Metropolitan Water Reclamation District of Greater Chicago

MONITORING AND RESEARCH DEPARTMENT

REPORT NO. 25-02

RESULTS OF ACUTE TOXICITY TESTING WITH Ceriodaphnia dubia *AND* Pimephales promelas *ON A JANUARY 2025 EFFLUENT SAMPLE FROM THE HANOVER PARK WATER RECLAMATION PLANT OF THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO*

February 2025

Metropolitan Water Reclamation District of Greater Chicago
100 East Erie Street Chicago, Illinois 60611-2803 (312) 751-5600

RESULTS OF ACUTE TOXICITY TESTING WITH *Ceriodaphnia dubia* AND *Pimephales promelas* ON A JANUARY 2025 EFFLUENT SAMPLE FROM THE HANOVER PARK WATER RECLAMATION PLANT OF THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

By

EnviroScience, Incorporated
5070 Stow Road
Stow, Ohio 44224

Monitoring and Research Department
Edward W. Podczerwinski, Director

February 2025

Protecting Our Water Environment

Metropolitan Water Reclamation District of Greater Chicago

CECIL LUE-HING RESEARCH AND DEVELOPMENT COMPLEX
6001 WEST PERSHING ROAD CICERO, ILLINOIS 60804-4112

Edward W. Podczerwinski, P.E.
Director of Monitoring and Research

February 11, 2025

Illinois Environmental Protection Agency
Compliance Assurance Section CAS #19
2520 W. Iles Ave.
P.O. Box 19276
Springfield, IL 62794-9276

Subject: Biomonitoring Report for 2025 – Acute Toxicity Test Results for the Hanover Park Water Reclamation Plant, National Pollutant Discharge Elimination System Permit Number IL0036137

The subject biomonitoring report including acute whole effluent toxicity test results for *Pimephales promelas* and *Ceriodaphnia dubia* is submitted in compliance with National Pollutant Discharge Elimination System Permit Number IL0036137, Special Condition 15. The report covers the monitoring done for samples collected in the fifteenth month before the expiration of the permit.

The subject report prepared by EnviroScience, Inc., includes copies of all bench sheets, chain-of-custody forms, sample receipt, preparation forms, a summary of final results and test information, quality assurance record, and water quality results.

If you have any questions concerning this report, please contact Mr. Thomas Minarik, Principal Environmental Scientist, at (708) 588-4223.

Very truly yours,

Albert Cox

Albert Cox
Environmental Monitoring and Research
Manager
Monitoring and Research Department

AC:TM:NK:ek
Enclosure
cc: E. Podczerwinski/J. Murray
H. Zhang/T. Minarik/N. Kollias
Via electronic mail

RESULTS OF ACUTE TOXICITY TESTS

48 Hour - *Ceriodaphnia dubia* (water flea)
96 Hour - *Pimephales promelas* (fathead minnow)

Testing period: January 14-18, 2025
Sample collection dates: January 12-13, 2025
Report date: January 22, 2025

Conducted For:

HANOVER PARK WRP
1200 Sycamore Avenue
Hanover Park, IL 60133

Conducted and Prepared By:

ENVIROSCIENCE, INCORPORATED
5070 Stow Rd.
Stow, OH 44224
330-688-0111

EnviroScience
Excellence In Any Environment

_____, Aquatic Biologist

January 22, 2025

Mr. Nicholas Kollias
Hanover Park WRP
1200 Sycamore Avenue
Hanover Park, IL 60133

Dear Mr. Kollias:

Enclosed is a copy of EnviroScience's report for the following whole effluent toxicity (WET) tests that were initiated on January 14, 2025 with effluent collected from outfall 001:

(1) 48-hour static acute bioassay using *Ceriodaphnia dubia* (water flea) and
(1) 96-hour static acute bioassay using *Pimephales promelas* (fathead minnow).

The effluent sample was not shown to be toxic to either species. Acute Toxicity Units (TUa) are listed below.

WET test endpoints for Hanover Park WRP, 01/2025
sample collection period 01/12-13/25

Effluent:

Ceriodaphnia dubia (water flea)	48HR LC_{50} = >100% effluent;	TU_a = <1.0 ($TU_a = 100/LC_{50}$)
Pimephales promelas (fathead minnow)	96HR LC_{50} = >100% effluent;	TU_a = <1.0 ($TU_a = 100/LC_{50}$)

Please call me if you have any questions.

Sincerely,

Alexandria M. Tite, Aquatic Biologist

enclosures

EnviroScience
5070 Stow Road
Stow, OH 44224
Toll Free: 800-940-4025 | Office: 330-688-0111 | Fax: 330-688-3858

BIOMONITORING REPORT FORM FOR NPDES PERMIT REQUIREMENTS

Table 1. General Information

1. Facility: Hanover Park WRP

2. Address: 1200 Sycamore Ave., Hanover Park, IL, 60133

3. NPDES Permit No.: IL0036137

4. Facility Contact: Nicholas Kollias 5. Phone No.: 708-588-4074

6. Testing Lab: EnviroScience, Inc., 5070 Stow Rd., Stow, OH 44224

7. Laboratory Contact: Alex Tite 8. Phone No.: 330-688-0111

9. Receiving Water(s) of Discharge: West Branch DuPage River

10. Outfall(s) Tested: 001

11. Test Species/Type: #1 *Ceriodaphnia dubia* (water flea) 48-hour definitive, static, non-renewal EPA 2002.0

#2 *Pimephales promelas* (fathead minnow) 96-hour definitive, static, non-renewal EPA 2000.0

12. Dechlorination?: no Original Chlorine Conc.: <0.02 mg/l

13. Report Contents:

General information	Table 1
Sampling information	Table 2
Test dates and times	Table 3
Initial chemistry	Table 4
Test conditions	Table 5
Test results Plant Effluent	Table 6
Additional Information	Table 7

Attachments

Chain-of-Custody, bench sheets/data analysis

SRT control charts

Signature of preparer — 01/22/25 Date

Alexandria M. Tite Name (typed or printed) — Aquatic Biologist Title

Table 2. Sampling summary.

Outfall	Sample Type	Volume Collected	Sample Collection		Comments
			Begin MM/DD/YY-Time	End or Grab MM/DD/YY-Time	
001	composite	1 gallon	01/12/25-0700	01/13/25-0700	

Table 3. Testing periods.

Ceriodaphnia dubia (water flea)		*Pimephales promelas* (fathead minnow)	
Start Date: MM/DD/YY	01/14/25	Start Date: MM/DD/YY	01/14/25
Start Time:	1300 hrs	Start Time:	1415 hrs
End Date: MM/DD/YY	01/16/25	End Date: MM/DD/YY	01/18/25
End Time:	1330 hrs	End Time:	1340 hrs

Notes: Sample receipt: 01/14/25-0950; 0.6 °C.

