1		12/12/19 0638	12/12/19 1521	LSJ
EPA 420.1, Rv 1978								
Phenols - 4AAP	<0.0056	0.0056	mg/L	1		12/19/19 0931	12/19/19 0945	SWB
SM2320 B-1997								
Alkalinity, Total	<20.0	20.0	mg/L	1		12/12/19 1115	12/12/19 1310	ART

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Client Sample ID: Peckham Brook

Sample Matrix: Aqueous

Lab Sample ID: J9L0400-11

Collected By: Thomas Webster

Collection Date: 12/09/2019 16:33

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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SM2540 C-1997

Total Dissolved Solids - TDS	50.0	20.0	mg/L	1		12/13/19 0749	12/13/19 1014	AWE
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SM5310 C-2011

Total Organic Carbon - TOC	2.40	1.00	mg/L	1		12/13/19 0732	12/13/19 1954	DIH
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Total Metals - ICP

EPA 200.7, Rv. 4.4

Cadmium	<0.00160	0.00160	mg/L	1		12/12/19 0638	12/12/19 1521	LSJ
Calcium	5.79	0.400	mg/L	1		12/12/19 0638	12/12/19 1521	LSJ
Iron	0.260	0.0800	mg/L	1		12/12/19 0638	12/12/19 1521	LSJ
Magnesium	1.12	0.400	mg/L	1		12/12/19 0638	12/12/19 1521	LSJ
Manganese	0.0385	0.00800	mg/L	1		12/12/19 0638	12/12/19 1521	LSJ
Potassium	<0.800	0.800	mg/L	1		12/12/19 0638	12/12/19 1521	LSJ
Sodium	1.86	0.400	mg/L	1		12/12/19 0638	12/12/19 1521	LSJ

Total Metals - ICP/MS

EPA 200.8, Rv. 5.4

Lead	<0.001	0.001	mg/L	1		12/16/19 0724	12/19/19 1442	KXH
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Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Inorganics	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
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EPA 350.1, Rv 2.0

Ammonia as N	<0.0500	0.0500	mg/L	1	M2	12/13/19 0929	12/13/19 1254	CLW
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EPA 351.2, Rv 2.0

Total Kjeldahl Nitrogen (TKN)	0.210	0.200	mg/L	1		12/12/19 1434	12/18/19 1207	CLW
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Hach 8000

Chemical Oxygen Demand (COD)	5.10	5.00	mg/L	1		12/13/19 1735	12/13/19 1935	CCM
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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0400

Definitions

°C:	Degrees Celsius
A21:	Sample was filtered in the laboratory before analysis.
AC:	Dilution performed due to noncompliant internal standard recovery.
K1:	Unseeded dilution blank depletion exceeds 0.2 mg/L.
M:	Matrix interference is present.
M2:	Matrix spike recovery is below acceptance limits.
MCL:	US EPA Maximum Contaminant Level
MDL:	Minimum Detection Limit
mg/L:	Milligrams per Liter
mV:	Millivolts
NTU:	Nephelometric Turbidity Units
RL:	Reporting Limit
S.U.:	Standard Units
umhos/cm:	Umhos per Centimeter
Y1:	Accreditation is not offered by the accrediting body for this analyte.

Project Requested Certification(s)

Microbac Laboratories Inc., - Marietta, OH 10861	New York State Department of Health
Microbac Laboratories, Inc. - Dayville 11549	New York State Department of Health
Microbac Laboratories, Inc., New York Division NY Lab ID No.: 10795	New York State Department of Health

Report Comments

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included.

Reviewed and Approved By:

Renee Lantz
Customer Relationship Specialist
Reported: 01/03/2020 09:38



Microbac Laboratories, Inc., New York Division

Chain of Custody

J9L0400

TAT 7 days

BAGS Landfill

Project Name: Annual Routine - (Year)

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733
Phone: (607) 967-3781

Project/PO Number: N/A
Tenatively Scheduled: 12/3/2019
Field Route: NY-Route 5 LF

Client Sample ID: MW-2

Lab Sample ID: J9L0400-01

Matrix: Aqueous

Sampled Date & Time: 12-9-19 / 1553

Type: Grab

Analysis	Method	Field Results/Comments	Hold Time
Field Conductivity	SM2510 B-2011	Field Instrument: MB4479 Result: <u>428.5</u> Unit: _____	
Field ORP Eh	SM4500-D C-2001	Field Instrument: _____ Result: <u>224</u> Unit: _____	
Field pH	SM4500 H+ B-2011	Field Instrument: <u>1</u> Result: <u>7.54</u> Unit: _____	
Field Temp C	SM2550 B-2010	Field Instrument: <u>1</u> Result: <u>8.8</u> Unit: _____	
Field Turbidity	SM9221 B-2006	Field Instrument: MB4479 Result: <u>5.72</u> Unit: _____	
Hardness 200.7 Group	varies		180.00 days
NO3 EPA Group	varies		2.00 days
Chloride EPA300	EPA 300.0, Rv 2.1	pH 7.54 SU	28.00 days
Sulfate EPA300	EPA 300.0, Rv 2.1	ORP 22 MV	28.00 days
Alkalinity TIT	SM2320 B-1997	COND 65.23 us/cm	14.00 days
BOD	SM5210 B-2011	Temp 8.8 °C	2.00 days
COD	Hach 8000	Turb 5.72 NTU	28.00 days
NH3 EPA	EPA 350.1, Rv 2		28.00 days
Phenolics	EPA 420.4, Rv 1		28.00 days
TDS	SM2540 C-1997		7.00 days
TKN	EPA 351.2, Rv 2		28.00 days
TOC	SM5310 C-2000		28.00 days
200.7 Ca	EPA 200.7, Rv 4.4		180.00 days
200.7 Cd	EPA 200.7, Rv 4.4		180.00 days
200.7 Fe	EPA 200.7, Rv 4.4		180.00 days
200.7 K	EPA 200.7, Rv 4.4		180.00 days
200.7 Mg	EPA 200.7, Rv 4.4		180.00 days
200.7 Mn	EPA 200.7, Rv 4.4		180.00 days
200.7 Na	EPA 200.7, Rv 4.4		180.00 days
200.8 Pb	EPA 200.8, Rv 5.4		180.00 days



Microbac Laboratories, Inc., New York Division

Chain of Custody

J9L0400**BAGS Landfill****Project Name: Annual Routine - (Year)**

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733
Phone: (607) 967-3781

Project/PO Number: N/A
Tenatively Scheduled: 12/3/2019
Field Route: NY-Route 5 LF

Container(s)Designator

A-250ml Amber NM, H2SO4
P-1L Plastic Oblong WM
P-250ml Plastic Oblong WM
P-250ml Plastic Oblong WM(ZHS)
P-250ml Plastic Oblong WM, H2SO4
P-250ml Plastic Oblong WM, H2SO4
P-250ml Plastic Oblong WM, HNO3
P-250ml Plastic Oblong WM, HNO3
P-500ml Plastic Oblong WM
P-500ml Plastic Oblong WM
VA-40ml Amber vial, Sulfuric Acid
VA-40ml Amber vial, Sulfuric Acid

A
B
C
D
E
F
G
H
I
J
K
L

Client Sample ID: MW-3**Lab Sample ID: J9L0400-02****Matrix: Aqueous****Sampled Date & Time: 12-9-19/1338****Type: Grab**

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
Field Conductivity	SM2510 B-2011	Field Instrument: <u>Mettler 39</u> Result: <u>428.5</u> Unit: <u>µS/cm</u>	
Field ORP Eh	SM4500-C C-2001	Field Instrument: <u>1</u> Result: <u>-24</u> Unit: <u>mV</u>	
Field pH	SM4500 H+ B-2011	Field Instrument: <u>1</u> Result: <u>6.28</u> Unit: <u>pH</u>	
Field Temp C	SM2550 B-2010	Field Instrument: <u>1</u> Result: <u>7.6</u> Unit: <u>°C</u>	
Field Turbidity	SM9221 B-2006	Field Instrument: <u>Mettler 99</u> Result: <u>21.2</u> Unit: <u>NTU</u>	
Hardness 200.7 Group	varies		180.00 days
NO3 EPA Group	varies		2.00 days
Chloride EPA300	EPA 300.0, Rv 2.1		28.00 days
Sulfate EPA300	EPA 300.0, Rv 2.1		28.00 days
Alkalinity TIT	SM2320 B-1997		14.00 days
BOD	SM5210 B-2011		2.00 days
COD	Hach 8000		28.00 days
NH3 EPA	EPA 350.1, Rv 2		28.00 days
Phenolics	EPA 420.4, Rv 1		28.00 days
TDS	SM2540 C-1997		7.00 days
TKN	EPA 351.2, Rv 2		28.00 days
TOC	SM5310 C-2000		28.00 days
200.7 Ca	EPA 200.7, Rv 4.4		180.00 days
200.7 Cd	EPA 200.7, Rv 4.4		180.00 days
200.7 Fe	EPA 200.7, Rv 4.4		180.00 days
200.7 K	EPA 200.7, Rv 4.4		180.00 days
200.7 Mg	EPA 200.7, Rv 4.4		180.00 days

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Microbac Laboratories, Inc., New York Division
Chain of Custody
J9L0400

BAGS Landfill**Project Name: Annual Routine - (Year)**

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733
Phone: (607) 967-3781

Project/PO Number: N/A
Tenatively Scheduled: 12/3/2019
Field Route: NY-Route 5 LF

200.7 Mn	EPA 200.7, Rv 4.4	180.00 days
200.7 Na	EPA 200.7, Rv 4.4	180.00 days
200.8 Pb	EPA 200.8, Rv 5.4	180.00 days
Container(s)		Designator
A-250ml Amber NM, H2SO4		A
P-1L Plastic Oblong WM		B
P-250ml Plastic Oblong WM		C
P-250ml Plastic Oblong WM(ZHS)		D
P-250ml Plastic Oblong WM, H2SO4		E
P-250ml Plastic Oblong WM, H2SO4		F
P-250ml Plastic Oblong WM, HNO3		G
P-250ml Plastic Oblong WM, HNO3		H
P-500ml Plastic Oblong WM		I
P-500ml Plastic Oblong WM		J
VA-40ml Amber vial, Sulfuric Acid		K
VA-40ml Amber vial, Sulfuric Acid		L

Client Sample ID: MW-4**Lab Sample ID: J9L0400-03****Matrix: Aqueous****Sampled Date & Time: 12-19-19/1415****Type: Grab**

Analysis	Method	Field Results/Comments	Hold Time
Field Conductivity	SM2510 B-2011	Field Instrument: <u>MP4639</u> Result: <u>184.8</u> Unit: <u>µS/cm</u>	
Field ORP Eh	SM4500-O C-2001	Field Instrument: <u>1</u> Result: <u>96</u> Unit: <u>mv</u>	
Field pH	SM4500 H+ B-2011	Field Instrument: <u>1</u> Result: <u>6.11</u> Unit: <u>SV</u>	
Field Temp C	SM2550 B-2010	Field Instrument: <u>1</u> Result: <u>8.6</u> Unit: <u>°C</u>	
Field Turbidity	SM9221 B-2006	Field Instrument: <u>MP4639</u> Result: <u>3.74</u> Unit: <u>NTU</u>	
Hardness 200.7 Group	varies		180.00 days
NO3 EPA Group	varies		2.00 days
Chloride EPA300	EPA 300.0, Rv 2.1		28.00 days
Sulfate EPA300	EPA 300.0, Rv 2.1		28.00 days
Alkalinity TIT	SM2320 B-1997		14.00 days
BOD	SM5210 B-2011		2.00 days
COD	Hach 8000		28.00 days
NH3 EPA	EPA 350.1, Rv 2		28.00 days
Phenolics	EPA 420.4, Rv 1		28.00 days
TDS	SM2540 C-1997		7.00 days
TKN	EPA 351.2, Rv 2		28.00 days
TOC	SM5310 C-2000		28.00 days
200.7 Ca	EPA 200.7, Rv 4.4		180.00 days
200.7 Cd	EPA 200.7, Rv 4.4		180.00 days

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Microbac Laboratories, Inc., New York Division
Chain of Custody
J9L0400

BAGS Landfill

Project Name: Annual Routine - (Year)

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733
Phone: (607) 967-3781

Project/PO Number: N/A
Tentatively Scheduled: 12/3/2019
Field Route: NY-Route 5 LF

200.7 Fe	EPA 200.7, Rv 4.4	180.00 days
200.7 K	EPA 200.7, Rv 4.4	180.00 days
200.7 Mg	EPA 200.7, Rv 4.4	180.00 days
200.7 Mn	EPA 200.7, Rv 4.4	180.00 days
200.7 Na	EPA 200.7, Rv 4.4	180.00 days
200.8 Pb	EPA 200.8, Rv 5.4	180.00 days

Container(s)Designator

A-250ml Amber NM, H2SO4	A
P-1L Plastic Oblong WM	B
P-250ml Plastic Oblong WM	C
P-250ml Plastic Oblong WM(ZHS)	D
P-250ml Plastic Oblong WM, H2SO4	E
P-250ml Plastic Oblong WM, H2SO4	F
P-250ml Plastic Oblong WM, HNO3	G
P-250ml Plastic Oblong WM, HNO3	H
P-500ml Plastic Oblong WM	I
P-500ml Plastic Oblong WM	J
VA-40ml Amber vial, Sulfuric Acid	K
VA-40ml Amber vial, Sulfuric Acid	L

Client Sample ID: MW-5

Lab Sample ID: J9L0400-04

Matrix: Aqueous

Sampled Date & Time: 12-9-19 / 1536

Type: Grab

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
Field Conductivity	SM2510 B-2011	Field Instrument: MB4039 Result: 445.3 Unit: $\mu S/cm$	
Field ORP Eh	SM4500-O C-2001	Field Instrument: $\downarrow$ Result: -44 Unit: mV	
Field pH	SM4500 H+ B-2011	Field Instrument: $\downarrow$ Result: 6.70 Unit: SU	
Field Temp C	SM2550 B-2010	Field Instrument: $\downarrow$ Result: 9.5 Unit: C°	
Field Turbidity	SM9221 B-2006	Field Instrument: MB4039 Result: 5.77 Unit: NTU	
Hardness 200.7 Group	varies		180.00 days
NO3 EPA Group	varies		2.00 days
Chloride EPA300	EPA 300.0, Rv 2.1		28.00 days
Sulfate EPA300	EPA 300.0, Rv 2.1		28.00 days
Alkalinity TIT	SM2320 B-1997		14.00 days
BOD	SM5210 B-2011		2.00 days
COD	Hach 8000		28.00 days
NH3 EPA	EPA 350.1, Rv 2		28.00 days
Phenolics	EPA 420.4, Rv 1		28.00 days
TDS	SM2540 C-1997		7.00 days
TKN	EPA 351.2, Rv 2		28.00 days



Microbac Laboratories, Inc., New York Division

Chain of Custody

J9L0400

BAGS Landfill

Project Name: Annual Routine - (Year)

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733
Phone: (607) 967-3781

Project/PO Number: N/A
Tenatively Scheduled: 12/3/2019
Field Route: NY-Route 5 LF

TOC	SM5310 C-2000	28.00 days
200.7 Ca	EPA 200.7, Rv 4.4	180.00 days
200.7 Cd	EPA 200.7, Rv 4.4	180.00 days
200.7 Fe	EPA 200.7, Rv 4.4	180.00 days
200.7 K	EPA 200.7, Rv 4.4	180.00 days
200.7 Mg	EPA 200.7, Rv 4.4	180.00 days
200.7 Mn	EPA 200.7, Rv 4.4	180.00 days
200.7 Na	EPA 200.7, Rv 4.4	180.00 days
200.8 Pb	EPA 200.8, Rv 5.4	180.00 days

Container(s)

A-250ml Amber NM, H2SO4
P-1L Plastic Oblong WM
P-250ml Plastic Oblong WM
P-250ml Plastic Oblong WM(ZHS)
P-250ml Plastic Oblong WM, H2SO4
P-250ml Plastic Oblong WM, H2SO4
P-250ml Plastic Oblong WM, HNO3
P-250ml Plastic Oblong WM, HNO3
P-500ml Plastic Oblong WM
P-500ml Plastic Oblong WM
VA-40ml Amber vial, Sulfuric Acid
VA-40ml Amber vial, Sulfuric Acid

Designator

A
B
C
D
E
F
G
H
I
J
K
L

Client Sample ID: MW-6S

Lab Sample ID: J9L0400-05

Matrix: Aqueous

Sampled Date & Time: _____

Type: Grab

Analysis	Method	Field Results/Comments	Hold Time
Field Conductivity	SM2510 B-2011	Field Instrument: _____ Result: _____ Unit: _____	
Field ORP Eh	SM4500-O C-2001	Field Instrument: _____ Result: _____ Unit: _____	
Field pH	SM4500 H+ B-2011	Field Instrument: _____ Result: _____ Unit: _____	
Field Temp C	SM2550 B-2010	Field Instrument: _____ Result: _____ Unit: _____	
Field Turbidity	SM9221 B-2006	Field Instrument: _____ Result: _____ Unit: _____	
Hardness 200.7 Group	varies		180.00 days
NO3 EPA Group	varies		2.00 days
Chloride EPA300	EPA 300.0, Rv 2.1		28.00 days
Sulfate EPA300	EPA 300.0, Rv 2.1		28.00 days
Alkalinity TIT	SM2320 B-1997		14.00 days
BOD	SM5210 B-2011		2.00 days
COD	Hach 8000		28.00 days
NH3 EPA	EPA 350.1, Rv 2		28.00 days

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Microbac Laboratories, Inc., New York Division
Chain of Custody
J9L0400

BAGS Landfill**Project Name: Annual Routine - (Year)**

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733
Phone: (607) 967-3781

Project/PO Number: N/A
Tenatively Scheduled: 12/3/2019
Field Route: NY-Route 5 LF

Phenolics	EPA 420.4, Rv 1	28.00 days
TDS	SM2540 C-1997	7.00 days
TKN	EPA 251.2, Rv 2	28.00 days
TOC	SM5310 C-2000	28.00 days
200.7 Ca	EPA 200.7, Rv 4.4	180.00 days
200.7 Cd	EPA 200.7, Rv 4.4	180.00 days
200.7 Fe	EPA 200.7, Rv 4.4	180.00 days
200.7 K	EPA 200.7, Rv 4.4	180.00 days
200.7 Mg	EPA 200.7, Rv 4.4	180.00 days
200.7 Mn	EPA 200.7, Rv 4.4	180.00 days
200.7 Na	EPA 200.7, Rv 4.4	180.00 days
200.8 Pb	EPA 200.8, Rv 5.4	180.00 days

Container(s)

A-250ml Amber NM, H2SO4
P-1L Plastic Oblong WM
P-250ml Plastic Oblong WM
P-250ml Plastic Oblong WM(ZHS)
P-250ml Plastic Oblong WM, H2SO4
P-250ml Plastic Oblong WM, H2SO4
P-250ml Plastic Oblong WM, HNO3
P-250ml Plastic Oblong WM, HNO3
P-500ml Plastic Oblong WM
P-500ml Plastic Oblong WM
VA-40ml Amber vial, Sulfuric Acid
VA-40ml Amber vial, Sulfuric Acid

Designator

A
B
C
D
E
F
G
H
I
J
K
L

Client Sample ID: MW-6D**Lab Sample ID: J9L0400-06****Matrix: Aqueous****Type: Grab****Sampled Date & Time: 12-9-19/1305**

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
Field Conductivity	SM2510 B-2011	Field Instrument: <u>MBX-37</u> Result: <u>95.16</u> Unit: <u>uS/cm</u>	
Field ORP Eh	SM4500-O C-2001	Field Instrument: <u>J</u> Result: <u>104</u> Unit: <u>mV</u>	
Field pH	SM4500 H+ B-2011	Field Instrument: <u>J</u> Result: <u>6.45</u> Unit: <u>SC</u>	
Field Temp C	SM2550 B-2010	Field Instrument: <u>J</u> Result: <u>75</u> Unit: <u>C</u>	
Field Turbidity	SM9221 B-2006	Field Instrument: <u>MBX-7199</u> Result: <u>15.6</u> Unit: <u>NTU</u>	
Hardness 200.7 Group	varies		180.00 days
NO3 EPA Group	varies		2.00 days
Chloride EPA300	EPA 300.0, Rv 2.1		28.00 days
Sulfate EPA300	EPA 300.0, Rv 2.1		28.00 days
Alkalinity TIT	SM2320 B-1997		14.00 days

Microbac Laboratories, Inc., New York Division

Chain of Custody

J9L0400**BAGS Landfill****Project Name: Annual Routine - (Year)**

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733
Phone: (607) 967-3781

Project/PO Number: N/A
Tenatively Scheduled: 12/3/2019
Field Route: NY-Route 5 LF

BOD	SM5210 B-2011	2.00 days
COD	Hach 8000	28.00 days
NH3 EPA	EPA 350.1, Rv 2	28.00 days
Phenolics	EPA 420.4, Rv 1	28.00 days
TDS	SM2540 C-1997	7.00 days
TKN	EPA 351.2, Rv 2	28.00 days
TOC	SM5310 C-2000	28.00 days
200.7 Ca	EPA 200.7, Rv 4.4	180.00 days
200.7 Cd	EPA 200.7, Rv 4.4	180.00 days
200.7 Fe	EPA 200.7, Rv 4.4	180.00 days
200.7 K	EPA 200.7, Rv 4.4	180.00 days
200.7 Mg	EPA 200.7, Rv 4.4	180.00 days
200.7 Mn	EPA 200.7, Rv 4.4	180.00 days
200.7 Na	EPA 200.7, Rv 4.4	180.00 days
200.8 Pb	EPA 200.8, Rv 5.4	180.00 days

Container(s)Designator

A-250ml Amber NM, H2SO4	A
P-1L Plastic Oblong WM	B
P-250ml Plastic Oblong WM	C
P-250ml Plastic Oblong WM(ZHS)	D
P-250ml Plastic Oblong WM, H2SO4	E
P-250ml Plastic Oblong WM, H2SO4	F
P-250ml Plastic Oblong WM, HNO3	G
P-250ml Plastic Oblong WM, HNO3	H
P-500ml Plastic Oblong WM	I
P-500ml Plastic Oblong WM	J
VA-40ml Amber vial, Sulfuric Acid	K
VA-40ml Amber vial, Sulfuric Acid	L

Client Sample ID: MW-8**Lab Sample ID: J9L0400-07****Matrix: Aqueous****Sampled Date & Time: 12-9-19/1618****Type: Grab**

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
Field Conductivity	SM2510 B-2011	Field Instrument: <u>MBM1039</u> Result: <u>236.2</u> Unit: <u>uS/cm</u>	
Field ORP Eh	SM4500-O C-2001	Field Instrument: <u>↓</u> Result: <u>-12</u> Unit: <u>mv</u>	
Field pH	SM4500 B-2011	Field Instrument: <u>↓</u> Result: <u>10.40</u> Unit: <u>SC</u>	
Field Temp C	SM2550 B-2010	Field Instrument: <u>↓</u> Result: <u>15.6</u> Unit: <u>co</u>	
Field Turbidity	SM9221 B-2006	Field Instrument: <u>MBM179</u> Result: <u>28.6</u> Unit: <u>NTU</u>	
Hardness 200.7 Group	varies		180.00 days
NO3 EPA Group	varies		2.00 days

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Microbac Laboratories, Inc., New York Division
Chain of Custody
J9L0400

BAGS Landfill

Project Name: Annual Routine - (Year)

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733
Phone: (607) 967-3781

Project/PO Number: N/A
Tenatively Scheduled: 12/3/2019
Field Route: NY-Route 5 LF

Chloride EPA300	EPA 300.0, Rv 2.1	28.00 days
Sulfate EPA300	EPA 300.0, Rv 2.1	28.00 days
Alkalinity TIT	SM2320 B-1997	14.00 days
BOD	SM5210 B-2011	2.00 days
COD	Hach 8000	28.00 days
NH3 EPA	EPA 350.1, Rv 2	28.00 days
Phenolics	EPA 420.4, Rv 1	28.00 days
TDS	SM2540 C-1997	7.00 days
TKN	EPA 351.2, Rv 2	28.00 days
TOC	SM5310 C-2000	28.00 days
200.7 Ca	EPA 200.7, Rv 4.4	180.00 days
200.7 Cd	EPA 200.7, Rv 4.4	180.00 days
200.7 Fe	EPA 200.7, Rv 4.4	180.00 days
200.7 K	EPA 200.7, Rv 4.4	180.00 days
200.7 Mg	EPA 200.7, Rv 4.4	180.00 days
200.7 Mn	EPA 200.7, Rv 4.4	180.00 days
200.7 Na	EPA 200.7, Rv 4.4	180.00 days
200.8 Pb	EPA 200.8, Rv 5.4	180.00 days

Container(s)Designator

A-250ml Amber NM, H2SO4	A
P-1L Plastic Oblong WM	B
P-250ml Plastic Oblong WM	C
P-250ml Plastic Oblong WM(ZHS)	D
P-250ml Plastic Oblong WM, H2SO4	E
P-250ml Plastic Oblong WM, H2SO4	F
P-250ml Plastic Oblong WM, HNO3	G
P-250ml Plastic Oblong WM, HNO3	H
P-500ml Plastic Oblong WM	I
P-500ml Plastic Oblong WM	J
VA-40ml Amber vial, Sulfuric Acid	K
VA-40ml Amber vial, Sulfuric Acid	L

Client Sample ID: MW-11

Lab Sample ID: J9L0400-08

Matrix: Aqueous

Sampled Date & Time: 12-9-19 / 12384

Type: Grab

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
Field Conductivity	SM2510 B-2011	Field Instrument: <u>M307031</u> Result: <u>138.3</u> Unit: <u>u/m</u>	
Field ORP Eh	SM4500-O C-2001	Field Instrument: <u>/</u> Result: <u>97</u> Unit: <u>mV</u>	
Field pH	SM4500 H+ B-2011	Field Instrument: <u>/</u> Result: <u>6.94</u> Unit: <u>5.0</u>	
Field Temp C	SM2550 B-2010	Field Instrument: <u>/</u> Result: <u>8.8</u> Unit: <u>C</u>	

Microbac Laboratories, Inc., New York Division
Chain of Custody
J9L0400

BAGS Landfill

Project Name: Annual Routine - (Year)

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733
Phone: (607) 967-3781

Project/PO Number: N/A
Tenatively Scheduled: 12/3/2019
Field Route: NY-Route 5 LF

Field Turbidity	SM9221 B-2006	Field Instrument: <u>MD/449</u>	Result: <u>46.2</u>	Unit: <u>NTU</u>	180.00 days
Hardness 200.7 Group	varies				2.00 days
NO3 EPA Group	varies				28.00 days
Chloride EPA300	EPA 300.0, Rv 2.1				28.00 days
Sulfate EPA300	EPA 300.0, Rv 2.1				14.00 days
Alkalinity TIT	SM2320 B-1997				2.00 days
BOD	SM5210 B-2011				28.00 days
COD	Hach 8000				28.00 days
NH3 EPA	EPA 350.1, Rv 2				28.00 days
Phenolics	EPA 420.4, Rv 1				7.00 days
TDS	SM2540 C-1997				28.00 days
TKN	EPA 351.2, Rv 2				28.00 days
TOC	SM5310 C-2000				180.00 days
200.7 Ca	EPA 200.7, Rv 4.4				180.00 days
200.7 Cd	EPA 200.7, Rv 4.4				180.00 days
200.7 Fe	EPA 200.7, Rv 4.4				180.00 days
200.7 K	EPA 200.7, Rv 4.4				180.00 days
200.7 Mg	EPA 200.7, Rv 4.4				180.00 days
200.7 Mn	EPA 200.7, Rv 4.4				180.00 days
200.7 Na	EPA 200.7, Rv 4.4				180.00 days
200.8 Pb	EPA 200.8, Rv 5.4				

Container(s)Designator

A-250ml Amber NM, H2SO4	A
P-1L Plastic Oblong WM	B
P-250ml Plastic Oblong WM	C
P-250ml Plastic Oblong WM(ZHS)	D
P-250ml Plastic Oblong WM, H2SO4	E
P-250ml Plastic Oblong WM, H2SO4	F
P-250ml Plastic Oblong WM, HNO3	G
P-250ml Plastic Oblong WM, HNO3	H
P-500ml Plastic Oblong WM	I
P-500ml Plastic Oblong WM	J
VA-40ml Amber vial, Sulfuric Acid	K
VA-40ml Amber vial, Sulfuric Acid	L

Client Sample ID: MW-12

Lab Sample ID: J9L0400-09

Matrix: Aqueous

Sampled Date & Time: 12-9-19/1202

Type: Grab

AnalysisMethodField Results/CommentsHold Time

Field Conductivity

SM2510 B-2011

Field Instrument: MD/449 Result: 161.8 Unit: uS/cm

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Microbac Laboratories, Inc., New York Division

Chain of Custody

J9L0400

BAGS Landfill

Project Name: Annual Routine - (Year)

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733
Phone: (607) 967-3781

Project/PO Number: N/A
Tenatively Scheduled: 12/3/2019
Field Route: NY-Route 5 LF

Field ORP Eh	SM4500-O C-2001	Field Instrument: <u>MDA457</u>	Result: <u>13.6</u>	Unit: <u>mV</u>	
Field pH	SM4500 H+ B-2011	Field Instrument: <u>1</u>	Result: <u>6.10</u>	Unit: <u>SV</u>	
Field Temp C	SM2550 B-2010	Field Instrument: <u>1</u>	Result: <u>7.4</u>	Unit: <u>°C</u>	
Field Turbidity	SM9221 P-2006	Field Instrument: <u>MDA457</u>	Result: <u>7.28</u>	Unit: <u>mV</u>	
Hardness 200.7 Group	varies				180.00 days
NO3 EPA Group	varies				2.00 days
Chloride EPA300	EPA 300.0, Rv 2.1				28.00 days
Sulfate EPA300	EPA 300.0, Rv 2.1				28.00 days
Alkalinity TIT	SM2320 B-1997				14.00 days
BOD	SM5210 B-2011				2.00 days
COD	Hach 8000				28.00 days
NH3 EPA	EPA 350.1, Rv 2				28.00 days
Phenolics	EPA 420.4, Rv 1				28.00 days
TDS	SM2540 C-1997				7.00 days
TKN	EPA 351.2, Rv 2				28.00 days
TOC	SM5310 C-2000				28.00 days
200.7 Ca	EPA 200.7, Rv 4.4				180.00 days
200.7 Cd	EPA 200.7, Rv 4.4				180.00 days
200.7 Fe	EPA 200.7, Rv 4.4				180.00 days
200.7 K	EPA 200.7, Rv 4.4				180.00 days
200.7 Mg	EPA 200.7, Rv 4.4				180.00 days
200.7 Mn	EPA 200.7, Rv 4.4				180.00 days
200.7 Na	EPA 200.7, Rv 4.4				180.00 days
200.8 Pb	EPA 200.8, Rv 5.4				180.00 days

Container(s)

Designator

A-250ml Amber NM, H2SO4	A
P-1L Plastic Oblong WM	B
P-250ml Plastic Oblong WM	C
P-250ml Plastic Oblong WM(ZHS)	D
P-250ml Plastic Oblong WM, H2SO4	E
P-250ml Plastic Oblong WM, H2SO4	F
P-250ml Plastic Oblong WM, HNO3	G
P-250ml Plastic Oblong WM, HNO3	H
P-500ml Plastic Oblong WM	I
P-500ml Plastic Oblong WM	J
VA-40ml Amber vial, Sulfuric Acid	K
VA-40ml Amber vial, Sulfuric Acid	L



Microbac Laboratories, Inc., New York Division

Chain of Custody

J9L0400

BAGS Landfill

Project Name: Annual Routine - (Year)

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733
Phone: (607) 967-3781

Project/PO Number: N/A
Tenatively Scheduled: 12/3/2019
Field Route: NY-Route 5 LF

Client Sample ID: MW-13

Lab Sample ID: J9L0400-10

Matrix: Aqueous

Type: Grab

Sampled Date & Time: 12-9-19/1452

Analysis	Method	Field Results/Comments	Hold Time
Field Conductivity	SM2510 B-2011	Field Instrument: <u>MICROBAC</u> Result: <u>453.1</u> Unit: <u>µS/cm</u>	
Field ORP Eh	SM4500-O C-2001	Field Instrument: <u>1</u> Result: <u>-34</u> Unit: <u>mV</u>	
Field pH	SM4500 H+ B-2011	Field Instrument: <u>1</u> Result: <u>6.58</u> Unit: <u>SC</u>	
Field Temp C	SM2550 B-2010	Field Instrument: <u>1</u> Result: <u>9.6</u> Unit: <u>C</u>	
Field Turbidity	SM9221 B-2006	Field Instrument: <u>MICROBAC</u> Result: <u>28.6</u> Unit: <u>NTU</u>	
Hardness 200.7 Group	varies		180.00 days
NO3 EPA Group	varies		2.00 days
Chloride EPA300	EPA 300.0, Rv 2.1		28.00 days
Sulfate EPA300	EPA 300.0 Rv 2.1		28.00 days
Alkalinity TIT	SM2330 B-1997		14.00 days
BOD	SM5210 B-2011		2.00 days
COD	Hach 8000		28.00 days
NH3 EPA	EPA 350.1, Rv 2		28.00 days
Phenolics	EPA 420.4, Rv 1		28.00 days
TDS	SM2540 C-1997		7.00 days
TKN	EPA 351.2, Rv 2		28.00 days
TOC	SM5310 C-2000		28.00 days
200.7 Ca	EPA 200.7, Rv 4.4		180.00 days
200.7 Cd	EPA 200.7, Rv 4.4		180.00 days
200.7 Fe	EPA 200.7, Rv 4.4		180.00 days
200.7 K	EPA 200.7, Rv 4.4		180.00 days
200.7 Mg	EPA 200.7, Rv 4.4		180.00 days
200.7 Mn	EPA 200.7, Rv 4.4		180.00 days
200.7 Na	EPA 200.7, Rv 4.4		180.00 days
200.8 Pb	EPA 200.8, Rv 5.4		180.00 days



Microbac Laboratories, Inc., New York Division

Chain of Custody

J9L0400**BAGS Landfill**

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733
Phone: (607) 967-3781

Project Name: Annual Routine - (Year)

Project/PO Number: N/A
Tenatively Scheduled: 12/3/2019
Field Route: NY-Route 5 LF

Container(s)

A-250ml Amber NM, H2SO4
P-1L Plastic Oblong WM
P-250ml Plastic Oblong WM
P-250ml Plastic Oblong WM(ZHS)
P-250ml Plastic Oblong WM, H2SO4
P-250ml Plastic Oblong WM, H2SO4
P-250ml Plastic Oblong WM, HNO3
P-250ml Plastic Oblong WM, HNO3
P-500ml Plastic Oblong WM
P-500ml Plastic Oblong WM
VA-40ml Amber vial, Sulfuric Acid
VA-40ml Amber vial, Sulfuric Acid

Designator

A
B
C
D
E
F
G
H
I
J
K
L

Client Sample ID: Peckham Brook

Lab Sample ID: J9L0400-11

Matrix: Aqueous

Type: Grab

Sampled Date & Time: 12-9-19/1633

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
Field Conductivity	SM2510 B-2011	Field Instrument: <u>MBN4039</u> Result: <u>51.04</u> Unit: <u>uS/cm</u>	
Field ORP Eh	SM4500-O C-2001	Field Instrument: <u>J</u> Result: <u>70</u> Unit: <u>mV</u>	
Field pH	SM4500 H+ B-2011	Field Instrument: <u>J</u> Result: <u>7.05</u> Unit: <u>SU</u>	
Field Temp C	SM2550 B-2010	Field Instrument: <u>J</u> Result: <u>3.6</u> Unit: <u>C°</u>	
Field Turbidity	SM9221 B-2006	Field Instrument: <u>MBN4039</u> Result: <u>3.87</u> Unit: <u>NTU</u>	
Hardness 200.7 Group	varies	<u>Dissolved oxygen</u> <u>MBN4040</u> <u>10.3</u> <u>mg/L</u>	180.00 days
NO3 EPA Group	varies		2.00 days
Chloride EPA300	EPA 300.0, Rv 2.1		28.00 days
Sulfate EPA300	EPA 300.0, Rv 2.1		28.00 days
Alkalinity TIT	SM2320 B-1997		14.00 days
BOD	SM2510 B-2011		2.00 days
COD	Hach 8000		28.00 days
NH3 EPA	EPA 350.1, Rv 2		28.00 days
Phenolics	EPA 420.4, Rv 1		28.00 days
TDS	SM2540 C-1997		7.00 days
TKN	EPA 351.2, Rv 2		28.00 days
TOC	SM5310 C-2000		28.00 days
200.7 Ca	EPA 200.7, Rv 4.4		180.00 days
200.7 Cd	EPA 200.7, Rv 4.4		180.00 days
200.7 Fe	EPA 200.7, Rv 4.4		180.00 days
200.7 K	EPA 200.7, Rv 4.4		180.00 days
200.7 Mg	EPA 200.7, Rv 4.4		180.00 days



Microbac Laboratories, Inc., New York Division

Chain of Custody

J9L0400

BAGS Landfill

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733
Phone: (607) 967-3781

Project Name: Annual Routine - (Year)

Project/PO Number: N/A
Tenatively Scheduled: 12/3/2019
Field Route: NY-Route 5 LF

200.7 Mn

EPA 200.7, Rv 4.4

180.00 days

200.7 Na

EPA 200.7, Rv 4.4

180.00 days

200.8 Pb

EPA 200.8, Rv 5.4

180.00 days

Container(s)

A-250ml Amber NM, H₂SO₄
P-1L Plastic Oblong WM
P-250ml Plastic Oblong WM
P-250ml Plastic Oblong WM(ZHS)
P-250ml Plastic Oblong WM, H₂SO₄
P-250ml Plastic Oblong WM, H₂SO₄
P-250ml Plastic Oblong WM, HNO₃
P-250ml Plastic Oblong WM, HNO₃
P-500ml Plastic Oblong WM
P-500ml Plastic Oblong WM
VA-40ml Amber vial, Sulfuric Acid
VA-40ml Amber vial, Sulfuric Acid

Designator

A
B
C
D
E
F
G
H
I
J
K
L

Sampled/Relinquished by: <i>[Signature]</i>	Date/Time: <i>12-8-19/800</i>	Received by: <i>[Signature]</i>
Printed Name:		Printed Name: <i>Karla Conner</i>
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:

As Received at Laboratory:

On Ice: ☒ Yes / NoTemp 5-5 °C

Total Containers: 132

Microbac Laboratories may be unable to perform a portion of the requested testing in which case we will subcontract the analysis to an appropriately accredited laboratory. By signing this document you are acknowledging that you have been informed by Microbac that testing could be subcontracted and agree with this arrangement.

