

June 10, 2025

Jeremy Klatt
Environmental Specialist
IDNR Field Office #2
2300 15th St SW
Mason City, Iowa 50401



**RE: Response to Letter of Inquiry – Potential Leachate Leak
NCIRSWA Sanitary Landfill, IDNR Permit #94-SDP-01-75P
IDNR Spill Number: 042325MA1450**

Dear Mr. Klatt:

This letter is being provided in response to the May 19, 2025 Letter of Inquiry (LOI) for the Potential Leachate Leak noted during the IDNR response to the force main leak that was reported by NCIRSWA staff to the IDNR on April 23, 2025. As noted in the LOI, while on site to review the repairs/remedial activities in response to the force main leak, an additional area of concern was noted by IDNR staff that prompted the issuance of this LOI. The additional area of concern was "approximately 1000 feet south of the leachate location near the road ditch of Gypsum Hollow Road."

NCIRSWA and HLW personnel reviewed the area on May 7, 2025. At the direction of the IDNR, exploratory excavations of the area where IDNR noted the seepage were completed and backfilled prior to the May 7, 2025 site visit. The backfilled area was dry and no seepage was noted during the May 7, 2025 site visit. Standing water was noted in the ditch adjacent to the backfilled area; however, the water was not actively flowing and no sheen or discoloration was noted.

To eliminate the force main as a potential source of the seepage, the force main was pressure tested on May 22, 2025. The test showed no leakage from the force main during the pressure test in this area. The approximate location of the area of concern noted by IDNR and the portion of the force main that was pressure tested on May 22, 2025 are shown on the figure in Attachment A. The existing landfill waste boundary is also shown on this figure and is located more than 500 feet southeast of the area of concern at its closest point.

HLW personnel collected a water sample from the standing water noted in the ditch adjacent to the area of concern on May 7, 2025 to further evaluate the possibility that this water originated as leachate from the landfill. The results of the testing are included in Attachment B. Testing results for the landfill leachate from April, 2025 were provided by US Water and are included in Attachment C. The test results document that the ammonia concentration in the standing water on May 7, 2025 (1.46 mg/l) is considerably lower than the average ammonia concentration observed in the leachate during April, 2025 (121.5 mg/l).

Aerial photographs dating back to the 1950's were also reviewed to determine if historic landfilling occurred in the area. While the photographs do show evidence of past excavations in the area,

presumably as a part of gypsum mining by the previous landowner US Gypsum Corporation, no evidence of historic landfilling was noted.

The combination of the passing pressure test, the distance between the waste boundary of the landfill and the area of concern, and the comparison of the water quality in the area of concern to the landfill leachate makes it highly unlikely that the source of the discharge noted by the IDNR is from current or historic permitted landfill operations.

No seepage from the area of concern has been noted since the initial IDNR visit. NCIRSWA staff will review the area on a weekly basis with HLW personnel making monthly reviews. If seepage is noted in this area in the future IDNR will be notified and additional investigations will be undertaken to attempt to determine the source of the seepage.

Please let Mark Campbell, Jason Potts, or me know if you have any questions.

Sincerely,

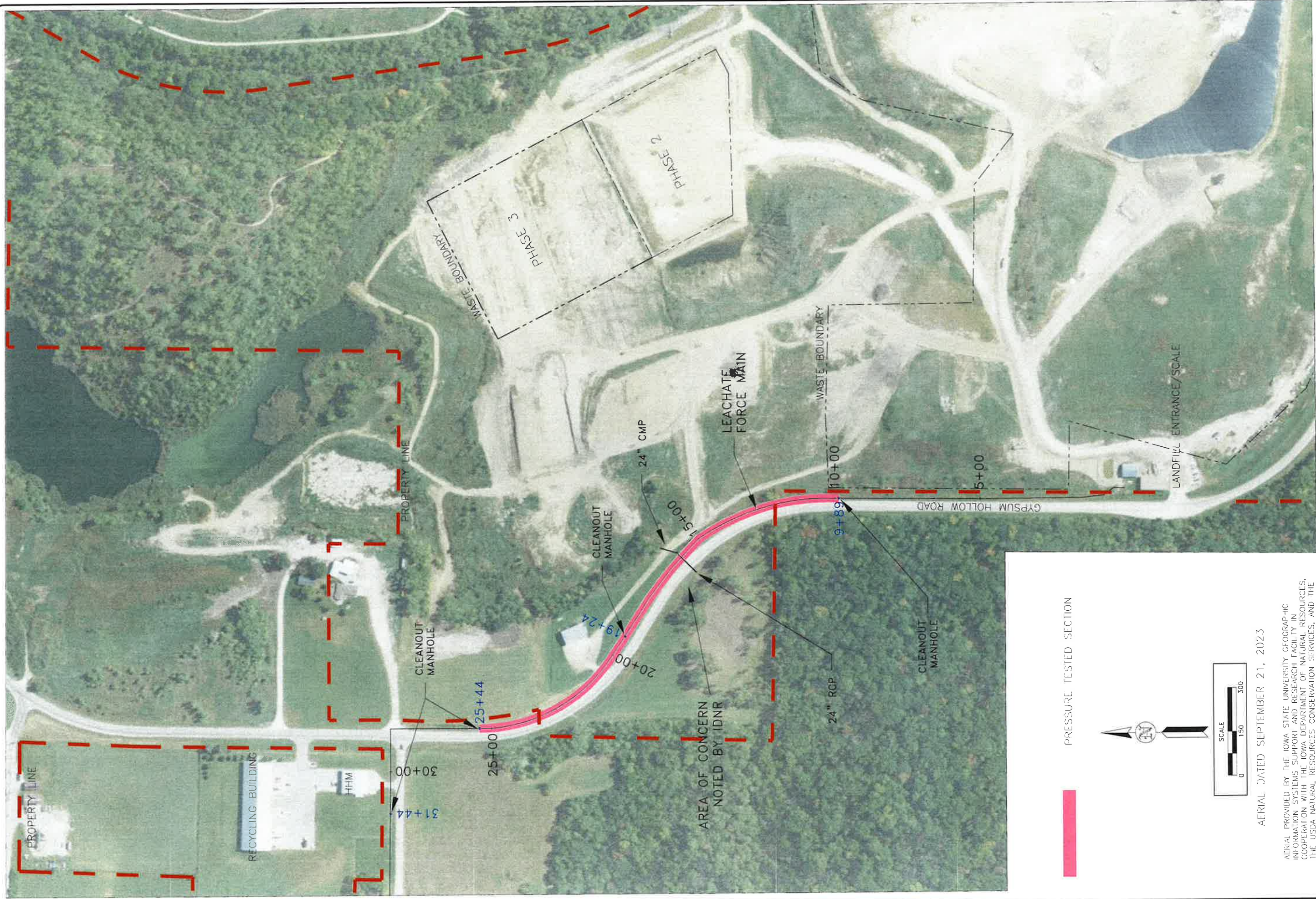
HLW Engineering Group



Douglas J. Luzbetak, P.E.
Project Manager

cc: *Mike Smith, P.E., Environmental Engineer Senior, IDNR (electronic copy)*
 Mark Campbell, COO, NCIRSWA (electronic copy)
 Jason Potts, Operations Manager, NCIRSWA (electronic copy)

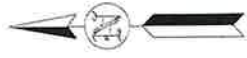
ATTACHMENT A



AERIAL DATED SEPTEMBER 21, 2023

AIRIAL PROVIDED BY THE IOWA STATE UNIVERSITY GEOGRAPHIC INFORMATION SYSTEMS SUPPORT AND RESEARCH FACILITY IN COOPERATION WITH THE IOWA DEPARTMENT OF NATURAL RESOURCES, THE USDA NATURAL RESOURCES CONSERVATION SERVICES, AND THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

PRESSURE TESTED SECTION



HLW Engineering Group
204 West Broad Street, P.O. Box 314
Story City, Iowa 50248
Phone: (515) 733-4144
FAX: (515) 733-4146

AERIAL VIEW
LETTER OF INQUIRY RESPONSE
NCIRSWA SANITARY LANDFILL
FORT DODGE, IA

FIGURE: 1

REVISION	NO.	DATE
DRAWN	PROJECT NO.	DATE
JCH	6030-25A	5/28/25

ATTACHMENT B



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IE0783

Project Description

6030

For:

Todd Whipple

HLW Engineering

204 West Broad St

Story City, IA 50248

Heather Murphy

Customer Relationship Specialist

Tuesday, May 27, 2025

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac Laboratories, Inc., Newton. If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed above.