Table 4. Initial chemistry. DO = dissolved oxygen. TRC = total residual chlorine.

sample # (Plant Effluent)	collection date	DO mg/L	pH s.u.	conductivity µmho/cm	alkalinity mg/L $CaCO_3$	hardness mg/L $CaCO_3$	TRC mg/L	Ammonia mg/L
001	01/12-13/25	8.6	6.9	1066	86	248	<0.02	1.38

Methods or Instrumentation used in chemical analysis:

Dissolved Oxygen: APHA (1998, 20th ed.) 4500-O G., OX 4100L
pH: APHA (1998, 20th ed.) 4500-H^+ B., Orion Star A211
Conductivity: APHA (1998, 20th ed.) 2510 B., Orion Star A212
Total Alkalinity: APHA (1998, 20th ed.) 2320 B.
Total Hardness: APHA (1998, 20th ed.) 2340 C.
Total Residual Chlorine: APHA (1998, 20th ed.) 4500-Cl D., HACH TitraLab AT1000

Table 5. Summary of toxicity test conditions for testing with *Ceriodaphnia dubia* and *Pimephales promelas*.

	Ceriodaphnia dubia	*Pimephales promelas*
1. Test dates:	01/14/25-1300 to 01/16/25-1330	01/14/25-1415 to 01/18/25-1340
2. Test type and duration:	static, non-renewal, 48 hours	static, non-renewal, 96-hours
3. Age and source of organisms:	<24 hours, EnviroScience 01/13/25-2400	7 days, ES 01/06/25-1530
4. Photoperiod/ Light quality:	16 hours light / 8 hours dark fluorescent light, 50-100fc	16 hours light / 8 hours dark fluorescent light, 50-100fc
5. Test temperature:	25±1 °C	25±1 °C
6. Feeding regime:	fed alga *Selenastrum capricornutum* and YAT prior to test only	fed <500 brine shrimp/vessel at 48-hours
7. Size of test vessel:	30 ml plastic cup	600 ml glass beaker
8. Volume and depth of test solutions:	15 ml and 24 mm	250 ml and 42 mm
9. No. of test organisms per vessel:	5	10
10. No. of vessels per solution:	4	2
11. Total no. of organisms per test level:	20	20
12. Test concentrations as % effluent:	6.25, 12.5, 25, 50, and 100	6.25, 12.5, 25, 50, and 100
13. Dilution and primary control water:	moderately hard reconstituted water, MHRW	moderately hard reconstituted water, MHRW
14. Secondary control:	moderately hard dilute mineral water, DMW	moderately hard dilute mineral water, DMW
15. Aeration:	none	none
16. Endpoints:	mortality - no movement with gentle prodding (LC_{50}); plus behavioral effects such as atypical swimming (EC_{50})	mortality - no movement with gentle prodding (LC_{50}); plus behavioral effects such as atypical swimming (EC_{50})
17. No. of consecutive tests conducted with an alternate source of primary control water:	NA	NA

Table 6. Percent cumulative mortality, LC_{50}, EC_{50}, and 95% confidence intervals for acute toxicity tests using *Ceriodaphnia dubia* and *Pimephales promelas* using effluent collected from **Outfall 001.**

Concentration	***C. dubia* (water flea)** 01/14/25 to 01/16/25		***P. promelas* (fathead minnow)** 01/14/25 to 01/18/25			
	24-hours % mortality	48-hours % mortality	24-hours % mortality	48-hours % mortality	72-hours % mortality	96-hours % mortality
MHRW lab water, **diluent**	0	0	0	0	0	0
DMW, lab water	0	0	0	0	5	5
6.25% effluent	0	0	0	0	0	0
12.5% effluent	0	0	0	0	0	0
25% effluent	0	0	0	0	0	0
50% effluent	0	0	5	5	5	5
100% effluent	0	0	0	0	0	0
LC_{50}	>100% effluent	>100% effluent	>100% effluent	>100% effluent	>100% effluent	>100% effluent
95% C.I.						
EC_{50}	>100% effluent	>100% effluent	>100% effluent	>100% effluent	>100% effluent	>100% effluent
95% C.I.						
TUa ($100 \div LC_{50}$)		**<1.0**				**<1.0**
Methods:	Cetis 2.1.5.					

Table 7. Additional Information:

Indicate below any other relevant information that may aid in the evaluation of this report. Include any deviations from current SOP that were necessary. Attach additional pages as needed.

7.1 Deviations/relevant information.

7.2 Terms.

LC_{50} = median lethal concentration. A mathematical estimate of the effluent concentration that would kill 50% of the exposed specimens during the specified exposure period.

TU_a = Acute Toxicity Unit; $TU_a = 100 \div LC_{50}$ (usually 48-hour LC_{50} for water fleas and 96-hour LC_{50} for FHM)

ATTACHMENTS

Chain-of-Custody/Sample Submission
Bench sheets
Standard Reference Toxicant Control Charts

EnviroScience
Excellence In Any Environment

EnviroScience, Inc.
5070 Stow Road
Stow, OH 44224
Phone (330) 688-0111
Fax (330) 688-3858
1-800-940-4025

Client: Hanover Park WRP
Address: 6001 West Pershing Road
Cicero, IL 60804
Contact: Nicholas Kollias
Phone: 708-588-4074
Permit #: IL

SAMPLE SUBMISSION AND CHAIN OF CUSTODY FORM

Test(s) to be performed:
( ) Chronic Definitive
(✓) Acute Definitive
( ) 48 hr. Screening
( ) 24 hr. Stormwater
( ) Pass/Fail _____

Test Species
(✓) P. promelas and C. dubia
( ) P. promelas
( ) C. dubia
( ) D. magna
( ) _____

Wastewater Type (Circle One)
Industrial Other
(Municipal)
Other _____

When listing a composite sample in the table below, please provide the start and end time of the composite period.

Start		End		Station No.	Sample Site	Sample Type		Number of Cubitainers	Chemistry				
Date	Time	Date	Time			Comp	Grab		TRC	Cond	D.O.	pH	Temp. °C
01/12/25 MR	07:00	1/13/25	07:00	BMOUT-HP	Hanover Park WRP	✓		1	0	1055	10.56	7.37	6.8

Comp. = Composite, D.O. = Dissolved Oxygen measured in mg/l, pH measured in s.u., Conductivity measured in uohm/cm

Sampling Collector's Information: please ✓ all appropriate boxes

✓	Effluent	Collectors Name:	Michael Ress
	Upstream	Collectors Signature:	
	Near Field	M.G.D. =	
	Far Field	Weather Conditions:	
Plume Determined By What Method?			

EnviroScience Personnel Only

	Effluent	Collected By:	
	Upstream	Collectors Signature:	
	Near Field		
	Far Field		

Comments:

Received from:	Received by:	Date	Time	Shipping Information		EnviroScience Use Only	
MWRD	Madelyn Foley	011425	0950	Date Shipped	01/13/2025	Client	Hanover Park
				Time Shipped		Sample ID's	HAPO D11425EFF
				Method Shipped	UPS	Cond. Of Container	Good
				ES Vehicle		Temp. °C	0.6

EnviroScience, Inc. Cooler Receipt Form (Form 7050-2 rev. 03/30/22)

Client Hanover Park

ES Sample ID HAPO 011425 EFF

Cooler Received by: MJ

Date Cooler Received and Opened 011425

Received from: FedEx___ UPS ✓ Client Drop Off___ ES Courier___

1. Were custody seals on the outside of cooler? Yes___ No ✓
   Were custody seals signed, dated and intact? Yes___ No ✓
2. Did Chain of Custody (COC) accompany the samples? Yes ✓ No___
3. Were the COC's signed in the appropriate places? Yes ✓ No___
   If No explain___
4. Was the sample time and date filled in correctly? Yes ✓ No___
5. Sample Temperature upon receipt 0.6 °C
6. Did all sample container labels match the samples written on the COC? Yes ✓ No___
   Were the sample containers in good condition? Yes ✓ No___
7. Was sufficient quantity received to perform indicated tests? Yes ✓ No___
8. Was this sample received within required holding time? Yes ✓ No___
9. EPA method code: 1000.0: ___ 1002.0: ___ 2000.0: ✓ 2002.0: ✓