Notes:



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L1487

BAGS Landfill

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733

Project Name: Bacteria

Project / PO Number: N/A
Received: 12/30/2019
Reported: 01/08/2020

Analytical Testing Parameters

Client Sample ID: Kitchen Sink
Sample Matrix: Drinking Water
Lab Sample ID: J9L1487-01

Collected By: MME-Lab
Collection Date: 12/30/2019 10:35

Field Parameters	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
SM4500-CI G-2011								
Chlorine - Free Residual	0.29	0.02	mg/L	1	Y1		12/30/19 1035	MME

Microbiology	Result	RL	Units	Dilution	Note	Prepared	Analyzed	Analyst
SM9223 B-1997								
Total Coliform	Present		MPN/100mL	1	CC	12/30/19 1817	12/31/19 1221	EDB
Escherichia coli	<1	1	MPN/100mL	1		12/30/19 1817	12/31/19 1221	EDB

Definitions

CC: 27.1
MCL: US EPA Maximum Contaminant Level
mg/L: Milligrams per Liter
MPN/100mL: Most Probable Number per 100 Milliliters
RL: Reporting Limit
Y1: Accreditation is not offered by the accrediting body for this analyte.

Project Requested Certification(s)

Microbac Laboratories, Inc., New York Division
NY Lab ID No.: 10795

New York State Department of Health

Report Comments

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included.

Reviewed and Approved By:

Renee Lantz
Customer Relationship Specialist
Reported: 01/08/2020 10:46

CHAIN OF CUSTODY RECORD

Number

Instructions on back

TO BE COMPLETED BY MICROBAC

Temperature Upon Receipt (°C) **0.3**

Holding Time

Samples Received on Ice? Yes No **N/A**

Custody Seals Intact? Yes No **(N/A)**

[] Results Only [] Level 1 [] Level 2 [] Level 3 [] Level 4 [] EDD

Send Invoice via: [] Mail [] Fax [] e-mail (address)

Compliance Monitoring? [] Yes [] No

() Agency/Program

Report Type (needed by)

Sampler Phone No.:

* Matrix Types Soil/Solid (S), Sludge, Oil, Wipe Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)
** Preservative Types (1) HNO3 (2) H2SO4 (3) HCl (4) NaOH (5) Zinc Acetate (6) Melhanol (7) Sodium Bisulfate (8) Sodium Thiosulfate (9) Hexane (U) Unpreserved

REQUESTED ANALYSIS

Lab ID	Client Sample ID (Location of sample taken. Ex: Kitchen sink, bathroom sink etc.)	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types
	Kitchen Sink	12-30-19	10:35	1	DW	6	8



Additional Notes

CL-0.29 mL

BAGS Landfill

Possible Hazard Identification

[] Hazardous [] Non-Hazardous [] Radioactive

Sample Disposition

[] Dispose as appropriate [] Return [] Archive

Comments

Relinquished By (signature)

Date/Time

12/30/19 15:00

Received By (signature)

Date/Time

12/30/19 1500

PLEASE RETURN SAMPLES ON ICE.

Relinquished By (signature)

Date/Time

12/30/19 15:00

Received By (signature)

Date/Time

12/30/19 1500

Received By (signature)

Date/Time

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12/30/19 15:00

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0591

BAGS Landfill

Dolores Nabinger
15 North Main Street
Bainbridge, NY 13733

Project Name: Special Testing

Project / PO Number: N/A
Received: 12/10/2019
Reported: 01/14/2020

Note

All sample results for this work order are attached to the end of this report.

Sample Summary Report

<u>Sample Name</u>	<u>Laboratory ID</u>	<u>Client Matrix</u>	<u>Sample Type</u>	<u>Sample Begin</u>	<u>Sample Taken</u>	<u>Lab Received</u>
W-2	J9L0591-01	Aqueous	Grab		12/08/19 14:32	12/10/19 08:15
W-3	J9L0591-02	Aqueous	Grab		12/08/19 13:09	12/10/19 08:15
W-12	J9L0591-03	Aqueous	Grab		12/08/19 11:55	12/10/19 08:15



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J9L0591

Cooler Receipt Log

Cooler ID: Default Cooler

Temp: 5.2°C

Cooler Inspection Checklist

Ice Present or not required?	Yes	Shipping containers sealed or not required?	Yes
Custody seals intact or not required?	Yes	Chain of Custody (COC) Present?	Yes
COC includes customer information?	Yes	Relinquished and received signature on COC?	Yes
Sample collector identified on COC?	Yes	Sample type identified on COC?	Yes
Correct type of Containers Received	Yes	Correct number of containers listed on COC?	Yes
Containers Intact?	Yes	COC includes requested analyses?	Yes
Enough sample volume for indicated tests received?	Yes	Sample labels match COC (Name, Date & Time?)	Yes
Samples arrived within hold time?	Yes	Correct preservatives on COC or not required?	Yes
Chemical preservations checked or not required?	Yes	Preservation checks meet method requirements?	Yes
VOA vials have zero headspace, or not recd.?	Yes		

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included.

Reviewed and Approved By:

Renee Lantz
Customer Relationship Specialist
Reported: 01/14/2020 11:02

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 2 of 84

3821 Buck Drive
 Cortland NY 13045
 Phone: (607)753-3403 Fax: (607)753-3415
 NY #10795, EPA #NY00835

Microbac Laboratories, Inc. **CHAIN OF CUSTODY**

Client Information			Billing/Invoicing		Analysis Requested				Receiving Info (Lab Use Only)		
Name:	Bags Landfill								Ice:	YES NO	
Address:									Cooler:	YES NO	
Contact:									Sample Temp:	YES NO	
Phone:									Cooler Seal:	YES NO	
Project:									Pickup:	YES NO	
Quote ID:			PO#:						Dropoff:	C W	
Rush TAT Bus. Days:	2-3	5-7	7-10						Accepted?	YES NO	
Carbon Copy:	Yes								Container Material		
Email Results:	Yes								Container Size (in Mi)		
Fax Results:	Yes								Preservative		
1,4 dioxane 1L Amber NP Number of Containers for Analysis Requested											
Comments/Field Data J 9 L 0 5 9 1 BAGS Landfill											
Sample Information				Matrix		Signature		Date/Time		Comments	
Description/Location	Date	Time	Initial	Type							
1 w-2	12/8/2019	14:32	TDW	Aq							
2 w-3	12/8/2019	13:09	TDW	Aq							
3 w-12	12/8/2019	11:55	TDW	Aq							
4				G							
5				G							
6											
7											
8											
Print Name and Company Thomas Webster Kayla Combs				Signature [Signature] [Signature]		Date/Time 12-10-19/815 12/10/19 815		Comments			
Sampled:											
Received:											
Received:											
Received:											

Microbac Laboratories, Inc. is not a third-party contractor of the reported analysis. We will subcontract the analysis to another accredited laboratory. We require this document and you may have been informed by WNY of the intent to subcontract and reach agreement with this entity.

ANALYTICAL REPORT

Job Number: 480-164032-1

Job Description: 1,4 Dioxane & PFAS Analysis

For:

Microbac Laboratories, Inc.

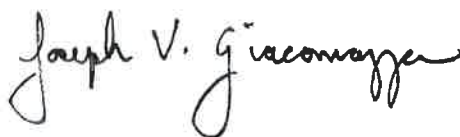
A Microbac Company

2369 Elmira Street

Suite C

Sayre, PA 18840

Attention: Ms. Renee Lantz



Approved for release
Joe V. Giacomazza
Project Management Assistant II
1/9/2020 4:08 PM

Designee for

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01/09/2020

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

Eurofins TestAmerica, Buffalo

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Job Narrative
480-164032-1

Comments

No additional comments.

Receipt

The samples were received on 12/11/2019 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3° C.

GC/MS Semi VOA

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

Organic Prep

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

Definitions/Glossary

Client: Microbac Laboratories, Inc.
Project/Site: 1,4 Dioxane & PFAS Analysis

Job ID: 480-164032-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Sample Summary

Client: Microbac Laboratories, Inc.
Project/Site: 1,4 Dioxane & PFAS Analysis

Job ID: 480-164032-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-164032-1	J9L0591-01 W-2	Water	12/08/19 14:32	12/11/19 10:00	
480-164032-2	J9L0591-02 W-3	Water	12/08/19 13:09	12/11/19 10:00	
480-164032-3	J9L0591-03 W-12	Water	12/08/19 11:55	12/11/19 10:00	

Detection Summary

Client: Microbac Laboratories, Inc.
Project/Site: 1,4 Dioxane & PFAS Analysis

Job ID: 480-164032-1

Client Sample ID: J9L0591-01 W-2

Lab Sample ID: 480-164032-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,4-Dioxane	0.15	J	0.20	0.10	ug/L	1			8270D SIM ID	Total/NA

Client Sample ID: J9L0591-02 W-3

Lab Sample ID: 480-164032-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,4-Dioxane	0.17	J	0.20	0.10	ug/L	1			8270D SIM ID	Total/NA

Client Sample ID: J9L0591-03 W-12

Lab Sample ID: 480-164032-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,4-Dioxane	0.44		0.20	0.10	ug/L	1			8270D SIM ID	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Method Summary

Client: Microbac Laboratories, Inc.
Project/Site: 1,4 Dioxane & PFAS Analysis

Job ID: 480-164032-1

Method	Method Description	Protocol	Laboratory
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF

Protocol References:

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

Laboratory References:

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

Client Sample Results

Client: Microbac Laboratories, Inc.
Project/Site: 1,4 Dioxane & PFAS Analysis

Job ID: 480-164032-1

Client Sample ID: J9L0591-01 W-2

Date Collected: 12/08/19 14:32

Date Received: 12/11/19 10:00

Lab Sample ID: 480-164032-1

Matrix: Water

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.15	J	0.20	0.10	ug/L		12/13/19 08:28	12/16/19 15:49	1
<i>Isotope Dilution</i>									
	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,4-Dioxane-d8	29		15 - 110				12/13/19 08:28	12/16/19 15:49	1

Client Sample ID: J9L0591-02 W-3

Date Collected: 12/08/19 13:09

Date Received: 12/11/19 10:00

Lab Sample ID: 480-164032-2

Matrix: Water

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.17	J	0.20	0.10	ug/L		12/13/19 08:28	12/16/19 16:13	1
<i>Isotope Dilution</i>									
	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,4-Dioxane-d8	26		15 - 110				12/13/19 08:28	12/16/19 16:13	1

Client Sample ID: J9L0591-03 W-12

Date Collected: 12/08/19 11:55

Date Received: 12/11/19 10:00

Lab Sample ID: 480-164032-3

Matrix: Water

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.44		0.20	0.10	ug/L		12/13/19 08:28	12/16/19 16:36	1
<i>Isotope Dilution</i>									
	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,4-Dioxane-d8	26		15 - 110				12/13/19 08:28	12/16/19 16:36	1

Isotope Dilution Summary

Client: Microbac Laboratories, Inc.
Project/Site: 1,4 Dioxane & PFAS Analysis

Job ID: 480-164032-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-110)
480-164032-1	J9L0591-01 W-2	29
480-164032-2	J9L0591-02 W-3	26
480-164032-3	J9L0591-03 W-12	26
LCS 480-509702/2-A	Lab Control Sample	24
MB 480-509702/1-A	Method Blank	30

Surrogate Legend

DXE = 1,4-Dioxane-d8

QC Sample Results

Client: Microbac Laboratories, Inc.
Project/Site: 1,4 Dioxane & PFAS Analysis

Job ID: 480-164032-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-509702/1-A
Matrix: Water
Analysis Batch: 510072

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 509702

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		12/13/19 08:28	12/16/19 12:44	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	30		15 - 110	12/13/19 08:28	12/16/19 12:44	1

Lab Sample ID: LCS 480-509702/2-A
Matrix: Water
Analysis Batch: 510072

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 509702
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,4-Dioxane	1.00	1.18		ug/L		118	40 - 140

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
1,4-Dioxane-d8	24		15 - 110

QC Association Summary

Client: Microbac Laboratories, Inc.
Project/Site: 1,4 Dioxane & PFAS Analysis

Job ID: 480-164032-1

GC/MS Semi VOA

Prep Batch: 509702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164032-1	J9L0591-01 W-2	Total/NA	Water	3510C	
480-164032-2	J9L0591-02 W-3	Total/NA	Water	3510C	
480-164032-3	J9L0591-03 W-12	Total/NA	Water	3510C	
MB 480-509702/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-509702/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 510072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164032-1	J9L0591-01 W-2	Total/NA	Water	8270D SIM ID	509702
480-164032-2	J9L0591-02 W-3	Total/NA	Water	8270D SIM ID	509702
480-164032-3	J9L0591-03 W-12	Total/NA	Water	8270D SIM ID	509702
MB 480-509702/1-A	Method Blank	Total/NA	Water	8270D SIM ID	509702
LCS 480-509702/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	509702

Lab Chronicle

Client: Microbac Laboratories, Inc.
Project/Site: 1,4 Dioxane & PFAS Analysis

Job ID: 480-164032-1

Client Sample ID: J9L0591-01 W-2

Date Collected: 12/08/19 14:32

Date Received: 12/11/19 10:00

Lab Sample ID: 480-164032-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			509702	12/13/19 08:28	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	510072	12/16/19 15:49	RJS	TAL BUF

Client Sample ID: J9L0591-02 W-3

Date Collected: 12/08/19 13:09

Date Received: 12/11/19 10:00

Lab Sample ID: 480-164032-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			509702	12/13/19 08:28	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	510072	12/16/19 16:13	RJS	TAL BUF

Client Sample ID: J9L0591-03 W-12

Date Collected: 12/08/19 11:55

Date Received: 12/11/19 10:00

Lab Sample ID: 480-164032-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			509702	12/13/19 08:28	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	510072	12/16/19 16:36	RJS	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: Microbac Laboratories, Inc.
Project/Site: 1,4 Dioxane & PFAS Analysis

Job ID: 480-164032-1

Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

Method 8270D

SIM-ID

Semivolatile Organic Compounds
(GC/MS SIM / Isotope Dilution) by
Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo

Job No.: 480-164032-1

SDG No.:

Matrix: Water

Level: Low

GC Column (1): RXI-5Sil MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	DXE	#
J9L0591-01 W-2	480-164032-1	29	
J9L0591-02 W-3	480-164032-2	26	
J9L0591-03 W-12	480-164032-3	26	
	MB	30	
	480-509702/1-A		
	LCS	24	
	480-509702/2-A		

DXE = 1,4-Dioxane-d8

QC LIMITS
15-110

Column to be used to flag recovery values

FORM II 8270D SIM ID

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo

Job No.: 480-164032-1

SDG No.:

Matrix: Water

Level: Low

Lab File ID: U33155047.D

Lab ID: LCS 480-509702/2-A

Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	1.00	1.18	118	40-140	
1,4-Dioxane-d8	10.0	2.43	24	15-110	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM ID

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-164032-1
SDG No.:
Lab File ID: U33155046.D Lab Sample ID: MB 480-509702/1-A
Matrix: Water Date Extracted: 12/13/2019 08:28
Instrument ID: HP5973U Date Analyzed: 12/16/2019 12:44
Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB	
		FILE ID	DATE ANALYZED
J9L0591-01 W-2	LCS 480-509702/2-A	U33155047.D	12/16/2019 13:07
J9L0591-02 W-3	480-164032-1	U33155054.D	12/16/2019 15:49
J9L0591-03 W-12	480-164032-2	U33155055.D	12/16/2019 16:13
	480-164032-3	U33155056.D	12/16/2019 16:36

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Buffalo

Job No.: 480-164032-1

SDG No.:

Lab File ID: U33154640.D

DFTPP Injection Date: 11/25/2019

Instrument ID: HP5973U

DFTPP Injection Time: 09:52

Analysis Batch No.: 506566

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	48.6	
68	Less than 2% of mass 69	0.0	(0.0) 1
69	Mass 69 Relative abundance	58.3	
70	Less than 2% of mass 69	0.3	(0.6) 1
127	10-80% of Base Peak	55.9	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	6.4	
275	10-60% of Base Peak	25.5	
365	Greater than 1% of mass 198	2.8	
441	present but less than 24% of mass 442	10.7	(15.8) 2
442	Greater than 50% of mass 198	67.6	
443	15-24% of mass 442	13.3	(19.6) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 480-506566/3	U33154641.D	11/25/2019	10:19
	IC 480-506566/4	U33154642.D	11/25/2019	10:43
	ICIS 480-506566/5	U33154643.D	11/25/2019	11:06
	IC 480-506566/6	U33154644.D	11/25/2019	11:29
	IC 480-506566/7	U33154645.D	11/25/2019	11:53
	IC 480-506566/8	U33154646.D	11/25/2019	12:16

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-164032-1
SDG No.:
Lab File ID: U33155044.D DFTPP Injection Date: 12/16/2019
Instrument ID: HP5973U DFTPP Injection Time: 11:29
Analysis Batch No.: 510072

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10-80% of Base Peak	53.1
68	Less than 2% of mass 69	0.0 (0.0) 1
69	Mass 69 Relative abundance	63.3
70	Less than 2% of mass 69	0.3 (0.4) 1
127	10-80% of Base Peak	61.4
197	Less than 2% of mass 198	0.0
198	Base peak	100.0
199	5-9% of mass 198	6.2
275	10-60% of Base Peak	22.0
365	Greater than 1% of mass 198	3.3
441	present but less than 24% of mass 442	8.0 (15.5) 2
442	Greater than 50% of mass 198	51.5
443	15-24% of mass 442	10.3 (20.0) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-510072/3	U33155045.D	12/16/2019	11:57
	MB 480-509702/1-A	U33155046.D	12/16/2019	12:44
	LCS 480-509702/2-A	U33155047.D	12/16/2019	13:07
J9L0591-01 W-2	480-164032-1	U33155054.D	12/16/2019	15:49
J9L0591-02 W-3	480-164032-2	U33155055.D	12/16/2019	16:13
J9L0591-03 W-12	480-164032-3	U33155056.D	12/16/2019	16:36

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-164032-1
SDG No.:
Sample No.: ICIS 480-506566/5 Date Analyzed: 11/25/2019 11:06
Instrument ID: HP5973U GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm)
Lab File ID (Standard): U33154643.D Heated Purge: (Y/N) N
Calibration ID: 38301

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		413989	5.50				
UPPER LIMIT		827978	6.00				
LOWER LIMIT		206995	5.00				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVIS 480-510072/3		595238	5.48				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = $\pm$ 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM ID

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-164032-1
SDG No.:
Sample No.: CCVIS 480-510072/3 Date Analyzed: 12/16/2019 11:57
Instrument ID: HP5973U GC Column: RXI-5Si1 MS(0.5 ID: 0.25(mm)
Lab File ID (Standard): U33155045.D Heated Purge: (Y/N) N
Calibration ID: 38301

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		595238	5.48				
UPPER LIMIT		1190476	5.98				
LOWER LIMIT		297619	4.98				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 480-509702/1-A		446629	5.49				
LCS 480-509702/2-A		519037	5.49				
480-164032-1	J9L0591-01 W-2	498860	5.49				
480-164032-2	J9L0591-02 W-3	491717	5.49				
480-164032-3	J9L0591-03 W-12	502315	5.49				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = $\pm$ 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-164032-1
SDG No.:
Client Sample ID: J9L0591-01 W-2 Lab Sample ID: 480-164032-1
Matrix: Water Lab File ID: U33155054.D
Analysis Method: 8270D SIM ID Date Collected: 12/08/2019 14:32
Extract. Method: 3510C Date Extracted: 12/13/2019 08:28
Sample wt/vol: 1000 (mL) Date Analyzed: 12/16/2019 15:49
Con. Extract Vol.: 1 (mL) Dilution Factor: 1
Injection Volume: 1 (uL) Level: (low/med) Low
% Moisture: GPC Cleanup: (Y/N) N
Analysis Batch No.: 510072 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.15	J	0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	29		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155054.D
Lims ID: 480-164032-B-1-A
Client ID: J9L0591-01
Sample Type: Client
Inject. Date: 16-Dec-2019 15:49:30 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 12
Operator ID: bs Instrument ID: HP5973U
Method: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 17-Dec-2019 11:48:00 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D
Column 1 : Det: MS SCAN
Process Host: CTX1006

First Level Reviewer: schickr

Date: 17-Dec-2019 11:46:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D 1 1,4-Dioxane-d8	96	2.138	2.060	0.078	91	174189	2.85	28.5	
3 1,4-Dioxane	88	2.174	2.089	0.085	59	2829	0.1476		
* 2 1,4-Dichlorobenzene-d4	152	5.487	5.479	0.008	100	498860	4.00		

Reagents:

MB_LLIS_WRK_00184 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 17-Dec-2019 11:48:13

Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155054.D

Injection Date: 16-Dec-2019 15:49:30

Instrument ID: HP5973U

Operator ID: bs

Lims ID: 480-164032-B-1-A

Lab Sample ID: 480-164032-1

Worklist Smp#: 12

Client ID: J9L0591-01

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 12

Method: 1,4_Dx_SIM_HP5973U MB - 8270D SIM ID ICAL



Report Date: 17-Dec-2019 11:48:13

Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155054.D

Injection Date: 16-Dec-2019 15:49:30

Instrument ID: HP5973U

Lims ID: 480-164032-B-1-A

Lab Sample ID: 480-164032-1

Client ID: J9L0591-01

Operator ID: bs

ALS Bottle#: 12

Worklist Smp#: 12

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

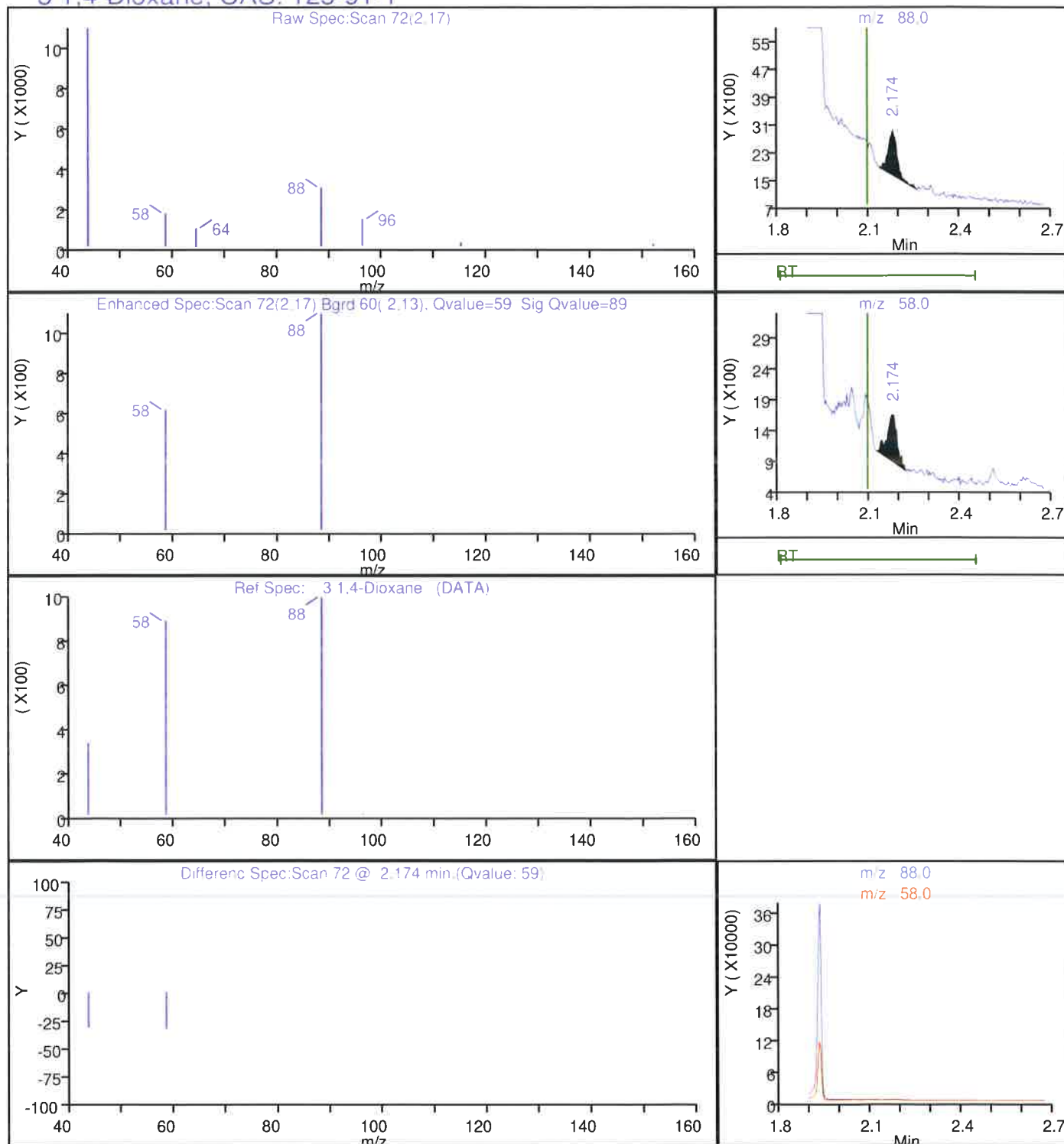
Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector MS SCAN