I certify that all test results meet all of the requirements of the accrediting authority listed within this report. Analytical results are reported on a 'as received' basis unless specified otherwise. Analytical results for solids with units ending in (dry) are reported on a dry weight basis. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

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CERTIFICATE OF ANALYSIS

11E0783

HLW Engineering

Todd Whipple
204 West Broad St
Story City, IA 50248

Project Name: 6030

Project / PO Number: N/A
Received: 05/08/2025
Reported: 05/27/2025

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-Ditch	11E0783-01	Aqueous	GRAB		05/07/25 00:00	05/08/25 11:18



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

11E0783

Analytical Testing Parameters

Client Sample ID:	W-Ditch	Collected By:	
Sample Matrix:	Aqueous	Collection Date:	05/07/2025
Lab Sample ID:	11E0783-01		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D								
Chloromethane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Vinyl Chloride	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Bromomethane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Chloroethane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Acetone	<10.0	10.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Methyl Iodide	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Carbon Disulfide	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Methylene Chloride	<5.0	5.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Acrylonitrile	<5.0	5.0	ug/L	1	Q12	05/12/25 0000	05/12/25 1739	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Vinyl Acetate	<5.0	5.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		05/15/25 0000	05/15/25 1610	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Bromochloromethane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Chloroform	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Benzene	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Trichloroethylene	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Dibromomethane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Bromodichloromethane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Toluene	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Tetrachloroethylene	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Dibromochloromethane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Chlorobenzene	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Ethylbenzene	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Xylenes, total	<2.0	2.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Styrene	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF

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CERTIFICATE OF ANALYSIS

11E0783

Client Sample ID: W-Ditch
Sample Matrix: Aqueous
Lab Sample ID: 11E0783-01

Collected By: _____
Collection Date: 05/07/2025

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Bromoform	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		05/12/25 0000	05/12/25 1739	RAF
Surrogate: Dibromofluoromethane	73.4	Limit: 75-136	% Rec	1	S2	05/15/25 0000	05/15/25 1610	RAF
Surrogate: Dibromofluoromethane	69.9	Limit: 57-128	% Rec	1		05/12/25 0000	05/12/25 1739	RAF
Surrogate: Dibromofluoromethane	69.9	Limit: 75-136	% Rec	1	S2	05/12/25 0000	05/12/25 1739	RAF
Surrogate: 1,2-Dichloroethane-d4	65.3	Limit: 49-135	% Rec	1		05/12/25 0000	05/12/25 1739	RAF
Surrogate: 1,2-Dichloroethane-d4	65.3	Limit: 61-142	% Rec	1		05/12/25 0000	05/12/25 1739	RAF
Surrogate: 1,2-Dichloroethane-d4	71.1	Limit: 61-142	% Rec	1		05/15/25 0000	05/15/25 1610	RAF
Surrogate: Toluene-d8	106	Limit: 82-121	% Rec	1		05/15/25 0000	05/15/25 1610	RAF
Surrogate: Toluene-d8	106	Limit: 82-116	% Rec	1		05/12/25 0000	05/12/25 1739	RAF
Surrogate: Toluene-d8	106	Limit: 82-121	% Rec	1		05/12/25 0000	05/12/25 1739	RAF
Surrogate: 4-Bromofluorobenzene	92.7	Limit: 80-116	% Rec	1		05/15/25 0000	05/15/25 1610	RAF
Surrogate: 4-Bromofluorobenzene	93.0	Limit: 80-116	% Rec	1		05/12/25 0000	05/12/25 1739	RAF
Surrogate: 4-Bromofluorobenzene	93.0	Limit: 77-114	% Rec	1		05/12/25 0000	05/12/25 1739	RAF
Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SM 4500-H+ B-2011								
pH	7.1	0.5	pH	1	Q12		05/16/25 1412	BSS
TIMBERLINE								
Nitrogen, Ammonia	1.65	0.10	mg/L	1		05/14/25 1454	05/15/25 0956	SDF
Determination of Inorganic Anions	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
300.0								
Chloride	91.6	10.0	mg/L	10			05/21/25 1001	MID
Sulfate	146	10.0	mg/L	10			05/21/25 1001	MID

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CERTIFICATE OF ANALYSIS

11E0783

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	11E0631	11E0631-BS1	
		11E0631-BSD1	
		11E0631-BLK1	
		11E0783-01	W-Ditch
		11E0631-MS1	11E0438-01
		11E0631-MSD1	11E0438-01
Method	Batch	Laboratory ID	Client / Source ID
TIMBERLINE	11E0758	11E0758-BLK1	
		11E0758-BS1	
		11E0758-MS1	11E0815-01
		11E0758-MSD1	11E0815-01
		11E0783-01	W-Ditch
Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	11E0884	11E0884-BS1	
		11E0884-BSD1	
		11E0884-BLK1	
		11E0783-01RE1	W-Ditch
		11E0884-MS1	11E0783-01RE1
		11E0884-MSD1	11E0783-01RE1
Method	Batch	Laboratory ID	Client / Source ID
SM 4500-H+ B-2011	11E0905	11E0905-SRM2	
		11E0905-DUP1	11E0783-01
		11E0905-SRM1	
		11E0783-01	W-Ditch
		11E0905-SRM3	
Method	Batch	Laboratory ID	Client / Source ID
300.0	11E1125	11E1125-BLK1	
		11E1125-MRL1	
		11E1125-BS1	
		11E1125-BSD1	
		11E1125-MS1	11E0631-02
		11E1125-MSD1	11E0631-02
		11E1125-BLK2	
		11E1125-BLK3	
		11E1125-BS2	
		11E1125-BSD2	
		11E1125-MS2	11E0554-02



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CERTIFICATE OF ANALYSIS

11E0783

300.0

11E1125

11E1125-MSD2

11E0554-02

11E1125-BLK4

11E0783-01

W-Ditch

Batch Quality Control Summary: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E0631 - EPA 5030B - EPA 8260D										
Blank (11E0631-BLK1)				Prepared: 05/12/25 00:00 Analyzed: 05/12/25 13:59						
Chloromethane	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Bromomethane	<1.0	1.0	ug/L							
Chloroethane	<1.0	1.0	ug/L							
Trichlorofluoromethane	<1.0	1.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Methyl Iodide	<1.0	1.0	ug/L							
Carbon Disulfide	<1.0	1.0	ug/L							
Methylene Chloride	<5.0	5.0	ug/L							
Acrylonitrile	<5.0	5.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
Vinyl Acetate	<5.0	5.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
2-Butanone (MEK)	<10.0	10.0	ug/L							
Bromochloromethane	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
Toluene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
Tetrachloroethylene	<1.0	1.0	ug/L							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							

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CERTIFICATE OF ANALYSIS

11E0783

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Notes
Batch 11E0631 - EPA 5030B - EPA 8260D										
Blank (11E0631-BLK1)										
Prepared: 05/12/25 00:00 Analyzed: 05/12/25 13:59										
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
1,2,3-Trichloropropane	<1.0	1.0	ug/L							
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,4-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L							
Surrogate: Dibromofluoromethane	37.1		ug/L	50.2		74.0	57-128			S2
Surrogate: Dibromofluoromethane	37.1		ug/L	50.2		74.0	75-136			
Surrogate: 1,2-Dichloroethane-d4	34.5		ug/L	50.1		68.9	49-135			
Surrogate: 1,2-Dichloroethane-d4	34.5		ug/L	50.1		68.9	61-142			
Surrogate: Toluene-d8	51.2		ug/L	50.4		102	82-116			
Surrogate: Toluene-d8	51.2		ug/L	50.4		102	82-121			
Surrogate: 4-Bromofluorobenzene	45.8		ug/L	50.1		91.4	77-114			
Surrogate: 4-Bromofluorobenzene	45.8		ug/L	50.1		91.4	80-116			
LCS (11E0631-BS1)										
Prepared: 05/12/25 00:00 Analyzed: 05/12/25 12:45										
Chloromethane	38.97	1.0	ug/L	30.3		129	63-155			
Vinyl Chloride	35.73	1.0	ug/L	30.2		118	70-154			
Bromomethane	34.96	1.0	ug/L	30.1		116	52-176			
Chloroethane	33.59	1.0	ug/L	30.3		111	72-148			
Trichlorofluoromethane	28.50	1.0	ug/L	30.3		94.0	70-152			
1,1-Dichloroethylene	45.13	1.0	ug/L	50.1		90.0	70-148			
Acetone	82.46	10.0	ug/L	100		82.5	43-172			
Methyl Iodide	105.1	1.0	ug/L	100		105	69-170			
Carbon Disulfide	116.0	1.0	ug/L	100		116	72-162			
Methylene Chloride	48.01	5.0	ug/L	50.1		95.8	68-142			
Acrylonitrile	38.03	5.0	ug/L	50.2		75.8	33-163			
trans-1,2-Dichloroethylene	50.42	1.0	ug/L	50.1		101	66-148			
1,1-Dichloroethane	47.64	1.0	ug/L	50.1		95.1	66-143			
Vinyl Acetate	143.5	5.0	ug/L	131		110	43-153			
cis-1,2-Dichloroethylene	46.33	1.0	ug/L	50.4		92.0	71-149			
2-Butanone (MEK)	85.05	10.0	ug/L	100		85.0	52-159			
Bromochloromethane	40.82	1.0	ug/L	50.4		81.0	69-143			
Chloroform	45.71	1.0	ug/L	50.1		91.3	69-144			
1,1,1-Trichloroethane	52.66	1.0	ug/L	50.1		105	62-129			
Carbon Tetrachloride	53.86	1.0	ug/L	50.1		108	63-141			
Benzene	56.35	1.0	ug/L	50.4		112	71-134			
1,2-Dichloroethane	45.08	1.0	ug/L	50.1		90.0	72-132			
Trichloroethylene	52.84	1.0	ug/L	50.1		105	71-135			
1,2-Dichloropropane	49.21	1.0	ug/L	50.1		98.2	69-136			