Explain any discrepancies or client notifications that occurred regarding this sample:___

EnviroScience
Excellence In Any Environment

5070 Stow Road
Stow, Ohio 44224
Phone (330) 688-0111; 1-800-940-4025
Fax (330) 688-3858

Acute, 48-hour, non-renewal Bioassay:
Project: HAPO 011425
No.:
Start Date: 011425 Time: 1300
End Date: 011625 Time: 1330

Organism: C. dubia
Source: BD 010625 2400
Hatch/Age: 011325 2400 <24hrs old
Diluent: MHR
Sample #: HAPO 011425 EFF

test levels	Rep	n	Biological Parameters: Dead / Affected 24 hr	Biological Parameters: Dead / Affected 48 hr	Temperature (Celsius) 0	Temperature (Celsius) 24	Temperature (Celsius) 48	Dissolved Oxygen (mg/L) 0	Dissolved Oxygen (mg/L) 24	Dissolved Oxygen (mg/L) 48	pH (s.u.) 0	pH (s.u.) 24	pH (s.u.) 48	Conductivity (µmhos/cm) 0	Conductivity (µmhos/cm) 24	Conductivity (µmhos/cm) 48
MHR	A	5	0 / 0	0 / 0	24.0	24.0	25.3	8.6		8.6	7.4		7.1	293		346
	B	5	0 / 0	0 / 0												
	C	5	0 / 0	0 / 0												
	D	5	0 / 0	0 / 0												
DMW	A	5	0 / 0	0 / 0	24.0	24.3	25.2	8.6		8.6	8.1		7.0	190		235
	B	5	0 / 0	0 / 0												
	C	5	0 / 0	0 / 0												
	D	5	0 / 0	0 / 0												
6.25	A	5	0 / 0	0 / 0	24.0	24.7	25.2	8.3		8.6	7.1		7.2	356		388
	B	5	0 / 0	0 / 0												
	C	5	0 / 0	0 / 0												
	D	5	0 / 0	0 / 0												
12.5	A	5	0 / 0	0 / 0	24.0	25.0	25.1	8.4		8.6	7.1		7.2	394		411
	B	5	0 / 0	0 / 0												
	C	5	0 / 0	0 / 0												
	D	5	0 / 0	0 / 0												
25	A	5	0 / 0	0 / 0	24.0	25.0	24.6	8.4		8.6	7.1		7.1	497		532
	B	5	0 / 0	0 / 0												
	C	5	0 / 0	0 / 0												
	D	5	0 / 0	0 / 0												
50	A	5	0 / 0	0 / 0	24.0	24.7	24.6	8.3		8.6	7.0		7.1	775		725
	B	5	0 / 0	0 / 0												
	C	5	0 / 0	0 / 0												
	D	5	0 / 0	0 / 0												
100	A	5	0 / 0	0 / 0	24.0	24.5	24.6	8.5		8.6	7.0		7.4	1092		1195
	B	5	0 / 0	0 / 0												
	C	5	0 / 0	0 / 0												
	D	5	0 / 0	0 / 0												
Time			1300	1230	1330	1300	1230	1330	1155		1435	1200		1130	1150		1430
Tech			TM	SM	AL	TM	SM	AL	DA		TM	DA		TM	DA		TM
						6	11	1	OX4100L			Orion StarA211 A			Orion StarA212		
						ID or ✓ instrument used			DA		TM			TM	DA		TM
									Other:			Orion StarA211 B					
												DA					

USEPA Method: 2002.0

JMW

CETIS Analytical Report

Ceriodaphnia 48-h Acute Survival Test

EnviroScience

Analysis ID:	19-3888-2899	Endpoint:	48h Survival Rate	CETIS Version:	CETIS v2.1.5
Analyzed:	22 Jan-25 12:38	Analysis:	Linear Interpolation (ICPIN)	Status Level:	1
Edit Date:	22 Jan-25 0:00	MD5 Hash:	68E117461239090AA7E1427F0F536296	Editor ID:	007-869-049-5
Batch ID:	18-3539-2558	Test Type:	Survival (48h)	Analyst:	
Start Date:	14 Jan-25 13:00	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Upstream of Discharge
Ending Date:	16 Jan-25 13:30	Species:	Ceriodaphnia dubia	Brine:	
Test Length:	49h	Taxon:	Branchiopoda	Source:	In-House Culture Age:
Sample ID:	03-8041-8517	Code:	16ACB9D5	Project:	
Sample Date:	13 Jan-25 07:00	Material:	POTW Effluent	Source:	Discharge Monitoring Report
Receipt Date:	14 Jan-25 09:60	CAS (PC):		Station:	001
Sample Age:	30h	Client:	Hanover Park, IL		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1898	1000	Yes	Two-Point Interpolation

Test Acceptability Criteria

		TAC Limits			
Attribute	Test Stat	Lower	Upper	Overlap	Decision
Control Resp	1	0.9	>>	Yes	Passes Criteria

Point Estimates

Level	%	95% LCL	95% UCL	Tox Units	95% LCL	95% UCL
LC50	>100	---	---	<1	---	---

48h Survival Rate Summary

			Calculated Variate(A/B)							Isotonic Variate	
Conc-%	Code	Count	Mean	Median	Min	Max	CV%	%Effect	ΣA/ΣB	Mean	%Effect
0	D	4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%
6.25		4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%
12.5		4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%
25		4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%
50		4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%
100		4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%

48h Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	D	1.0000	1.0000	1.0000	1.0000
6.25		1.0000	1.0000	1.0000	1.0000
12.5		1.0000	1.0000	1.0000	1.0000
25		1.0000	1.0000	1.0000	1.0000
50		1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000

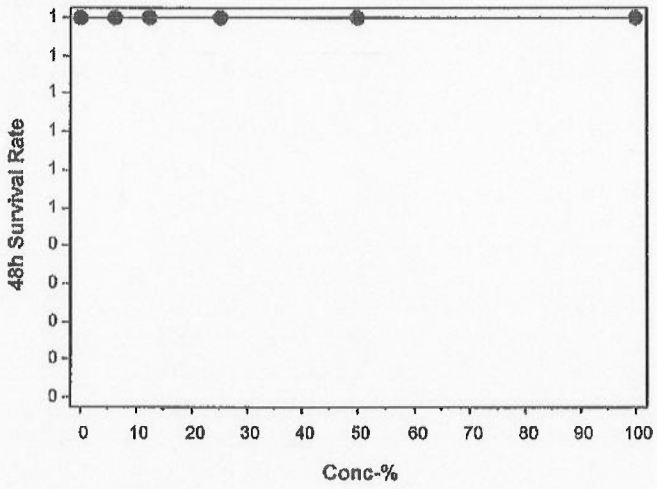
48h Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	D	5/5	5/5	5/5	5/5
6.25		5/5	5/5	5/5	5/5
12.5		5/5	5/5	5/5	5/5
25		5/5	5/5	5/5	5/5
50		5/5	5/5	5/5	5/5
100		5/5	5/5	5/5	5/5