3 1,4-Dioxane, CAS: 123-91-1



Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155054.D

Injection Date: 16-Dec-2019 15:49:30

Instrument ID: HP5973U

Lims ID: 480-164032-B-1-A

Lab Sample ID: 480-164032-1

Client ID: J9L0591-01

Operator ID: bs

ALS Bottle#: 12

Worklist Smp#: 12

Injection Vol: 1.0 µl

Dil. Factor: 1.0000

Method: 1,4 Dx SIM HP5973U

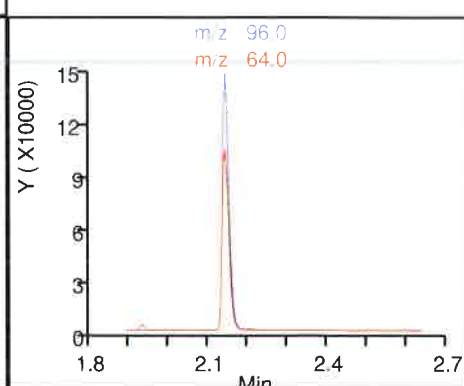
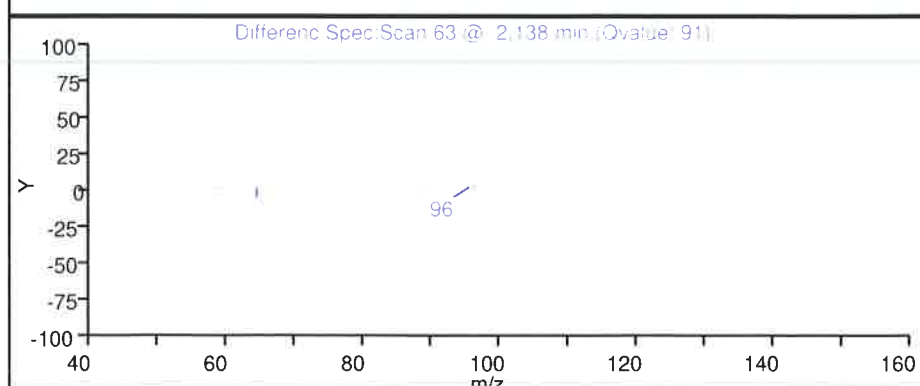
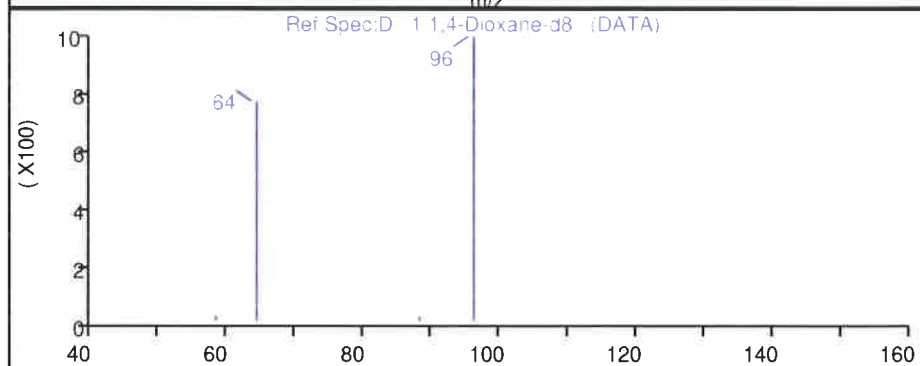
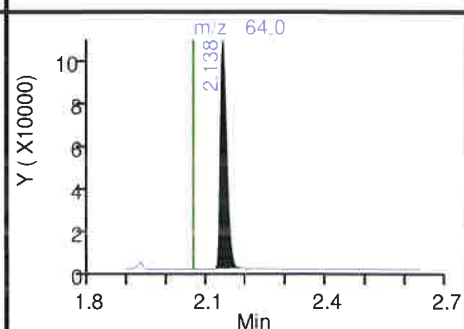
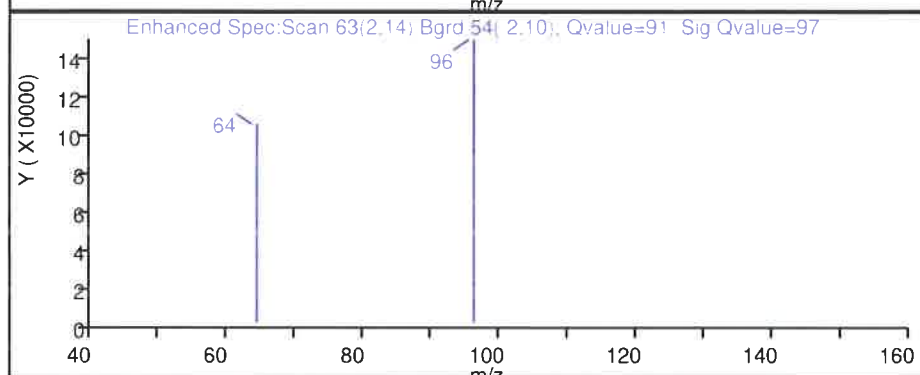
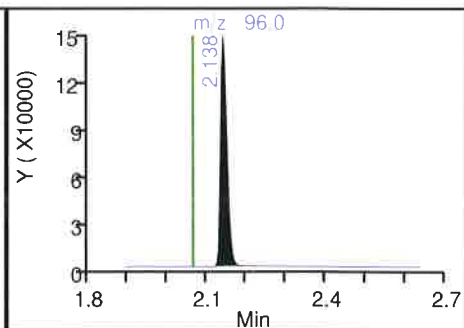
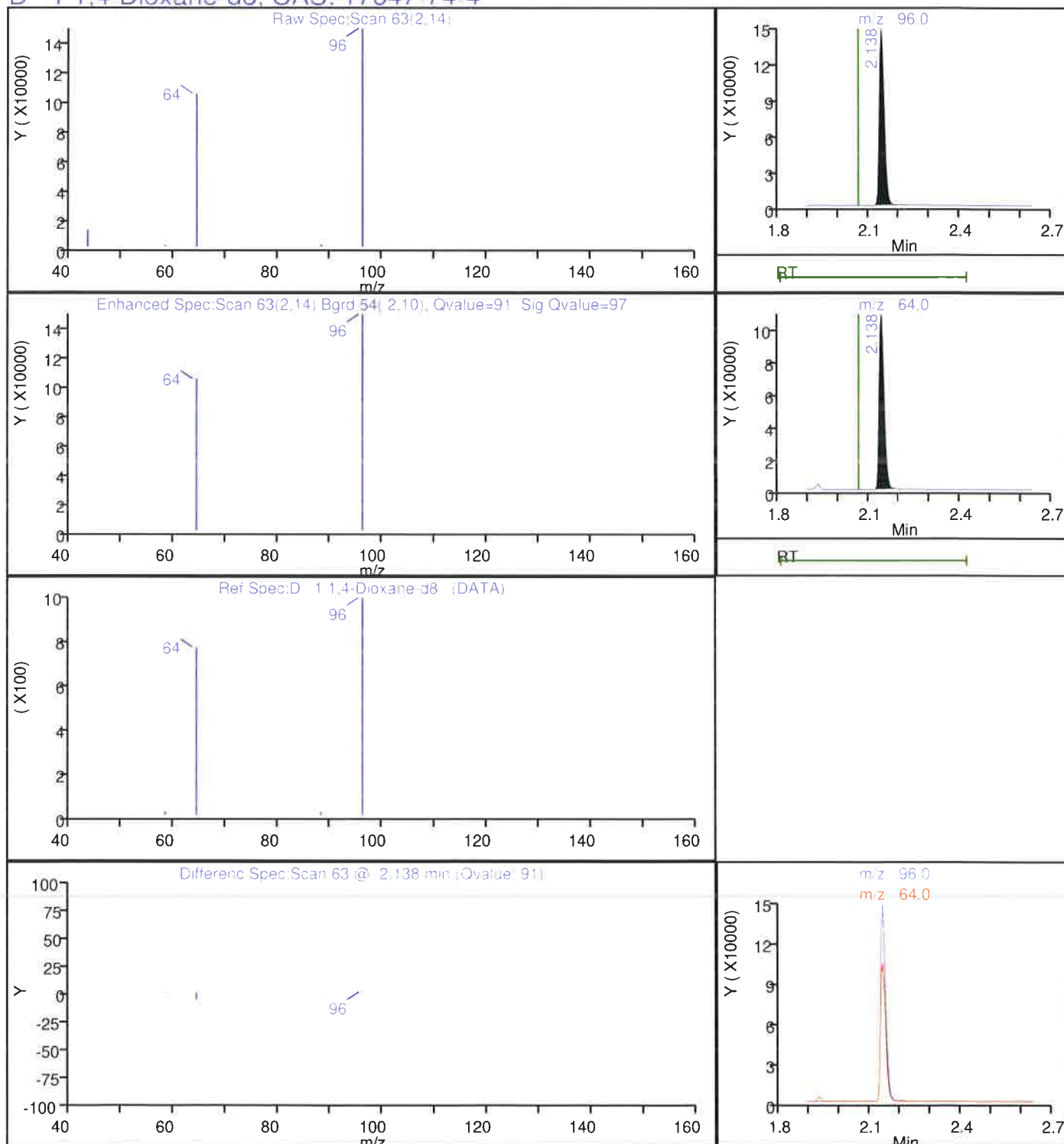
Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector

MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-164032-1
SDG No.:
Client Sample ID: J9L0591-02 W-3 Lab Sample ID: 480-164032-2
Matrix: Water Lab File ID: U33155055.D
Analysis Method: 8270D SIM ID Date Collected: 12/08/2019 13:09
Extract. Method: 3510C Date Extracted: 12/13/2019 08:28
Sample wt/vol: 1000 (mL) Date Analyzed: 12/16/2019 16:13
Con. Extract Vol.: 1 (mL) Dilution Factor: 1
Injection Volume: 1 (uL) Level: (low/med) Low
% Moisture: GPC Cleanup: (Y/N) N
Analysis Batch No.: 510072 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.17	J	0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	26		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155055.D
 Lims ID: 480-164032-A-2-A
 Client ID: J9L0591-02
 Sample Type: Client
 Inject. Date: 16-Dec-2019 16:13:30 ALS Bottle#: 13 Worklist Smp#: 13
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 13
 Operator ID: bs Instrument ID: HP5973U
 Method: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 17-Dec-2019 11:48:00 Calib Date: 25-Nov-2019 12:16:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1006

First Level Reviewer: schickr

Date: 17-Dec-2019 11:47:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D 1 1,4-Dioxane-d8	96	2.134	2.060	0.074	92	157565	2.62	26.2	
3 1,4-Dioxane	88	2.175	2.089	0.086	66	2906	0.1676		
* 2 1,4-Dichlorobenzene-d4	152	5.487	5.479	0.008	98	491717	4.00		

Reagents:

MB_LLIS_WRK_00184

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155055.D

Injection Date: 16-Dec-2019 16:13:30

Instrument ID: HP5973U

Operator ID: bs

Lims ID: 480-164032-A-2-A

Lab Sample ID: 480-164032-2

Worklist Smp#: 13

Client ID: J9L0591-02

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 13

Method: 1,4_Dx_SIM_HP5973U MB - 8270D SIM ID ICAL

U33155055[MS SCAN Chro]:Total



Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155055.D

Injection Date: 16-Dec-2019 16:13:30

Instrument ID: HP5973U

Lims ID: 480-164032-A-2-A

Lab Sample ID: 480-164032-2

Client ID: J9L0591-02

Operator ID: bs

ALS Bottle#: 13

Worklist Smp#: 13

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

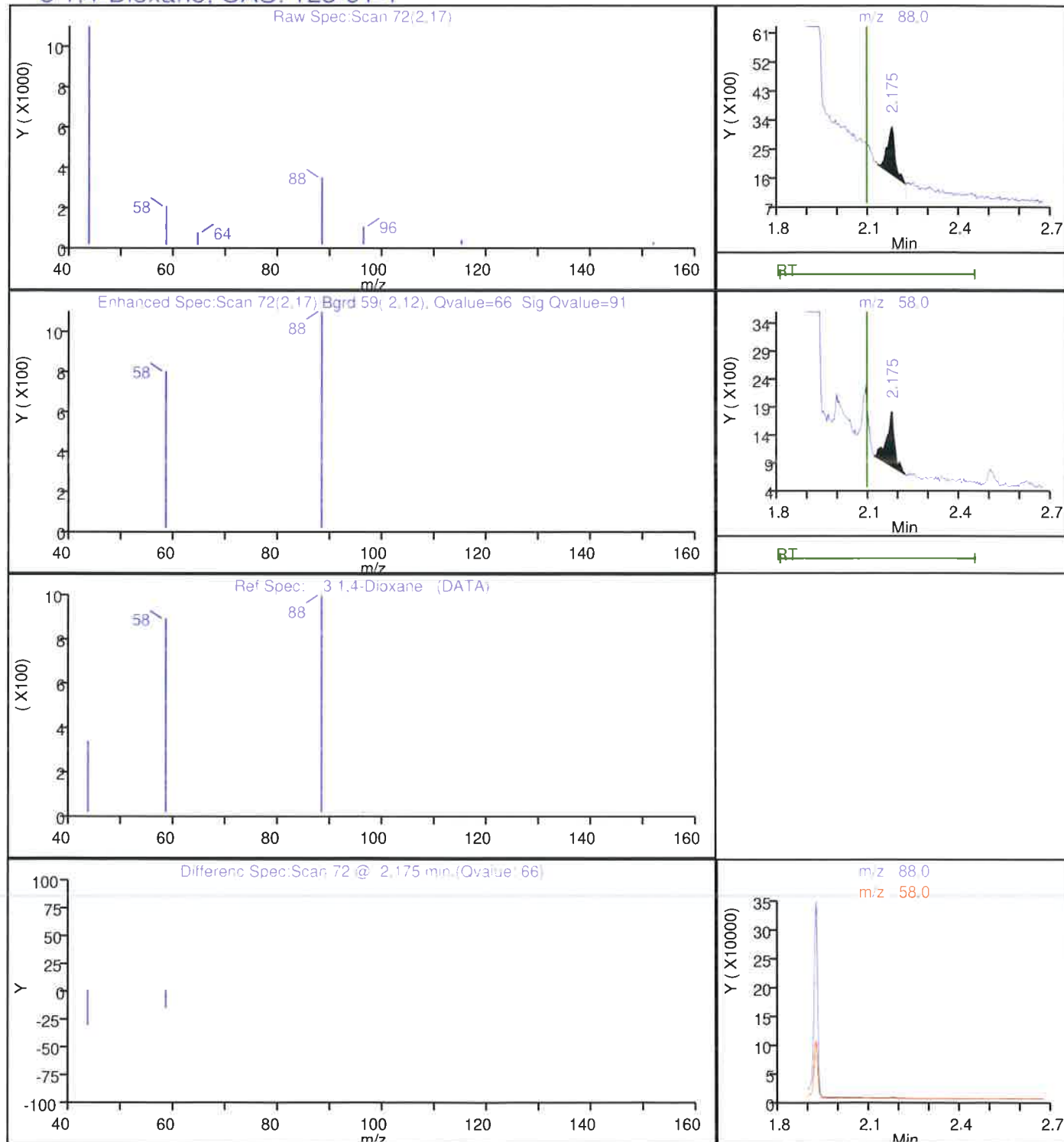
Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector MS SCAN

3 1,4-Dioxane, CAS: 123-91-1



Report Date: 17-Dec-2019 11:48:15

Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155055.D

Injection Date: 16-Dec-2019 16:13:30

Instrument ID: HP5973U

Lims ID: 480-164032-A-2-A

Lab Sample ID: 480-164032-2

Client ID: J9L0591-02

Operator ID: bs

ALS Bottle#: 13

Worklist Smp#: 13

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

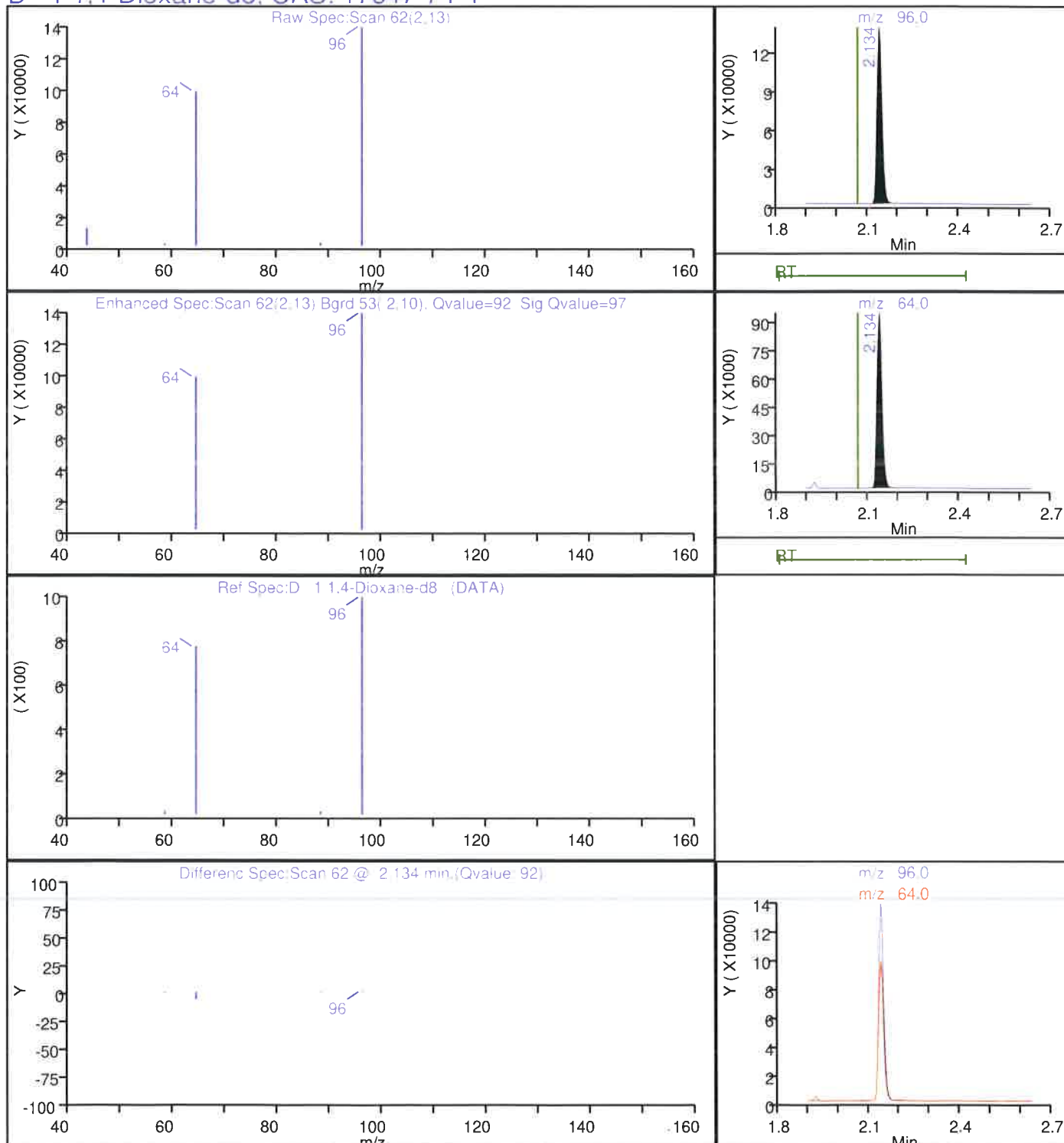
Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector

MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-164032-1
SDG No.:
Client Sample ID: J9L0591-03 W-12 Lab Sample ID: 480-164032-3
Matrix: Water Lab File ID: U33155056.D
Analysis Method: 8270D SIM ID Date Collected: 12/08/2019 11:55
Extract. Method: 3510C Date Extracted: 12/13/2019 08:28
Sample wt/vol: 990 (mL) Date Analyzed: 12/16/2019 16:36
Con. Extract Vol.: 1 (mL) Dilution Factor: 1
Injection Volume: 1 (uL) Level: (low/med) Low
% Moisture: GPC Cleanup: (Y/N) N
Analysis Batch No.: 510072 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.44		0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	26		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155056.D
 Lims ID: 480-164032-A-3-A
 Client ID: J9L0591-03
 Sample Type: Client
 Inject. Date: 16-Dec-2019 16:36:30 ALS Bottle#: 14 Worklist Smp#: 14
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 14
 Operator ID: bs Instrument ID: HP5973U
 Method: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 17-Dec-2019 11:48:00 Calib Date: 25-Nov-2019 12:16:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1006

First Level Reviewer: schickr

Date: 17-Dec-2019 11:47:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D 1 1,4-Dioxane-d8	96	2.130	2.060	0.070	95	157593	2.56	25.6	
3 1,4-Dioxane	88	2.162	2.089	0.073	81	7581	0.4372		
* 2 1,4-Dichlorobenzene-d4	152	5.487	5.479	0.008	98	502315	4.00		

Reagents:

MB_LLIS_WRK_00184 Amount Added: 20.00 Units: uL Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155056.D

Injection Date: 16-Dec-2019 16:36:30

Instrument ID: HP5973U

Operator ID: bs

Lims ID: 480-164032-A-3-A

Lab Sample ID: 480-164032-3

Worklist Smp#: 14

Client ID: J9L0591-03

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 14

Method: 1,4_Dx_SIM_HP5973U MB - 8270D SIM ID ICAL

U33155056[MS SCAN Chro]:Total



Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155056.D

Injection Date: 16-Dec-2019 16:36:30

Instrument ID: HP5973U

Lims ID: 480-164032-A-3-A

Lab Sample ID: 480-164032-3

Client ID: J9L0591-03

Operator ID: bs

ALS Bottle#: 14 Worklist Smp#: 14

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

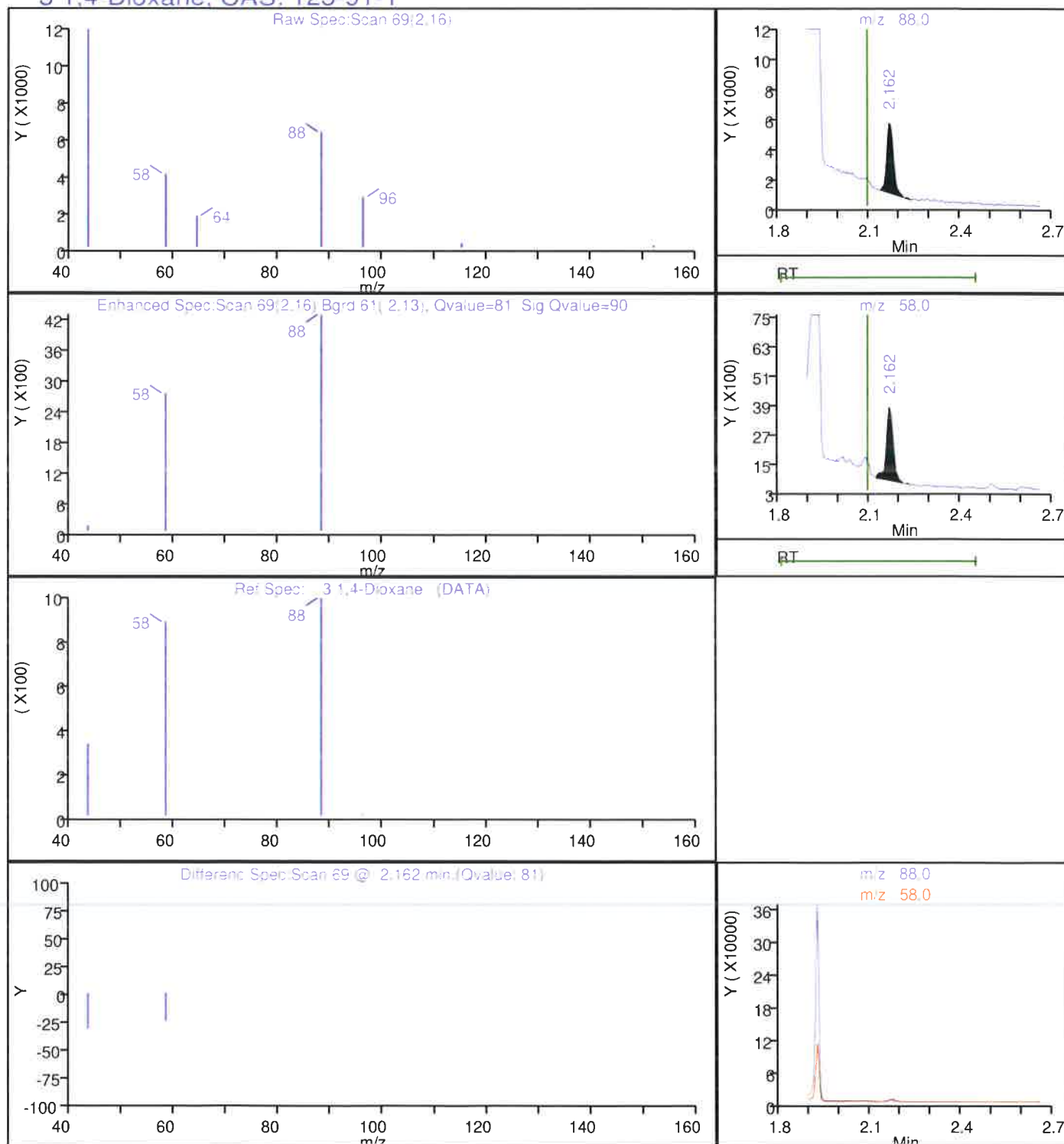
Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector: MS SCAN

3 1,4-Dioxane, CAS: 123-91-1



Report Date: 17-Dec-2019 11:48:16

Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155056.D

Injection Date: 16-Dec-2019 16:36:30

Instrument ID: HP5973U

Lims ID: 480-164032-A-3-A

Lab Sample ID: 480-164032-3

Client ID: J9L0591-03

Operator ID: bs

ALS Bottle#: 14 Worklist Smp#: 14

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

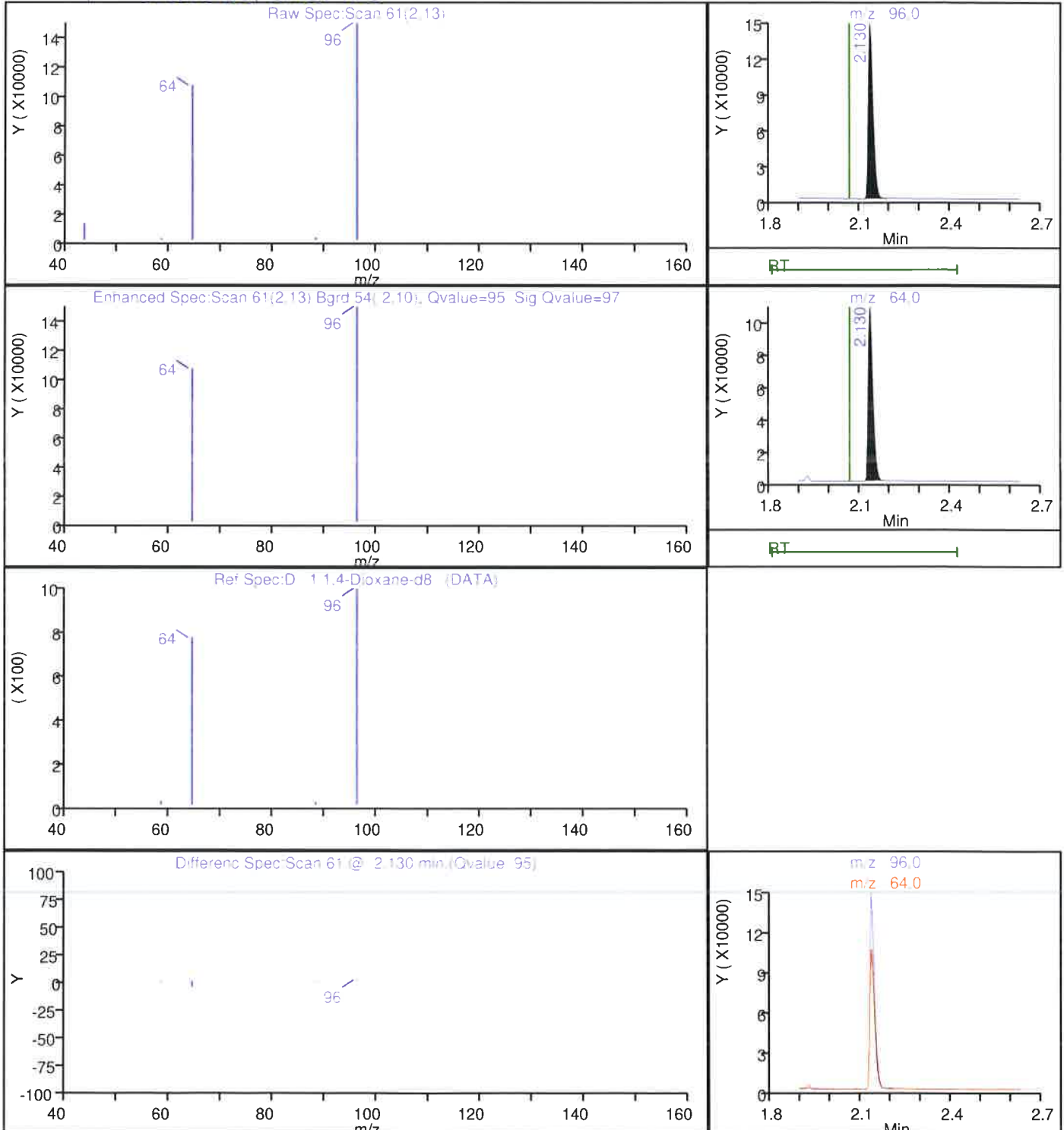
Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4



FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-164032-1 Analy Batch No.: 506566

SDG No.:

Instrument ID: HP5973U

GC Column: RXI-5Sil MS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2019 10:19

Calibration End Date: 11/25/2019 12:16

Calibration ID: 38301

Calibration Files:

LEVEL: LAB SAMPLE ID:
Level 1 IC 480-506566/3
Level 2 IC 480-506566/4
Level 3 ICIS 480-506566/5
Level 4 IC 480-506566/6
Level 5 IC 480-506566/7
Level 6 IC 480-506566/8

LAB FILE ID:
U33154641.D
U33154642.D
U33154643.D
U33154644.D
U33154645.D
U33154646.D

ANALYTE	RRF						CURVE TYPE			COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2											
1,4-Dioxane	1.0860	1.1210	1.1001	1.0853	1.1215	AveID		1.1004						0.0100	1.5		20.0			
1,4-Dioxane-d8	1.0887	0.4837	0.4828	0.5040	0.5016	Ave		0.4898						0.0100	2.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-164032-1 Analy Batch No.: 506566

SDG No.:

Instrument ID: HP5973U

GC Column: RXI-5Sil MS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2019 10:19

Calibration End Date: 11/25/2019 12:16

Calibration ID: 38301

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 480-506566/3	U33154641.D
Level 2	IC 480-506566/4	U33154642.D
Level 3	ICIS 480-506566/5	U33154643.D
Level 4	IC 480-506566/6	U33154644.D
Level 5	IC 480-506566/7	U33154645.D
Level 6	IC 480-506566/8	U33154646.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE						CONCENTRATION (NG/UL)					
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		
1,4-Dioxane		AveID	10350 58836	21425	32985	42110	53700	0.200 1.20	0.400	0.600	0.800	1.00		
1,4-Dioxane-d8	DCED 4	Ave	95307 540439	191130	299827	388019	478842	2.00 12.0	4.00	6.00	8.00	10.0		

Curve Type Legend:
Ave = Average ISTD
AveID = Average isotope dilution

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154641.D
 Lims ID: IC - SIM - 0.2
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 25-Nov-2019 10:19:30 ALS Bottle#: 3 Worklist Smp#: 3
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0086424-003
 Operator ID: JM Instrument ID: HP5973U
 Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
 Method: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 25-Nov-2019 14:39:45 Calib Date: 25-Nov-2019 12:16:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D
 Column 1 : Det: MS SCAN
 Process Host: CTX0324

First Level Reviewer: marshallj

Date: 25-Nov-2019 14:38:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	2.081	2.073	0.008	94	95307	2.00	1.98	
3 1,4-Dioxane	88	2.113	2.105	0.008	88	10350	0.2000	0.1974	M
* 2 1,4-Dichlorobenzene-d4	152	5.495	5.495	0.000	100	394051	4.00	4.00	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MB_1,4SIM_WRK_00078

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00182

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154641.D

Injection Date: 25-Nov-2019 10:19:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: IC - SIM - 0.2

Worklist Smp#: 3

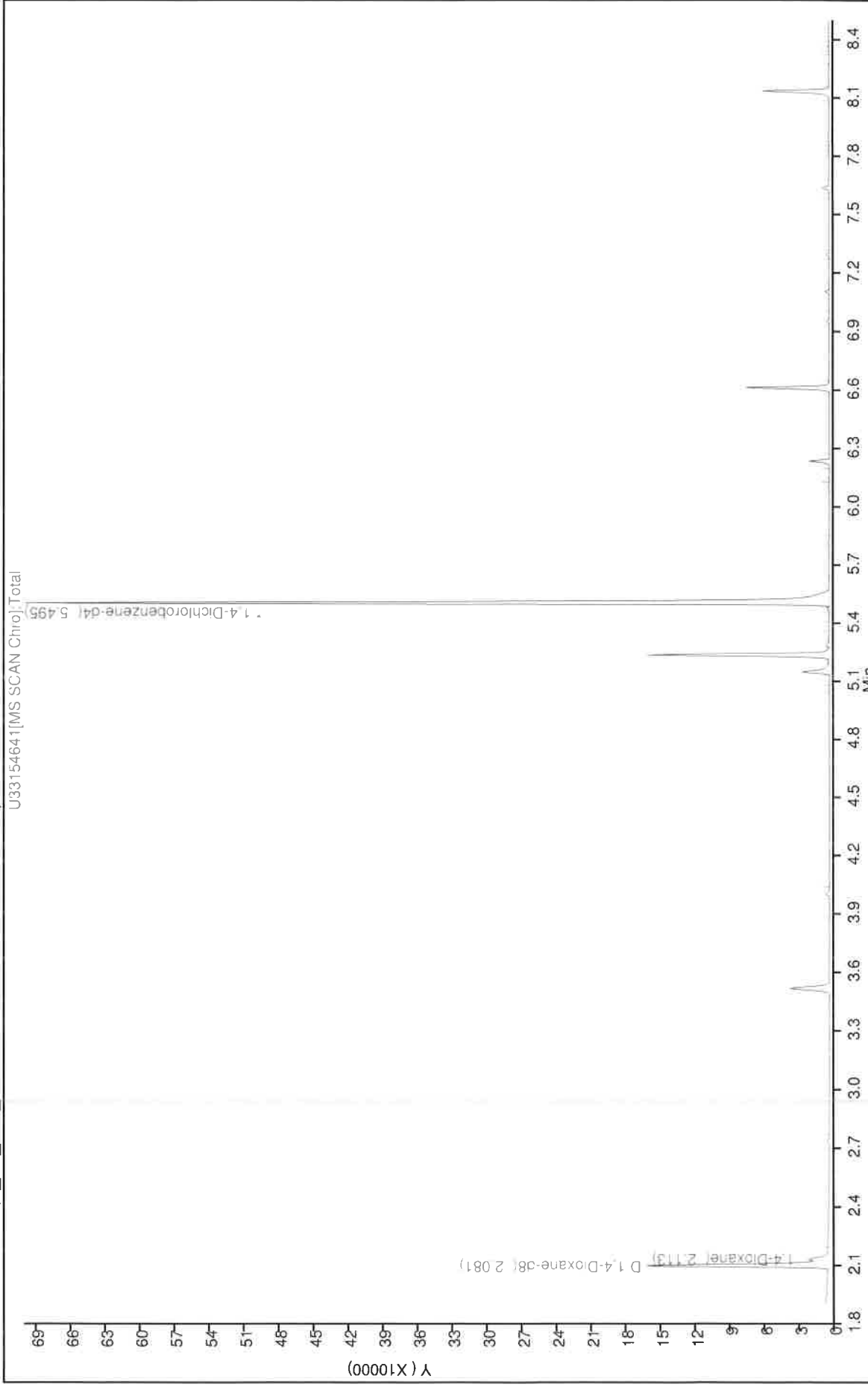
Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 3

Method: 1,4_Dx_SIM_HP5973U MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154641.D

Injection Date: 25-Nov-2019 10:19:30

Instrument ID: HP5973U

Lims ID: IC - SIM - 0.2

Client ID:

Operator ID: JM

ALS Bottle#: 3

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

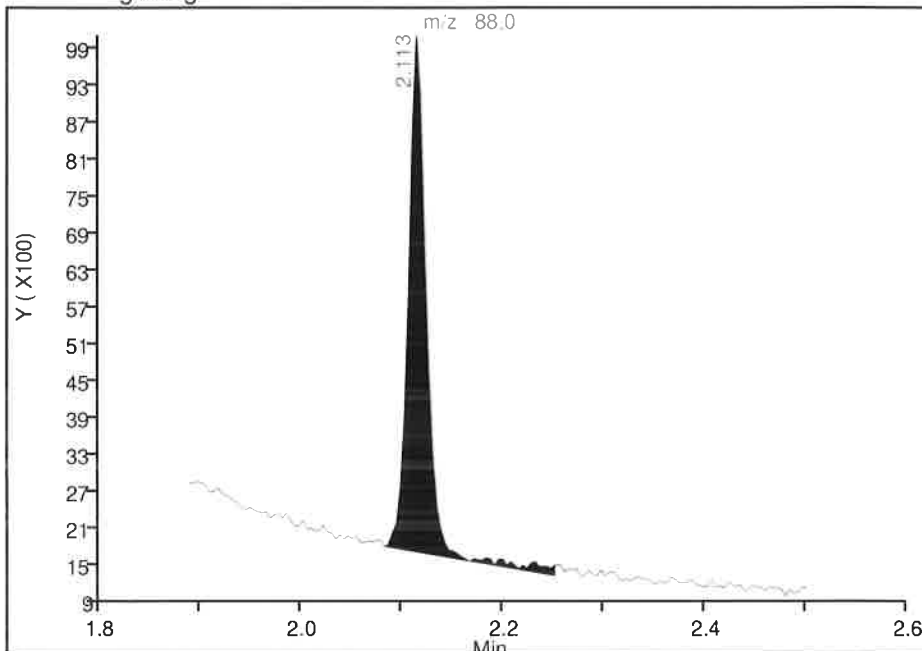
Detector: MS SCAN

3 1,4-Dioxane, CAS: 123-91-1

Signal: 1

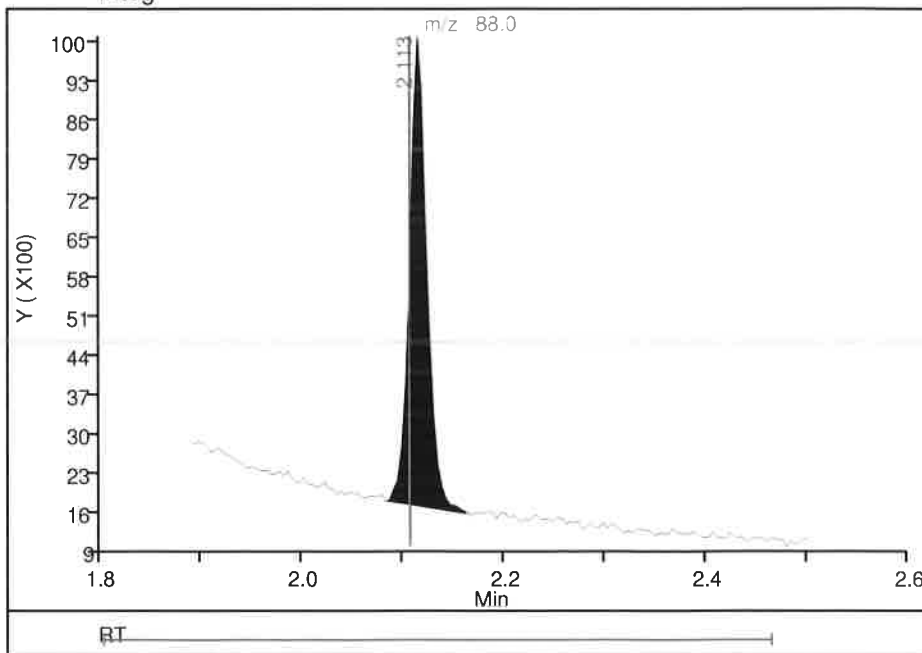
RT: 2.11
Area: 10826
Amount: 0.204902
Amount Units: ng/ul

Processing Integration Results



RT: 2.11
Area: 10350
Amount: 0.197375
Amount Units: ng/ul

Manual Integration Results



Reviewer: marshallj, 25-Nov-2019 14:38:02

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154642.D
Lims ID: IC - SIM - 0.4
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 25-Nov-2019 10:43:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086424-004
Operator ID: JM Instrument ID: HP5973U
Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
Method: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 25-Nov-2019 14:39:46 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0324

First Level Reviewer: marshallj

Date: 25-Nov-2019 14:38:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	2.081	2.073	0.008	94	191130	4.00	3.95	
3 1,4-Dioxane	88	2.113	2.105	0.008	89	21425	0.4000	0.4075	
* 2 1,4-Dichlorobenzene-d4	152	5.495	5.495	0.000	100	395469	4.00	4.00	

Reagents:

MB_1,4SIM_WRK_00079

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00182

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154642.D

Injection Date: 25-Nov-2019 10:43:30

Instrument ID: HP5973U

Lims ID: IC - SIM - 0.4

Operator ID: JM

Worklist Smp#: 4

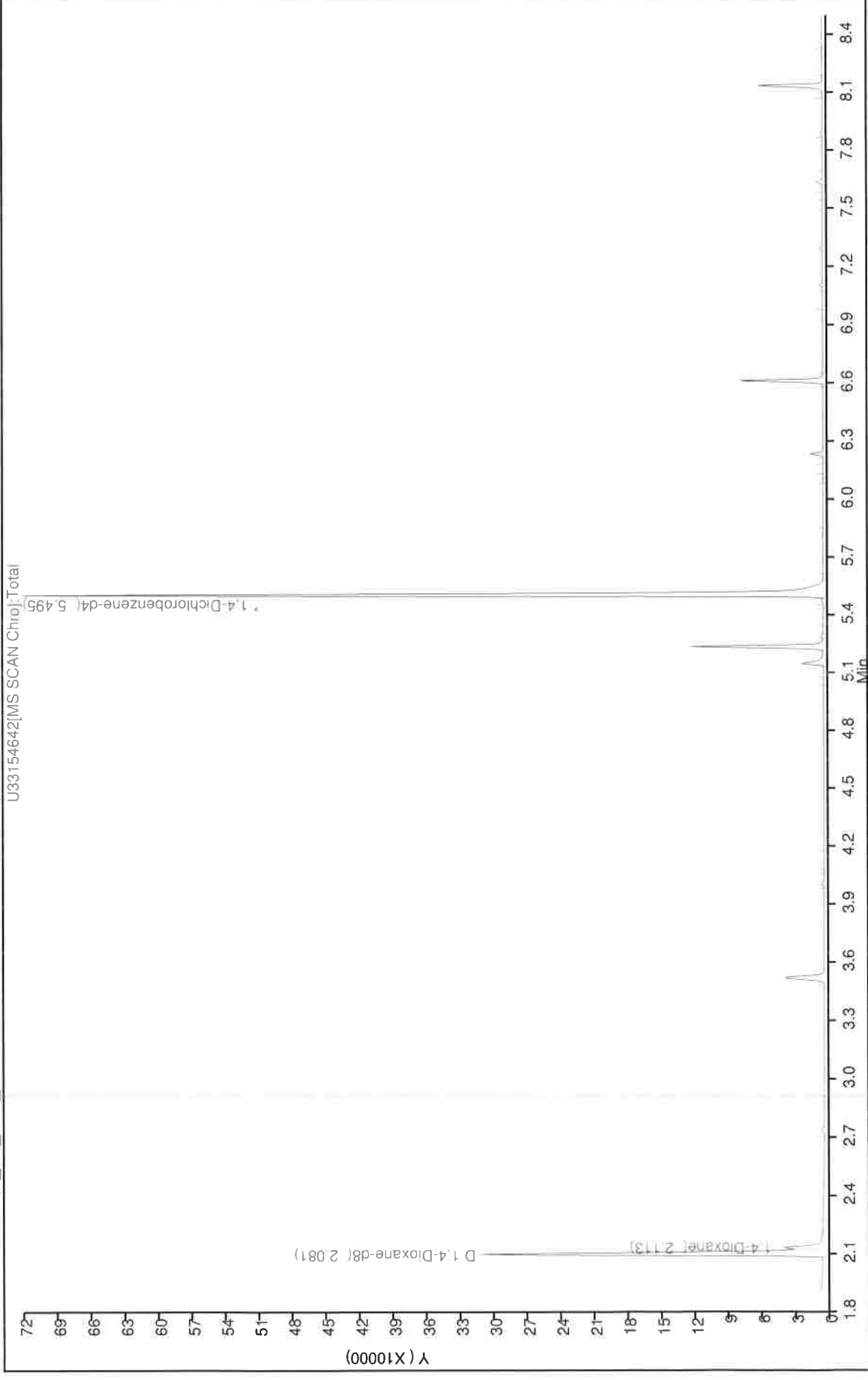
Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 4

Method: 1,4_Dx_SIM_HP5973U MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154643.D
 Lims ID: ICIS - SIM - 0.6
 Client ID:
 Sample Type: ICIS Calib Level: 3
 Inject. Date: 25-Nov-2019 11:06:30 ALS Bottle#: 5 Worklist Smp#: 5
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0086424-005
 Operator ID: JM Instrument ID: HP5973U
 Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
 Method: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 25-Nov-2019 14:39:47 Calib Date: 25-Nov-2019 12:16:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D
 Column 1 : Det: MS SCAN
 Process Host: CTX0324

First Level Reviewer: marshallj

Date: 25-Nov-2019 14:37:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	2.073	2.073	0.000	96	299827	6.00	5.92	
3 1,4-Dioxane	88	2.105	2.105	0.000	90	32985	0.6000	0.5999	
* 2 1,4-Dichlorobenzene-d4	152	5.495	5.495	0.000	99	413989	4.00	4.00	

Reagents:

MB_1,4SIM_WRK_00080

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00182

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154643.D

Injection Date: 25-Nov-2019 11:06:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: ICIS - SIM - 0.6

Worklist Smp#: 5

Client ID:

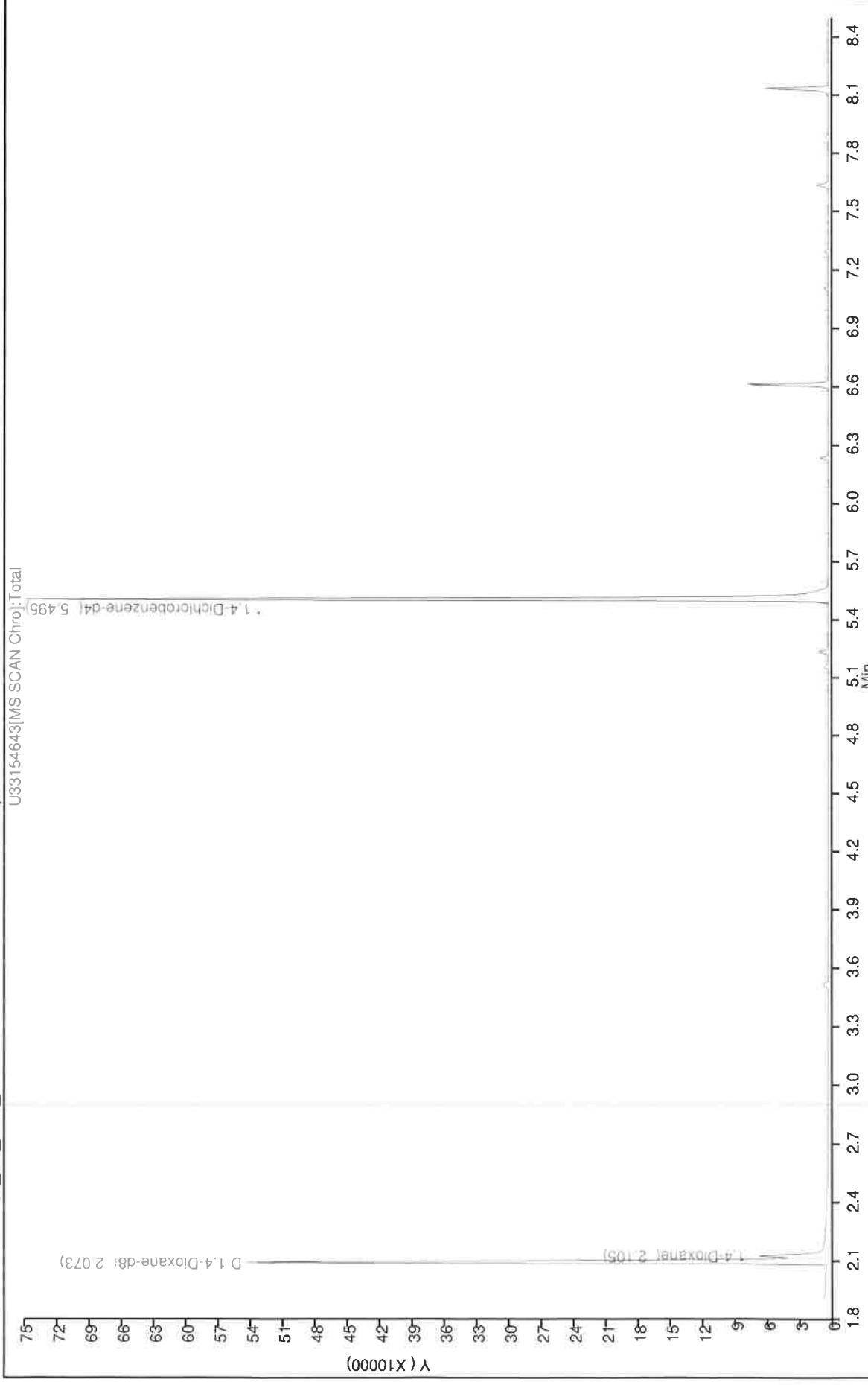
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 5

Method: 1,4_Dx_SIM_HP5973U MB - 8270D SIM ID ICAL

U33154643[MS SCAN Chrom]:Total



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154644.D
 Lims ID: IC - SIM - 0.8
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 25-Nov-2019 11:29:30 ALS Bottle#: 6 Worklist Smp#: 6
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0086424-006
 Operator ID: JM Instrument ID: HP5973U
 Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
 Method: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 25-Nov-2019 14:39:48 Calib Date: 25-Nov-2019 12:16:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D
 Column 1 : Det: MS SCAN
 Process Host: CTX0324

First Level Reviewer: marshallj

Date: 25-Nov-2019 14:38:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	2.077	2.073	0.004	95	388019	8.00	8.23	
3 1,4-Dioxane	88	2.109	2.105	0.004	88	42110	0.8000	0.7890	
* 2 1,4-Dichlorobenzene-d4	152	5.495	5.495	0.000	99	384938	4.00	4.00	

Reagents:

MB_1,4SIM_WRK_00081

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00182

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154644.D

Injection Date: 25-Nov-2019 11:29:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: IC - SIM - 0.8

Worklist Smp#: 6

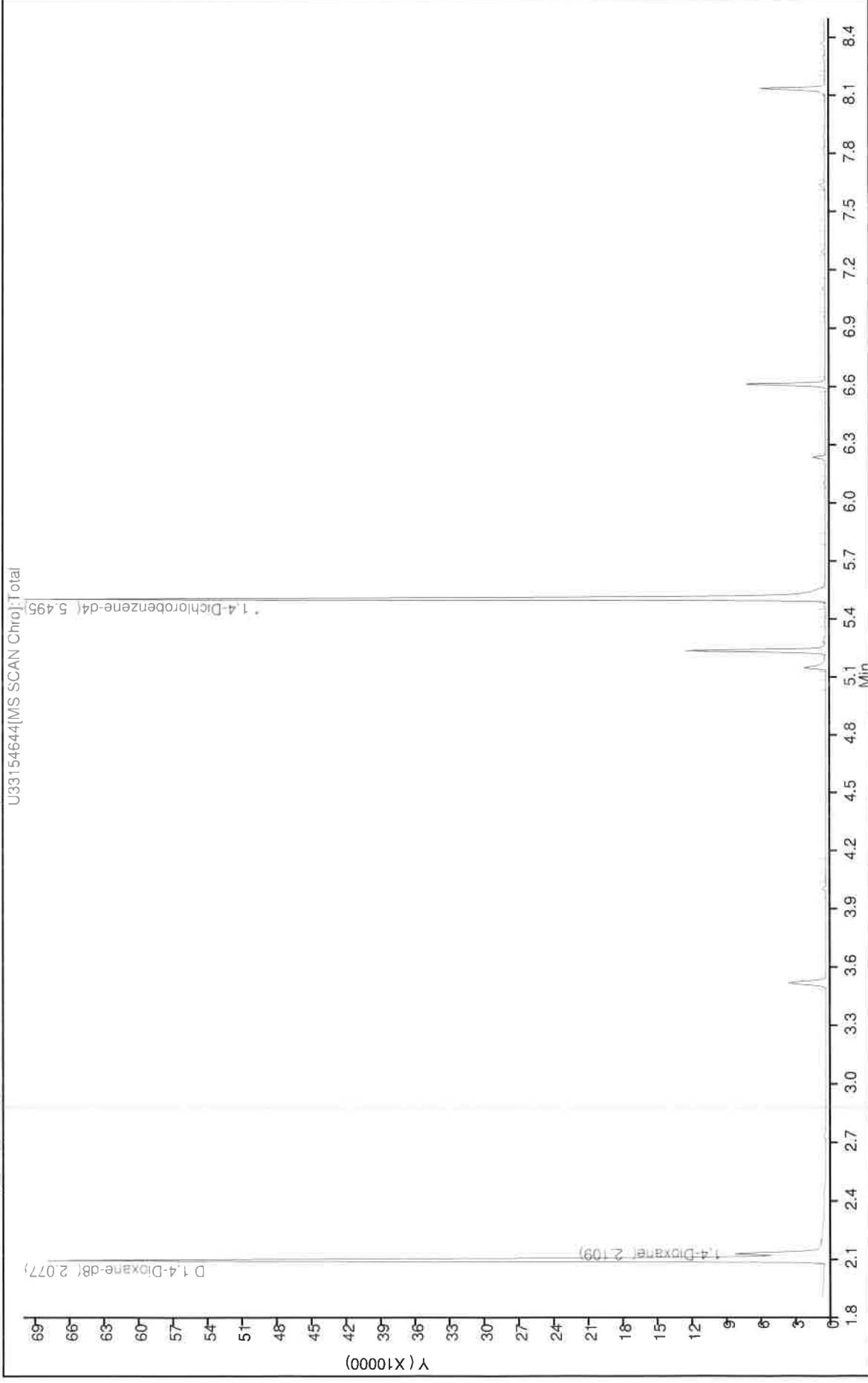
Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 6

Method: 1_4_Dx_SIM HP5973U MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154645.D
 Lims ID: IC - SIM - 1.0
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 25-Nov-2019 11:53:30 ALS Bottle#: 7 Worklist Smp#: 7
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0086424-007
 Operator ID: JM Instrument ID: HP5973U
 Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
 Method: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 25-Nov-2019 14:39:48 Calib Date: 25-Nov-2019 12:16:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D
 Column 1 : Det: MS SCAN
 Process Host: CTX0324

First Level Reviewer: marshallj

Date: 25-Nov-2019 14:38:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	2.077	2.073	0.004	95	478842	10.0	10.2	
3 1,4-Dioxane	88	2.109	2.105	0.004	90	53700	1.00	1.02	
* 2 1,4-Dichlorobenzene-d4	152	5.495	5.495	0.000	99	381870	4.00	4.00	

Reagents:

MB_1,4SIM_WRK_00082

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00182

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154645.D

Injection Date: 25-Nov-2019 11:53:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: IC - SIM - 1.0

Worklist Smp#: 7

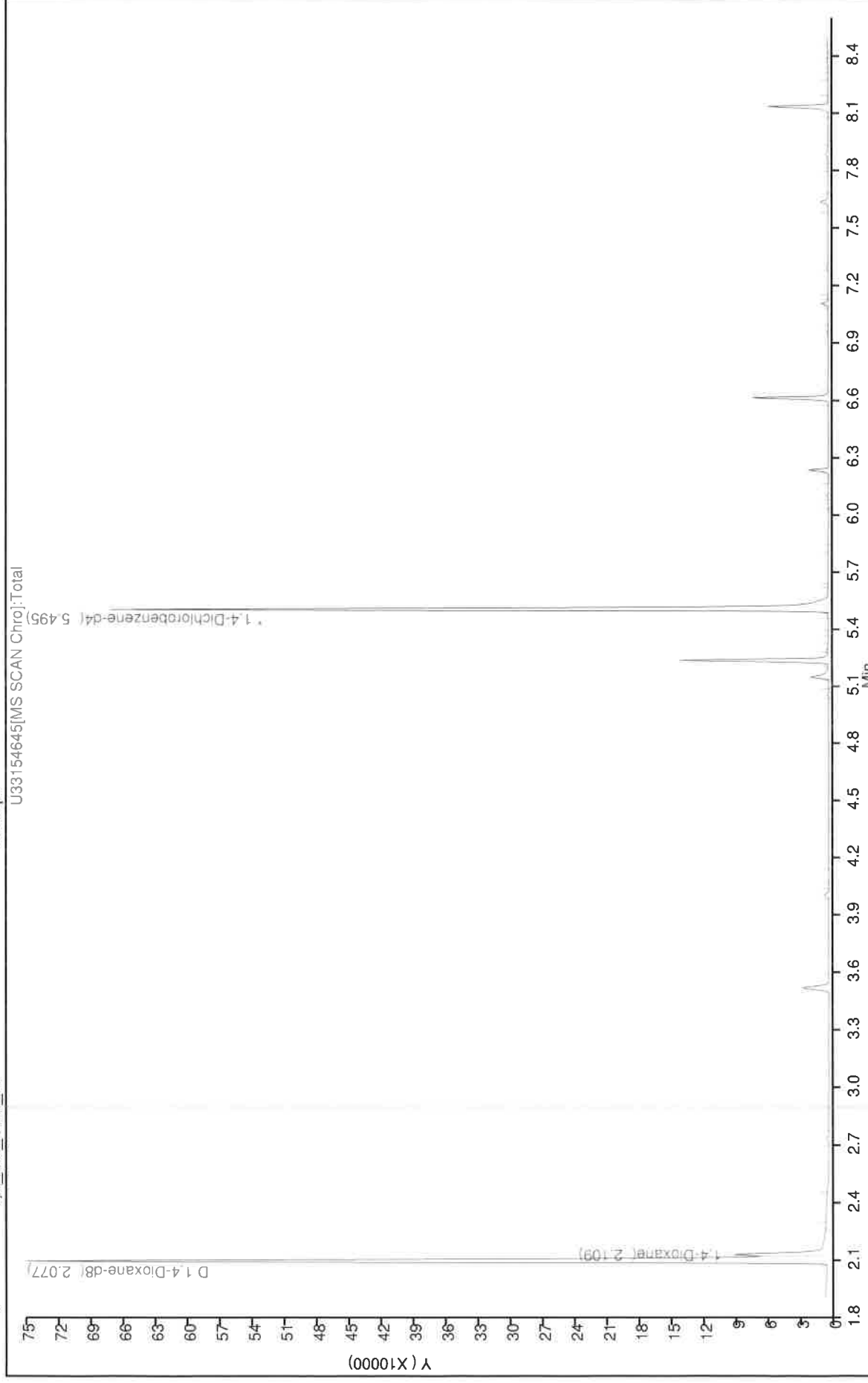
Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 7

Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D
 Lims ID: IC - SIM - 1.2
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 25-Nov-2019 12:16:30 ALS Bottle#: 8 Worklist Smp#: 8
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0086424-008
 Operator ID: JM Instrument ID: HP5973U
 Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
 Method: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 25-Nov-2019 14:39:49 Calib Date: 25-Nov-2019 12:16:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D
 Column 1 : Det: MS SCAN
 Process Host: CTX0324

First Level Reviewer: marshallj

Date: 25-Nov-2019 14:38:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	2.068	2.073	-0.005	92	540439	12.0	11.8	
3 1,4-Dioxane	88	2.101	2.105	-0.004	87	58836	1.20	1.19	
* 2 1,4-Dichlorobenzene-d4	152	5.495	5.495	0.000	99	372876	4.00	4.00	

Reagents:

MB_1,4SIM_WRK_00083

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00182

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Injection Date: 25-Nov-2019 12:16:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: IC - SIM - 1.2

Worklist Smp#: 8

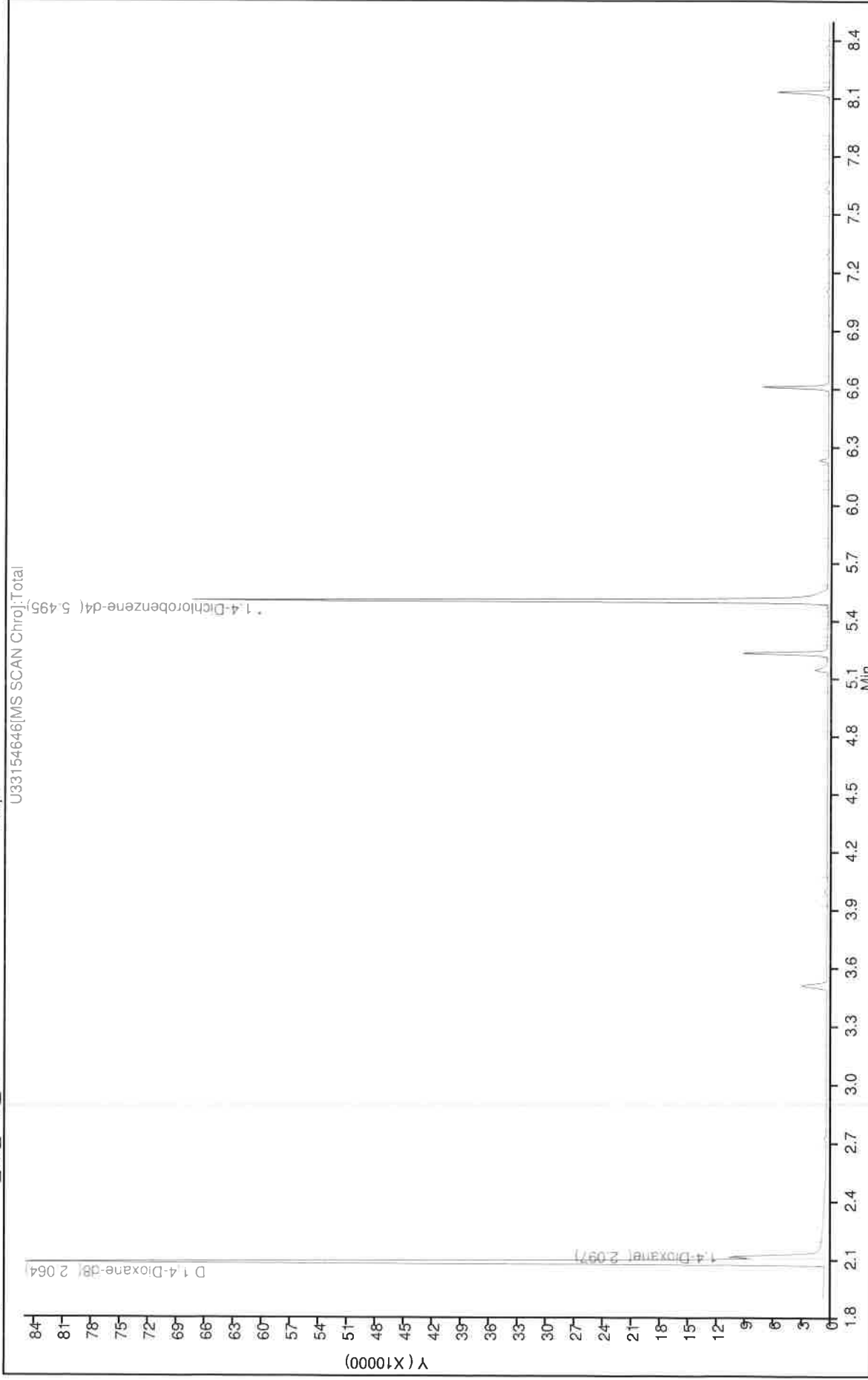
Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 8

Method: 1,4_Dx_SIM_HP5973U MB - 8270D SIM ID ICAL



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-164032-1
SDG No.:
Lab Sample ID: CCVIS 480-510072/3 Calibration Date: 12/16/2019 11:57
Instrument ID: HP5973U Calib Start Date: 11/25/2019 10:19
GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm) Calib End Date: 11/25/2019 12:16
Lab File ID: U33155045.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	AveID	1.100	1.096	0.0100	597	600	-0.4	20.0
1,4-Dioxane-d8	Ave	0.4898	0.5074	0.0100	6220	6000	3.6	20.0

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155045.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 16-Dec-2019 11:57:30 ALS Bottle#: 3 Worklist Smp#: 3
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 3
 Operator ID: bs Instrument ID: HP5973U
 Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
 Method: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 17-Dec-2019 11:48:00 Calib Date: 25-Nov-2019 12:16:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1006

First Level Reviewer: schickr

Date: 16-Dec-2019 12:42:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	2.060	2.060	0.000	93	453074	6.00	6.22	
3 1,4-Dioxane	88	2.089	2.089	0.000	91	49643	0.6000	0.5974	
* 2 1,4-Dichlorobenzene-d4	152	5.479	5.479	0.000	99	595238	4.00	4.00	

Reagents:

MB_1,4SIM_WRK_00080

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00184

Amount Added: 20.00

Units: uL

Run Reagent

Report Date: 17-Dec-2019 11:48:01

Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155045.D

Injection Date: 16-Dec-2019 11:57:30

Instrument ID: HP5973U

Operator ID: bs

Lims ID: CCVIS

Worklist Smp#: 3

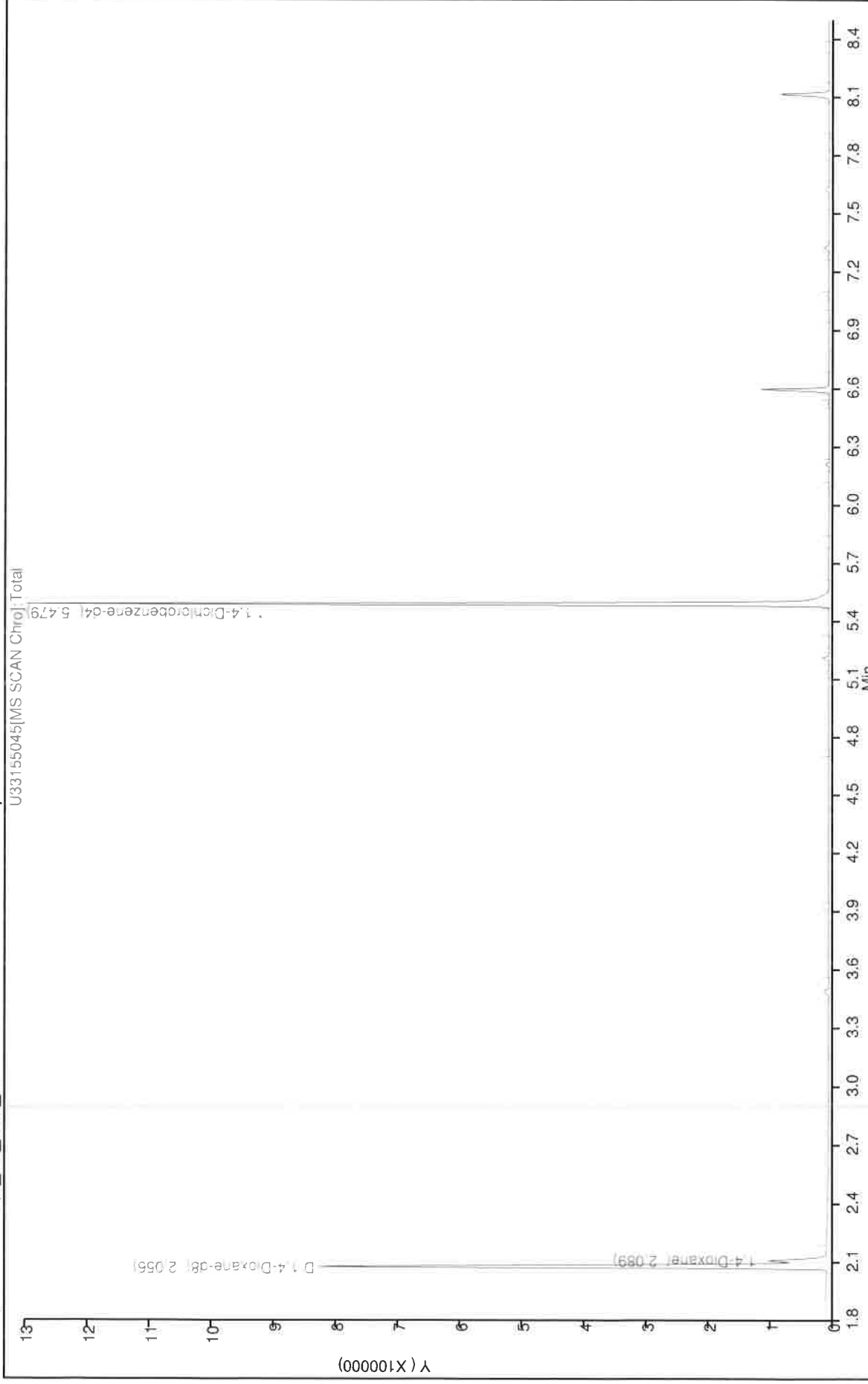
Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 3

Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154640.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 25-Nov-2019 09:52:30 ALS Bottle#: 2 Worklist Smp#: 2
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: DFTPP
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 25-Nov-2019 14:39:42 Calib Date: 25-Nov-2019 12:16:30
 Integrator: Picker ID Type: Deconvolution ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D
 Column 1 : Det: MS SCAN
 Process Host: CTX0324

First Level Reviewer: marshallj

Date: 25-Nov-2019 10:14:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
4 DFTPP									
7 4,4'-DDE	246		10.818					ND	
5 4,4'-DDD	235		10.930					ND	
6 4,4'-DDT	235	11.095	11.095	0.000	97	749050	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

MB_DFTPP_WRK_00363

Amount Added: 1.00

Units: mL

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154640.D

Injection Date: 25-Nov-2019 09:52:30

Instrument ID: HP5973U

Lims ID: DFTPP

Client ID:

Operator ID: JM

ALS Bottle#: 2

Worklist Smp#: 2

Injection Vol: 1.0 ul

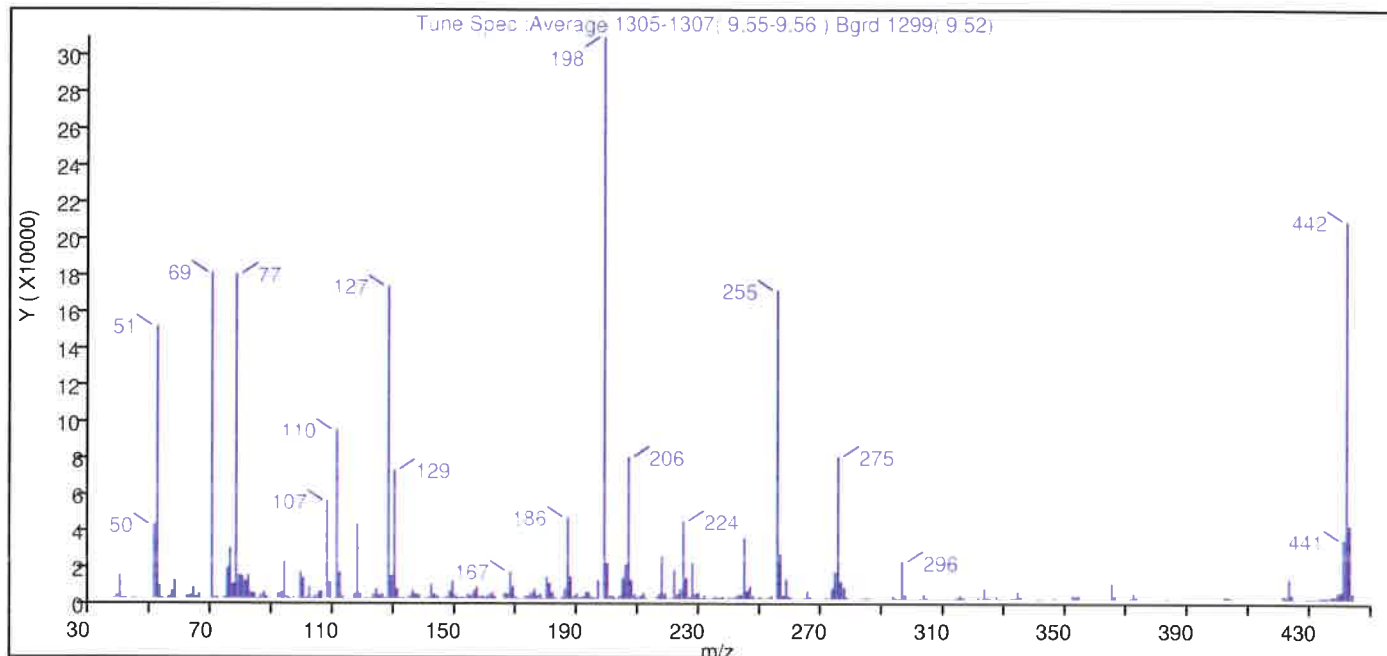
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Tune Method: DFTPP Method 8270D, BP 198

4 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >90% of 442	100.0 (148.0)
51	10-80% of the base peak	48.6
68	<2% of mass 69	0.0 (0.0)
69	Present	58.3
70	<2% of mass 69	0.3 (0.6)
127	10-80% of the base peak	55.9
197	<2% of mass 198	0.0
199	5-9% of mass 198	6.4
275	10-60% of the base peak	25.5
365	>1% of mass 198	2.8
441	present but <24% of mass 442	10.7 (15.8)
442	base peak, or >50% of 198	67.6
443	15-24% of mass 442	13.3 (19.6)

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154640.D\1,4_Dx_SIM_HP5973U.rslt\spec
Injection Date: 25-Nov-2019 09:52:30
Spectrum: Tune Spec :Average 1305-1307(9.55-9.56) Bgrd 1299(9.52)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 287

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	589	125.00	2679	202.00	245	286.00	173
38.00	1975	126.00	484	203.00	2215	292.00	257
39.00	12627	127.00	169600	204.00	11575	293.00	1626
40.00	574	128.00	12732	205.00	18912	294.00	392
41.00	686	129.00	69968	206.00	77168	295.00	214
43.00	684	130.00	5632	207.00	10553	296.00	20336
44.00	491	131.00	646	208.00	2631	297.00	2390
47.00	169	132.00	524	209.00	1171	301.00	169
49.00	32	133.00	260	210.00	1923	302.00	225
50.00	40224	134.00	1843	211.00	3259	303.00	2566
51.00	147648	135.00	4838	212.00	669	304.00	781
52.00	7252	136.00	2684	215.00	913	310.00	167
53.00	603	137.00	2444	216.00	2672	313.00	216
54.00	181	139.00	456	217.00	23536	314.00	801
55.00	1359	140.00	999	218.00	2824	315.00	2045
56.00	4479	141.00	8120	219.00	334	316.00	1146
57.00	10226	142.00	2683	220.00	328	321.00	945
58.00	275	143.00	1861	221.00	15724	322.00	218
61.00	2094	144.00	335	222.00	2619	323.00	5782
62.00	2065	145.00	503	223.00	5576	324.00	899
63.00	6423	146.00	1294	224.00	42192	325.00	289
64.00	1327	147.00	4657	225.00	11509	327.00	1536
65.00	3052	148.00	9817	226.00	1015	328.00	548
67.00	37	149.00	1988	227.00	19720	332.00	582
69.00	176896	150.00	789	228.00	2780	333.00	655
70.00	1034	151.00	1182	229.00	3831	334.00	4065
71.00	762	152.00	590	230.00	703	335.00	1158
73.00	1105	153.00	2792	231.00	1986	341.00	659
74.00	16768	154.00	1885	232.00	232	342.00	383
75.00	27632	155.00	4548	234.00	1300	346.00	919
76.00	8255	156.00	6709	235.00	1028	347.00	218
77.00	175936	157.00	1363	236.00	863	352.00	2057
78.00	12683	158.00	1851	237.00	1347	353.00	1533

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154640.D\1,4_Dx_SIM_HP5973U.rslt\spe

Injection Date: 25-Nov-2019 09:52:30

Spectrum: Tune Spec :Average 1305-1307(9.55-9.56) Bgrd 1299(9.52)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 287

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	12584	159.00	1233	238.00	169	354.00	2043
80.00	10037	160.00	2514	239.00	792	363.00	211
81.00	12950	161.00	3600	240.00	423	364.00	183
82.00	3444	162.00	1518	241.00	1232	365.00	8586
83.00	2994	165.00	3485	242.00	2448	366.00	1627
84.00	491	166.00	2849	243.00	2430	371.00	646
85.00	2434	167.00	15267	244.00	33184	372.00	2985
86.00	4033	168.00	6934	245.00	4637	373.00	979
87.00	1564	169.00	1296	246.00	7114	383.00	529
88.00	361	170.00	225	247.00	1603	390.00	235
91.00	3087	171.00	260	248.00	212	391.00	181
92.00	3714	172.00	1706	249.00	1420	401.00	276
93.00	20296	173.00	1719	250.00	457	402.00	1295
94.00	1360	174.00	3565	251.00	366	403.00	1341
95.00	554	175.00	5630	252.00	778	404.00	548
96.00	1204	176.00	2071	253.00	1774	419.00	168
97.00	323	177.00	2745	255.00	167360	421.00	1834
98.00	14924	178.00	535	256.00	24368	422.00	1300
99.00	11625	179.00	12302	257.00	2116	423.00	11137
100.00	845	180.00	8664	258.00	11100	424.00	2478
101.00	6595	181.00	3536	259.00	1553	425.00	375
102.00	573	182.00	930	260.00	396	428.00	221
103.00	2021	184.00	1222	261.00	195	429.00	409
104.00	3848	185.00	5605	264.00	430	430.00	390
105.00	4267	186.00	44456	265.00	4380	431.00	576
107.00	53256	187.00	12322	266.00	1059	432.00	357
108.00	9063	188.00	1501	268.00	216	433.00	829
110.00	91672	189.00	2993	271.00	782	434.00	1097
111.00	14462	190.00	930	272.00	454	435.00	1225
112.00	1612	191.00	1565	273.00	5925	436.00	892
114.00	172	192.00	3992	274.00	14799	437.00	1923
116.00	2751	193.00	3806	275.00	77368	438.00	1767
117.00	40480	194.00	1296	276.00	9589	439.00	3794
118.00	2655	195.00	676	277.00	6328	440.00	4157

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154640.D

Injection Date: 25-Nov-2019 09:52:30

Instrument ID: HP5973U

Lims ID: DFTPP

Client ID:

Operator ID: JM

ALS Bottle#:

2

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

6 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =

$$\left(\frac{\text{Area Breakdown Cpnds}}{\text{Total Area Breakdown Cpnds}} \right) * 100$$

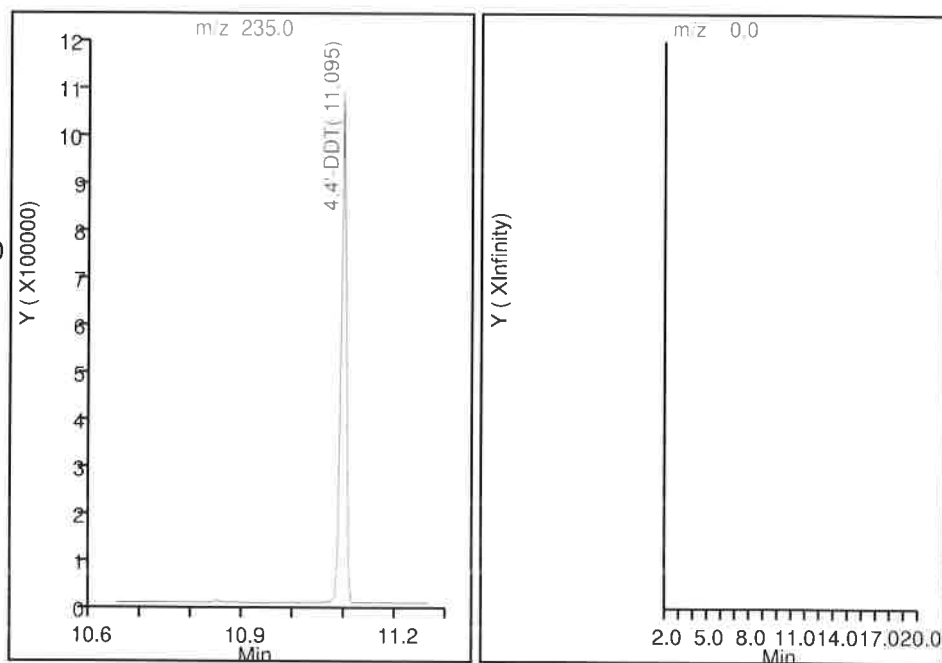
6 4,4'-DDT, Area = 749050

5 4,4'-DDD, Area = 0

7 4,4'-DDE, Area = 0

%Breakdown: 0.00%, <= 20.00%

Passed



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155044.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 16-Dec-2019 11:29:30 ALS Bottle#: 2 Worklist Smp#: 2
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 2
 Operator ID: bs Instrument ID: HP5973U
 Method: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 17-Dec-2019 11:47:57 Calib Date: 25-Nov-2019 12:16:30
 Integrator: Picker ID Type: Deconvolution ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICAL File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
 Process Host: CTX1006

First Level Reviewer: schickr

Date: 16-Dec-2019 12:42:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
4 DFTPP									
5 4,4'-DDD	235	10.833	10.833	0.000	89	3662			NR
7 4,4'-DDE	246		10.839						ND
6 4,4'-DDT	235	11.079	11.079	0.000	95	841647	NR		NR

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

MB_DFTPP_WRK_00365

Amount Added: 1.00

Units: mL

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155044.D

Injection Date: 16-Dec-2019 11:29:30

Instrument ID: HP5973U

Lims ID: DFTPP

Client ID:

Operator ID: bs

ALS Bottle#:

2

Worklist Smp#: 2

Injection Vol: 1.0 ul

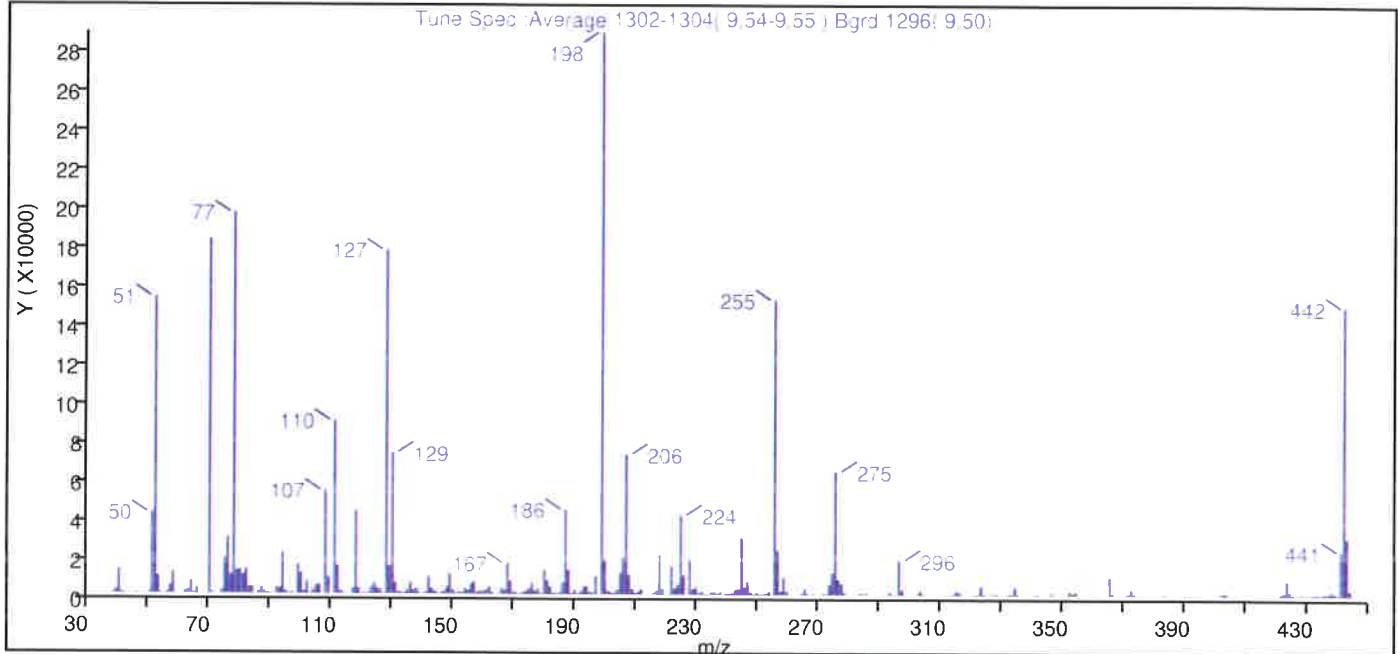
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Tune Method: DFTPP Method 8270D, BP 198

4 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >90% of 442	100.0 (194.2)
51	10-80% of the base peak	53.1
68	<2% of mass 69	0.0 (0.0)
69	Present	63.3
70	<2% of mass 69	0.3 (0.4)
127	10-80% of the base peak	61.4
197	<2% of mass 198	0.0
199	5-9% of mass 198	6.2
275	10-60% of the base peak	22.0
365	>1% of mass 198	3.3
441	present but <24% of mass 442	8.0 (15.5)
442	base peak, or >50% of 198	51.5
443	15-24% of mass 442	10.3 (20.0)

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155044.D\1,4_Dx_SIM_HP5973U.rsl\tspe
Injection Date: 16-Dec-2019 11:29:30
Spectrum: Tune Spec :Average 1302-1304(9.54-9.55) Bgrd 1296(9.50)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 291

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	603	127.00	177152	202.00	936	292.00	212
38.00	2128	128.00	14355	203.00	2392	293.00	1525
39.00	12430	129.00	72880	204.00	11359	294.00	253
40.00	893	130.00	5991	205.00	19232	295.00	179
41.00	472	131.00	1215	206.00	72288	296.00	17928
44.00	41	132.00	689	207.00	10296	297.00	2627
45.00	433	133.00	680	208.00	2671	301.00	177
49.00	1115	134.00	2242	209.00	927	302.00	556
50.00	42136	135.00	6221	210.00	1386	303.00	2201
51.00	153216	136.00	2149	211.00	3037	304.00	527
52.00	9317	137.00	2851	214.00	179	313.00	168
53.00	471	138.00	680	215.00	1098	314.00	839
55.00	1261	139.00	272	216.00	2094	315.00	2157
56.00	4430	140.00	1120	217.00	20456	316.00	1214
57.00	11309	141.00	8942	218.00	2868	321.00	671
58.00	225	142.00	2829	219.00	198	322.00	428
61.00	1808	143.00	1649	220.00	299	323.00	4656
62.00	2158	144.00	510	221.00	14894	324.00	687
63.00	6901	145.00	793	222.00	3066	327.00	828
64.00	809	146.00	1643	223.00	5277	328.00	668
65.00	3225	147.00	3884	224.00	40984	332.00	738
66.00	174	148.00	10436	225.00	9845	333.00	383
67.00	391	149.00	2221	227.00	18480	334.00	4243
69.00	182656	150.00	547	228.00	2946	335.00	419
70.00	780	151.00	1162	229.00	3917	341.00	643
73.00	1906	152.00	698	230.00	733	342.00	233
74.00	18544	153.00	2908	231.00	1411	346.00	1080
75.00	29192	154.00	2159	232.00	204	352.00	1819
76.00	9993	155.00	5561	233.00	217	353.00	1117
77.00	196544	156.00	6603	234.00	1613	354.00	1599
78.00	12328	157.00	988	235.00	1360	357.00	188
79.00	12546	158.00	1922	236.00	643	359.00	189
80.00	9918	159.00	1436	237.00	1583	361.00	273

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155044.D\1,4_Dx_SIM_HP5973U.rslt\spe

Injection Date: 16-Dec-2019 11:29:30

Spectrum: Tune Spec :Average 1302-1304(9.54-9.55) Bgrd 1296(9.50)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 291

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	12969	160.00	2356	239.00	774	363.00	221
82.00	3582	161.00	3731	240.00	587	365.00	9483
83.00	3782	162.00	975	241.00	1087	366.00	1092
84.00	93	164.00	370	242.00	2790	370.00	199
85.00	1651	165.00	3224	243.00	3137	371.00	737
86.00	3540	166.00	2229	244.00	29464	372.00	3315
87.00	1586	167.00	16097	245.00	3851	373.00	737
88.00	798	168.00	6884	246.00	6860	374.00	179
89.00	371	169.00	1233	247.00	1390	383.00	639
91.00	3490	170.00	803	248.00	515	390.00	484
92.00	3134	171.00	211	249.00	1231	391.00	192
93.00	21264	172.00	1331	250.00	368	392.00	181
94.00	1593	173.00	1761	251.00	625	401.00	174
95.00	527	174.00	3059	252.00	946	402.00	1191
96.00	1003	175.00	6071	253.00	1826	403.00	1231
98.00	15167	176.00	1825	255.00	152000	404.00	537
99.00	11058	177.00	2917	256.00	22672	418.00	284
100.00	1408	178.00	316	257.00	1832	421.00	1091
101.00	7024	179.00	12743	258.00	8961	422.00	1410
102.00	203	180.00	7557	259.00	1527	423.00	7895
103.00	2236	181.00	3955	260.00	168	424.00	2096
104.00	4704	182.00	961	264.00	767	425.00	669
105.00	4744	183.00	372	265.00	3241	427.00	178
107.00	53624	184.00	1038	266.00	249	428.00	569
108.00	8622	185.00	5983	267.00	177	430.00	230
110.00	89568	186.00	43912	268.00	489	431.00	465
111.00	14484	187.00	12501	271.00	421	432.00	481
112.00	1783	188.00	785	272.00	353	433.00	869
113.00	512	189.00	2457	273.00	5268	434.00	586
116.00	2765	190.00	405	274.00	11243	435.00	559
117.00	43160	191.00	1601	275.00	63584	436.00	1287
118.00	3163	192.00	4199	276.00	7886	437.00	1016
119.00	285	193.00	4087	277.00	5812	438.00	2033
120.00	465	194.00	1336	278.00	1093	439.00	1291

Report Date: 17-Dec-2019 11:47:59

Chrom Revision: 2.3 15-Dec-2019 06:20:02

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155044.D\1,4_Dx_SIM_HP5973U.rslt\spe

Injection Date: 16-Dec-2019 11:29:30

Spectrum: Tune Spec :Average 1302-1304(9.54-9.55) Bgrd 1296(9.50)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 291

m/z	Y	m/z	Y	m/z	Y	m/z	Y
121.00	428	195.00	780	281.00	216	440.00	203
122.00	3545	196.00	9315	283.00	857	441.00	22976
123.00	5644	198.00	288640	284.00	468	442.00	148608
124.00	3130	199.00	18024	285.00	915	443.00	29672
125.00	2391	200.00	1867	286.00	201	444.00	2823
126.00	174	201.00	1087	291.00	177		

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155044.D
Injection Date: 16-Dec-2019 11:29:30 Instrument ID: HP5973U
Lims ID: DFTPP
Client ID:
Operator ID: bs ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL

6 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

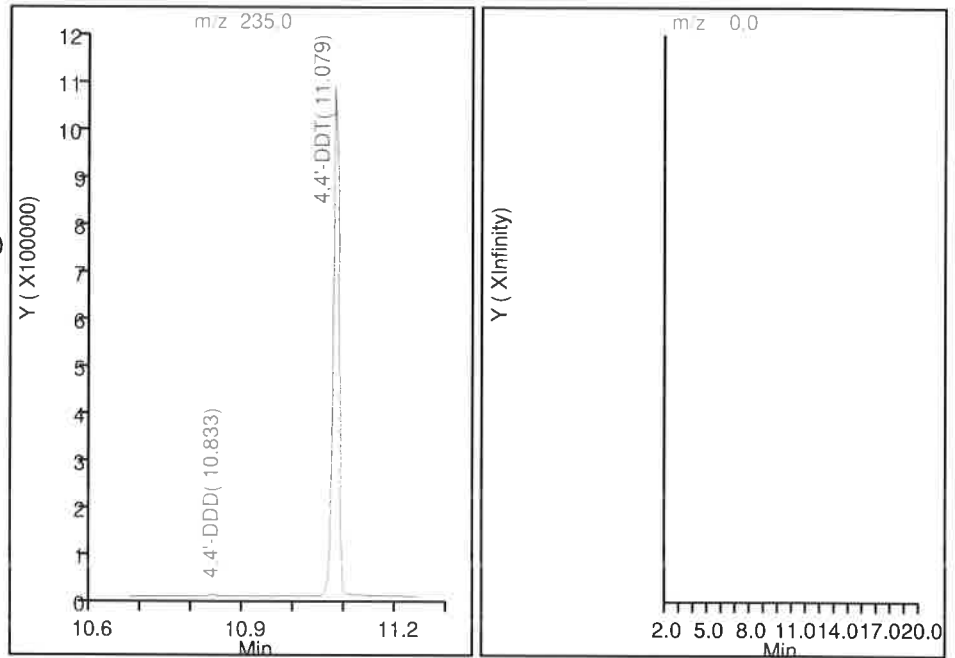
6 4,4'-DDT, Area = 841647

5 4,4'-DDD, Area = 3662

7 4,4'-DDE, Area = 0

%Breakdown: 0.43%, <= 20.00%

Passed



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-164032-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 480-509702/1-A
 Matrix: Water Lab File ID: U33155046.D
 Analysis Method: 8270D SIM ID Date Collected: _____
 Extract. Method: 3510C Date Extracted: 12/13/2019 08:28
 Sample wt/vol: 1000 (mL) Date Analyzed: 12/16/2019 12:44
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 1 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 510072 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	30		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155046.D
 Lims ID: MB 480-509702/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 16-Dec-2019 12:44:30 ALS Bottle#: 4 Worklist Smp#: 4
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 4
 Operator ID: bs Instrument ID: HP5973U
 Method: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 17-Dec-2019 11:48:00 Calib Date: 25-Nov-2019 12:16:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1006

First Level Reviewer: schickr

Date: 17-Dec-2019 11:46:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	2.125	2.060	0.065	92	165308	10.0	3.02	
3 1,4-Dioxane	88		2.089					ND	U
* 2 1,4-Dichlorobenzene-d4	152	5.487	5.479	0.008	98	446629	4.00	4.00	

QC Flag Legend

Review Flags

U - Marked Undetected

Reagents:

MB_LLIS_WRK_00184

Amount Added: 20.00

Units: uL

Run Reagent

Report Date: 17-Dec-2019 11:48:02

Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155046.D

Injection Date: 16-Dec-2019 12:44:30

Instrument ID: HP5973U

Operator ID: bs

Lims ID: MB 480-509702/1-A

Worklist Smp#: 4

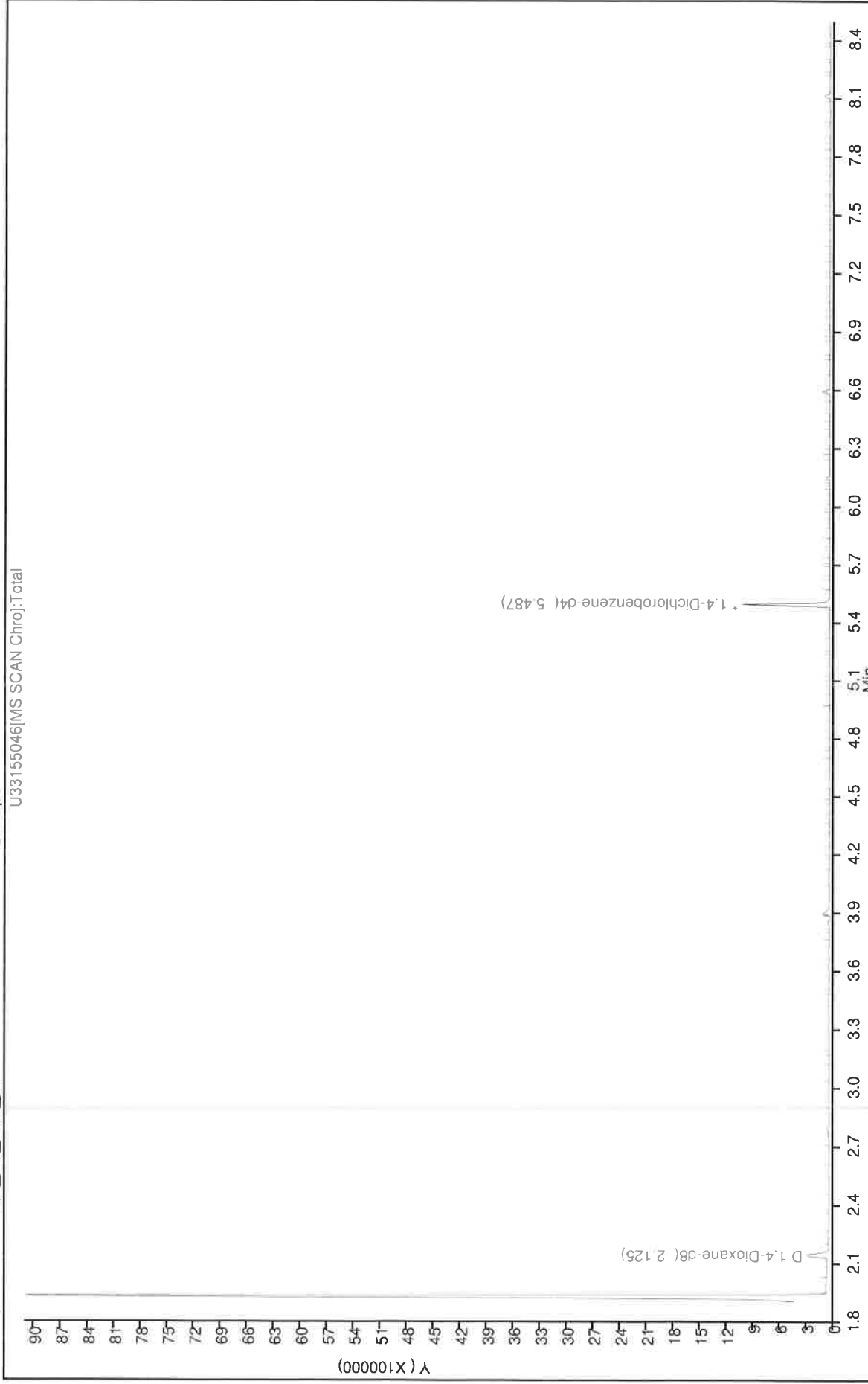
Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 4

Method: 1,4_Dx_SIM_HP5973U MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155046.D

Injection Date: 16-Dec-2019 12:44:30

Instrument ID: HP5973U

Lims ID: MB 480-509702/1-A

Client ID:

Operator ID: bs

ALS Bottle#: 4

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

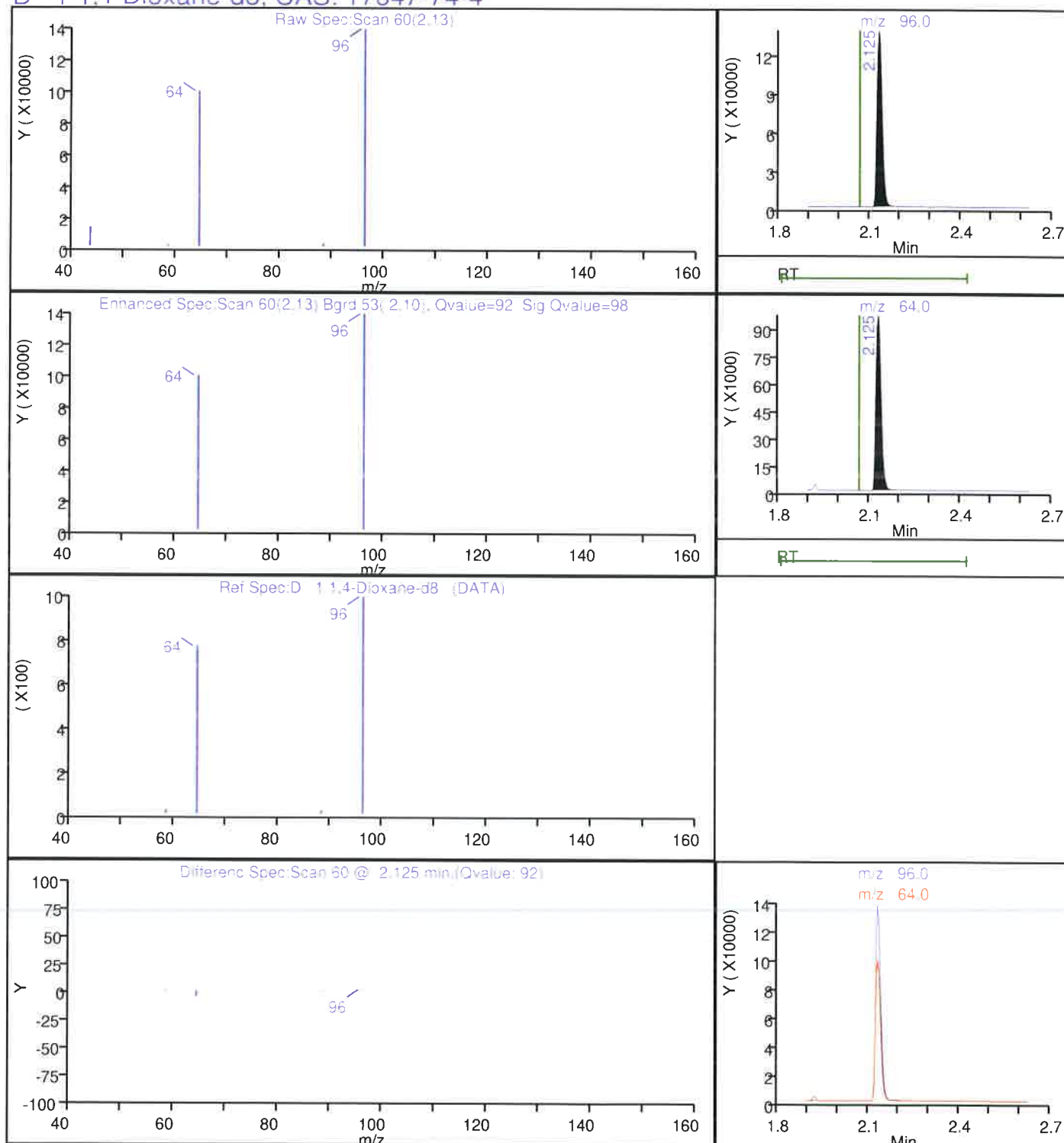
Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector: MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4



Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155046.D

Injection Date: 16-Dec-2019 12:44:30

Instrument ID: HP5973U

Lims ID: MB 480-509702/1-A

Client ID:

Operator ID: bs

ALS Bottle#:

4

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

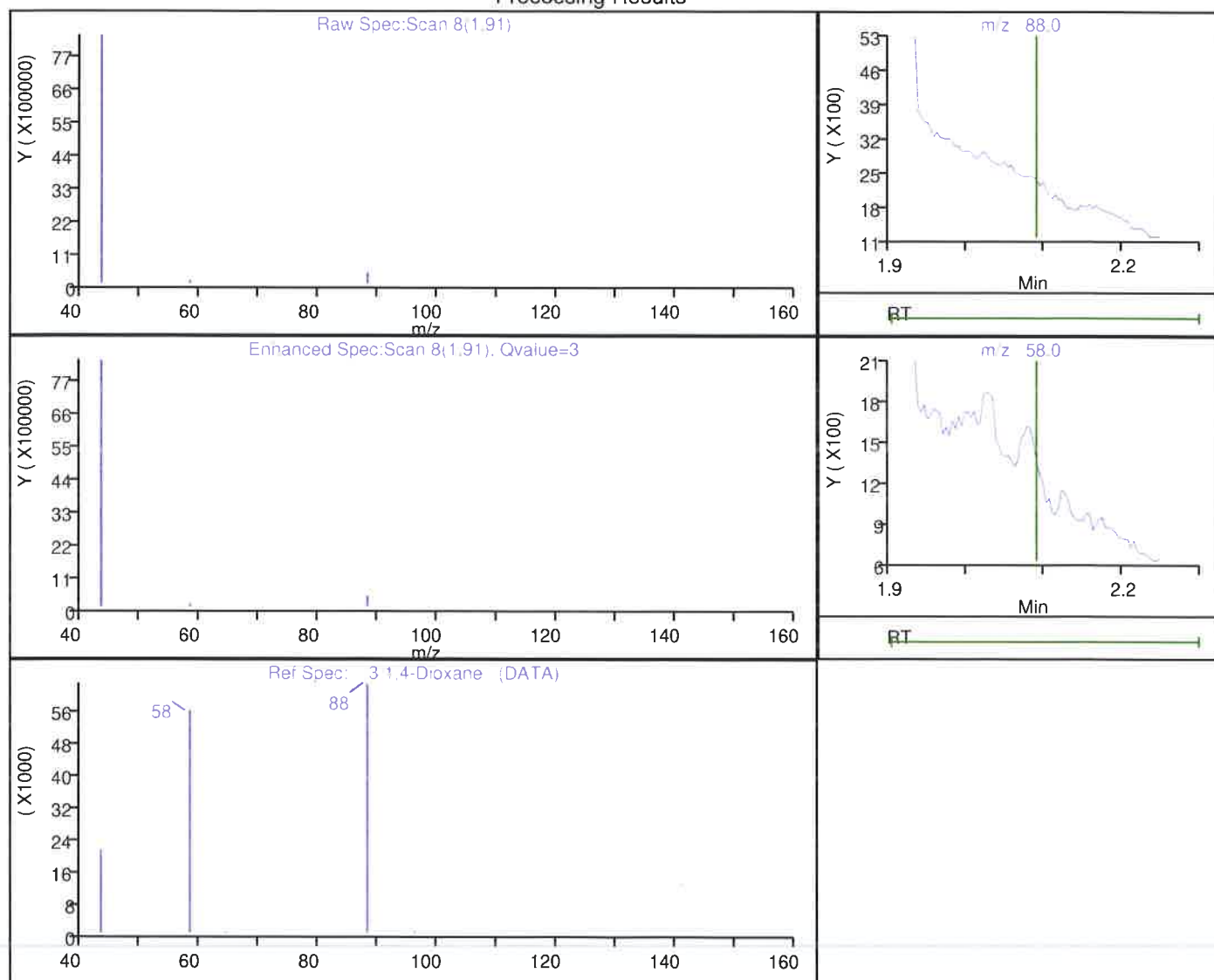
Column:

Detector

MS SCAN

3 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
1.91	88.00	291277	16.012485
1.91	58.00	86698	

Reviewer: schickr, 17-Dec-2019 11:46:15

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo	Job No.: 480-164032-1
SDG No.:	
Client Sample ID:	Lab Sample ID: LCS 480-509702/2-A
Matrix: Water	Lab File ID: U33155047.D
Analysis Method: 8270D SIM ID	Date Collected:
Extract. Method: 3510C	Date Extracted: 12/13/2019 08:28
Sample wt/vol: 1000 (mL)	Date Analyzed: 12/16/2019 13:07
Con. Extract Vol.: 1 (mL)	Dilution Factor: 1
Injection Volume: 1 (uL)	Level: (low/med) Low
% Moisture:	GPC Cleanup: (Y/N) N
Analysis Batch No.: 510072	Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.18		0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	24		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155047.D
Lims ID: LCS 480-509702/2-A
Client ID:
Sample Type: LCS
Inject. Date: 16-Dec-2019 13:07:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 5
Operator ID: bs Instrument ID: HP5973U
Method: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 17-Dec-2019 11:48:00 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D
Column 1 : Det: MS SCAN
Process Host: CTX1006

First Level Reviewer: schickr

Date: 16-Dec-2019 15:27:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	2.175	2.060	0.115	91	154411	10.0	2.43	
3 1,4-Dioxane	88	2.207	2.089	0.118	65	20075	1.00	1.18	
* 2 1,4-Dichlorobenzene-d4	152	5.491	5.479	0.012	98	519037	4.00	4.00	

Reagents:

MB_LLIS_WRK_00184

Amount Added: 20.00

Units: uL

Run Reagent

Report Date: 17-Dec-2019 11:48:05

Chrom Revision: 2.3 15-Dec-2019 06:20:02

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191216-86955.b\U33155047.D

Injection Date: 16-Dec-2019 13:07:30

Instrument ID: HP5973U

Operator ID: bs

Lims ID: LCS 480-509702/2-A

Worklist Smp#: 5

Client ID:

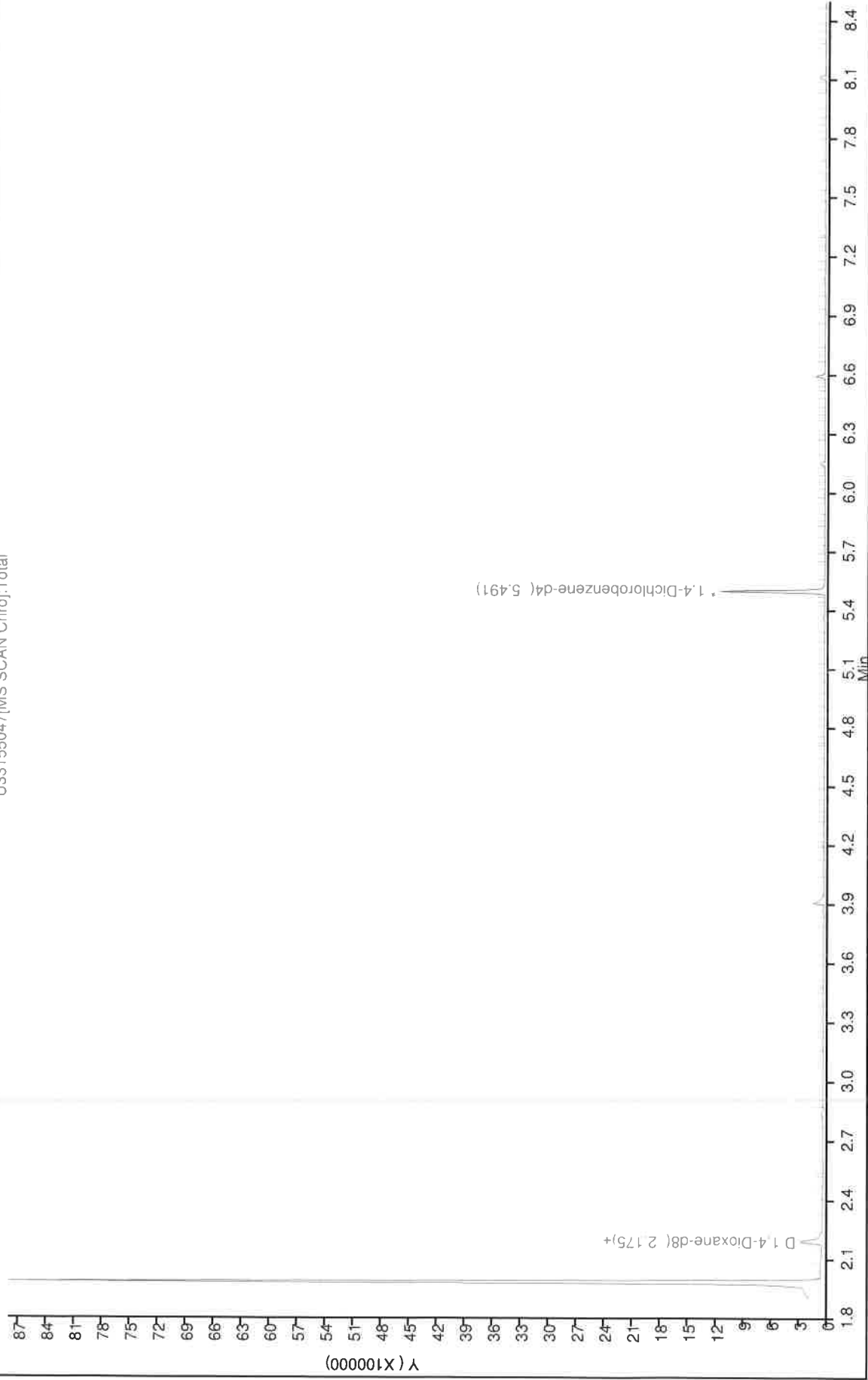
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 5

Method: 1,4_Dx_SIM_HP5973U MB - 8270D SIM ID ICAL

U33155047[MS SCAN Chro]:Total



GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Buffalo

Job No.: 480-164032-1

SDG No.:

Instrument ID: HP5973U

Start Date: 11/25/2019 09:52

Analysis Batch Number: 506566

End Date: 11/25/2019 17:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 480-506566/2		11/25/2019 09:52	1	U33154640.D	RXI-5Sil MS(0.5 0.25 (mm)
IC 480-506566/3		11/25/2019 10:19	1	U33154641.D	RXI-5Sil MS(0.5 0.25 (mm)
IC 480-506566/4		11/25/2019 10:43	1	U33154642.D	RXI-5Sil MS(0.5 0.25 (mm)
ICIS 480-506566/5		11/25/2019 11:06	1	U33154643.D	RXI-5Sil MS(0.5 0.25 (mm)
IC 480-506566/6		11/25/2019 11:29	1	U33154644.D	RXI-5Sil MS(0.5 0.25 (mm)
IC 480-506566/7		11/25/2019 11:53	1	U33154645.D	RXI-5Sil MS(0.5 0.25 (mm)
IC 480-506566/8		11/25/2019 12:16	1	U33154646.D	RXI-5Sil MS(0.5 0.25 (mm)
ICV 480-506566/9		11/25/2019 12:39	1		RXI-5Sil MS(0.5 0.25 (mm)
CCVIS 480-506566/10		11/25/2019 13:03	1		RXI-5Sil MS(0.5 0.25 (mm)
ZZZZZ		11/25/2019 13:27	1		RXI-5Sil MS(0.5 0.25 (mm)
ZZZZZ		11/25/2019 13:50	1		RXI-5Sil MS(0.5 0.25 (mm)
ZZZZZ		11/25/2019 14:14	1		RXI-5Sil MS(0.5 0.25 (mm)
ZZZZZ		11/25/2019 14:38	1		RXI-5Sil MS(0.5 0.25 (mm)
ZZZZZ		11/25/2019 15:01	1		RXI-5Sil MS(0.5 0.25 (mm)
ZZZZZ		11/25/2019 15:25	5		RXI-5Sil MS(0.5 0.25 (mm)
ZZZZZ		11/25/2019 15:48	1		RXI-5Sil MS(0.5 0.25 (mm)
ZZZZZ		11/25/2019 16:11	1		RXI-5Sil MS(0.5 0.25 (mm)
ZZZZZ		11/25/2019 16:34	1		RXI-5Sil MS(0.5 0.25 (mm)
ZZZZZ		11/25/2019 16:58	1		RXI-5Sil MS(0.5 0.25 (mm)
ZZZZZ		11/25/2019 17:21	1		RXI-5Sil MS(0.5 0.25 (mm)
ZZZZZ		11/25/2019 17:44	1		RXI-5Sil MS(0.5 0.25 (mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Buffalo

Job No.: 480-164032-1

SDG No.:

Instrument ID: HP5973U

Start Date: 12/16/2019 11:29

Analysis Batch Number: 510072

End Date: 12/16/2019 17:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 480-510072/2		12/16/2019 11:29	1	U33155044.D	RXI-5Si1 MS(0.5 0.25 (mm)
CCVIS 480-510072/3		12/16/2019 11:57	1	U33155045.D	RXI-5Si1 MS(0.5 0.25 (mm)
MB 480-509702/1-A		12/16/2019 12:44	1	U33155046.D	RXI-5Si1 MS(0.5 0.25 (mm)
LCS 480-509702/2-A		12/16/2019 13:07	1	U33155047.D	RXI-5Si1 MS(0.5 0.25 (mm)
ZZZZZ		12/16/2019 13:30	1		RXI-5Si1 MS(0.5 0.25 (mm)
ZZZZZ		12/16/2019 13:53	1		RXI-5Si1 MS(0.5 0.25 (mm)
ZZZZZ		12/16/2019 14:17	1		RXI-5Si1 MS(0.5 0.25 (mm)
ZZZZZ		12/16/2019 14:40	1		RXI-5Si1 MS(0.5 0.25 (mm)
ZZZZZ		12/16/2019 15:03	1		RXI-5Si1 MS(0.5 0.25 (mm)
ZZZZZ		12/16/2019 15:26	1		RXI-5Si1 MS(0.5 0.25 (mm)
480-164032-1		12/16/2019 15:49	1	U33155054.D	RXI-5Si1 MS(0.5 0.25 (mm)
480-164032-2		12/16/2019 16:13	1	U33155055.D	RXI-5Si1 MS(0.5 0.25 (mm)
480-164032-3		12/16/2019 16:36	1	U33155056.D	RXI-5Si1 MS(0.5 0.25 (mm)
ZZZZZ		12/16/2019 16:59	1		RXI-5Si1 MS(0.5 0.25 (mm)
ZZZZZ		12/16/2019 17:22	1		RXI-5Si1 MS(0.5 0.25 (mm)
ZZZZZ		12/16/2019 17:46	1		RXI-5Si1 MS(0.5 0.25 (mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-164032-1

SDG No.:

Batch Number: 509702

Batch Start Date: 12/13/19 08:28

Batch Analyst: Pollock, Jacob M

Batch Method: 3510C

Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjstpH	OP SIM LCS	OP SimSurf
MB 480-509702/1		3510C, 8270D SIM ID		1000 mL	1 mL	7 SU	<2 SU	00008	00019
LCS 480-509702/2		3510C, 8270D SIM ID		1000 mL	1 mL	7 SU	<2 SU	1 mL	1 mL
480-164032-B-1	J9L0591-01 W-2	3510C, 8270D SIM ID	T	1000 mL	1 mL	6 SU	<2 SU		1 mL
480-164032-A-2	J9L0591-02 W-3	3510C, 8270D SIM ID	T	1000 mL	1 mL	7 SU	<2 SU		1 mL
480-164032-A-3	J9L0591-03 W-12	3510C, 8270D SIM ID	T	990 mL	1 mL	6 SU	<2 SU		1 mL

Batch Notes

Acid Used for pH Adjustment ID	5670324
Analyst ID - Concentration	JP
Analyst ID - Extraction	JP
Method/Fraction	3510C/8270D_SIM_MS_ID
Na2S04 ID	5675092
Prep Solvent ID	5692931
Prep Solvent Volume Used	180 mL
Analyst ID - Spike Analyst	JP
Analyst ID - Spike Witness Analyst	JP
Sufficient Volume for Batch QC	Yes
Vial Lot Number	1709111094

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270D SIM ID

Shipping and Receiving Documents

Amherst, NY 14228-2223
phone 716.691.2600 fax 716.691.7991

TestAmerica Laboratories, Inc.

[illegible]

Login Sample Receipt Checklist

Client: Microbac Laboratories, Inc.

Job Number: 480-164032-1

Login Number: 164032

List Number: 1

Creator: Kolb, Chris M

List Source: Eurofins TestAmerica, Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	False	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

PROJECT DATA SHEET

Submit Form



☒ KEYSTONE ENVIRONMENTAL SERVICES



☐ KEYSTONE MATERIAL TESTING

☐ PROPOSAL NO. _____

☒ PROJECT NO. _____

If new client, how did prospect hear about us?

☒ Existing Client ☐ Referral ☐ Web

☐ Phone Book ☐ Advertisement ☐ N/A

ORDER DATE 1.14.19

ORDERED BY mike wood

CLIENT NO. 308

PROJECT MANAGER twm

PROJECT DESCRIPTION		PROJECT LOCATION	
pre renovation asbestos survey & mold		Jamie & Silvia Gruber 39 Grove St Oneonta NY 13820	
CLIENT NAME	Stanley Steamer	CONTACT NAME	mike wood
ADDRESS	2325 Owego Rd. Vestal, NY 13850	CONTACT PHONE(S)	Office: (607) 786-6471 Cell: (607) 644-6289
PHONE	Office: Cell:	SITE NOTES	Schedule for weds., 10am, 1.15.19. Mike is with adjuster will meet you. if he is late 1st FL Apt. open & bilco doors open to basement.
EMAIL		EMAIL	

PROJECT TYPE

- ☐ Asbestos PM/AS
☒ Asbestos Survey
☐ Environmental Transaction Screen / Phase I & II
☐ Indoor Air Quality
☐ Lead
☐ Material Testing
☐ Methamphetamine
☒ Mold
☐ PCBs
☐ Radon
☐ Soil Vapor
☐ Other _____

Project Fee Type _____

Quote/Amount \$ _____

PO/Ref # _____

Insurance Claim # _____

BILLING RATES

- ☒ KES Standard
☐ KMT Standard
☐ Special Rates → Attach Copy

NOTES Drain Leak - main level bathroom. Bathroom, hallway, closet, bedroom - gut walls & floors 2' down basement - remove loose materials, remove pipe wrap insulation (suspect on sewer line). Asbestos & mold

FRONT OFFICE USE ONLY

Prop/Proj # Assigned	Entered in BQE/QB	Network Folder	Print Audit	Proposal Folder	Project Folder

APPENDIX C
2011 – 2019 WATER QUALITY HISTORICAL RESULTS AND
STANDARDS (GNYCRR PARTS 700 -705)

WELL # : MW - 2

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700-705) for class GA waters	2011 Routine	2013 Baseline	2014 Routine	2015 Routine	2016 Routine	2017 Routine	2018 Baseline	2019 Routine
FIELD PARAMETERS										
Conductivity	umhos/cm	NS	74	272	66	87	254	51.1	68.8	65.2
Eh	mV	NS	-38.7	76	12	56	82	52.3	75	22
pH	SU	6.5 - 8.5	7.35	6.93	7.27	6.7	6.97	6.1	6.62	7.54
Temperature	degC	NS	10.3	2.8	8.4	9.2	8.8	9.6	9.1	8.8
Water Level	ft	NS	67.18	-	-	-	71.47	71.47	-	-
EPA 601/602 List BY EPA METHOD 624										
1,1,1- Trichloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2,2- Tetrachloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2- Trichloroethane	µg/L	1	-	ND	-	-	-	-	ND	-
1,1- Dichloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1- Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
1,2- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,2- Dichloroethane	µg/L	0.6	-	ND	-	-	-	-	ND	-
1,2- Dichloropropane	µg/L	1	-	ND	-	-	-	-	ND	-
1,3- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,4- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
2-Chloroethyl vinyl ether	µg/L	-	-	-	-	-	-	-	ND	-
Benzene	µg/L	1	-	ND	-	-	-	-	ND	-
Bromodichloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Bromoform	µg/L	5	-	ND	-	-	-	-	ND	-
Bromomethane	µg/L	-	-	ND	-	-	-	-	ND	-
Carbon tetrachloride	µg/L	5	-	ND	-	-	-	-	ND	-
Chlorobenzene	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroform	µg/L	7	-	ND	-	-	-	-	ND	-
Chloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
cis-1,2 Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
cis- 1,3 Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	ND	-
Dibromochloromethane	µg/L	5	-	ND	-	-	-	-	ND	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

WELL # : MW - 2

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011	2013	2014	2015	2016	2017	2018	2019
			Routine	Baseline	Routine	Routine	Routine	Routine	Baseline	Routine
Dichlorodifluoromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Ethylbenzene	µg/L	5	-	ND	-	-	-	-	ND	-
m,p-Xylene	µg/L	5	-	ND	-	-	-	-	ND	-
Methylene chloride	µg/L	5	-	ND	-	-	-	-	ND	-
o-Xylene	µg/L	5	-	ND	-	-	-	-	ND	-
Tetrachloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
Toulene	µg/L	5	-	ND	-	-	-	-	ND	-
trans-1,2-Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
trans-1,3-Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	ND	-
Trichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
Trichlorofluoromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Vinyl chloride	µg/L	2	-	ND	-	-	-	-	ND	-
ICP METALS, TOTALS										
Aluminum	mg/L	NS	-	3.5	-	-	-	-	0.353	-
Antimony	mg/L	0.003	-	ND	-	-	-	-	ND	-
Arsenic	mg/L	0.025	-	ND	-	-	-	-	0.00127	-
Barium	mg/L	1	-	0.12	-	-	-	-	0.0413	-
Beryllium	mg/L	NS	-	ND	-	-	-	-	ND	-
Boron	mg/L	1	-	ND	-	-	-	-	ND	-
Cadmium	mg/L	0.01	ND	ND	0.0058	ND	ND	ND	ND	ND
Calcium	mg/L	NS	6.7	59.4	13.3	9.27	8.53	6.65	8.38	7.28
Chromium	mg/L	0.05	-	ND	-	-	-	-	ND	-
Copper	mg/L	0.2	-	ND	-	-	-	-	ND	-
Iron	mg/L	0.3	0.19	5.5	16	0.88	3.28	1.1	0.296	0.181
Magnesium	mg/L	35	1.5	2.64	3.73	2.09	2.13	1.58	1.72	1.63
Manganese	mg/L	0.3	0.14	3.7	4.2	0.377	0.449	0.276	0.372	0.107
Nickel	mg/L	0.1	-	ND	-	-	-	-	ND	-
Potassium	mg/L	NS	0.87	2.9	1.8	1.26	1.4	1.05	0.944	1.11
Selenium	mg/L	0.01	-	ND	-	-	-	-	ND	-
Silver	mg/L	0.05	-	ND	-	-	-	-	ND	-
Sodium	mg/L	20	1.5	1.2	2.6	2.36	2.35	2.11	2.37	2.31

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

WELL # : MW - 2

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011	2013	2014	2015	2016	2017	2018	2019
			Routine	Baseline	Routine	Routine	Routine	Routine	Baseline	Routine
Thallium	mg/L	NS	-	ND	-	-	-	-	ND	-
Zinc	mg/L	NS	-	ND	-	-	-	-	0.0206	-
Hardness, Total (mg/l CaCO3)	mg/L	NS	23	159	48.6	31.8	30.1	23.1	35.1	24.9
Lead	mg/L	0.025	0.001	0.029	0.083	0.00427	0.013	0.0043	0.00961	ND
Mercury	mg/L	0.0007	-	ND	-	-	-	-	0.000163	-
Color	UNITS	15	-	10	-	-	-	-	5.94	-
Residue, Dissolved	mg/L	500	140	16	60	36	62	124	54	ND
Turbidity	NTU	5	17.8	19	16.6	4.5	39.7	5.66	9.42	5.72
Alkalinity, Total (As CaCO3)	mg/LCaCO3	NA	20	162	30	30	24	32	26.1	23.8
Chloride	mg/L	250	7.18	2.34	1.9	2.2	ND	3.15	2.58	1.8
Cyanide	mg/L	0.2	-	ND	-	-	-	-	ND	-
Nitrogen, Ammonia (As N)	mg/L	2	ND	ND	ND	ND	ND	ND	0.11	ND
Nitrogen, Kjeldahl, Total	mg/L	NS	2	ND	6.2	1.29	ND	1.72	-	ND
Nitrogen, Nitrate (As N)	mg/L	10	0.511	0.695	0.362	0.943	0.734	0.578	0.66	0.688
Sulfate	mg/L	250	7.2	6.16	4.93	4.86	ND	5.54	10.8	4.9
Biochemical Oxygen Demand	mg/L	NS	ND	ND	ND	ND	ND	6.08	ND	ND
Chemical Oxygen Demand	mg/L	NS	37	41	193	63.5	292	269	27.3	11.1
Organic Carbon Demand	mg/L	NS	-	-	-	-	-	-	-	-
Organic Carbon Total	mg/L	NS	ND	1.07	5	1.02	4.46	2.83	1.84	2.19
Phenolics, Total Recoverable	mg/L	0.001	ND	ND	ND	ND	ND	ND	ND	ND
Hexavalent chromium	mg/L	0.05	-	ND	-	-	-	-	-	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

WELL # : MW - 3

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011 Routine	2013 Baseline	2014 Routine	2015 Routine	2016 Routine	2017 Routine	2018 Baseline	2019 Routine
FIELD PARAMETERS										
Conductivity	umhos/cm	NS	263	517	325	363	504	267	406	429
Eh	mV	NS	-17.3	243	-	63	202	14.7	-27	-24
pH	SU	6.5 - 8.5	7	6.38	5.8	6.5	6.64	6.2	6.07	6.28
Temperature	degC	NS	11.6	8.3	7.2	9.2	8.2	9.5	10.2	7.6
Water Level	ft	NS	102.43	-	-	-	95.46	-	-	-
EPA 601/602 List BY EPA METHOD 624										
1,1,1- Trichloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2,2- Tetrachloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2- Trichloroethane	µg/L	1	-	ND	-	-	-	-	ND	-
1,1- Dichloroethane	µg/L	5	-	ND	-	-	-	-	0.354	-
1,1- Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
1,2- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,2- Dichloroethane	µg/L	0.6	-	ND	-	-	-	-	ND	-
1,2- Dichloropropane	µg/L	1	-	ND	-	-	-	-	ND	-
1,3- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,4- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
2-Chloroethyl vinyl ether	µg/L	-	-	-	-	-	-	-	ND	-
Benzene	µg/L	1	-	ND	-	-	-	-	ND	-
Bromodichloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Bromoform	µg/L	5	-	ND	-	-	-	-	ND	-
Bromomethane	µg/L	-	-	ND	-	-	-	-	ND	-
Carbon tetrachloride	µg/L	5	-	ND	-	-	-	-	ND	-
Chlorobenzene	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroform	µg/L	7	-	ND	-	-	-	-	ND	-
Chloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
cis-1,2 Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
cis- 1,3 Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	ND	-
Dibromochloromethane	µg/L	5	-	ND	-	-	-	-	ND	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

WELL # : MW - 3

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011 Routine	2013 Baseline	2014 Baseline	2015 Routine	2016 Routine	2017 Routine	2018 Baseline	2019 Routine
Dichlorodifluoromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Ethylbenzene	µg/L	5	-	ND	-	-	-	-	ND	-
m,p-Xylene	µg/L	5	-	ND	-	-	-	-	ND	-
Methylene chloride	µg/L	5	-	ND	-	-	-	-	ND	-
o-Xylene	µg/L	5	-	ND	-	-	-	-	ND	-
Tetrachloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
Toulene	µg/L	5	-	ND	-	-	-	-	ND	-
trans-1,2-Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
trans-1,3-Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	ND	-
Trichloroethene	µg/L	5	-	ND	-	-	-	-	0.407	-
Trichlorofluoromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Vinyl chloride	µg/L	2	-	ND	-	-	-	-	ND	-
ICP METALS, TOTALS										
Aluminum	mg/L	NS	-	ND	-	-	-	-	ND	-
Antimony	mg/L	0.003	-	ND	-	-	-	-	ND	-
Arsenic	mg/L	0.025	-	0.27	-	-	-	-	0.0179	-
Barium	mg/L	1	-	0.21	-	-	-	-	0.293	-
Beryllium	mg/L	NS	-	ND	-	-	-	-	ND	-
Boron	mg/L	1	-	ND	-	-	-	-	ND	-
Cadmium	mg/L	0.01	ND	ND	0.01	ND	ND	ND	ND	ND
Calcium	mg/L	NS	36	37.7	42.4	46	49.4	39.3	46.4	56.8
Chromium	mg/L	0.05	-	ND	-	-	-	-	ND	-
Copper	mg/L	0.2	-	ND	-	-	-	-	ND	-
Iron	mg/L	0.3	2.1	8.2	11	12.5	13.2	8.25	7.2	15.4
Magnesium	mg/L	35	6	5.28	5.15	7.13	7.5	6.29	6.62	9.86
Manganese	mg/L	0.3	17	21	21	21.1	25.6	21.1	21.3	19.5
Nickel	mg/L	0.1	-	ND	-	-	-	-	ND	ND
Potassium	mg/L	NS	2.5	2.5	3.6	1.46	1.58	1.73	1.88	1.8
Selenium	mg/L	0.01	-	ND	-	-	-	-	ND	-
Silver	mg/L	0.05	-	ND	-	-	-	-	0.00714	-
Sodium	mg/L	20	5.4	4.5	4.5	4.63	7.12	12.9	9.59	3.75

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

WELL # : MW - 3

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011	2013	2014	2015	2016	2017	2018	2019
			Routine	Baseline	Routine	Routine	Routine	Routine	Baseline	Routine
Thallium	mg/L	NS	-	ND	-	-	-	-	ND	-
Zinc	mg/L	NS	-	ND	-	-	-	-	ND	-
Hardness, Total (mg/l CaCO3)	mg/L	NS	120	116	-	144	154	124	210	182
Lead	mg/L	0.025	0.003	ND	0.01	0.00163	ND	0.0011	0.000733	0.014
Mercury	mg/L	0.0007	-	ND	-	-	-	-	0.000144	-
Color	UNITS	15	-	ND	-	-	-	-	5.87	-
Residue, Dissolved	mg/L	500	190	-	179	214	270	203	210	194
Turbidity	NTU	5	21.6	18	18.4	2.36	14.4	2.89	4.89	21.2
Alkalinity, Total (As CaCO3)	mg/LCaCO3	NA	170	152	114	192	184	196	201	202
Chloride	mg/L	250	9.01	4.68	5.7	2.6	7.48	7.22	12.9	0.9
Cyanide	mg/L	0.2	-	ND	-	-	-	-	0.0126	-
Nitrogen, Ammonia (As N)	mg/L	2	1.7	0.210	1.17	1.41	1.33	2.94	2.690	2.150
Nitrogen, Kjeldahl, Total	mg/L	NS	5.7	4.00	1.74	2.17	2.49	3.42	-	3.72
Nitrogen, Nitrate (As N)	mg/L	10	1.91	0.868	3.27	ND	ND	ND	ND	ND
Sulfate	mg/L	250	14	7.93	8.28	10.3	13.4	9.15	13.5	18.2
Biochemical Oxygen Demand	mg/L	NS	ND	5.0	ND	ND	ND	ND	ND	ND
Chemical Oxygen Demand	mg/L	NS	49	59	52.3	61.2	135	39.8	44	93.5
Organic Carbon Demand	mg/L	NS	-	-	-	-	-	-	-	-
Organic Carbon Total	mg/L	NS	ND	1.7	5.96	0.992	18.1	1.99	37.3	27.6
Phenolics, Total Recoverable	mg/L	0.001	ND	ND	ND	ND	ND	ND	0.044	ND
Hexavalent chromium	mg/L	0.05	-	ND	-	-	-	-	-	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

WELL # :MW - 4

		Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2009 Routine	2010 Routine	2011 Routine	2013 Baseline	2014 Routine	2015 Routine	2016 Routine	2019 Routine
Analyses	Units									
FIELD PARAMETERS										
Conductivity	umhos/cm	NS	92.5	134.4	132	208	172	132	132	185
Eh	mV	NS	54.9	56.5	-9.3	194	47	-9.3	-9.3	96
pH	SU	6.5 - 8.5	5.97	5.85	7.09	6.67	5.78	7.09	7.09	6.11
Temperature	degC	NS	13.1	10.8	11.6	3.7	6.4	11.6	11.6	8.6
Water Level	ft	NS	72.08	74.41	69.84	-	-	69.84	69.84	ND
EPA 601/602 List BY EPA METHOD 624										
1,1,1- Trichloroethane	µg/L	5	-	-	-	ND	-	-	-	-
1,1,2,2- Tetrachloroethane	µg/L	5	-	-	-	ND	-	-	-	-
1,1,2- Trichloroethane	µg/L	1	-	-	-	ND	-	-	-	-
1,1- Dichloroethane	µg/L	5	-	-	-	ND	-	-	-	-
1,1- Dichloroethene	µg/L	5	-	-	-	ND	-	-	-	-
1,2- Dichlorobenzene	µg/L	3	-	-	-	ND	-	-	-	-
1,2- Dichloroethane	µg/L	0.6	-	-	-	ND	-	-	-	-
1,2- Dichloropropane	µg/L	1	-	-	-	ND	-	-	-	-
1,3- Dichlorobenzene	µg/L	3	-	-	-	ND	-	-	-	-
1,4- Dichlorobenzene	µg/L	3	-	-	-	ND	-	-	-	-
2-Chloroethyl vinyl ether	µg/L		-	-	-	-	-	-	-	-
Benzene	µg/L	1	-	-	-	ND	-	-	-	-
Bromodichloromethane	µg/L	5	-	-	-	ND	-	-	-	-
Bromoform	µg/L	5	-	-	-	ND	-	-	-	-
Bromomethane	µg/L		-	-	-	ND	-	-	-	-
Carbon tetrachloride	µg/L	5	-	-	-	ND	-	-	-	-
Chlorobenzene	µg/L	5	-	-	-	ND	-	-	-	-
Chloroethane	µg/L	5	-	-	-	ND	-	-	-	-
Chloroform	µg/L	7	-	-	-	ND	-	-	-	-
Chloromethane	µg/L	5	-	-	-	ND	-	-	-	-
cis-1,2 Dichloroethene	µg/L	5	-	-	-	ND	-	-	-	-
cis- 1,3 Dichloropropene	µg/L	0.4	-	-	-	ND	-	-	-	-
Dibromochloromethane	µg/L	5	-	-	-	ND	-	-	-	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