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CERTIFICATE OF ANALYSIS

11E0783

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E0631 - EPA 5030B - EPA 8260D										
LCS (11E0631-BS1)										
Prepared: 05/12/25 00:00 Analyzed: 05/12/25 12:45										
Dibromomethane	40.57	1.0	ug/L	50.4		80.5	73-147			
Bromodichloromethane	49.05	1.0	ug/L	50.1		97.9	68-129			
cis-1,3-Dichloropropene	43.93	1.0	ug/L	50.1		87.7	65-134			
4-Methyl-2-pentanone (MIBK)	89.14	5.0	ug/L	100		89.1	58-147			
Toluene	61.30	1.0	ug/L	50.5		121	72-133			
trans-1,3-Dichloropropene	45.11	1.0	ug/L	50.1		90.1	67-130			
1,1,2-Trichloroethane	45.89	1.0	ug/L	50.1		91.6	69-135			
Tetrachloroethylene	63.59	1.0	ug/L	50.1		127	69-130			
2-Hexanone (MBK)	87.20	5.0	ug/L	100		87.2	55-144			
Dibromochloromethane	47.62	1.0	ug/L	50.1		95.1	73-127			
1,2-Dibromoethane	49.80	1.0	ug/L	50.2		99.2	67-132			
Chlorobenzene	57.15	1.0	ug/L	50.1		114	72-123			
1,1,1,2-Tetrachloroethane	50.66	1.0	ug/L	50.3		101	73-127			
Ethylbenzene	59.04	1.0	ug/L	50.2		118	71-127			
Xylenes, total	177.5	2.0	ug/L	151		118	74-127			
Styrene	56.09	1.0	ug/L	50.4		111	66-126			
Bromoform	46.22	1.0	ug/L	50.1		92.2	68-130			
1,2,3-Trichloropropane	48.01	1.0	ug/L	50.3		95.4	63-136			
trans-1,4-Dichloro-2-butene	89.03	5.0	ug/L	100		89.0	54-134			
1,1,2,2-Tetrachloroethane	55.53	1.0	ug/L	50.1		111	61-131			
1,4-Dichlorobenzene	57.70	1.0	ug/L	50.1		115	70-129			
1,2-Dichlorobenzene	51.40	1.0	ug/L	50.1		103	69-126			
1,2-Dibromo-3-chloropropane	40.88	5.0	ug/L	50.1		81.6	50-143			
Surrogate: Dibromofluoromethane	38.5		ug/L	50.2		76.7	57-128			
Surrogate: Dibromofluoromethane	38.5		ug/L	50.2		76.7	75-136			
Surrogate: 1,2-Dichloroethane-d4	37.6		ug/L	50.1		75.1	49-135			
Surrogate: 1,2-Dichloroethane-d4	37.6		ug/L	50.1		75.1	61-142			
Surrogate: Toluene-d8	50.0		ug/L	50.4		99.2	82-116			
Surrogate: Toluene-d8	50.0		ug/L	50.4		99.2	82-121			
Surrogate: 4-Bromofluorobenzene	48.0		ug/L	50.1		95.8	77-114			
Surrogate: 4-Bromofluorobenzene	48.0		ug/L	50.1		95.8	80-116			
LCS Dup (11E0631-BS1)										
Prepared: 05/12/25 00:00 Analyzed: 05/12/25 13:10										
Chloromethane	31.54	1.0	ug/L	30.3		104	63-155	21.1	24	
Vinyl Chloride	28.67	1.0	ug/L	30.2		94.8	70-154	21.9	25	
Bromomethane	29.40	1.0	ug/L	30.1		97.6	52-176	17.3	27	
Chloroethane	27.02	1.0	ug/L	30.3		89.1	72-148	21.7	25	
Trichlorofluoromethane	25.46	1.0	ug/L	30.3		84.0	70-152	11.3	26	
1,1-Dichloroethylene	41.27	1.0	ug/L	50.1		82.3	70-148	8.94	24	
Acetone	95.20	10.0	ug/L	100		95.2	43-172	14.3	30	
Methyl Iodide	89.91	1.0	ug/L	100		89.9	69-170	15.6	30	
Carbon Disulfide	95.71	1.0	ug/L	100		95.7	72-162	19.2	24	
Methylene Chloride	45.74	5.0	ug/L	50.1		91.3	68-142	4.84	21	
Acrylonitrile	43.61	5.0	ug/L	50.2		86.9	33-163	13.7	28	

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CERTIFICATE OF ANALYSIS

11E0783

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E0631 - EPA 5030B - EPA 8260D										
LCS Dup (11E0631-BSD1)										
Prepared: 05/12/25 00:00 Analyzed: 05/12/25 13:10										
trans-1,2-Dichloroethylene	48.46	1.0	ug/L	50.1		96.8	66-148	3.96	27	
1,1-Dichloroethane	47.27	1.0	ug/L	50.1		94.3	66-143	0.780	24	
Vinyl Acetate	164.1	5.0	ug/L	131		125	43-153	13.4	30	
cis-1,2-Dichloroethylene	47.36	1.0	ug/L	50.4		94.1	71-149	2.20	26	
2-Butanone (MEK)	96.04	10.0	ug/L	100		96.0	52-159	12.1	27	
Bromochloromethane	42.84	1.0	ug/L	50.4		85.0	69-143	4.83	23	
Chloroform	46.14	1.0	ug/L	50.1		92.1	69-144	0.936	23	
1,1,1-Trichloroethane	48.99	1.0	ug/L	50.1		97.8	62-129	7.22	24	
Carbon Tetrachloride	48.92	1.0	ug/L	50.1		97.7	63-141	9.61	25	
Benzene	48.06	1.0	ug/L	50.4		95.3	71-134	15.9	24	
1,2-Dichloroethane	44.56	1.0	ug/L	50.1		89.0	72-132	1.16	24	
Trichloroethylene	45.93	1.0	ug/L	50.1		91.7	71-135	14.0	24	
1,2-Dichloropropane	45.45	1.0	ug/L	50.1		90.7	69-136	7.94	24	
Dibromomethane	41.04	1.0	ug/L	50.4		81.5	73-147	1.15	25	
Bromodichloromethane	46.68	1.0	ug/L	50.1		93.2	68-129	4.95	22	
cis-1,3-Dichloropropene	42.02	1.0	ug/L	50.1		83.9	65-134	4.44	23	
4-Methyl-2-pentanone (MIBK)	94.16	5.0	ug/L	100		94.2	58-147	5.48	27	
Toluene	50.45	1.0	ug/L	50.5		100	72-133	19.4	24	
trans-1,3-Dichloropropene	43.69	1.0	ug/L	50.1		87.2	67-130	3.20	24	
1,1,2-Trichloroethane	45.04	1.0	ug/L	50.1		89.9	69-135	1.87	23	
Tetrachloroethylene	52.54	1.0	ug/L	50.1		105	69-130	19.0	25	
2-Hexanone (MBK)	91.98	5.0	ug/L	100		92.0	55-144	5.34	25	
Dibromochloromethane	46.79	1.0	ug/L	50.1		93.4	73-127	1.76	22	
1,2-Dibromoethane	47.78	1.0	ug/L	50.2		95.1	67-132	4.14	24	
Chlorobenzene	50.11	1.0	ug/L	50.1		100	72-123	13.1	23	
1,1,1,2-Tetrachloroethane	48.03	1.0	ug/L	50.3		95.4	73-127	5.33	24	
Ethylbenzene	48.76	1.0	ug/L	50.2		97.2	71-127	19.1	26	
Xylenes, total	148.2	2.0	ug/L	151		98.1	74-127	18.0	25	
Styrene	49.38	1.0	ug/L	50.4		98.0	66-126	12.7	23	
Bromoform	46.56	1.0	ug/L	50.1		92.9	68-130	0.733	23	
1,2,3-Trichloropropane	49.10	1.0	ug/L	50.3		97.5	63-136	2.24	24	
trans-1,4-Dichloro-2-butene	92.68	5.0	ug/L	100		92.7	54-134	4.02	27	
1,1,2,2-Tetrachloroethane	53.58	1.0	ug/L	50.1		107	61-131	3.57	29	
1,4-Dichlorobenzene	51.07	1.0	ug/L	50.1		102	70-129	12.2	24	
1,2-Dichlorobenzene	48.83	1.0	ug/L	50.1		97.5	69-126	5.13	26	
1,2-Dibromo-3-chloropropane	47.87	5.0	ug/L	50.1		95.5	50-143	15.8	30	
Surrogate: Dibromofluoromethane	46.0		ug/L	50.2		91.7	57-128			
Surrogate: Dibromofluoromethane	46.0		ug/L	50.2		91.7	75-136			
Surrogate: 1,2-Dichloroethane-d4	45.5		ug/L	50.1		90.9	49-135			
Surrogate: 1,2-Dichloroethane-d4	45.5		ug/L	50.1		90.9	61-142			
Surrogate: Toluene-d8	48.3		ug/L	50.4		95.8	82-116			
Surrogate: Toluene-d8	48.3		ug/L	50.4		95.8	82-121			
Surrogate: 4-Bromofluorobenzene	49.5		ug/L	50.1		98.8	77-114			