Ceriodaphnia 48-h Acute Survival Test — EnviroScience

Analysis ID:	19-3888-2899	**Endpoint:**	48h Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	22 Jan-25 12:38	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	22 Jan-25 0:00	**MD5 Hash:**	68E117461239090AA7E1427F0F536296	**Editor ID:**	007-869-049-5

Graphics



ACUTE, 96 HOUR, NON- RENEWAL BIOASSAY:
Project: HAPO 011425
No.:
Start Date: 011425 Time: 1415
End Date: 011825 Time: 1340

Organism: Pimephales promelas (FHM)
Source: ES Culture
Hatch/Age: 010625 1530/ 7days
Diluent: MHR
Sample #: HP 011425 ~~EGF~~ GRP

Biological Parameters: # Mortalities / # Affected											
		test levels→			MHR	DMW	6.25	12.5	25	50	100
0 hours set-up	Tech	HD	n	A	10	10	10	10	10	10	10
	Time	1415	n	B	10	10	10	10	10	10	10
24 hours	Tech	JM		A	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1 / 1	0 / 0
	Time	1215		B	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
48 hours	Tech	CE		A	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1 / 1	0 / 0
	Time	1405		B	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
72 hours	Tech	TM		A	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1 / 1	0 / 0
	Time	1300		B	0 / 0	1 / 1	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
96 hours	Tech	LB		A	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1 / 1	0 / 0
	Time	1340		B	0 / 0	1 / 1	0 / 0	0 / 0	0 / 0	0 0	0 / 0

Chemical and Physical Data											
		Tech	Time	Instr.#	MHR	DMW	6.25	12.5	25	50	100
Temp. °C	0 hr	HD	1415	7	24.0	24.0	24.0	24.0	24.0	24.0	24.0
	24 hr	JM	1215	6	24.0	24.0	24.0	24.0	24.2	24.3	24.3
	48 hr	CE	1405	6	24.6	24.7	24.8	24.8	24.9	25.1	25.1
	72 hr	TM	1300	10	24.3	24.7	24.4	24.5	24.7	24.7	24.6
	96 hr	LB	1340	11	240	240	240	240	240	240	240
cond. µmhos/cm	0 hr	DA	1150	A212	293	190	356	394	497	775	1092
	24hr	RL	1030	A212	297	211	344	389	442	742	1112
	48 hr	TM	1010	A212	310	214	361	398	514	767	1141
	72 hr	CE	1100	A212	316	219	342	404	508	755	1147
	96 hr	DA	1010	A212	318	217	347	399	512	700	1138
DO mg/L	0 hr	DA	1155	OX 4100L	8.6	8.6	8.38	8.4	8.4	8.3	8.5
	24 hr	RL	1030	OX 4100L	8.6	8.6	8.6	8.6	8.5	8.5	8.5
	48 hr	TM	1015	OX 4100L	8.6	8.4	8.4	8.4	8.4	8.6	8.6
	72 hr	CE	1100	OX 4100L	8.6	8.4	8.2	8.0	7.9	8.0	7.9
	96 hr	DA	1015	OX 4100L	8.6	8.6	8.4	8.6	8.6	8.6	8.6
pH s.u.	0 hr	DA	1200	A211B	7.4	8.1	7.1	7.1	7.1	7.0	7.0
	24 hr	RL	1030	A211A	7.1	6.8	7.0	7.0	7.0	7.0	7.0
	48 hr	TM	1015	A211A	7.0	6.7	7.0	7.0	7.1	7.1	7.3
	72 hr	CE	1100	*A211B	7.0	6.7	6.9	6.9	7.0	7.1	7.2
	96 hr	DA	1020	A211A	7.3	6.9	7.1	7.1	7.2	7.2	7.3

JMJ

CETIS Analytical Report

Fathead Minnow 96-h Acute Survival Test

EnviroScience

Analysis ID:	17-5100-7830	Endpoint:	96h Survival Rate	CETIS Version:	CETIS v2.1.5
Analyzed:	22 Jan-25 12:41	Analysis:	Linear Interpolation (ICPIN)	Status Level:	1
Edit Date:	22 Jan-25 0:00	MD5 Hash:	ADE8A4CF85D9444CA199FD876B3905AA	Editor ID:	007-869-049-5
Batch ID:	20-6745-7981	Test Type:	Survival (96h)	Analyst:	
Start Date:	14 Jan-25 14:15	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Upstream of Discharge
Ending Date:	18 Jan-25 13:40	Species:	Pimephales promelas	Brine:	
Test Length:	95h	Taxon:	Actinopterygii	Source:	In-House Culture Age:
Sample ID:	03-0408-3547	Code:	121FF25B	Project:	
Sample Date:	13 Jan-25 07:00	Material:	POTW Effluent	Source:	Discharge Monitoring Report
Receipt Date:	14 Jan-25 09:50	CAS (PC):		Station:	001
Sample Age:	31h	Client:	Hanover Park, IL		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	753992	1000	Yes	Two-Point Interpolation

Test Acceptability Criteria

		TAC Limits			
Attribute	Test Stat	Lower	Upper	Overlap	Decision
Control Resp	1	0.9	>>	Yes	Passes Criteria

Point Estimates

Level	%	95% LCL	95% UCL	Tox Units	95% LCL	95% UCL
LC50	>100	---	---	<1	---	---

96h Survival Rate Summary

			Calculated Variate(A/B)							Isotonic Variate	
Conc-%	Code	Count	Mean	Median	Min	Max	CV%	%Effect	ΣA/ΣB	Mean	%Effect
0	D	2	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%
6.25		2	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%
12.5		2	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%
25		2	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%
50		2	0.9500	0.9500	0.9000	1.0000	7.44%	5.00%	19/20	0.9750	2.50%
100		2	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	0.9750	2.50%

96h Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2
0	D	1.0000	1.0000
6.25		1.0000	1.0000
12.5		1.0000	1.0000
25		1.0000	1.0000
50		0.9000	1.0000
100		1.0000	1.0000

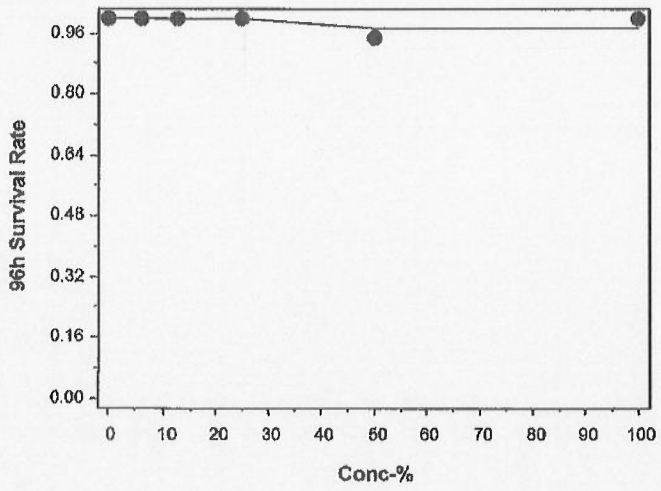
96h Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2
0	D	10/10	10/10
6.25		10/10	10/10
12.5		10/10	10/10
25		10/10	10/10
50		9/10	10/10
100		10/10	10/10