WELL # :MW - 4

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2009	2010	2011	2013	2014	2015	2016	2019
			Routine	Routine	Routine	Baseline	Routine	Routine	Routine	Routine
Dichlorodifluoromethane	µg/L	5	-	-	-	ND	-	-	-	-
Ethylbenzene	µg/L	5	-	-	-	ND	-	-	-	-
m,p-Xylene	µg/L	5	-	-	-	ND	-	-	-	-
Methylene chloride	µg/L	5	-	-	-	ND	-	-	-	-
o-Xylene	µg/L	5	-	-	-	ND	-	-	-	-
Tetrachloroethene	µg/L	5	-	-	-	ND	-	-	-	-
Toulene	µg/L	5	-	-	-	ND	-	-	-	-
trans-1,2-Dichloroethene	µg/L	5	-	-	-	ND	-	-	-	-
trans-1,3-Dichloropropene	µg/L	0.4	-	-	-	ND	-	-	-	-
Trichloroethene	µg/L	5	-	-	-	ND	-	-	-	-
Trichlorofluoromethane	µg/L	5	-	-	-	ND	-	-	-	-
Vinyl chloride	µg/L	2	-	-	-	ND	-	-	-	-
ICP METALS, TOTALS										
Aluminum	mg/L	NS	-	-	-	ND	-	-	-	-
Antimony	mg/L	0.003	-	-	-	ND	-	-	-	-
Arsenic	mg/L	0.025	-	-	-	ND	-	-	-	-
Barium	mg/L	1	-	-	-	ND	-	-	-	-
Beryllium	mg/L	NS	-	-	-	ND	-	-	-	-
Boron	mg/L	1	-	-	-	ND	-	-	-	-
Cadmium	mg/L	0.01	0.005	ND	ND	ND	ND	ND	ND	ND
Calcium	mg/L	NS	18	13	11	13.4	15.5	11	11	27.7
Chromium	mg/L	0.05	-	-	-	ND	-	-	-	-
Copper	mg/L	0.2	-	-	-	ND	-	-	-	-
Iron	mg/L	0.3	8.1	0.87	0.099	0.3	19	0.099	0.099	4.65
Magnesium	mg/L	35	2.9	3.5	2.5	3.11	2.78	2.5	2.5	6.23
Manganese	mg/L	0.3	0.93	0.38	0.19	0.32	17	0.19	0.19	0.133
Nickel	mg/L	0.1	-	-	-	ND	-	-	-	-
Potassium	mg/L	NS	3.3	1.4	2.3	6.5	1.4	2.3	2.3	1.31
Selenium	mg/L	0.01	-	-	-	ND	-	-	-	-
Silver	mg/L	0.05	-	-	-	ND	-	-	-	-
Sodium	mg/L	20	9.1	2.1	2.6	3	2.7			3.46

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

WELL # :MW - 4

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2009	2010	2011	2013	2014	2015	2016	2019
			Routine	Routine	Routine	Baseline	Routine	Routine	Routine	Routine
Thallium	mg/L	NS	-	-	-	ND	-	-	-	-
Zinc	mg/L	NS	-	-	-	ND	-	-	-	-
Hardness, Total (mg/l CaCO3)	mg/L	NS	56	48	37	46.3	50.1	37	37	94.7
Lead	mg/L	0.025	0.006	0.001	ND	ND	0.0062	ND	ND	0.003
Mercury	mg/L	0.0007	-	-	-	ND	-	-	-	-
Color	UNITS	15	-	-	-	ND	-	-	-	-
Residue, Dissolved	mg/L	500	75	88	70	49	52	70	70	106
Turbidity	NTU	5	148	21.2	21.2	9.9	5.61	21.2	21.2	3.74
Alkalinity, Total (As CaCO3)	mg/LCaCO3	NA	42	44	55	44	66	55	55	85.5
Chloride	mg/L	250	1.19	1.52	1.73	1.86	7.1	1.73	1.73	1.8
Cyanide	mg/L	0.2	-	-	-	ND	-	-	-	-
Nitrogen, Ammonia (As N)	mg/L	2	ND	ND	ND	0.1	0.117	ND	ND	ND
Nitrogen, Kjeldahl, Total	mg/L	NS	-	-	1.89	ND	ND	1.89	1.89	0.353
Nitrogen, Nitrate (As N)	mg/L	10	0.477	0.245	0.216	2.49	0.0835	0.216	0.216	0.435
Sulfate	mg/L	250	9.84	12.8	10.2	8.92	5.82	10.2	10.2	6.1
Biochemical Oxygen Demand	mg/L	NS	-	-	6	2	ND	6	6	ND
Chemical Oxygen Demand	mg/L	NS	20	ND	35	ND	28.8	35	35	20.7
Organic Carbon Demand	mg/L	NS	-	-	-	-	-	-	-	-
Organic Carbon Total	mg/L	NS	ND	ND	ND	1.59	2.01	ND	ND	7.53
Phenolics, Total Recoverable	mg/L	0.001	ND	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium	mg/L	0.05	-	-	-	ND	-	-	-	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

WELL # : MW - 5

		Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters								
Analyses	Units		2011 Routine	2013 Baseline	2014 Routine	2015 Routine	2016 Routine	2017 Routine	2018 Baseline	2019 Routine
FIELD PARAMETERS										
Conductivity	umhos/cm	NS	328	519	454	421	538	318	445	445
Eh	mV	NS	-22.6	50	-	61	77	7.6	-32	-44
pH	SU	6.5 - 8.5	7.09	6.67	6.48	6.6	6.77	6.29	6.27	6.7
Temperature	degC	NS	10.6	1.7	6.5	8.5	9.2	8.3	8.9	9.5
Water Level	ft	NS	39.71	-	-	-	25.2	-	-	-
EPA 601/602 List BY EPA METHOD 624										
1,1,1- Trichloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2,2- Tetrachloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2- Trichloroethane	µg/L	1	-	ND	-	-	-	-	ND	-
1,1- Dichloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1- Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
1,2- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,2- Dichloroethane	µg/L	0.6	-	ND	-	-	-	-	ND	-
1,2- Dichloropropane	µg/L	1	-	ND	-	-	-	-	ND	-
1,3- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,4- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	0.319	-
2-Chloroethyl vinyl ether	µg/L		-	-	-	-	-	-	ND	-
Benzene	µg/L	1	-	ND	-	-	-	-	ND	-
Bromodichloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Bromoform	µg/L	5	-	ND	-	-	-	-	ND	-
Bromomethane	µg/L		-	ND	-	-	-	-	ND	-
Carbon tetrachloride	µg/L	5	-	ND	-	-	-	-	ND	-
Chlorobenzene	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroform	µg/L	7	-	ND	-	-	-	-	ND	-
Chloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
cis-1,2 Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
cis- 1,3 Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	0.332	-
Dibromochloromethane	µg/L	5	-	ND	-	-	-	-	ND	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

WELL # : MW - 5

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters							
			2011 Routine	2013 Baseline	2014 Routine	2015 Routine	2016 Routine	2017 Routine	2018 Baseline	2019 Routine
Dichlorodifluoromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Ethylbenzene	µg/L	5	-	ND	-	-	-	-	ND	-
m,p-Xylene	µg/L	5	-	ND	-	-	-	-	ND	-
Methylene chloride	µg/L	5	-	ND	-	-	-	-	ND	-
o-Xylene	µg/L	5	-	ND	-	-	-	-	ND	-
Tetrachloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
Toulene	µg/L	5	-	ND	-	-	-	-	ND	-
trans-1,2-Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
trans-1,3-Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	ND	-
Trichloroethene	µg/L	5	-	ND	-	-	-	-	0.255	-
Trichlorofluoromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Vinyl chloride	µg/L	2	-	ND	-	-	-	-	ND	-
ICP METALS, TOTALS										
Aluminum	mg/L	NS	-	ND	-	-	-	-	ND	-
Antimony	mg/L	0.003	-	ND	-	-	-	-	ND	-
Arsenic	mg/L	0.025	-	0.085	-	-	-	-	0.0925	-
Barium	mg/L	1	-	0.11	-	-	-	-	0.116	-
Beryllium	mg/L	NS	-	ND	-	-	-	-	ND	-
Boron	mg/L	1	-	ND	-	-	-	-	0.0718	-
Cadmium	mg/L	0.01	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	mg/L	NS	55	61.7	67.2	59.1	60.7	50.8	52.2	52.5
Chromium	mg/L	0.05	-	ND	-	-	-	-	ND	-
Copper	mg/L	0.2	-	ND	-	-	-	-	ND	-
Iron	mg/L	0.3	13	13	41	7.18	27.2	11.9	11.8	14.1
Magnesium	mg/L	35	11	11.5	11.5	12.2	12.1	10.1	9.85	10.6
Manganese	mg/L	0.3	9.2	11	13	11.5	11.4	9.97	9.27	9.41
Nickel	mg/L	0.1	-	ND	-	-	-	-	ND	ND
Potassium	mg/L	NS	4.5	4.9	5.3	5.37	5.66	4.62	4.97	4.59
Selenium	mg/L	0.01	-	ND	-	-	-	-	ND	-
Silver	mg/L	0.05	-	ND	-	-	-	-	0.00601	-
Sodium	mg/L	20	3.2	4.3	3.7	4.08	4.39	5.36	5.85	5.16

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

WELL # : MW - 5

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011	2013	2014	2015	2016	2017	2018	2019
			Routine	Baseline	Routine	Routine	Routine	Routine	Baseline	Routine
Thallium	mg/L	NS	-	ND	-	-	-	-	ND	-
Zinc	mg/L	NS	-	ND	-	-	-	-	-	-
Hardness, Total (mg/l CaCO3)	mg/L	NS	180	201	215	198	201	168	202	175
Lead	mg/L	0.025	ND	ND	0.0063	ND	0.00513	0.0016	0.0012	0.002
Mercury	mg/L	0.0007	-	ND	-	-	-	-	0.000143	-
Color	UNITS	15	-	ND	-	-	-	-	6.07	-
Residue, Dissolved	mg/L	500	240	200	180	225	265	132	288	204
Turbidity	NTU	5	19.7	45	12.4	2	42.7	4.36	34.4	5.77
Alkalinity, Total (As CaCO3)	mg/LCaCO3	NA	260	234	240	248	244	244	224	215
Chloride	mg/L	250	3.39	1.83	1.7	2	ND	2.6	2.96	1.6
Cyanide	mg/L	0.2	-	ND	-	-	-	-	ND	-
Nitrogen, Ammonia (As N)	mg/L	2	6.27	ND	7.79	7.33	7.78	7.51	7.61	5.78
Nitrogen, Kjeldahl, Total	mg/L	NS	14	9.68	13.6	8.7	11.1	7.39	-	6.56
Nitrogen, Nitrate (As N)	mg/L	10	0.105	1.66	0.0875	0.0698	0.171	0.088	0.0876	ND
Sulfate	mg/L	250	10.7	10.4	6.66	7.41	ND	7.24	15.6	5.9
Biochemical Oxygen Demand	mg/L	NS	ND	Est > 36	14	ND	ND	27.6	ND	ND
Chemical Oxygen Demand	mg/L	NS	ND	85	109	56.4	35.4	23.6	47.1	25.5
Organic Carbon Demand	mg/L	NS	-	-	-	-	-	-	-	-
Organic Carbon Total	mg/L	NS	ND	2.79	4.59	2.37	38.5	2.24	6.95	34
Phenolics, Total Recoverable	mg/L	0.001	ND	0.067	ND	ND	0.381	ND	ND	ND
Hexavalent chromium	mg/L	0.05	-	ND	-	-	-	-	-	-

ND- Not Detected at Reporting Limit
NS- No Standard
NA- Not Analyzed

Well # : MW - 6D

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011 Routine	2013 Baseline	2014 Routine	2015 Routine	2016 Routine	2017 Routine	2018 Baseline	2019 Routine
FIELD PARAMETERS										
Conductivity	umhos/cm	NS	85	79	152	86	92	61.8	89.2	95.2
Eh	mV	NS	-55.7	180	57	147	143	149	142	104
pH	SU	6.5 - 8.5	7.84	7.51	6.05	6.7	7.63	6.24	6.39	6.45
Temperature	degC	NS	10.8	5.1	11.7	9.5	5.3	10.5	10.2	7.5
Water Level	ft	NS	97.71	-	-	-	89.7	-	-	-
EPA 601/602 List BY EPA METHOD 624										
1,1,1- Trichloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2,2- Tetrachloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2- Trichloroethane	µg/L	1	-	ND	-	-	-	-	ND	-
1,1- Dichloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1- Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
1,2- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,2- Dichloroethane	µg/L	0.6	-	ND	-	-	-	-	ND	-
1,2- Dichloropropane	µg/L	1	-	ND	-	-	-	-	ND	-
1,3- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,4- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
2-Chloroethyl vinyl ether	µg/L	-	-	-	-	-	-	-	ND	-
Benzene	µg/L	1	-	ND	-	-	-	-	ND	-
Bromodichloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Bromoform	µg/L	5	-	ND	-	-	-	-	ND	-
Bromomethane	µg/L	-	-	ND	-	-	-	-	ND	-
Carbon tetrachloride	µg/L	5	-	ND	-	-	-	-	ND	-
Chlorobenzene	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroform	µg/L	7	-	ND	-	-	-	-	ND	-
Chloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
cis-1,2 Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
cis- 1,3 Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	ND	-
Dibromochloromethane	µg/L	5	-	ND	-	-	-	-	ND	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

Well # : MW - 6D

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011	2013	2014	2015	2016	2017	2018	2019
			Routine	Baseline	Routine	Routine	Routine	Routine	Baseline	Routine
Dichlorodifluoromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Ethylbenzene	µg/L	5	-	ND	-	-	-	-	ND	-
m,p-Xylene	µg/L	5	-	ND	-	-	-	-	ND	-
Methylene chloride	µg/L	5	-	ND	-	-	-	-	ND	-
o-Xylene	µg/L	5	-	ND	-	-	-	-	ND	-
Tetrachloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
Toulene	µg/L	5	-	ND	-	-	-	-	ND	-
trans-1,2-Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
trans-1,3-Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	ND	-
Trichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
Trichlorofluoromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Vinyl chloride	µg/L	2	-	ND	-	-	-	-	ND	-
ICP METALS, TOTALS										
Aluminum	mg/L	NS	-	ND	-	-	-	-	0.429	-
Antimony	mg/L	0.003	-	ND	-	-	-	-	ND	-
Arsenic	mg/L	0.025	-	ND	-	-	-	-	0.00209	-
Barium	mg/L	1	-	ND	-	-	-	-	0.0236	-
Beryllium	mg/L	NS	-	ND	-	-	-	-	ND	-
Boron	mg/L	1	-	ND	-	-	-	-	ND	-
Cadmium	mg/L	0.01	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	mg/L	NS	12	9.28	14	12	12.1	12.3	11.9	13.7
Chromium	mg/L	0.05	-	ND	-	-	-	-	ND	-
Copper	mg/L	0.2	-	ND	-	-	-	-	ND	-
Iron	mg/L	0.3	0.17	ND	ND	0.228	0.0885	2.66	0.456	0.125
Magnesium	mg/L	35	2	1.3	1.58	1.83	1.67	2.4	1.89	1.99
Manganese	mg/L	0.3	ND	ND	ND	0.01	ND	0.136	0.0743	0.0141
Nickel	mg/L	0.1	-	ND	-	-	-	-	ND	-
Potassium	mg/L	NS	0.68	0.91	0.9	ND	0.674	0.89	0.905	ND
Selenium	mg/L	0.01	-	ND	-	-	-	-	ND	-
Silver	mg/L	0.05	-	ND	-	-	-	-	ND	-
Sodium	mg/L	20	1.8	2.0	2.5	2.12	2.4	2.15	2.2	2.2

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

Well # : MW - 6D

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700-705) for class GA waters	2011 Routine	2013 Baseline	2014 Routine	2015 Routine	2016 Routine	2017 Routine	2018 Baseline	2019 Routine
Thallium	mg/L	NS	-	ND	-	-	-	-	ND	-
Zinc	mg/L	NS	-	0.16	-	-	-	-	ND	-
Hardness, Total (mg/l CaCO3)	mg/L	NS	37	28.5	-	37.4	37.1	40.6	42.9	42.5
Lead	mg/L	0.025	0.005	0.014	ND	0.00322	0.001	0.0036	0.00319	ND
Mercury	mg/L	0.0007	-	ND	-	-	-	-	0.000148	-
Color	UNITS	15	-	ND	-	-	-	-	5.9	-
Residue, Dissolved	mg/L	500	ND	ND	35	43	65	31	108	38
Turbidity	NTU	5	13.5	8.6	3.65	5.96	4.3	15	29.6	15.6
Alkalinity, Total (As CaCO3)	mg/LCaCO3	NA	40	24	38	32	22	40	33.9	42
Chloride	mg/L	250	3.17	2.09	1.6	2.3	1.88	ND	2.98	1.6
Cyanide	mg/L	0.2	-	ND	-	-	-	-	ND	-
Nitrogen, Ammonia (As N)	mg/L	2	ND	ND	ND	ND	ND	ND	0.359	ND
Nitrogen, Kjeldahl, Total	mg/L	NS	ND	ND	ND	ND	ND	ND	-	ND
Nitrogen, Nitrate (As N)	mg/L	10	0.452	1.09	0.712	0.546	0.227	0.282	0.51	0.499
Sulfate	mg/L	250	9	7.22	4.59	5.36	5.65	5.91	10.4	4.5
Biochemical Oxygen Demand	mg/L	NS	ND	ND	ND	ND	ND	ND	ND	ND
Chemical Oxygen Demand	mg/L	NS	ND	ND	ND	32.8	12.3	ND	ND	ND
Organic Carbon Demand	mg/L	NS	-	-	-	-	-	-	-	-
Organic Carbon Total	mg/L	NS	ND	3.04	0.892	5.81	2.53	0.761	1.01	1.82
Phenolics, Total Recoverable	mg/L	0.001	ND	ND	ND	ND	ND	ND	ND	ND
Hexavalent chromium	mg/L	0.05	-	ND	-	-	-	-	-	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

Well #: MW-8

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2014 Routine	2015 Routine	2016 Routine	2017 Routine	2018 Baseline	2019 Routine
FIELD PARAMETERS								
Conductivity	umhos/cm	NS	227	231	227	196	ND	236
Eh	mV	NS	-	38	84	-61.6	-45	-12
pH	SU	6.5 - 8.5	9.87	10.2	9.74	11.1	10.8	10.4
Temperature	degC	NS	8.3	8.2	4.8	7.8	7.4	15.6
Water Level	ft	NS	-	-	37.46	-	-	-
EPA 601/602 List BY EPA METHOD 624								
1,1,1- Trichloroethane	µg/L	5	-	-	-	-	ND	-
1,1,2,2- Tetrachloroethane	µg/L	5	-	-	-	-	ND	-
1,1,2- Trichloroethane	µg/L	1	-	-	-	-	ND	-
1,1- Dichloroethane	µg/L	5	-	-	-	-	ND	-
1,1- Dichloroethene	µg/L	5	-	-	-	-	ND	-
1,2- Dichlorobenzene	µg/L	3	-	-	-	-	ND	-
1,2- Dichloroethane	µg/L	0.6	-	-	-	-	ND	-
1,2- Dichloropropane	µg/L	1	-	-	-	-	ND	-
1,3- Dichlorobenzene	µg/L	3	-	-	-	-	ND	-
1,4- Dichlorobenzene	µg/L	3	-	-	-	-	ND	-
2-Chloroethyl vinyl ether	µg/L	-	-	-	-	-	ND	-
Benzene	µg/L	1	-	-	-	-	ND	-
Bromodichloromethane	µg/L	5	-	-	-	-	ND	-
Bromoform	µg/L	5	-	-	-	-	ND	-
Bromomethane	µg/L	-	-	-	-	-	ND	-
Carbon tetrachloride	µg/L	5	-	-	-	-	ND	-
Chlorobenzene	µg/L	5	-	-	-	-	ND	-
Chloroethane	µg/L	5	-	-	-	-	ND	-
Chloroform	µg/L	7	-	-	-	-	ND	-
Chloromethane	µg/L	5	-	-	-	-	ND	-
cis-1,2 Dichloroethene	µg/L	5	-	-	-	-	ND	-
cis- 1,3 Dichloropropene	µg/L	0.4	-	-	-	-	ND	-
Dibromochloromethane	µg/L	5	-	-	-	-	ND	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

Well #: MW-8

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters					
			2014 Routine	2015 Routine	2016 Routine	2017 Routine	2018 Baseline	2019 Routine
Dichlorodifluoromethane	µg/L	5	-	-	-	-	ND	-
Ethylbenzene	µg/L	5	-	-	-	-	ND	-
m,p-Xylene	µg/L	5	-	-	-	-	0.736	-
Methylene chloride	µg/L	5	-	-	-	-	ND	-
o-Xylene	µg/L	5	-	-	-	-	0.426	-
Tetrachloroethene	µg/L	5	-	-	-	-	ND	-
Toulene	µg/L	5	-	-	-	-	0.309	-
trans-1,2-Dichloroethene	µg/L	5	-	-	-	-	ND	-
trans-1,3-Dichloropropene	µg/L	0.4	-	-	-	-	ND	-
Trichloroethene	µg/L	5	-	-	-	-	ND	-
Trichlorofluoromethane	µg/L	5	-	-	-	-	ND	-
Vinyl chloride	µg/L	2	-	-	-	-	ND	-
ICP METALS, TOTALS								
Aluminum	mg/L	NS	-	-	-	-	1.39	-
Antimony	mg/L	0.003	-	-	-	-	0.000739	-
Arsenic	mg/L	0.025	-	-	-	-	0.106	-
Barium	mg/L	1	-	-	-	-	0.0474	-
Beryllium	mg/L	NS	-	-	-	-	ND	-
Boron	mg/L	1	-	-	-	-	ND	-
Cadmium	mg/L	0.01	ND	ND	ND	ND	ND	ND
Calcium	mg/L	NS	67.2	7.03	11.7	20.1	22.5	7.45
Chromium	mg/L	0.05	-	-	-	-	ND	-
Copper	mg/L	0.2	-	-	-	-	ND	-
Iron	mg/L	0.3	41	ND	0.0788	0.0576	0.666	ND
Magnesium	mg/L	35	11.5	ND	ND	ND	0.67	ND
Manganese	mg/L	0.3	13	ND	ND	ND	0.0942	ND
Nickel	mg/L	0.1	-	-	-	-	ND	-
Potassium	mg/L	NS	5.3	11.2	10.7	2.5	2.17	2.18
Selenium	mg/L	0.01	-	-	-	-	ND	-
Silver	mg/L	0.05	-	-	-	-	ND	-
Sodium	mg/L	20	3.7	37.5	38.3	38.6	42.8	39.4

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

Well #: MW-8

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2014	2015	2016	2017	2018	2019
			Routine	Routine	Routine	Routine	Baseline	Routine
Thallium	mg/L	NS	-	-	-	-	ND	-
Zinc	mg/L	NS	-	-	-	-	ND	-
Hardness, Total (mg/l CaCO3)	mg/L	NS	28.5	17.7	29.3	50.1	59.5	18.6
Lead	mg/L	0.025	ND	ND	ND	ND	0.0017	ND
Mercury	mg/L	0.0007	-	-	-	-	0.00014	-
Color	UNITS	15	-	-	-	-	10.6	-
Residue, Dissolved	mg/L	500	123	105	200	67	153	124
Turbidity	NTU	5	8.27	1.84	8.84	1.96	8.51	28.6
Alkalinity, Total (As CaCO3)	mg/LCaCO3	NA	80	42	88	110	80.8	78.4
Chloride	mg/L	250	5.2	4.8	5.87	4.43	4.69	3.9
Cyanide	mg/L	0.2	-	-	-	-	ND	-
Nitrogen, Ammonia (As N)	mg/L	2	ND	ND	ND	ND	0.105	ND
Nitrogen, Kjeldahl, Total	mg/L	NS	ND	9.25	ND	ND	-	ND
Nitrogen, Nitrate (As N)	mg/L	10	0.748	0.723	0.801	0.0584	ND	ND
Sulfate	mg/L	250	17	16.7	17.8	15.8	27.9	21.9
Biochemical Oxygen Demand	mg/L	NS	ND	ND	ND	ND	ND	ND
Chemical Oxygen Demand	mg/L	NS	40.6	23.3	12.3	ND	ND	169
Organic Carbon Demand	mg/L	NS	-	-	-	-	-	-
Organic Carbon Total	mg/L	NS	4.86	3.79	3.66	0.97	0.83	1.54
Phenolics, Total Recoverable	mg/L	0.001	ND	ND	ND	ND	0.039	ND
Hexavalent chromium	mg/L	0.05	-	-	-	-	-	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

MW - 11D

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011 Routine	2013 Baseline	2014 Routine	2015 Routine	2016 Routine	2017 Routine	2018 Baseline	2019 Routine
FIELD PARAMETERS										
Conductivity	umhos/cm	NS	84	140	120	118	107	82.1	125	138
Eh	mV	NS	-50.2	212	112	97	210	151	118	97
pH	SU	6.5 - 8.5	7.73	6.6	6.16	7.1	6.85	6.89	6.74	6.94
Temperature	degC	NS	10.8	6.5	8.2	8.9	6.7	8.6	7.9	1
Water Level	ft	NS	97.16	-	-	-	97.58	-	-	-
EPA 601/602 List BY EPA METHOD 624										
1,1,1- Trichloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2,2- Tetrachloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2- Trichloroethane	µg/L	1	-	ND	-	-	-	-	ND	-
1,1- Dichloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1- Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
1,2- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,2- Dichloroethane	µg/L	0.6	-	ND	-	-	-	-	ND	-
1,2- Dichloropropane	µg/L	1	-	ND	-	-	-	-	ND	-
1,3- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,4- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
2-Chloroethyl vinyl ether	µg/L	-	-	-	-	-	-	-	ND	-
Benzene	µg/L	1	-	ND	-	-	-	-	ND	-
Bromodichloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Bromoform	µg/L	5	-	ND	-	-	-	-	ND	-
Bromomethane	µg/L	-	-	ND	-	-	-	-	ND	-
Carbon tetrachloride	µg/L	5	-	ND	-	-	-	-	ND	-
Chlorobenzene	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroform	µg/L	7	-	ND	-	-	-	-	ND	-
Chloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
cis-1,2 Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
cis- 1,3 Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	ND	-
Dibromochloromethane	µg/L	5	-	ND	-	-	-	-	ND	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

MW - 11D

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters							
			2011 Routine	2013 Baseline	2014 Routine	2015 Routine	2016 Routine	2017 Routine	2018 Baseline	2019 Routine
Dichlorodifluoromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Ethylbenzene	µg/L	5	-	ND	-	-	-	-	ND	-
m,p-Xylene	µg/L	5	-	ND	-	-	-	-	ND	-
Methylene chloride	µg/L	5	-	ND	-	-	-	-	ND	-
o-Xylene	µg/L	5	-	ND	-	-	-	-	ND	-
Tetrachloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
Toulene	µg/L	5	-	ND	-	-	-	-	ND	-
trans-1,2-Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
trans-1,3-Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	ND	-
Trichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
Trichlorofluoromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Vinyl chloride	µg/L	2	-	ND	-	-	-	-	ND	-
ICP METALS, TOTALS										
Aluminum	mg/L	NS	-	ND	-	-	-	-	0.223	-
Antimony	mg/L	0.003	-	ND	-	-	-	-	ND	-
Arsenic	mg/L	0.025	-	ND	-	-	-	-	ND	-
Barium	mg/L	1	-	ND	-	-	-	-	0.0306	-
Beryllium	mg/L	NS	-	ND	-	-	-	-	ND	-
Boron	mg/L	1	-	ND	-	-	-	-	ND	-
Cadmium	mg/L	0.01	0.012	ND	ND	ND	ND	ND	ND	ND
Calcium	mg/L	NS	8.3	19.7	19.7	17.5	16.5	16.9	18.7	21.2
Chromium	mg/L	0.05	-	ND	-	-	-	-	ND	-
Copper	mg/L	0.2	-	ND	-	-	-	-	ND	-
Iron	mg/L	0.3	0.32	0.37	0.34	ND	0.066	1.05	0.225	6.57
Magnesium	mg/L	35	0.69	3.89	3.56	3.72	3.31	3.37	3.35	5.21
Manganese	mg/L	0.3	0.057	ND	ND	ND	ND	0.0315	0.0207	0.176
Nickel	mg/L	0.1	-	ND	-	-	-	-	ND	-
Potassium	mg/L	NS	3.3	1.1	1.2	1.05	0.915	0.65	0.72	1.21
Selenium	mg/L	0.01	-	ND	-	-	-	-	ND	-
Silver	mg/L	0.05	-	ND	-	-	-	-	ND	-
Sodium	mg/L	20	0.86	2.8	2.8	2.42	2.41	2.15	2.42	2.37

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

MW - 11D

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011	2013	2014	2015	2016	2017	2018	2019
			Routine	Baseline	Routine	Routine	Routine	Routine	Baseline	Routine
Thallium	mg/L	NS	-	ND	-	-	-	-	ND	-
Zinc	mg/L	NS	-	ND	-	-	-	-	ND	-
Hardness, Total (mg/l CaCO3)	mg/L	NS	24	65.1	-	59	54.7	56	63.4	74.5
Lead	mg/L	0.025	0.011	ND	0.005	0.00449	ND	0.0023	0.00295	0.013
Mercury	mg/L	0.0007	-	ND	-	-	-	-	0.000146	-
Color	UNITS	15	-	ND	-	-	-	-	25	-
Residue, Dissolved	mg/L	500	57	-	62	27	75	50	80	100
Turbidity	NTU	5	12.65	22	3.91	2.35	12.4	12.2	22.73	46.2
Alkalinity, Total (As CaCO3)	mg/LCaCO3	NA	55	54	46	52	52	56	54.7	60.8
Chloride	mg/L	250	3.11	2.14	1.8	2	2.54	ND	2.33	2.1
Cyanide	mg/L	0.2	-	ND	-	-	-	-	ND	-
Nitrogen, Ammonia (As N)	mg/L	2	ND	ND	ND	ND	ND	ND	0.0507	ND
Nitrogen, Kjeldahl, Total	mg/L	NS	1.09	ND	ND	ND	ND	ND	-	-
Nitrogen, Nitrate (As N)	mg/L	10	3.22	0.792	1.04	0.482	0.441	0.308	0.298	0.345
Sulfate	mg/L	250	6.6	8.31	6.46	7.32	7.86	7.09	8.87	6.9
Biochemical Oxygen Demand	mg/L	NS	ND	2.0	ND	ND	ND	ND	ND	ND
Chemical Oxygen Demand	mg/L	NS	ND	43	12.4	ND	ND	ND	ND	39.2
Organic Carbon Demand	mg/L	NS	-	-	-	-	-	-	-	-
Organic Carbon Total	mg/L	NS	ND	0.551	0.563	1.59	1.44	ND	1.06	1.74
Phenolics, Total Recoverable	mg/L	0.001	ND	ND	ND	ND	ND	ND	0.0406	ND
Hexavalent chromium	mg/L	0.05	-	ND	-	-	-	-	-	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

Well #: MW - 12

		Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011 Routine	2013 Baseline	2014 Routine	2015 Routine	2016 Routine	2017 Routine	2018 Baseline	2019 Routine
Analyses	Units									
FIELD PARAMETERS										
Conductivity	umhos/cm	NS	207	180	147	167	172	116	171	162
Eh	mV	NS	-19.3	216	105	118	202	164	166	136
pH	SU	6.5 - 8.5	6.99	6.79	5.77	6.4	6.91	6.09	5.97	6.1
Temperature	degC	NS	11	6.6	5.5	8.5	6.8	7.4	7.4	7.4
Water Level	ft	NS	99.71	-	-	-	100.13	-	-	-
EPA 601/602 List BY EPA METHOD 624										
1,1,1- Trichloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2,2- Tetrachloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2- Trichloroethane	µg/L	1	-	ND	-	-	-	-	ND	-
1,1- Dichloroethane	µg/L	5	-	ND	-	-	-	-	0.28	-
1,1- Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
1,2- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,2- Dichloroethane	µg/L	0.6	-	ND	-	-	-	-	ND	-
1,2- Dichloropropane	µg/L	1	-	ND	-	-	-	-	ND	-
1,3- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,4- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
2-Chloroethyl vinyl ether	µg/L		-	-	-	-	-	-	ND	-
Benzene	µg/L	1	-	ND	-	-	-	-	ND	-
Bromodichloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Bromoform	µg/L	5	-	ND	-	-	-	-	ND	-
Bromomethane	µg/L		-	ND	-	-	-	-	ND	-
Carbon tetrachloride	µg/L	5	-	ND	-	-	-	-	ND	-
Chlorobenzene	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroform	µg/L	7	-	ND	-	-	-	-	ND	-
Chloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
cis-1,2 Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
cis- 1,3 Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	ND	-
Dibromochloromethane	µg/L	5	-	ND	-	-	-	-	ND	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