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CERTIFICATE OF ANALYSIS

11E0783

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E0631 - EPA 5030B - EPA 8260D										
LCS Dup (11E0631-BSD1)				Prepared: 05/12/25 00:00 Analyzed: 05/12/25 13:10						
Surrogate: 4-Bromofluorobenzene	49.5		ug/L	50.1		98.8	80-116			
Matrix Spike (11E0631-MS1)				Source: 11E0438-01 Prepared: 05/12/25 00:00 Analyzed: 05/12/25 19:41						
Chloromethane	364.8	10.0	ug/L	303	ND	120	61-152			
Vinyl Chloride	315.2	10.0	ug/L	302	ND	104	66-149			
Bromomethane	325.1	10.0	ug/L	301	ND	108	43-171			
Chloroethane	313.7	10.0	ug/L	303	ND	103	69-148			
Trichlorofluoromethane	275.1	10.0	ug/L	303	ND	90.8	62-163			
1,1-Dichloroethylene	429.4	10.0	ug/L	501	ND	85.7	70-148			
Acetone	897.1	100	ug/L	1000	ND	89.7	45-173			
Methyl Iodide	935.7	10.0	ug/L	1000	ND	93.6	62-167			
Carbon Disulfide	1046	10.0	ug/L	1000	ND	105	71-163			
Methylene Chloride	486.9	50.0	ug/L	501	ND	97.2	69-140			
Acrylonitrile	403.9	50.0	ug/L	502	ND	80.5	32-159			
trans-1,2-Dichloroethylene	493.2	10.0	ug/L	501	ND	98.5	69-144			
1,1-Dichloroethane	485.0	10.0	ug/L	501	ND	96.8	70-138			
Vinyl Acetate	1499	50.0	ug/L	1310	ND	114	58-142			
cis-1,2-Dichloroethylene	471.3	10.0	ug/L	504	ND	93.6	68-151			
2-Butanone (MEK)	860.5	100	ug/L	1000	ND	86.0	50-160			
Bromochloromethane	442.3	10.0	ug/L	504	ND	87.8	65-143			
Chloroform	469.6	10.0	ug/L	501	ND	93.8	71-143			
1,1,1-Trichloroethane	500.7	10.0	ug/L	501	ND	99.9	63-133			
Carbon Tetrachloride	506.1	10.0	ug/L	501	ND	101	63-142			
Benzene	502.9	10.0	ug/L	504	ND	99.7	69-133			
1,2-Dichloroethane	439.8	10.0	ug/L	501	ND	87.8	63-138			
Trichloroethylene	470.4	10.0	ug/L	501	ND	93.9	71-133			
1,2-Dichloropropane	459.1	10.0	ug/L	501	ND	91.7	69-132			
Dibromomethane	410.0	10.0	ug/L	504	ND	81.4	70-147			
Bromodichloromethane	436.7	10.0	ug/L	501	ND	87.2	67-130			
cis-1,3-Dichloropropene	398.8	10.0	ug/L	501	ND	79.6	61-126			
4-Methyl-2-pentanone (MIBK)	902.3	50.0	ug/L	1000	ND	90.2	55-147			
Toluene	544.2	10.0	ug/L	505	ND	108	71-133			
trans-1,3-Dichloropropene	420.4	10.0	ug/L	501	ND	84.0	63-124			
1,1,2-Trichloroethane	449.7	10.0	ug/L	501	ND	89.8	69-133			
Tetrachloroethylene	525.4	10.0	ug/L	501	ND	105	70-124			
2-Hexanone (MBK)	854.5	50.0	ug/L	1000	ND	85.4	53-141			
Dibromochloromethane	375.8	10.0	ug/L	501	ND	75.1	74-122			
1,2-Dibromoethane	453.7	10.0	ug/L	502	ND	90.3	66-127			
Chlorobenzene	506.5	10.0	ug/L	501	ND	101	76-116			
1,1,1,2-Tetrachloroethane	456.5	10.0	ug/L	503	ND	90.7	77-121			
Ethylbenzene	500.5	10.0	ug/L	502	ND	99.8	73-124			
Xylenes, total	1515	20.0	ug/L	1510	ND	100	75-123			
Styrene	490.4	10.0	ug/L	504	ND	97.4	70-120			

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CERTIFICATE OF ANALYSIS

11E0783

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E0631 - EPA 5030B - EPA 8260D										
Matrix Spike (11E0631-MS1)	Source: 11E0438-01			Prepared: 05/12/25 00:00 Analyzed: 05/12/25 19:41						
Bromoform	325.9	10.0	ug/L	501	ND	65.0	70-124			M2
1,2,3-Trichloropropane	482.6	10.0	ug/L	503	ND	95.9	62-135			
trans-1,4-Dichloro-2-butene	815.2	50.0	ug/L	1000	ND	81.5	50-120			
1,1,2,2-Tetrachloroethane	507.8	10.0	ug/L	501	ND	101	63-126			
1,4-Dichlorobenzene	504.2	10.0	ug/L	501	ND	101	72-119			
1,2-Dichlorobenzene	472.7	10.0	ug/L	501	ND	94.4	71-117			
1,2-Dibromo-3-chloropropane	386.3	50.0	ug/L	501	ND	77.1	49-134			
Surrogate: Dibromofluoromethane	446		ug/L	502		88.9	57-128			
Surrogate: Dibromofluoromethane	446		ug/L	502		88.9	75-136			
Surrogate: 1,2-Dichloroethane-d4	434		ug/L	501		86.6	49-135			
Surrogate: 1,2-Dichloroethane-d4	434		ug/L	501		86.6	61-142			
Surrogate: Toluene-d8	504		ug/L	504		100	82-116			
Surrogate: Toluene-d8	504		ug/L	504		100	82-121			
Surrogate: 4-Bromofluorobenzene	488		ug/L	501		97.3	77-114			
Surrogate: 4-Bromofluorobenzene	488		ug/L	501		97.3	80-116			
Matrix Spike Dup (11E0631-MSD1)	Source: 11E0438-01			Prepared: 05/12/25 00:00 Analyzed: 05/12/25 20:06						
Chloromethane	349.3	10.0	ug/L	303	ND	115	61-152	4.34	26	
Vinyl Chloride	302.6	10.0	ug/L	302	ND	100	66-149	4.08	23	
Bromomethane	307.2	10.0	ug/L	301	ND	102	43-171	5.66	29	
Chloroethane	289.7	10.0	ug/L	303	ND	95.6	69-148	7.95	25	
Trichlorofluoromethane	261.0	10.0	ug/L	303	ND	86.1	62-163	5.26	25	
1,1-Dichloroethylene	415.2	10.0	ug/L	501	ND	82.8	70-148	3.36	22	
Acetone	936.9	100	ug/L	1000	ND	93.7	45-173	4.34	30	
Methyl Iodide	921.6	10.0	ug/L	1000	ND	92.2	62-167	1.52	24	
Carbon Disulfide	991.6	10.0	ug/L	1000	ND	99.2	71-163	5.36	22	
Methylene Chloride	478.3	50.0	ug/L	501	ND	95.5	69-140	1.78	19	
Acrylonitrile	403.2	50.0	ug/L	502	ND	80.3	32-159	0.173	30	
trans-1,2-Dichloroethylene	478.4	10.0	ug/L	501	ND	95.5	69-144	3.05	22	
1,1-Dichloroethane	474.8	10.0	ug/L	501	ND	94.8	70-138	2.13	20	
Vinyl Acetate	1500	50.0	ug/L	1310	ND	115	58-142	0.0933	24	
cis-1,2-Dichloroethylene	463.7	10.0	ug/L	504	ND	92.1	68-151	1.63	22	
2-Butanone (MEK)	874.0	100	ug/L	1000	ND	87.4	50-160	1.56	23	
Bromochloromethane	431.5	10.0	ug/L	504	ND	85.6	65-143	2.47	22	
Chloroform	462.7	10.0	ug/L	501	ND	92.4	71-143	1.48	21	
1,1,1-Trichloroethane	495.3	10.0	ug/L	501	ND	98.8	63-133	1.08	23	
Carbon Tetrachloride	489.1	10.0	ug/L	501	ND	97.6	63-142	3.42	22	
Benzene	479.6	10.0	ug/L	504	ND	95.1	69-133	4.74	18	
1,2-Dichloroethane	434.3	10.0	ug/L	501	ND	86.7	63-138	1.26	20	
Trichloroethylene	458.9	10.0	ug/L	501	ND	91.6	71-133	2.47	23	
1,2-Dichloropropane	447.9	10.0	ug/L	501	ND	89.4	69-132	2.47	20	
Dibromomethane	402.3	10.0	ug/L	504	ND	79.9	70-147	1.90	22	
Bromodichloromethane	427.6	10.0	ug/L	501	ND	85.4	67-130	2.11	21	
cis-1,3-Dichloropropene	389.3	10.0	ug/L	501	ND	77.7	61-126	2.41	21	