Fathead Minnow 96-h Acute Survival Test — EnviroScience

Analysis ID:	17-5100-7830	Endpoint:	96h Survival Rate	CETIS Version:	CETIS v2.1.5
Analyzed:	22 Jan-25 12:41	Analysis:	Linear Interpolation (ICPIN)	Status Level:	1
Edit Date:	22 Jan-25 0:00	MD5 Hash:	ADE8A4CF85D9444CA199FD876B3905AA	Editor ID:	007-869-049-5

Graphics



Acute, Static Bioassay:
Initial Water Quality Checks (DO, pH, conductivity, chlorine, alkalinity, hardness) and Dilution Record

Client: HAPO 011425 Permit No.: _____
Date: 011425

Initial Water Quality Data:

Sample Id	D. Oxygen (mg/L-%sat) >4 & <100%?	pH (s.u) 6-9?	Conductivity (µmhos/cm)	TRC_I (mg/L) <0.02?	TRC_A (mg/L)	Alkalinity (mg/L $CaCO_3$) MDL = 20 mg/l	Hardness-EDTA (mg/L $CaCO_3$) MDL = 5 mg/l
				<0.02		(3.7) 74	(2.1) 84
MHRW batch# 011225	~~8.8~~	~~7.8~~	~~288~~ 1066	~~<0.02~~	NA	~~(6.2)(4.3) 80~~	~~(6.2) 248~~
HAPO 011425 EFF	8.6	6.9	1066	<0.02		(4.3) 82	(6.2) 248
INITIALS →	DA	DA	DA	DA		DA	DA

Dilution Record:

SAMPLE ID	Composited	60µm Filtered
HAPO 011425 EFF	☐Yes ☑No	☐Yes ☑No
	☐Yes ☐No	☐Yes ☐No
	☐Yes ☐No	☐Yes ☐No
Comments: Ammonia = 1.38 mg/L		

% DILUTION	INITIATION Effluent (mL)	INITIATION Final (mL)	RENEWAL ~~☑No~~ Effluent (mL)	RENEWAL Final (mL)
6.25	62.5	1000		
12.5	125	↓		
25	250			
50	500	↓		

Dilution Water:	☐ Upstream ☑ MHR	☐ Upstream ☐ MHR
MHR Batch:	011225	

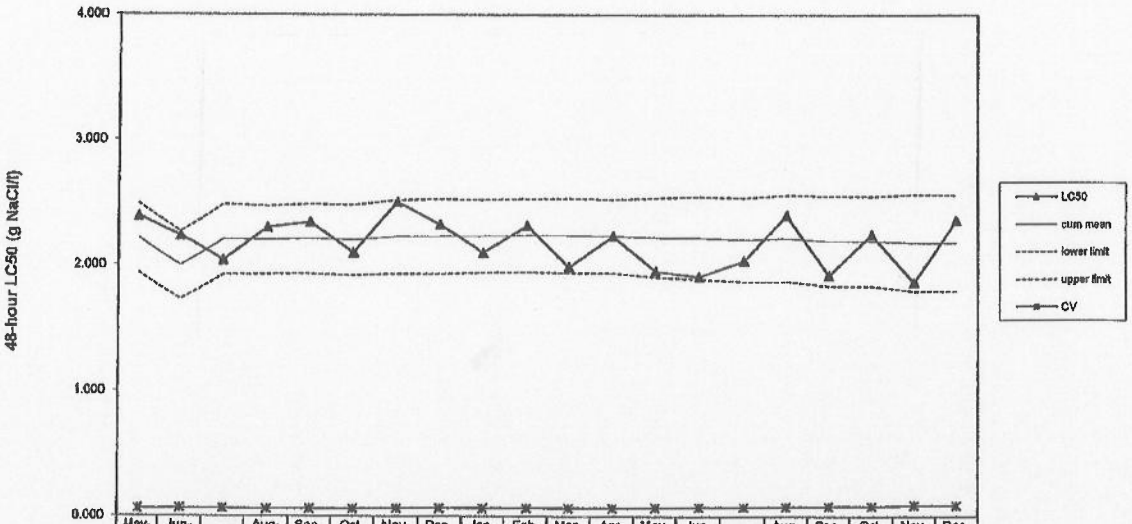
Methods/Instrumentation :
DO: APHA (1998) 4500-O G, OX4100L
pH: APHA (1998) 4500-H B, Star A211
Conductivity: APHA (1998) 2510-B, Orion Star A212
Hardness: APHA (1998) 2340-C
Alkalinity: APHA (1998) 2320-B
TRC: APHA (1998) 4500-Cl D, TitraLab At 1000
USEPA Methods: 2000.0; 2002.0

TRC_I = total residual chlorine, initial value
TRC_A = total residual chlorine, after dechlorination

Dechlorination procedure: Sodium thiosulfate is used to reduce Total Residual Chlorine by dosing with 6.7 mg $Na_2S_2O_3$ per mg TRC. A 6.7 mg/ml $Na_2S_2O_3$ solution is used; dose mL = X mg/L * liters in sample container being treated.

MM

EnviroScience QC Chart - *Ceriodaphnia dubia*
Acute Toxicity endpoint - 25 C



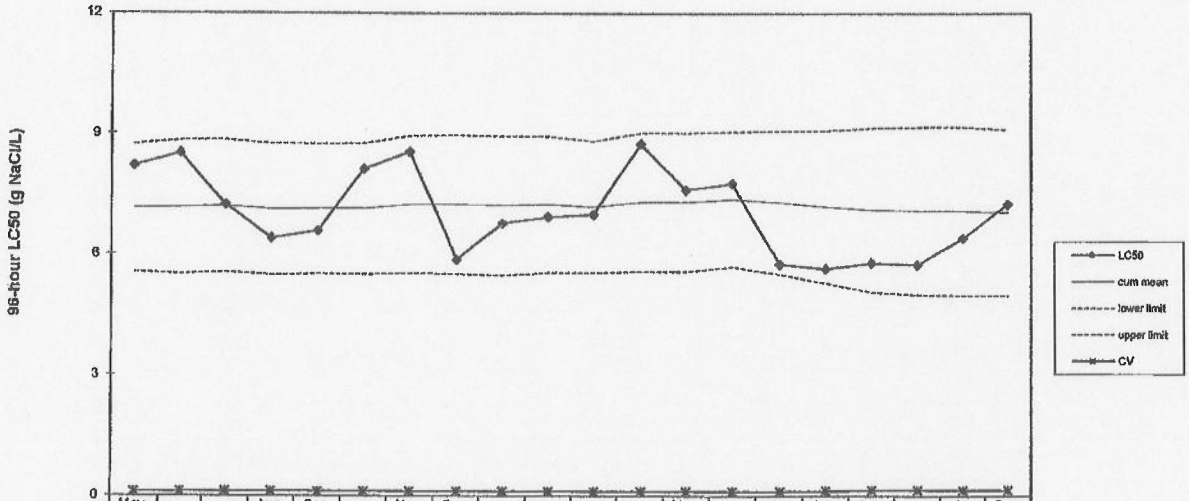
	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-25
LC50	2.392	2.235	2.040	2.301	2.341	2.101	2.502	2.325	2.101	2.316	1.986	2.235	1.955	1.911	2.038	2.400	1.921	2.246	1.866	2.358
cum mean	2.216	1.999	2.205	2.201	2.210	2.201	2.227	2.231	2.234	2.239	2.238	2.233	2.224	2.221	2.208	2.218	2.195	2.193	2.180	2.178
lower limit	1.94	1.729	1.925	1.93	1.932	1.921	1.933	1.934	1.944	1.947	1.942	1.94	1.908	1.893	1.872	1.874	1.837	1.836	1.794	1.795
upper limit	2.492	2.269	2.485	2.472	2.487	2.482	2.52	2.527	2.524	2.531	2.533	2.526	2.54	2.549	2.54	2.562	2.553	2.551	2.565	2.562
CV	0.062	0.067	0.063	0.062	0.063	0.064	0.066	0.066	0.065	0.065	0.066	0.066	0.071	0.074	0.076	0.078	0.082	0.081	0.088	0.088