Well #: MW - 12

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011							
			Routine	Baseline	Routine	Routine	Routine	Routine	Baseline	Routine
Dichlorodifluoromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Ethylbenzene	µg/L	5	-	ND	-	-	-	-	ND	-
m,p-Xylene	µg/L	5	-	ND	-	-	-	-	ND	-
Methylene chloride	µg/L	5	-	ND	-	-	-	-	ND	-
o-Xylene	µg/L	5	-	ND	-	-	-	-	ND	-
Tetrachloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
Toulene	µg/L	5	-	ND	-	-	-	-	ND	-
trans-1,2-Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
trans-1,3-Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	ND	-
Trichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
Trichlorofluoromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Vinyl chloride	µg/L	2	-	ND	-	-	-	-	ND	-
ICP METALS, TOTALS										
Aluminum	mg/L	NS	-	0.21	-	-	-	-	ND	-
Antimony	mg/L	0.003	-	ND	-	-	-	-	ND	-
Arsenic	mg/L	0.025	-	ND	-	-	-	-	ND	-
Barium	mg/L	1	-	ND	-	-	-	-	0.0318	-
Beryllium	mg/L	NS	-	ND	-	-	-	-	ND	-
Boron	mg/L	1	-	ND	-	-	-	-	ND	-
Cadmium	mg/L	0.01	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	mg/L	NS	42	28.7	27.2	27.9	30.9	26.2	25.6	24.5
Chromium	mg/L	0.05	-	ND	-	-	-	-	ND	-
Copper	mg/L	0.2	-	ND	-	-	-	-	ND	-
Iron	mg/L	0.3	0.087	0.48	0.49	ND	0.06	0.468	ND	0.215
Magnesium	mg/L	35	6.8	4.08	3.45	4.24	4.57	3.95	3.33	3.45
Manganese	mg/L	0.3	3.2	1.8	0.68	0.0334	0.0857	0.407	2.98	1.79
Nickel	mg/L	0.1	-	ND	-	-	-	-	ND	-
Potassium	mg/L	NS	0.92	1.4	0.74	ND	2.16	1.1	0.634	0.877
Selenium	mg/L	0.01	-	ND	-	-	-	-	ND	-
Silver	mg/L	0.05	-	ND	-	-	-	-	ND	-
Sodium	mg/L	20	2.3	2.6	2.6	2.3	2.75	2.62	2.44	2.7

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

Well #: MW - 12

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011	2013	2014	2015	2016	2017	2018	2019
			Routine	Baseline	Routine	Routine	Routine	Routine	Baseline	Routine
Thallium	mg/L	NS	-	ND	-	-	-	-	ND	-
Zinc	mg/L	NS	-	ND	-	-	-	-	ND	-
Hardness, Total (mg/l CaCO3)	mg/L	NS	130	88.6	-	87.2	95.9	81.7	90.7	75.3
Lead	mg/L	0.025	ND	ND	ND	ND	ND	0.0019	0.000625	ND
Mercury	mg/L	0.0007	-	ND	-	-	-	-	0.000142	-
Color	UNITS	15	-	ND	-	-	-	-	5.63	-
Residue, Dissolved	mg/L	500	140	140	94	77	115	88	93	110
Turbidity	NTU	5	15.32	13	2.06	2.27	10.7	3.26	1.62	7.28
Alkalinity, Total (As CaCO3)	mg/LCaCO3	NA	160	84	74	78	90	88	83.4	72.8
Chloride	mg/L	250	3.14	2.37	2.1	2.4	3.12	3.35	2.75	2
Cyanide	mg/L	0.2	-	ND	-	-	-	-	ND	-
Nitrogen, Ammonia (As N)	mg/L	2	ND	0.180	ND	ND	ND	ND	ND	ND
Nitrogen, Kjeldahl, Total	mg/L	NS	ND	ND	ND	ND	ND	ND	-	-
Nitrogen, Nitrate (As N)	mg/L	10	0.083	0.109	0.204	0.622	0.276	0.126	ND	ND
Sulfate	mg/L	250	9.4	7.51	5.49	6.05	6.71	6.86	8.29	6.5
Biochemical Oxygen Demand	mg/L	NS	ND	ND	ND	ND	ND	ND	ND	ND
Chemical Oxygen Demand	mg/L	NS	ND	ND	21.8	13.9	ND	ND	26.6	9.98
Organic Carbon Demand	mg/L	NS	-	-	-	-	-	-	-	-
Organic Carbon Total	mg/L	NS	ND	0.695	0.577	0.851	4.67	1.01	2.71	3.04
Phenolics, Total Recoverable	mg/L	0.001	ND	ND	ND	ND	ND	ND	ND	ND
Hexavalent chromium	mg/L	0.05	-	ND	-	-	-	-	-	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

Well #: MW - 13

		Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters								
Analyses	Units		2011 Routine	2013 Baseline	2014 Routine	2015 Routine	2016 Routine	2017 Routine	2018 Baseline	2019 Routine
FIELD PARAMETERS										
Conductivity	umhos/cm	NS	361	180	501	498	558	373	497	453
Eh	mV	NS	-8.5	0	-	83	182	80.8	15	-34
pH	SU	6.5 - 8.5	6.77	ND	5.98	6.5	7.01	6.38	6.3	6.58
Temperature	degC	NS	11.7	0	7.6	9.4	9.3	9.3	10.1	9.6
Water Level	ft	NS	108.72	-	-	-	108.03	-	-	-
EPA 601/602 List BY EPA METHOD 624										
1,1,1- Trichloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2,2- Tetrachloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2- Trichloroethane	µg/L	1	-	ND	-	-	-	-	ND	-
1,1- Dichloroethane	µg/L	5	-	ND	-	-	-	-	0.281	-
1,1- Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
1,2- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,2- Dichloroethane	µg/L	0.6	-	ND	-	-	-	-	ND	-
1,2- Dichloropropane	µg/L	1	-	ND	-	-	-	-	ND	-
1,3- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,4- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
2-Chloroethyl vinyl ether	µg/L		-	-	-	-	-	-	ND	-
Benzene	µg/L	1	-	ND	-	-	-	-	ND	-
Bromodichloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Bromoform	µg/L	5	-	ND	-	-	-	-	ND	-
Bromomethane	µg/L		-	ND	-	-	-	-	ND	-
Carbon tetrachloride	µg/L	5	-	ND	-	-	-	-	ND	-
Chlorobenzene	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroform	µg/L	7	-	ND	-	-	-	-	ND	-
Chloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
cis-1,2 Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
cis- 1,3 Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	ND	-
Dibromochloromethane	µg/L	5	-	ND	-	-	-	-	ND	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

Well #: MW - 13

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters							
			2011 Routine	2013 Baseline	2014 Routine	2015 Routine	2016 Routine	2017 Routine	2018 Baseline	2019 Routine
Dichlorodifluoromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Ethylbenzene	µg/L	5	-	ND	-	-	-	-	ND	-
m,p-Xylene	µg/L	5	-	ND	-	-	-	-	ND	-
Methylene chloride	µg/L	5	-	ND	-	-	-	-	ND	-
o-Xylene	µg/L	5	-	ND	-	-	-	-	ND	-
Tetrachloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
Toulene	µg/L	5	-	ND	-	-	-	-	ND	-
trans-1,2-Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
trans-1,3-Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	ND	-
Trichloroethene	µg/L	5	-	ND	-	-	-	-	0.346	-
Trichlorofluoromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Vinyl chloride	µg/L	2	-	ND	-	-	-	-	ND	-
ICP METALS, TOTALS										
Aluminum	mg/L	NS	-	ND	-	-	-	-	ND	-
Antimony	mg/L	0.003	-	ND	-	-	-	-	ND	-
Arsenic	mg/L	0.025	-	0.026	-	-	-	-	0.00275	-
Barium	mg/L	1	-	0.35	-	-	-	-	0.33	-
Beryllium	mg/L	NS	-	ND	-	-	-	-	ND	-
Boron	mg/L	1	-	ND	-	-	-	-	ND	-
Cadmium	mg/L	0.01	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	mg/L	NS	81	88.8	96.1	83.9	80.9	88.9	79.1	76
Chromium	mg/L	0.05	-	ND	-	-	-	-	ND	-
Copper	mg/L	0.2	-	ND	-	-	-	-	ND	-
Iron	mg/L	0.3	1.2	5.7	3.4	4.38	5.7	1.55	0.792	2.01
Magnesium	mg/L	35	10	9.76	9.78	10.6	10.3	11.3	9.09	9.93
Manganese	mg/L	0.3	9.3	13	11	8.15	10.8	8.55	12	9.91
Nickel	mg/L	0.1	-	ND	-	-	-	-	ND	-
Potassium	mg/L	NS	1.1	1.6	1	ND	1.9	0.918	1.23	1.13
Selenium	mg/L	0.01	-	ND	-	-	-	-	ND	-
Silver	mg/L	0.05	-	ND	-	-	-	-	ND	-
Sodium	mg/L	20	14	6.5	5.8	5.4	5.3	4.81	9.57	5.41

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

Well #: MW - 13

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011	2013	2014	2015	2016	2017	2018	2019
			Routine	Baseline	Routine	Routine	Routine	Routine	Baseline	Routine
Thallium	mg/L	NS	-	ND	-	-	-	-	ND	-
Zinc	mg/L	NS	-	ND	-	-	-	-	ND	-
Hardness, Total (mg/l CaCO3)	mg/L	NS	240	262	-	253	244	268	292	231
Lead	mg/L	0.025	ND	ND	ND	ND	ND	0.001	0.000524	0.002
Mercury	mg/L	0.0007	-	ND	-	-	-	-	0.000141	-
Color	UNITS	15	-	ND	-	-	-	-	5.98	-
Residue, Dissolved	mg/L	500	300	300	293	315	337	323	276	258
Turbidity	NTU	5	23.6	ND	3.28	2.56	8.26	1.57	2.85	28.6
Alkalinity, Total (As CaCO3)	mg/LCaCO3	NA	300	254	250	300	268	274	258	217
Chloride	mg/L	250	12.7	5.8	5.8	6.3	7.8	11.1	8.74	3.2
Cyanide	mg/L	0.2	-	ND	-	-	-	-	ND	-
Nitrogen, Ammonia (As N)	mg/L	2	ND	1.06	0.59	0.315	0.38	ND	0.896	0.683
Nitrogen, Kjeldahl, Total	mg/L	NS	5.34	2.12	1.29	1.01	2.12	ND	-	1.6
Nitrogen, Nitrate (As N)	mg/L	10	0.778	0.213	ND	ND	0.0742	ND	ND	ND
Sulfate	mg/L	250	13.7	9.60	9.22	13.8	11.1	12.6	14.70	10.80
Biochemical Oxygen Demand	mg/L	NS	ND	9.0	3	ND	ND	ND	ND	ND
Chemical Oxygen Demand	mg/L	NS	79	49	35.9	44.6	91	ND	39	51.4
Organic Carbon Demand	mg/L	NS	-	-	-	-	-	-	-	-
Organic Carbon Total	mg/L	NS	ND	1.8	3.22	2.02	10.2	1.5	34	6.07
Phenolics, Total Recoverable	mg/L	0.001	ND	ND	ND	ND	ND	ND	0.038	ND
Hexavalent chromium	mg/L	0.05	-	ND	-	-	-	-	-	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

Peckham Brook

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700-705) for class GA waters	2011 Routine	2013 Baseline	2014 Routine	2015 Routine	2016 Routine	2017 Routine	2018 Baseline	2019 Routine
FIELD PARAMETERS										
Conductivity	umhos/cm	NS	42	59	77	54	54	142	50.9	51
Dissolved Oxygen		> 3.0	11.48	12.72	11.4	-	11.86	-	11.5	ND
Eh	mV	NS	-43.4	73	35	56	82	168	158	70
pH	SU	6.5 - 8.5	7.55	7.96	7.96	7.9	7.87	7.26	6.44	7.05
Temperature	degC	NS	5.7	0.3	3.8	5.3	1.4	4.1	1.2	3.6
Water Level	ft	NS	-	-	-	-	-	-	-	-
EPA 601/602 List BY EPA METHOD 624										
1,1,1- Trichloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2,2- Tetrachloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1,2- Trichloroethane	µg/L	1	-	ND	-	-	-	-	ND	-
1,1- Dichloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
1,1- Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
1,2- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,2- Dichloroethane	µg/L	0.6	-	ND	-	-	-	-	ND	-
1,2- Dichloropropane	µg/L	1	-	ND	-	-	-	-	ND	-
1,3- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
1,4- Dichlorobenzene	µg/L	3	-	ND	-	-	-	-	ND	-
2-Chloroethyl vinyl ether	µg/L	-	-	-	-	-	-	-	ND	-
Benzene	µg/L	1	-	ND	-	-	-	-	ND	-
Bromodichloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
Bromoform	µg/L	5	-	ND	-	-	-	-	ND	-
Bromomethane	µg/L	-	-	ND	-	-	-	-	ND	-
Carbon tetrachloride	µg/L	5	-	ND	-	-	-	-	ND	-
Chlorobenzene	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroethane	µg/L	5	-	ND	-	-	-	-	ND	-
Chloroform	µg/L	7	-	ND	-	-	-	-	ND	-
Chloromethane	µg/L	5	-	ND	-	-	-	-	ND	-
cis-1,2 Dichloroethene	µg/L	5	-	ND	-	-	-	-	ND	-
cis- 1,3 Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	ND	-
Dibromochloromethane	µg/L	5	-	ND	-	-	-	-	ND	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

Peckham Brook

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011							
			Routine	Baseline	Routine	Routine	Routine	Routine	Routine	Routine
Dichlorodifluoromethane	µg/L	5	-	ND	-	-	-	-	-	-
Ethylbenzene	µg/L	5	-	ND	-	-	-	-	-	-
m,p-Xylene	µg/L	5	-	ND	-	-	-	-	-	-
Methylene chloride	µg/L	5	-	ND	-	-	-	-	-	-
o-Xylene	µg/L	5	-	ND	-	-	-	-	-	-
Tetrachloroethene	µg/L	5	-	ND	-	-	-	-	-	-
Toulene	µg/L	5	-	ND	-	-	-	-	-	-
trans-1,2-Dichloroethene	µg/L	5	-	ND	-	-	-	-	-	-
trans-1,3-Dichloropropene	µg/L	0.4	-	ND	-	-	-	-	-	-
Trichloroethene	µg/L	5	-	ND	-	-	-	-	-	-
Trichlorofluoromethane	µg/L	5	-	ND	-	-	-	-	-	-
Vinyl chloride	µg/L	2	-	ND	-	-	-	-	-	-
ICP METALS, TOTALS										
Aluminum	mg/L	NS	-	ND	-	-	-	-	0.126	-
Antimony	mg/L	0.003	-	ND	-	-	-	-	ND	-
Arsenic	mg/L	0.025	-	ND	-	-	-	-	ND	-
Barium	mg/L	1	-	ND	-	-	-	-	0.00985	-
Beryllium	mg/L	NS	-	ND	-	-	-	-	ND	-
Boron	mg/L	1	-	ND	-	-	-	-	ND	-
Cadmium	mg/L	0.01	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	mg/L	NS	4.8	5.23	6.56	6.35	5.82	6.09	6.45	5.79
Chromium	mg/L	0.05	-	ND	-	-	-	-	ND	-
Copper	mg/L	0.2	-	ND	-	-	-	-	ND	-
Iron	mg/L	0.3	0.36	ND	ND	ND	0.189	0.242	0.339	0.26
Magnesium	mg/L	35	1.1	1.16	1.42	1.41	1.25	1.31	1.18	1.12
Manganese	mg/L	0.3	0.082	ND	ND	ND	ND	0.0131	0.082	0.0385
Nickel	mg/L	0.1	-	ND	-	-	-	-	ND	-
Potassium	mg/L	NS	ND	ND	0.52	ND	0.568	0.625	ND	ND
Selenium	mg/L	0.01	-	ND	-	-	-	-	ND	-
Silver	mg/L	0.05	-	ND	-	-	-	-	ND	-
Sodium	mg/L	20	0.66	1.9	2.1	2.08	2.23	2.12	2.34	1.86

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

Peckham Brook

Analyses	Units	Water Quality Regulation Standards (GNYCRR Parts 700- 705) for class GA waters	2011	2013	2014	2015	2016	2017	2018	2019
			Routine	Baseline	Routine	Routine	Routine	Routine	Baseline	Routine
Thallium	mg/L	NS	-	ND	-	-	-	-	ND	-
Zinc	mg/L	NS	-	ND	-	-	-	-	ND	-
Hardness, Total (mg/l CaCO3)	mg/L	NS	16	17.8	22.2	21.6	19.7	20.6	28.3	19.1
Lead	mg/L	0.025	ND	ND	ND	ND	ND	ND	0.000891	ND
Mercury	mg/L	0.0007	-	ND	-	-	-	-	,000142	-
Color	UNITS	15	-	ND	-	-	-	-	6.88	-
Residue, Dissolved	mg/L	500	28	11	18	30	27	36	38	50
Turbidity	NTU	5	12.8	12	4.68	0.98	14.7	1.76	18.2	3.87
Alkalinity, Total (As CaCO3)	mg/LCaCO3	NA	ND	ND	22	18	ND	22	20.8	ND
Chloride	mg/L	250	2.48	2.34	2.2	2.3	2.7	2.93	2.87	1.6
Cyanide	mg/L	0.2	-	ND	-	-	-	-	ND	-
Nitrogen, Ammonia (As N)	mg/L	2	ND	ND	ND	ND	ND	ND	0.0761	ND
Nitrogen, Kjeldahl, Total	mg/L	NS	ND	ND	ND	ND	ND	ND	-	0.21
Nitrogen, Nitrate (As N)	mg/L	10	0.108	0.177	ND	0.067	0.14	0.111	0.118	0.107
Sulfate	mg/L	250	6	7	4.89	5.87	6.37	6.01	ND	5.1
Biochemical Oxygen Demand	mg/L	NS	ND	ND	ND	ND	ND	ND	ND	ND
Chemical Oxygen Demand	mg/L	NS	ND	ND	ND	16.2	12.3	ND	6.83	5.1
Organic Carbon Demand	mg/L	NS	-	-	-	-	-	-	-	-
Organic Carbon Total	mg/L	NS	ND	1.56	2.28	2.61	2.56	2.25	1.67	2.4
Phenolics, Total Recoverable	mg/L	0.001	ND	0.067	0.466	ND	ND	ND	ND	ND
Hexavalent chromium	mg/L	0.05	-	ND	-	-	-	-	-	-

ND- Not Detected at Reporting Limit

NS- No Standard

NA- Not Analyzed

APPENDIX D
POST-CLOSURE MONITORING AND MAINTENANCE OPERATIONS



**ENGINEERING REPORT
CLOSURE PLAN
BAGS SANITARY LANDFILL
NYS ROUTE 8
TOWN OF BAINBRIDGE
CHENANGO COUNTY
NEW YORK STATE**

**PREPARED FOR:
BAGS SOLID WASTE MANAGEMENT AND
RESOURCE RECOVERY DISTRICT
15 NORTH MAIN STREET
BAINBRIDGE, NEW YORK 13733-1299**

**ATTN: CLIFFORD CROUCH
CHAIRMAN**

JULY 1990

AMENDED: NOVEMBER 9, 1990

**P.O. Box 427, Binghamton, N.Y. 13902
Phone 607-648-4168**

5.1 Regulatory Requirements

The purpose of this section of the Report is to outline the post-closure monitoring and maintenance operations required by NYSDEC and present a plan of action for meeting the requirements.

Section 360-2.15(i)(7) of 6 NYCRR Part 360 Solid Waste Management Facilities states the following:

"A post-closure monitoring and maintenance operations manual is required. This document must provide personnel with detailed instructions for assuring efficient monitoring, leachate management which would include recording of the total volume of leachate stored and removed from the facility, sampling and analysis, and proper maintenance of all facility components to maintain the facility and meet the requirements of this part for a minimum period of 30 years after landfill closure. This manual must be submitted with the closure plan developed in accordance with this Part."

5.2 Post-Closure Monitoring and Maintenance Manual

The following sections of this Report shall serve as the Post-closure Monitoring and Maintenance Operations Manual for the District:

Section 5, Post Closure Monitoring and Maintenance Operations
Section 6, Contingency Plan
Section 7, Reporting Responsibilities
Appendix C, Water Quality Monitoring Protocol

5.3 Water Quality Monitoring

Water quality monitoring points shall be maintained and sampled during the post-closure period for a minimum of 30 years with annual summary reports submitted to NYSDEC. Sampling and analysis shall be performed in accordance with the 1990 Water Quality Monitoring Protocol for a minimum period of five years (see Appendix E, 1990 Water Quality Monitoring Protocol).

The requirements for subsequent analysis will be reviewed and determined at the end of each five year period [Part 360-2.15(i)(4)].

5.4 Site Maintenance Activities

Soil cover integrity, slopes, cover vegetation, drainage structures, and gas venting structures must be maintained during the thirty year post-closure monitoring and maintenance period.

The final cover shall be maintained to prevent ponding and erosion. Areas of settlement and erosion shall be filled and seeded and mulched to reestablish vegetative cover. Stockpiles of barrier soil material and topsoil shall be established at the site.

The site shall be mowed twice a year (at the beginning of summer and fall) to keep down weeds and woody plant growth.

Leachate outbreaks should be controlled by available remedial action options as outlined in Section 6 of this report. These options may include regrading, recapping, revegetation, surface water diversion, and/or leachate collection.

Gas venting structures shall be inspected after each mowing and repaired if damaged.

Monthly inspections by the District during the first year after capping will identify potential problems and items needing repair. After the first year, inspections can be done at mowing times or more often if necessary.

The site will be maintained as an open meadow. No other future use or development is recommended.

5.5 Post-Closure Inspection and Reporting Responsibilities

Inspection reports and water quality reports shall be transmitted to:

New York State Department of Environmental Conservation
Region 7, Binghamton Sub-Office
Route 11, RD=1

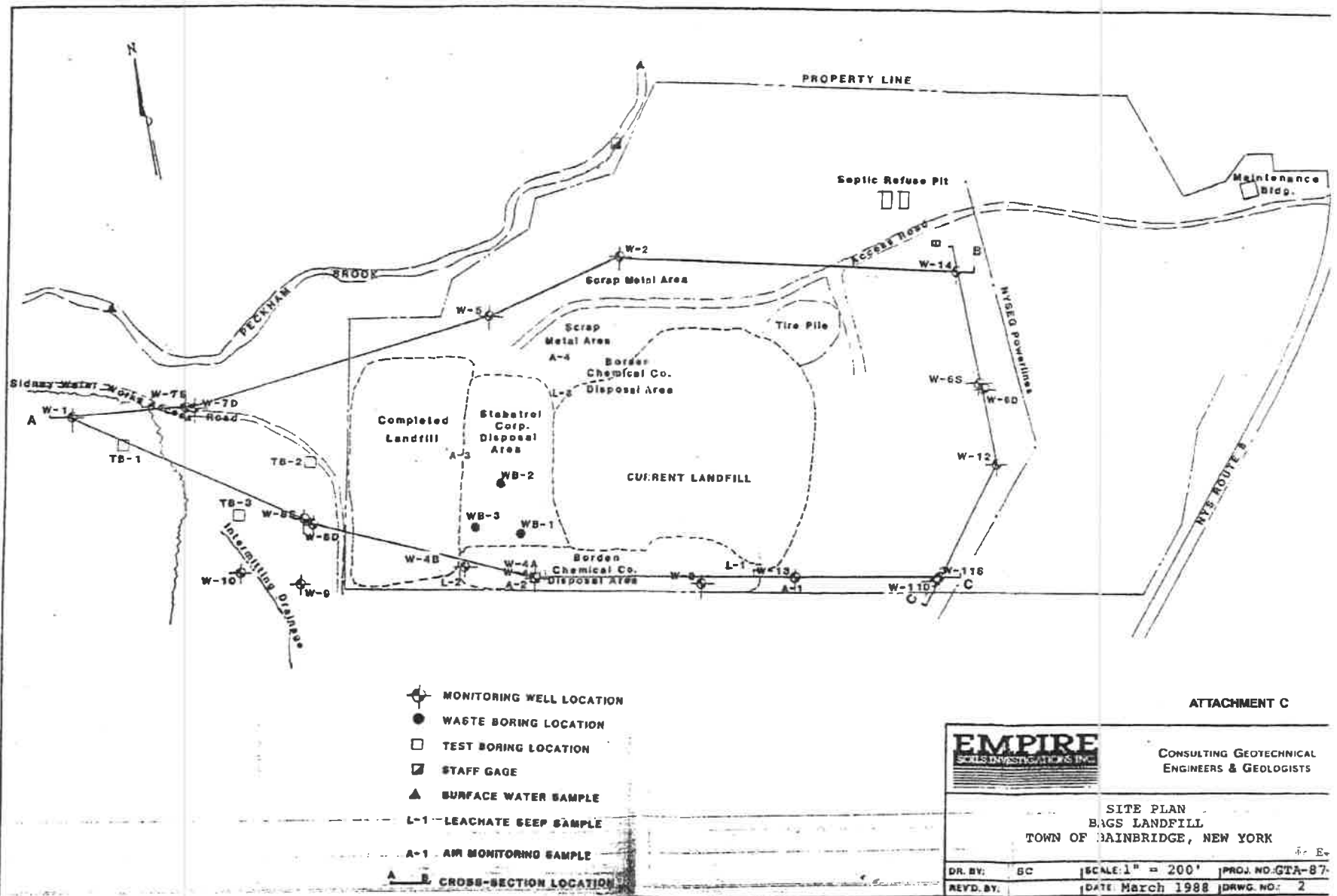
Kirkwood, New York 13795

Attn: Mario Nirchi, P.E., Environmental Engineer
or

Frank Trent, Engineering Geologist
607/775-2345

Amended: January 26, 1996

See Table 6-1 Remedial Action Plan Key Participants for names, addresses, and telephone numbers of lead agency, owner, operator, engineer, hydrogeologist, and water analyst.



ATTACHMENT C

APPENDIX E PHOTOGRAPHS



PHOTO LOG
2019 Annual Inspection - Bags Sanitary Landfill
Bainbridge, New York
KES Project # 0270.01014.8



Photo No. 1

Date 12/17/2019

Location:
Bags Sanitary Landfill

Subject:
Lower Entrance Gate –
Open. Contractor working
on removal of the Sidney
reservoir and dam.



Photo No. 2

Date 12/17/2019

Location:
Bags Sanitary Landfill

Subject:
ATV trail at Lower Entrance.
Boulders have been placed
to block preexisting ATV
trail.



PHOTO LOG
2019 Annual Inspection - Bags Sanitary Landfill
Bainbridge, New York
KES Project # 0270.01014.8



Photo No. 3

Date 12/17/2019

Location:
Bags Sanitary Landfill

Subject:
Access Road and North side
of eastern cell.



Photo No. 4

Date 12/17/2019

Location:
Bags Sanitary Landfill

Subject:
Eastern cell at top of swale –
2015 ATV trail has been
corrected. Standing water is
present in low area (to be
monitored).



PHOTO LOG
2019 Annual Inspection - Bags Sanitary Landfill
Bainbridge, New York
KES Project # 0270.01014.8



Photo No. 5

Date 12/17/2019

Location:
Bags Sanitary Landfill

Subject:
Vegetation and small trees
around gas vents continue to
be cleared – Eastern cell



Photo No. 6

Date 12/17/2019

Location:
Bags Sanitary Landfill

Subject:
Vegetation and small trees
around gas vents continue to
be cleared – Eastern cell



PHOTO LOG
2019 Annual Inspection - Bags Sanitary Landfill
Bainbridge, New York
KES Project # 0270.01014.8



Photo No. 7

Date 12/17/2019

Location:
Bags Sanitary Landfill

Subject:
Clarke stone products pit at
Southerly border (to be
monitored)



Photo No. 8

Date 12/17/2019

Location:
Bags Sanitary Landfill

Subject:
Clarke stone products pit at
Southerly border (to be
monitored)



PHOTO LOG
2019 Annual Inspection - Bags Sanitary Landfill
Bainbridge, New York
KES Project # 0270.01014.8



Photo No. 9

Date 12/17/2019

Location:
 Bags Sanitary Landfill

Subject:
 Southside perimeter looking West- vegetation around perimeter gas vent has been cleared.



Photo No. 10

Date 12/17/2019

Location:
 Bags Sanitary Landfill

Subject:
 Looking Northwest at the landfill lower middle cell – Stabatrol disposal area.



PHOTO LOG
2019 Annual Inspection - Bags Sanitary Landfill
Bainbridge, New York
KES Project # 0270.01014.8



Photo No. 11

Date 12/17/2019

Location:
 Bags Sanitary Landfill

Subject:
 Standing on top of Western cell looking east @ lower middle cell – stabatrol disposal area and higher eastern cell. ATV ruts corrected, vegetation has been mowed, and standing water is present in a low area (to be monitored).



Photo No. 12

Date 12/17/2019

Location:
 Bags Sanitary Landfill

Subject:
 Standing on top of Western cell looking east @ lower middle cell – stabatrol disposal area and higher eastern cell. ATV rut, vegetation around gas vent cleared, and standing water is present in a low area (to be monitored).



PHOTO LOG
2019 Annual Inspection - Bags Sanitary Landfill
Bainbridge, New York
KES Project # 0270.01014.8



Photo No. 13

Date 12/17/2019

Location:
Bags Sanitary Landfill

Subject:
Standing on top of Western cell looking West at monitoring well W-8S location.



Photo No. 14

Date 12/17/2019

Location:
Bags Sanitary Landfill

Subject:
Standing on top of Western cell looking North at vegetation around gas vent that continues to be cleared.



PHOTO LOG
2019 Annual Inspection - Bags Sanitary Landfill
Bainbridge, New York
KES Project # 0270.01014.8



Photo No. 15

Date 12/17/2019

Location:
Bags Sanitary Landfill

Subject:
Northside of the landfill
looking at the Eastern cells
2007 leachate area,
vegetation has been mowed
and ATV ruts limited by
boulders at lower access
gate.

*

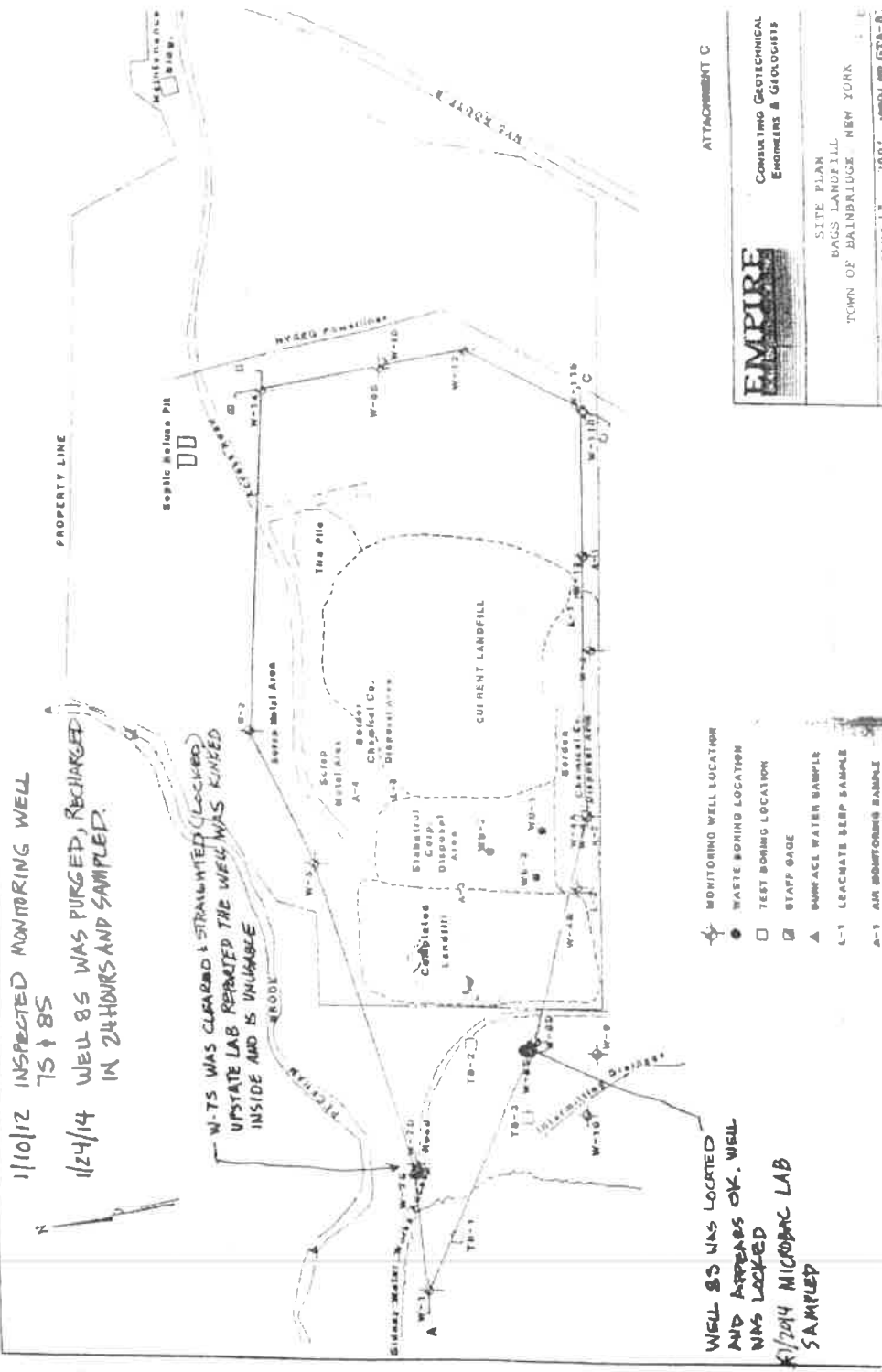
Photo No.

Date

Location:

Subject:

APPENDIX F MAPPING



1/10/12 INSPECTED MONITORING WELL
75 & 85
1/24/14 WELL 85 WAS PURGED, RECHARGED
IN 24 HOURS AND SAMPLED

W-75 WAS CLEARED & STRAIGHTENED (LOCKED)
UPSTATE LAB REPORTED THE WELL WAS KINKED
INSIDE AND IS UNUSABLE

WELL 85 WAS LOCATED
AND APPEARS OK. WELL
WAS LOCKED
1/24/14 MICROBIC LAB
SAMPLED

- MONITORING WELL LOCATION
- WASTE BORING LOCATION
- TEST BORING LOCATION
- STAFF GAGE
- SURFACE WATER SAMPLE
- LEACHATE DEEP SAMPLE
- AIR MONITORING SAMPLE

ATTACHMENT C



EMPIRE
CONSULTING GEOTECHNICAL
ENGINEERS & GEOLOGISTS

SITE PLAN
BAGS LANDFILL
TOWN OF BALNEBRIDGE NEW YORK

SCALE: 1" = 200' (see also GTA-8)