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CERTIFICATE OF ANALYSIS

11E0783

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E0631 - EPA 5030B - EPA 8260D										
Matrix Spike Dup (11E0631-MSD1)	Source: 11E0438-01			Prepared: 05/12/25 00:00 Analyzed: 05/12/25 20:06						
4-Methyl-2-pentanone (MIBK)	894.2	50.0	ug/L	1000	ND	89.4	55-147	0.902	23	
Toluene	514.2	10.0	ug/L	505	ND	102	71-133	5.67	19	
trans-1,3-Dichloropropene	412.3	10.0	ug/L	501	ND	82.3	63-124	1.95	21	
1,1,2-Trichloroethane	440.4	10.0	ug/L	501	ND	87.9	69-133	2.09	19	
Tetrachloroethylene	501.2	10.0	ug/L	501	ND	100	70-124	4.71	24	
2-Hexanone (MBK)	846.6	50.0	ug/L	1000	ND	84.7	53-141	0.929	24	
Dibromochloromethane	390.5	10.0	ug/L	501	ND	78.0	74-122	3.84	21	
1,2-Dibromoethane	443.7	10.0	ug/L	502	ND	88.3	66-127	2.23	23	
Chlorobenzene	485.1	10.0	ug/L	501	ND	96.9	76-116	4.32	21	
1,1,1,2-Tetrachloroethane	440.2	10.0	ug/L	503	ND	87.4	77-121	3.64	25	
Ethylbenzene	471.4	10.0	ug/L	502	ND	94.0	73-124	5.99	20	
Xylenes, total	1446	20.0	ug/L	1510	ND	95.7	75-123	4.65	20	
Styrene	474.5	10.0	ug/L	504	ND	94.2	70-120	3.30	23	
Bromoform	353.2	10.0	ug/L	501	ND	70.5	70-124	8.04	22	
1,2,3-Trichloropropane	441.4	10.0	ug/L	503	ND	87.7	62-135	8.92	28	
trans-1,4-Dichloro-2-butene	803.8	50.0	ug/L	1000	ND	80.4	50-120	1.41	26	
1,1,2,2-Tetrachloroethane	500.5	10.0	ug/L	501	ND	99.9	63-126	1.45	24	
1,4-Dichlorobenzene	495.0	10.0	ug/L	501	ND	98.8	72-119	1.84	24	
1,2-Dichlorobenzene	470.4	10.0	ug/L	501	ND	93.9	71-117	0.488	24	
1,2-Dibromo-3-chloropropane	415.5	50.0	ug/L	501	ND	82.9	49-134	7.28	28	
Surrogate: Dibromofluoromethane	454		ug/L	502		90.5	57-128			
Surrogate: Dibromofluoromethane	454		ug/L	502		90.5	75-136			
Surrogate: 1,2-Dichloroethane-d4	456		ug/L	501		91.1	49-135			
Surrogate: 1,2-Dichloroethane-d4	456		ug/L	501		91.1	61-142			
Surrogate: Toluene-d8	497		ug/L	504		98.7	82-116			
Surrogate: Toluene-d8	497		ug/L	504		98.7	82-121			
Surrogate: 4-Bromofluorobenzene	485		ug/L	501		96.7	77-114			
Surrogate: 4-Bromofluorobenzene	485		ug/L	501		96.7	80-116			

Batch 11E0884 - EPA 5030B - EPA 8260D

Blank (11E0884-BLK1)	Prepared: 05/15/25 00:00 Analyzed: 05/15/25 13:43									
Chloromethane	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Bromomethane	<1.0	1.0	ug/L							
Chloroethane	<1.0	1.0	ug/L							
Trichlorofluoromethane	<1.0	1.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Methyl Iodide	<1.0	1.0	ug/L							
Carbon Disulfide	<1.0	1.0	ug/L							
Methylene Chloride	<5.0	5.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							

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CERTIFICATE OF ANALYSIS

11E0783

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E0884 - EPA 5030B - EPA 8260D										
Blank (11E0884-BLK1)				Prepared: 05/15/25 00:00 Analyzed: 05/15/25 13:43						
Vinyl Acetate	<5.0	5.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
2-Butanone (MEK)	<10.0	10.0	ug/L							
Bromochloromethane	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
Toluene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
Tetrachloroethylene	<1.0	1.0	ug/L							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
1,2,3-Trichloropropane	<1.0	1.0	ug/L							
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,4-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L							
Surrogate: Dibromofluoromethane	35.6		ug/L	50.2		70.9	75-136			S2
Surrogate: 1,2-Dichloroethane-d4	32.1		ug/L	50.1		64.2	61-142			
Surrogate: Toluene-d8	52.6		ug/L	50.4		104	82-121			
Surrogate: 4-Bromofluorobenzene	45.0		ug/L	50.1		89.8	80-116			
LCS (11E0884-BS1)				Prepared: 05/15/25 00:00 Analyzed: 05/15/25 12:30						
Chloromethane	37.43	1.0	ug/L	30.3		123	63-155			
Vinyl Chloride	32.75	1.0	ug/L	30.2		108	70-154			
Bromomethane	32.69	1.0	ug/L	30.1		109	52-176			

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CERTIFICATE OF ANALYSIS

11E0783

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E0884 - EPA 5030B - EPA 8260D										
LCS (11E0884-BS1)				Prepared: 05/15/25 00:00 Analyzed: 05/15/25 12:30						
Chloroethane	30.97	1.0	ug/L	30.3		102	72-148			
Trichlorofluoromethane	27.67	1.0	ug/L	30.3		91.3	70-152			
1,1-Dichloroethylene	44.48	1.0	ug/L	50.1		88.7	70-148			
Acetone	89.86	10.0	ug/L	100		89.9	43-172			
Methyl Iodide	99.85	1.0	ug/L	100		99.8	69-170			
Carbon Disulfide	108.6	1.0	ug/L	100		109	72-162			
Methylene Chloride	45.55	5.0	ug/L	50.1		90.9	68-142			
trans-1,2-Dichloroethylene	51.24	1.0	ug/L	50.1		102	66-148			
1,1-Dichloroethane	49.47	1.0	ug/L	50.1		98.7	66-143			
Vinyl Acetate	156.3	5.0	ug/L	131		119	43-153			
cis-1,2-Dichloroethylene	47.68	1.0	ug/L	50.4		94.7	71-149			
2-Butanone (MEK)	92.57	10.0	ug/L	100		92.6	52-159			
Bromochloromethane	43.61	1.0	ug/L	50.4		86.5	69-143			
Chloroform	47.97	1.0	ug/L	50.1		95.8	69-144			
1,1,1-Trichloroethane	51.92	1.0	ug/L	50.1		104	62-129			
Carbon Tetrachloride	52.94	1.0	ug/L	50.1		106	63-141			
Benzene	51.27	1.0	ug/L	50.4		102	71-134			
1,2-Dichloroethane	44.91	1.0	ug/L	50.1		89.7	72-132			
Trichloroethylene	47.90	1.0	ug/L	50.1		95.6	71-135			
1,2-Dichloropropane	46.12	1.0	ug/L	50.1		92.1	69-136			
Dibromomethane	40.82	1.0	ug/L	50.4		81.0	73-147			
Bromodichloromethane	47.18	1.0	ug/L	50.1		94.2	68-129			
cis-1,3-Dichloropropene	42.15	1.0	ug/L	50.1		84.2	65-134			
4-Methyl-2-pentanone (MIBK)	93.24	5.0	ug/L	100		93.2	58-147			
Toluene	55.09	1.0	ug/L	50.5		109	72-133			
trans-1,3-Dichloropropene	43.02	1.0	ug/L	50.1		85.9	67-130			
1,1,2-Trichloroethane	44.24	1.0	ug/L	50.1		88.3	69-135			
Tetrachloroethylene	54.49	1.0	ug/L	50.1		109	69-130			
2-Hexanone (MBK)	87.84	5.0	ug/L	100		87.8	55-144			
Dibromochloromethane	44.47	1.0	ug/L	50.1		88.8	73-127			
1,2-Dibromoethane	45.99	1.0	ug/L	50.2		91.6	67-132			
Chlorobenzene	51.41	1.0	ug/L	50.1		103	72-123			
1,1,1,2-Tetrachloroethane	47.22	1.0	ug/L	50.3		93.8	73-127			
Ethylbenzene	51.34	1.0	ug/L	50.2		102	71-127			
Xylenes, total	154.5	2.0	ug/L	151		102	74-127			
Styrene	50.66	1.0	ug/L	50.4		101	66-126			
Bromoform	42.98	1.0	ug/L	50.1		85.8	68-130			
1,2,3-Trichloropropane	45.34	1.0	ug/L	50.3		90.1	63-136			
trans-1,4-Dichloro-2-butene	90.24	5.0	ug/L	100		90.2	54-134			
1,1,2,2-Tetrachloroethane	50.30	1.0	ug/L	50.1		100	61-131			
1,4-Dichlorobenzene	51.39	1.0	ug/L	50.1		103	70-129			
1,2-Dichlorobenzene	48.59	1.0	ug/L	50.1		97.0	69-126			
1,2-Dibromo-3-chloropropane	40.17	5.0	ug/L	50.1		80.1	50-143			