Test Date (MM.YY)

Tests conducted at Stow, OH facility

EnviroScience QC/SRT Chart rev. 01/08/25

EnviroScience QC Chart - *Pimephales promelas*
Acute Toxicity Endpoint - 25 C



	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-25
LC50	8.208	8.523	7.233	6.399	6.583	8.125	8.548	5.866	6.772	6.928	6.998	8.746	7.605	7.762	5.767	5.65	5.784	5.741	6.403	7.256
cum mean	7.1618	7.1762	7.2052	7.1219	7.1301	7.1345	7.2409	7.237	7.2126	7.2388	7.1782	7.3009	7.3041	7.3721	7.2951	7.1867	7.105	7.0869	7.0765	7.0444
lower limit	5.5608	5.5148	5.5622	5.4937	5.5152	5.5088	5.5354	5.5185	5.4815	5.5441	5.5438	5.5804	5.5815	5.5926	5.5129	5.2924	5.0667	5.0024	4.9818	4.9833
upper limit	8.7628	8.8375	8.8482	8.75	8.7449	8.7604	8.9464	8.9554	8.9434	8.9334	8.8125	9.0213	9.0266	9.0515	9.0774	9.0809	9.1432	9.1694	9.1711	9.1064
CV	0.1112	0.1156	0.114	0.1143	0.1132	0.1139	0.1178	0.1167	0.12	0.1171	0.1138	0.1178	0.1179	0.1139	0.1222	0.1318	0.1434	0.147	0.148	0.1463

Test Date (MM.YY)

Tests conducted at Stow, OH facility

EnviroScience QC/SRT Chart rev. 01/08/25

Hanover Park WRP

WET-L COC
Revision 1.2
1/18/2011

The WET Sample Chain-of-Custody

SAMPLE COLLECTION			SAMPLE TYPE	SAMPLE LOCATION	SAMPLE Temp °C	ON-SITE SAMPLE STORAGE (0.1-6 °C)	PRINT NAME & SIGNATURE
DATE	TIME	PERSONNEL INITIALS					
1/12/2025	0700	EH	Grab	HP outfall	14.0	(YES)/NO	Erik Hendrickson
1/12/2025	1300	EH	Grab	HP outfall	14.0	(YES)/NO	Erik Hendrickson
1/12/2025	1900	PK	Grab	HP Outfall	13.8	(YES)/NO	Paul Kuzminski
1/13/2025	0100	MB	Grab	HP outfall	13.8	(YES)/NO	Manveer Boraich
1/13/2025	0700	AM	Grab	HP outfall	13.6	(YES)/NO	Aman Madani

Note: Sample container should be rinsed and should be filled completely leaving no air space between contents & lid. Preserve samples on ice or refrigerator (0.1-6°C) immediately after collection. Transport samples in ice-packed coolers to the WET Laboratory. The WET laboratory is located in Room LE-100, Lue-Hing R&D Complex.

Indicate if the final effluent was chlorinated/dechlorinated: Yes (No) / NA

SAMPLES RELINQUISHED BY: Name Aman Madani Signature: Aman Madani Date/Time: 1/13/25 0727

SAMPLES TRANSPORTED TO WET LAB. BY Name Paula Brinkman Lowe Signature: Paula Brinkman Lowe Date/Time: 1/13/25 0836

FOR WET LABORATORY USE ONLY:

Sample Received by: Name Paula Brinkman Lowe Signature Paula Brinkman Lowe Date/Time 1/13/25 0952

1. Samples received with prescribed holding time (within 4 h of collection)? (Not Applicable, if chronic test) — 1. (Yes) / No / (NA)
2. Samples logged in by PBL Date 1/13/25 Time 0952 — 2. (Yes) / No
3. Each sample container labeled with a unique ID? — 3. (Yes) / No
4. Were collection times for effluent and receiving water within 1 h of each other? — 4. Yes / No / (NA)
5. Did samples have sufficient volume for analysis? — 5. (Yes) / No
6. Samples accepted — 6. (Yes) / No

Special Observations _____

LIMS #	Sample Type/ID	Temp °C	pH	Residual Chlorine (mg/L) Initials	Sodium-thio-sulfate Added YES/(NO)	Sample Custodian Signature
9743078-A	BMOUT_HP A	2.8	7.28	0 MR	Indicate Total ___ ml of 5% Sodium-thio-sulfate added. Initial ___. Final Residual Cl_2 reading = 0 mg/l Initial MR	
9743078-B	BMOUT_HP B	2.9	7.35	Total Ammonia (mg-L) ALD Results		
9743078-C	BMOUT_HP C	2.3	7.33			
9743078-D	BMOUT_HP D	3.1	7.34	0.674		
9743078-E	BMOUT_HP E	4.0	7.37			

Note: Set aside one cubitainer for metals and chemical analyses

Sample Release for Disposal

Sample released for disposal following analysis on (Date) 01/14/25 by _____

Samples Discarded by _____ Date/Time 01/14/25 MR 1000

Metropolitan Water Reclamation District of Greater Chicago

OCAL CHAIN OF CUSTODY RECORD

From: Nick Kollias **Office Location:** Stickney

To: ORGANIC COMPOUNDS ANALYTICAL LABORATORY, EGAN WRP

COLLECTED			SAMPLE SOURCE/LOCATION	PARAMETER or CFR CATEGORY	LIMS ID	# of CONTAINERS				LAB ID (Lab Use Only)	Temp
DATE	TIME (Military)	BY FULL NAME (PRINT)				Vials	Gallons	Quarts	Pints		
1/13/25	10:59	Nick Kollias	BMOUT HP		9743078 -5	3	1			25-007	3.6
1/13/25		Nick Kollias	Trip Blanks		9743367-1	2				25-008	4.0

Samples listed above were stored on site at 0.1 - 6°C immediately after collection, and remained in custody of collector(s) until relinquished.

Container Type (specify vial, gallon, pint, or quart)	Case ID (copy from case label)
Gallon	24-095G
Vials	24-082V

Container Type (specify vial, gallon, pint, or quart)	Case ID (copy from case label)

ITEMS TRANSFERRED	RELINQUISHED BY			RECEIVED BY		
	FULL NAME or COOLER	DATE	TIME (Military)	FULL NAME or COOLER	DATE	TIME (Military)
Indicated above		01/13/25	10:59	Cooler D	01/13/25	11:00 11:15 1/27/25 MM
Indicated above	Cooler D	1-14-25	11:05 1/27/25 0830 MM	Jeff moen	1-14-25	0830
Indicated above	Jeff moen	1-14-25	1005	Hanna Kveric	1/14/25	10.15
Indicated above						+0
Indicated above						

Metropolitan Water Reclamation District of Greater Chicago

Custody Transfer Record for Environmental Monitoring and Research Division Samples

(STFORMSR)

To: **Stickney Analytical Lab** Year: **2024**

Collection Date: 1/13/2025
Collected By: Nick Kollias
Preparation Date: 1/13/2025

From: Nick Kollias
Project Number/Support Request#: 4652-126-1, SR 06-25
Sample Type (grab/composite): Composite

Prepared By: Nick Kollias

COC Prepared By: Nick Kollias

Collection Information												For Lab Use Only				
Collection Time	Sample Point	LIMS ID	Trace Metals	Ammonia								Temperature °C	Proper Container	Proper Label	Adequate Volume	Comments
10:59	BMOUT_HP	9743078	X	X								13.3	✓	✓	✓	
ALD Specified Holding Time (In Days)																

Chilling process of samples started immediately after collection: Y / N

Relinquished By	Date	Time	Received By	Date	Time
[signature]	~~01/13/25~~ 01/13/25	11:00	KEK	01/13/25	1145

The relinquisher has read and fully understands the M&R Departments-Environmental Monitoring and Research Division's "Ethical and Legal Responsibilities - Version 1, dated March 13, 2019"

Additonal Comments:

Metropolitan Water Reclamation District of Greater Chicago

Custody Transfer Record for Environmental Monitoring and Research Division Samples

(STFORMSR)

To: IWAL

Year: 2024

From: Nick Kollias

Collection Date: 1/13/2025
Collected By: Nick Kollias
Preparation Date: 1/13/2025

Project Number/Support Request#: 4652-126-1, SR 06-25
Sample Type (grab/composite): Composite

Prepared By: Nick Kollias

COC Prepared By: Nick Kollias

Collection Information			TCN									For Lab Use Only				
Collection Time	Sample Point	LIMS ID										Temperature °C	Proper Container	Proper Label	Adequate Volume	Comments
10:59	BMOUT_HP	9743078	X													
ALD Specified Holding Time (in Days)																

Chilling process of samples started immediately after collection: Y / N

Relinquished By	Date	Time	Received By	Date	Time
[signature]	01/13/25	11:00	KMD	1-13-25	1146

The relinquisher has read and fully understands the M&R Departments-Environmental Monitoring and Research Division's "Ethical and Legal Responsibilities - Version 1, dated March 13, 2019"

Additonal Comments:

Metropolitan Water Reclamation District of Greater Chicago

Custody Transfer Record for Environmental Monitoring and Research Division Samples

(STFORMSR)

To: EAL

Year: 2024

Collection Date: 1/13/2025
Collected By: Nick Kollias
Preparation Date: 1/13/2025

From: Nick Kollias
Project Number/Support Request#: 4652-126-1, SR 06-25
Sample Type (grab/composite): Composite

Prepared By: Nick Kollias

COC Prepared By: Nick Kollias

Collection Information													For Lab Use Only				
Collection Time	Sample Point	LIMS ID	Alkalinity	Chloride									Temperature °C	Proper Container	Proper Label	Adequate Volume	Comments
10:59	BMOUT_HP	9743078	X	X													
ALD Specified Holding Time (in Days)																	

Chilling process of samples started immediately after collection: Y / N

Relinquished By	Date	Time	Received By	Date	Time
	01/13/25	11:00	Cooler 1	01/13/25	11:00

The relinquisher has read and fully understands the M&R Departments-Environmental Monitoring and Research Division's "Ethical and Legal Responsibilities - Version 1, dated March 13, 2019"

Additonal Comments:

Metropolitan Water Reclamation District of Greater Chicago

Custody Transfer Record for Environmental Monitoring and Research Division Samples

(STFORMSR)

To: CAL Year: 2024

Collection Date: 1/13/2025
Collected By: Nick Kollias
Preparation Date: 1/13/2025

From: Nick Kollias
Project Number/Support Request#: 4652-126-1, SR 06-25
Sample Type (grab/composite): Composite

Prepared By: Nick Kollias

COC Prepared By: Nick Kollias

Collection Information												For Lab Use Only				
Collection Time	Sample Point	LIMS ID	Total Hg									Temperature °C	Proper Container	Proper Label	Adequate Volume	Comments
10:59	BMOUT_HP	9743078	X													
ALD Specified Holding Time (in Days)																

Chilling process of samples started immediately after collection: Y / N

Relinquished By	Date	Time	Received By	Date	Time
[signature]	01/13/25	11:00	Cooler D	01/13/25	11:00

The relinquisher has read and fully understands the M&R Departments-Environmental Monitoring and Research Division's "Ethical and Legal Responsibilities - Version 1, dated March 13, 2019"

Additonal Comments:

TABLE 8: WATER QUALITY RESULTS OF A HANOVER PARK WATER RECLAMATION PLANT FINAL EFFLUENT COMPOSITE SAMPLE COLLECTED JANUARY 12 - JANUARY 13, 2025, USED FOR WHOLE EFFLUENT TOXICITY TESTING

Sampling point	Analysis	Units	Result
BMOUTHP	Ag	mg/L	<0.00400
BMOUTHP	As	mg/L	<0.00200
BMOUTHP	Ba	mg/L	0.02615
BMOUTHP	Be	mg/L	<0.00200
BMOUTHP	Cd	mg/L	<0.00200
BMOUTHP	Co	mg/L	<0.00200
BMOUTHP	Cr	mg/L	<0.00400
BMOUTHP	Cu	mg/L	0.00743
BMOUTHP	Fe	mg/L	0.05148
BMOUTHP	Mn	mg/L	0.02031
BMOUTHP	Mo	mg/L	0.00221
BMOUTHP	Ni	mg/L	<0.00200
BMOUTHP	Pb	mg/L	<0.00200
BMOUTHP	Sb	mg/L	<0.00200
BMOUTHP	Se	mg/L	<0.00400
BMOUTHP	Zn	mg/L	0.03582
BMOUTHP	NH3_N	mg/L	0.674
BMOUTHP	Al	mg/L	<1.00
BMOUTHP	Ca	mg/L	58.45
BMOUTHP	Hardness	mg/L	22.34
BMOUTHP	Mg	mg/L	238
BMOUTHP	CN	mg/L	<0.0050
BMOUTHP	ALKALINITY	mg/L	99.5
BMOUTHP	Cl	mg/L	174.637
BMOUTHP	Final Hg	ug/L	<0.500
BMOUTHP	1,1,1-Trichloroethane	ug/L	<5.000
BMOUTHP	1,1,2,2-Tetrachloroethane	ug/L	<5.000
BMOUTHP	1,1,2-Trichloroethane	ug/L	<5.000
BMOUTHP	1,1-Dichloroethane	ug/L	<5.000
BMOUTHP	1,1-Dichloroethylene	ug/L	<5.000
BMOUTHP	1,2,4-Trichlorobenzene	ug/L	<5.000
BMOUTHP	1,2-Dichlorobenzene	ug/L	<5.000
BMOUTHP	1,2-Dichloroethane	ug/L	<5.000
BMOUTHP	1,2-Dichloropropane	ug/L	<5.000
BMOUTHP	1,2-Diphenylhydrazine	ug/L	<5.000
BMOUTHP	1,3-Dichlorobenzene	ug/L	<5.000
BMOUTHP	1,3-Dichloropropylene	ug/L	<5.000
BMOUTHP	1,4-Dichlorobenzene	ug/L	<5.000
BMOUTHP	2,4,6-Trichlorophenol	ug/L	<10.000
BMOUTHP	2,4-Dichlorophenol	ug/L	<5.000
BMOUTHP	2,4-Dimethylphenol	ug/L	<10.000
BMOUTHP	2,4-Dinitrophenol	ug/L	<40.000
BMOUTHP	2,4-Dinitrotoluene	ug/L	<10.000
BMOUTHP	2,6-Dinitrotoluene	ug/L	<5.000
BMOUTHP	2-Chloroethyl vinyl ether	ug/L	<5.000