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CERTIFICATE OF ANALYSIS

11E0783

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E0884 - EPA 5030B - EPA 8260D										
LCS (11E0884-BS1)										
				Prepared: 05/15/25 00:00 Analyzed: 05/15/25 12:30						
Surrogate: Dibromofluoromethane	44.8		ug/L	50.2		89.2	75-136			
Surrogate: 1,2-Dichloroethane-d4	44.4		ug/L	50.1		88.6	61-142			
Surrogate: Toluene-d8	50.0		ug/L	50.4		99.2	82-121			
Surrogate: 4-Bromofluorobenzene	48.8		ug/L	50.1		97.4	80-116			
LCS Dup (11E0884-BSD1)										
				Prepared: 05/15/25 00:00 Analyzed: 05/15/25 12:54						
Chloromethane	36.18	1.0	ug/L	30.3		119	63-155	3.40	24	
Vinyl Chloride	32.39	1.0	ug/L	30.2		107	70-154	1.11	25	
Bromomethane	32.53	1.0	ug/L	30.1		108	52-176	0.491	27	
Chloroethane	30.20	1.0	ug/L	30.3		99.6	72-148	2.52	25	
Trichlorofluoromethane	27.04	1.0	ug/L	30.3		89.2	70-152	2.30	26	
1,1-Dichloroethylene	43.48	1.0	ug/L	50.1		86.7	70-148	2.27	24	
Acetone	92.21	10.0	ug/L	100		92.2	43-172	2.58	30	
Methyl Iodide	98.01	1.0	ug/L	100		98.0	69-170	1.86	30	
Carbon Disulfide	104.5	1.0	ug/L	100		104	72-162	3.88	24	
Methylene Chloride	46.14	5.0	ug/L	50.1		92.1	68-142	1.29	21	
trans-1,2-Dichloroethylene	49.90	1.0	ug/L	50.1		99.6	66-148	2.65	27	
1,1-Dichloroethane	48.57	1.0	ug/L	50.1		96.9	66-143	1.84	24	
Vinyl Acetate	155.3	5.0	ug/L	131		119	43-153	0.674	30	
cis-1,2-Dichloroethylene	47.66	1.0	ug/L	50.4		94.7	71-149	0.0420	26	
2-Butanone (MEK)	93.74	10.0	ug/L	100		93.7	52-159	1.26	27	
Bromochloromethane	43.24	1.0	ug/L	50.4		85.8	69-143	0.852	23	
Chloroform	47.14	1.0	ug/L	50.1		94.1	69-144	1.75	23	
1,1,1-Trichloroethane	50.82	1.0	ug/L	50.1		101	62-129	2.14	24	
Carbon Tetrachloride	51.24	1.0	ug/L	50.1		102	63-141	3.26	25	
Benzene	50.56	1.0	ug/L	50.4		100	71-134	1.39	24	
1,2-Dichloroethane	44.40	1.0	ug/L	50.1		88.6	72-132	1.14	24	
Trichloroethylene	47.26	1.0	ug/L	50.1		94.3	71-135	1.35	24	
1,2-Dichloropropane	45.97	1.0	ug/L	50.1		91.8	69-136	0.326	24	
Dibromomethane	39.96	1.0	ug/L	50.4		79.3	73-147	2.13	25	
Bromodichloromethane	46.43	1.0	ug/L	50.1		92.7	68-129	1.60	22	
cis-1,3-Dichloropropene	41.98	1.0	ug/L	50.1		83.8	65-134	0.404	23	
4-Methyl-2-pentanone (MIBK)	95.99	5.0	ug/L	100		96.0	58-147	2.91	27	
Toluene	53.87	1.0	ug/L	50.5		107	72-133	2.24	24	
trans-1,3-Dichloropropene	44.03	1.0	ug/L	50.1		87.9	67-130	2.32	24	
1,1,2-Trichloroethane	44.18	1.0	ug/L	50.1		88.2	69-135	0.136	23	
Tetrachloroethylene	52.98	1.0	ug/L	50.1		106	69-130	2.81	25	
2-Hexanone (MBK)	88.43	5.0	ug/L	100		88.4	55-144	0.669	25	
Dibromochloromethane	44.92	1.0	ug/L	50.1		89.7	73-127	1.01	22	
1,2-Dibromoethane	45.85	1.0	ug/L	50.2		91.3	67-132	0.305	24	
Chlorobenzene	50.86	1.0	ug/L	50.1		102	72-123	1.08	23	
1,1,1,2-Tetrachloroethane	46.71	1.0	ug/L	50.3		92.8	73-127	1.09	24	
Ethylbenzene	50.52	1.0	ug/L	50.2		101	71-127	1.61	26	
Xylenes, total	154.0	2.0	ug/L	151		102	74-127	0.363	25	

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CERTIFICATE OF ANALYSIS

11E0783

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E0884 - EPA 5030B - EPA 8260D										
LCS Dup (11E0884-BSD1)										
				Prepared: 05/15/25 00:00 Analyzed: 05/15/25 12:54						
Styrene	50.38	1.0	ug/L	50.4		100	66-126	0.554	23	
Bromoform	43.37	1.0	ug/L	50.1		86.5	68-130	0.903	23	
1,2,3-Trichloropropane	45.78	1.0	ug/L	50.3		90.9	63-136	0.966	24	
trans-1,4-Dichloro-2-butene	89.53	5.0	ug/L	100		89.5	54-134	0.790	27	
1,1,2,2-Tetrachloroethane	50.03	1.0	ug/L	50.1		99.9	61-131	0.538	29	
1,4-Dichlorobenzene	51.17	1.0	ug/L	50.1		102	70-129	0.429	24	
1,2-Dichlorobenzene	48.38	1.0	ug/L	50.1		96.6	69-126	0.433	26	
1,2-Dibromo-3-chloropropane	44.42	5.0	ug/L	50.1		88.6	50-143	10.0	30	
Surrogate: Dibromofluoromethane	45.6		ug/L	50.2		90.9	75-136			
Surrogate: 1,2-Dichloroethane-d4	43.6		ug/L	50.1		87.2	61-142			
Surrogate: Toluene-d8	50.0		ug/L	50.4		99.2	82-121			
Surrogate: 4-Bromofluorobenzene	49.2		ug/L	50.1		98.1	80-116			
Matrix Spike (11E0884-MS1)										
				Source: 11E0783-01RE1 Prepared: 05/15/25 00:00 Analyzed: 05/15/25 17:23						
Chloromethane	378.3	10.0	ug/L	303	ND	125	61-152			
Vinyl Chloride	336.5	10.0	ug/L	302	ND	111	66-149			
Bromomethane	327.4	10.0	ug/L	301	ND	109	43-171			
Chloroethane	323.7	10.0	ug/L	303	ND	107	69-148			
Trichlorofluoromethane	286.7	10.0	ug/L	303	ND	94.6	62-163			
1,1-Dichloroethylene	454.7	10.0	ug/L	501	ND	90.7	70-148			
Acetone	927.6	100	ug/L	1000	ND	92.8	45-173			
Methyl Iodide	1028	10.0	ug/L	1000	ND	103	62-167			
Carbon Disulfide	1100	10.0	ug/L	1000	ND	110	71-163			
Methylene Chloride	469.8	50.0	ug/L	501	ND	93.8	69-140			
trans-1,2-Dichloroethylene	513.3	10.0	ug/L	501	ND	102	69-144			
1,1-Dichloroethane	496.5	10.0	ug/L	501	ND	99.1	70-138			
Vinyl Acetate	1570	50.0	ug/L	1310	ND	120	58-142			
cis-1,2-Dichloroethylene	487.0	10.0	ug/L	504	ND	96.7	68-151			
2-Butanone (MEK)	892.5	100	ug/L	1000	ND	89.2	50-160			
Bromochloromethane	441.9	10.0	ug/L	504	ND	87.7	65-143			
Chloroform	479.4	10.0	ug/L	501	ND	95.7	71-143			
1,1,1-Trichloroethane	525.6	10.0	ug/L	501	ND	105	63-133			
Carbon Tetrachloride	529.9	10.0	ug/L	501	ND	106	63-142			
Benzene	525.1	10.0	ug/L	504	ND	104	69-133			
1,2-Dichloroethane	449.2	10.0	ug/L	501	ND	89.7	63-138			
Trichloroethylene	488.9	10.0	ug/L	501	ND	97.6	71-133			
1,2-Dichloropropane	467.4	10.0	ug/L	501	ND	93.3	69-132			
Dibromomethane	409.1	10.0	ug/L	504	ND	81.2	70-147			
Bromodichloromethane	469.4	10.0	ug/L	501	ND	93.7	67-130			
cis-1,3-Dichloropropene	399.3	10.0	ug/L	501	ND	79.7	61-126			
4-Methyl-2-pentanone (MIBK)	919.4	50.0	ug/L	1000	ND	91.9	55-147			
Toluene	566.9	10.0	ug/L	505	ND	112	71-133			
trans-1,3-Dichloropropene	435.3	10.0	ug/L	501	ND	86.9	63-124			

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CERTIFICATE OF ANALYSIS

11E0783

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E0884 - EPA 5030B - EPA 8260D										
Matrix Spike (11E0884-MS1) Source: 11E0783-01RE1 Prepared: 05/15/25 00:00 Analyzed: 05/15/25 17:23										
1,1,2-Trichloroethane	454.7	10.0	ug/L	501	ND	90.8	69-133			
Tetrachloroethylene	551.6	10.0	ug/L	501	ND	110	70-124			
2-Hexanone (MBK)	877.1	50.0	ug/L	1000	ND	87.7	53-141			
Dibromochloromethane	450.8	10.0	ug/L	501	ND	90.0	74-122			
1,2-Dibromoethane	457.6	10.0	ug/L	502	ND	91.1	66-127			
Chlorobenzene	522.7	10.0	ug/L	501	ND	104	76-116			
1,1,1,2-Tetrachloroethane	464.5	10.0	ug/L	503	ND	92.3	77-121			
Ethylbenzene	527.0	10.0	ug/L	502	ND	105	73-124			
Xylenes, total	1590	20.0	ug/L	1510	ND	105	75-123			
Styrene	513.5	10.0	ug/L	504	ND	102	70-120			
Bromoform	430.1	10.0	ug/L	501	ND	85.8	70-124			
1,2,3-Trichloropropane	483.2	10.0	ug/L	503	ND	96.0	62-135			
trans-1,4-Dichloro-2-butene	862.3	50.0	ug/L	1000	ND	86.2	50-120			
1,1,2,2-Tetrachloroethane	524.2	10.0	ug/L	501	ND	105	63-126			
1,4-Dichlorobenzene	521.4	10.0	ug/L	501	ND	104	72-119			
1,2-Dichlorobenzene	492.3	10.0	ug/L	501	ND	98.3	71-117			
1,2-Dibromo-3-chloropropane	446.1	50.0	ug/L	501	ND	89.0	49-134			
Surrogate: Dibromofluoromethane	448		ug/L	502		89.2	75-136			
Surrogate: 1,2-Dichloroethane-d4	432		ug/L	501		86.3	61-142			
Surrogate: Toluene-d8	499		ug/L	504		99.0	82-121			
Surrogate: 4-Bromofluorobenzene	498		ug/L	501		99.4	80-116			
Matrix Spike Dup (11E0884-MSD1) Source: 11E0783-01RE1 Prepared: 05/15/25 00:00 Analyzed: 05/15/25 17:48										
Chloromethane	373.1	10.0	ug/L	303	ND	123	61-152	1.38	26	
Vinyl Chloride	327.4	10.0	ug/L	302	ND	108	66-149	2.74	23	
Bromomethane	326.7	10.0	ug/L	301	ND	108	43-171	0.214	29	
Chloroethane	310.6	10.0	ug/L	303	ND	102	69-148	4.13	25	
Trichlorofluoromethane	275.0	10.0	ug/L	303	ND	90.7	62-163	4.17	25	
1,1-Dichloroethylene	447.9	10.0	ug/L	501	ND	89.4	70-148	1.51	22	
Acetone	953.1	100	ug/L	1000	ND	95.3	45-173	2.71	30	
Methyl Iodide	1006	10.0	ug/L	1000	ND	101	62-167	2.12	24	
Carbon Disulfide	1074	10.0	ug/L	1000	ND	107	71-163	2.44	22	
Methylene Chloride	472.3	50.0	ug/L	501	ND	94.3	69-140	0.531	19	
trans-1,2-Dichloroethylene	505.8	10.0	ug/L	501	ND	101	69-144	1.47	22	
1,1-Dichloroethane	491.1	10.0	ug/L	501	ND	98.0	70-138	1.09	20	
Vinyl Acetate	1599	50.0	ug/L	1310	ND	122	58-142	1.87	24	
cis-1,2-Dichloroethylene	479.5	10.0	ug/L	504	ND	95.2	68-151	1.55	22	
2-Butanone (MEK)	958.8	100	ug/L	1000	ND	95.9	50-160	7.16	23	
Bromochloromethane	449.2	10.0	ug/L	504	ND	89.1	65-143	1.64	22	
Chloroform	480.3	10.0	ug/L	501	ND	95.9	71-143	0.188	21	
1,1,1-Trichloroethane	518.9	10.0	ug/L	501	ND	104	63-133	1.28	23	
Carbon Tetrachloride	519.2	10.0	ug/L	501	ND	104	63-142	2.04	22	
Benzene	515.1	10.0	ug/L	504	ND	102	69-133	1.92	18	

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CERTIFICATE OF ANALYSIS

11E0783

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E0884 - EPA 5030B - EPA 8260D										
Matrix Spike Dup (11E0884-MSD1) Source: 11E0783-01RE1 Prepared: 05/15/25 00:00 Analyzed: 05/15/25 17:48										
1,2-Dichloroethane	447.6	10.0	ug/L	501	ND	89.4	63-138	0.357	20	
Trichloroethylene	475.6	10.0	ug/L	501	ND	94.9	71-133	2.76	23	
1,2-Dichloropropane	464.3	10.0	ug/L	501	ND	92.7	69-132	0.665	20	
Dibromomethane	413.1	10.0	ug/L	504	ND	82.0	70-147	0.973	22	
Bromodichloromethane	467.6	10.0	ug/L	501	ND	93.4	67-130	0.384	21	
cis-1,3-Dichloropropene	395.6	10.0	ug/L	501	ND	79.0	61-126	0.931	21	
4-Methyl-2-pentanone (MIBK)	967.1	50.0	ug/L	1000	ND	96.7	55-147	5.06	23	
Toluene	548.0	10.0	ug/L	505	ND	109	71-133	3.39	19	
trans-1,3-Dichloropropene	431.4	10.0	ug/L	501	ND	86.2	63-124	0.900	21	
1,1,2-Trichloroethane	461.3	10.0	ug/L	501	ND	92.1	69-133	1.44	19	
Tetrachloroethylene	539.6	10.0	ug/L	501	ND	108	70-124	2.20	24	
2-Hexanone (MBK)	921.3	50.0	ug/L	1000	ND	92.1	53-141	4.92	24	
Dibromochloromethane	458.9	10.0	ug/L	501	ND	91.7	74-122	1.78	21	
1,2-Dibromoethane	471.6	10.0	ug/L	502	ND	93.9	66-127	3.01	23	
Chlorobenzene	521.9	10.0	ug/L	501	ND	104	76-116	0.153	21	
1,1,1,2-Tetrachloroethane	473.4	10.0	ug/L	503	ND	94.0	77-121	1.90	25	
Ethylbenzene	516.1	10.0	ug/L	502	ND	103	73-124	2.09	20	
Xylenes, total	1557	20.0	ug/L	1510	ND	103	75-123	2.12	20	
Styrene	511.2	10.0	ug/L	504	ND	101	70-120	0.449	23	
Bromoform	450.3	10.0	ug/L	501	ND	89.9	70-124	4.59	22	
1,2,3-Trichloropropane	475.1	10.0	ug/L	503	ND	94.4	62-135	1.69	28	
trans-1,4-Dichloro-2-butene	896.7	50.0	ug/L	1000	ND	89.7	50-120	3.91	26	
1,1,2,2-Tetrachloroethane	541.2	10.0	ug/L	501	ND	108	63-126	3.19	24	
1,4-Dichlorobenzene	516.6	10.0	ug/L	501	ND	103	72-119	0.925	24	
1,2-Dichlorobenzene	492.1	10.0	ug/L	501	ND	98.2	71-117	0.0406	24	
1,2-Dibromo-3-chloropropane	542.7	50.0	ug/L	501	ND	108	49-134	19.5	28	
Surrogate: Dibromofluoromethane	452		ug/L	502		90.0	75-136			
Surrogate: 1,2-Dichloroethane-d4	446		ug/L	501		89.1	61-142			
Surrogate: Toluene-d8	493		ug/L	504		97.8	82-121			
Surrogate: 4-Bromofluorobenzene	488		ug/L	501		97.3	80-116			

Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E0758 - General Prep HPLC/IC - TIMBERLINE										
Blank (11E0758-BLK1) Prepared: 05/14/25 14:54 Analyzed: 05/15/25 09:43										
Nitrogen, Ammonia	<0.10	0.10	mg/L							
LCS (11E0758-BS1) Prepared: 05/14/25 14:54 Analyzed: 05/15/25 09:44										
Nitrogen, Ammonia	5.00	0.10	mg/L	5.00		99.9	90-114			
Matrix Spike (11E0758-MS1) Source: 11E0815-01 Prepared: 05/14/25 14:54 Analyzed: 05/15/25 09:46										
Nitrogen, Ammonia	5.46	0.10	mg/L	5.00	ND	109	84-115			

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CERTIFICATE OF ANALYSIS

11E0783

Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E0758 - General Prep HPLC/IC - TIMBERLINE										
Matrix Spike Dup (11E0758-MSD1)		Source: 11E0815-01		Prepared: 05/14/25 14:54 Analyzed: 05/15/25 09:47						
Nitrogen, Ammonia	5.61	0.10	mg/L	5.00	ND	112	84-115	2.70	20	
Batch 11E0905 - Wet Chem Preparation - SM 4500-H+ B-2011										
Duplicate (11E0905-DUP1)		Source: 11E0783-01		Prepared & Analyzed: 05/16/25 14:12						
pH	7.1	0.5	pH		7.1			0.0283	10	
Reference (11E0905-SRM1)		Prepared & Analyzed: 05/16/25 14:12								
pH	7.0	0.5	pH	7.00		100	98.6-101.4			
Reference (11E0905-SRM2)		Prepared & Analyzed: 05/16/25 14:12								
pH	7.0	0.5	pH	7.00		99.9	98.6-101.4			
Reference (11E0905-SRM3)		Prepared & Analyzed: 05/16/25 14:12								
pH	1.5	0.5	pH	1.68		91.5	90-110			
Determination of Inorganic Anions	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E1125 - General Prep HPLC/IC - 300.0										
Blank (11E1125-BLK1)		Prepared & Analyzed: 05/20/25 13:28								
Chloride	<1.0	1.0	mg/L							
Sulfate	<1.0	1.0	mg/L							
Blank (11E1125-BLK2)		Prepared & Analyzed: 05/20/25 19:27								
Chloride	<1.0	1.0	mg/L							
Sulfate	<1.0	1.0	mg/L							
Blank (11E1125-BLK3)		Prepared & Analyzed: 05/21/25 00:18								
Chloride	<1.0	1.0	mg/L							
Sulfate	<1.0	1.0	mg/L							
Blank (11E1125-BLK4)		Prepared & Analyzed: 05/21/25 06:39								
Chloride	<1.0	1.0	mg/L							
Sulfate	<1.0	1.0	mg/L							
LCS (11E1125-BS1)		Prepared & Analyzed: 05/20/25 14:13								
Chloride	15.69	1.0	mg/L	16.1		97.7	90-110			
Sulfate	32.81	1.0	mg/L	33.9		96.7	90-110			
LCS (11E1125-BS2)		Prepared & Analyzed: 05/21/25 01:25								
Chloride	15.77	1.0	mg/L	16.1		98.1	90-110			
Sulfate	32.95	1.0	mg/L	33.9		97.1	90-110			
LCS Dup (11E1125-BSD1)		Prepared & Analyzed: 05/20/25 14:36								
Chloride	15.78	1.0	mg/L	16.1		98.2	90-110	0.566	10	
Sulfate	33.12	1.0	mg/L	33.9		97.6	90-110	0.943	10	
LCS Dup (11E1125-BSD2)		Prepared & Analyzed: 05/21/25 01:48								



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CERTIFICATE OF ANALYSIS

11E0783

Determination of Inorganic Anions	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11E1125 - General Prep HPLC/IC - 300.0										
LCS Dup (11E1125-BSD2)				Prepared & Analyzed: 05/21/25 01:48						
Chloride	15.84	1.0	mg/L	16.1		98.6	90-110	0.475	10	
Sulfate	33.17	1.0	mg/L	33.9		97.7	90-110	0.656	10	
Matrix Spike (11E1125-MS1)				Source: 11E0631-02 Prepared & Analyzed: 05/20/25 17:35						
Chloride	467.9	10.0	mg/L	161	311.9	97.1	80-120			
Sulfate	377.6	10.0	mg/L	339	45.85	97.7	80-120			
Matrix Spike (11E1125-MS2)				Source: 11E0554-02 Prepared & Analyzed: 05/21/25 05:32						
Chloride	296.7	10.0	mg/L	161	137.5	99.1	80-120			
Sulfate	564.2	10.0	mg/L	339	229.5	98.6	80-120			
Matrix Spike Dup (11E1125-MSD1)				Source: 11E0631-02 Prepared & Analyzed: 05/20/25 17:57						
Chloride	471.3	10.0	mg/L	161	311.9	99.2	80-120	0.726	10	
Sulfate	379.8	10.0	mg/L	339	45.85	98.4	80-120	0.597	10	
Matrix Spike Dup (11E1125-MSD2)				Source: 11E0554-02 Prepared & Analyzed: 05/21/25 05:54						
Chloride	296.2	10.0	mg/L	161	137.5	98.8	80-120	0.199	10	
Sulfate	562.9	10.0	mg/L	339	229.5	98.2	80-120	0.232	10	

Definitions

DF:	Dilution Factor representing the amount the sample was diluted during analysis and may not represent preparation factors.
M2:	Matrix spike recovery is below acceptance limits.
Q12:	Analysis of acrolein and/or acrylonitrile was performed from a sample that was field preserved to pH < 2, which is less than the pH range of 4-5 specified in the test method and required for NPDES compliance per 40CFR Part 136.
RL:	Reporting Limit
RPD:	Relative Percent Difference
S2:	Surrogate recovery is below acceptance limits.

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 1.1°C

Cooler Inspection Checklist

Custody Seals	No	Containers Intact	Yes
COC/Labels Agree	Yes	Preservation Confirmed	No
Received On Ice	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. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.

Reviewed and Approved By:

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
05/27/25 09:56

FORM: CCR 7-97

ATTACHMENT C

Date	NCIRSWA Flow MGD	NCIRSWA BOD mg/l	NCIRSWA BOD lbs/day	NCIRSWA COD mg/l	NCIRSWA COD lbs/day	NCIRSWA TSS mg/l	NCIRSWA TSS lbs/day	NCIRSWA TKN mg/l	NCIRSWA TKN lbs/day	NCIRSWA NH3 mg/l	NCIRSWA NH3 lbs/day	NCIRSWA ph SU	NCIRSWA FOG mg/l	NCIRSWA FOG lbs/day
2025-04-01	0.019000	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-02	0.019000	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-03	0.019000	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-04	0.019000	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-05	0.019000	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-06	0.019000	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-07	0.008900	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-08	0.008900	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-09	0.008900	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-10	0.007400	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-11	0.006700	712	40	1,440	80	76.2	4	-	-	148.000	8.27	7.29	9.30	1
2025-04-12	0.006700	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-13	0.006700	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-14	0.005600	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-15	0.005600	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-16	0.005600	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-17	0.007500	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-18	0.004500	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-19	0.004500	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-20	0.004500	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-21	0.018000	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-22	0.018000	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-23	0.018000	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-24	0.018000	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-25	0.018000	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-26	0.021600	993	149	1,475	266	103.1	19	-	-	95.000	17.11	6.78	11.70	2
2025-04-27	0.021600	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-28	0.010500	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-29	0.010500	-	-	-	-	-	-	-	-	-	-	-	-	-
2025-04-30	0.010500	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum:	0.004500	712	40	1,440	80	76.2	4	0	0	95.000	8.27	6.78	9.30	1
Maximum:	0.021600	993	149	1,475	266	103.1	19	0	0	148.000	17.11	7.29	11.70	2
Total:	0.370700	1,705	189	2,915	346	179.3	23	0	0	243.000	25.38	14.07	21.00	3
Average:	0.012357	853	94	1,458	173	89.7	11	0	0	121.500	12.69	7.04	10.50	1
Data Points:	30	2	2	2	2	2	2	0	0	2	2	2	2	2