TABLE 8: WATER QUALITY RESULTS OF A HANOVER PARK WATER RECLAMATION PLANT FINAL EFFLUENT COMPOSITE SAMPLE COLLECTED JANUARY 12 - JANUARY 13, 2025, USED FOR WHOLE EFFLUENT TOXICITY TESTING

Sampling point	Analysis	Units	Result
BMOUTHP	2-Chloronaphthalene	ug/L	<5.000
BMOUTHP	2-Chlorophenol	ug/L	<10.000
BMOUTHP	2-Nitrophenol	ug/L	<10.000
BMOUTHP	3,3'-Dichlorobenzidine	ug/L	<15.000
BMOUTHP	3,4-Benzofluoranthene	ug/L	<10.000
BMOUTHP	4,4'-DDD	ug/L	<0.050
BMOUTHP	4,4'-DDE	ug/L	<0.130
BMOUTHP	4,4'-DDT	ug/L	<0.050
BMOUTHP	4,6-Dinitro-o-cresol	ug/L	<25.000
BMOUTHP	4-Bromophenyl phenyl ether	ug/L	<5.000
BMOUTHP	4-Chlorophenyl phenyl ether	ug/L	<5.000
BMOUTHP	4-Nitrophenol	ug/L	<20.000
BMOUTHP	Acenaphthene	ug/L	<5.000
BMOUTHP	Acenaphthylene	ug/L	<5.000
BMOUTHP	Acrolein	ug/L	<50.000
BMOUTHP	Acrylonitrile	ug/L	<10.000
BMOUTHP	Aldrin	ug/L	<0.050
BMOUTHP	Anthracene	ug/L	<5.000
BMOUTHP	Benzene	ug/L	<2.000
BMOUTHP	Benzo(a)anthracene	ug/L	<5.000
BMOUTHP	Benzo(a)pyrene	ug/L	<10.000
BMOUTHP	Benzo(g,h,i)perylene	ug/L	<10.000
BMOUTHP	Benzo(k)fluoranthene	ug/L	<5.000
BMOUTHP	Bis(2-chloro-iso-propyl)ether	ug/L	<10.000
BMOUTHP	Bis(2-chloroethoxy)methane	ug/L	<10.000
BMOUTHP	Bis(2-chloroethyl)ether	ug/L	<10.000
BMOUTHP	Bis(2-ethylhexyl)phthalate	ug/L	<18.000
BMOUTHP	Bromoform	ug/L	<5.000
BMOUTHP	Butyl benzyl phthalate	ug/L	<10.000
BMOUTHP	Carbon tetrachloride	ug/L	<5.000
BMOUTHP	Chlorobenzene	ug/L	<5.000
BMOUTHP	Chlorodibromomethane	ug/L	<2.000
BMOUTHP	Chloroethane	ug/L	<5.000
BMOUTHP	Chloroform	ug/L	<2.000
BMOUTHP	Chrysene	ug/L	<5.000
BMOUTHP	Di-n-butyl phthalate	ug/L	<10.000
BMOUTHP	Di-n-octyl phthalate	ug/L	<15.000
BMOUTHP	Dibenzo(a,h)anthracene	ug/L	<15.000
BMOUTHP	Dichlorobromomethane	ug/L	<2.000
BMOUTHP	Dieldrin	ug/L	<0.050
BMOUTHP	Diethyl phthalate	ug/L	<10.000
BMOUTHP	Dimethyl phthalate	ug/L	<5.000
BMOUTHP	Endosulfan I	ug/L	<0.050
BMOUTHP	Endosulfan II	ug/L	<0.050
BMOUTHP	Endosulfan sulfate	ug/L	<0.050

TABLE 8: WATER QUALITY RESULTS OF A HANOVER PARK WATER RECLAMATION PLANT FINAL EFFLUENT COMPOSITE SAMPLE COLLECTED JANUARY 12 - JANUARY 13, 2025, USED FOR WHOLE EFFLUENT TOXICITY TESTING

Sampling point	Analysis	Units	Result
BMOUTHP	Endrin	ug/L	<0.050
BMOUTHP	Endrin aldehyde	ug/L	<0.050
BMOUTHP	Ethylbenzene	ug/L	<2.000
BMOUTHP	Fluoranthene	ug/L	<5.000
BMOUTHP	Fluorene	ug/L	<5.000
BMOUTHP	Heptachlor	ug/L	<0.070
BMOUTHP	Heptachlor epoxide	ug/L	<0.050
BMOUTHP	Hexachlorobenzene	ug/L	<5.000
BMOUTHP	Hexachlorobutadiene	ug/L	<5.000
BMOUTHP	Hexachlorocyclopentadiene	ug/L	<25.000
BMOUTHP	Hexachloroethane	ug/L	<10.000
BMOUTHP	Indeno(1,2,3-cd)pyrene	ug/L	<15.000
BMOUTHP	Isophorone	ug/L	<10.000
BMOUTHP	Methyl bromide	ug/L	<5.000
BMOUTHP	Methyl chloride	ug/L	<5.000
BMOUTHP	Methylene chloride	ug/L	<5.000
BMOUTHP	N-Nitrosodi-n-propylamine	ug/L	<10.000
BMOUTHP	N-Nitrosodimethylamine	ug/L	<5.000
BMOUTHP	N-Nitrosodiphenylamine	ug/L	<5.000
BMOUTHP	Naphthalene	ug/L	<5.000
BMOUTHP	Nitrobenzene	ug/L	<10.000
BMOUTHP	PCB-1016	ug/L	<0.800
BMOUTHP	PCB-1221	ug/L	<0.800
BMOUTHP	PCB-1232	ug/L	<0.800
BMOUTHP	PCB-1242	ug/L	<0.800
BMOUTHP	PCB-1248	ug/L	<0.800
BMOUTHP	PCB-1254	ug/L	<0.800
BMOUTHP	PCB-1260	ug/L	<1.160
BMOUTHP	Pentachlorophenol	ug/L	<30.000
BMOUTHP	Phenanthrene	ug/L	<5.000
BMOUTHP	Phenol	ug/L	<5.000
BMOUTHP	Pyrene	ug/L	<5.000
BMOUTHP	Technical chlordane	ug/L	<0.500
BMOUTHP	Tetrachloroethylene	ug/L	<5.000
BMOUTHP	Toluene	ug/L	<2.000
BMOUTHP	Toxaphene	ug/L	<1.000
BMOUTHP	Trichloroethylene	ug/L	<5.000
BMOUTHP	Trichlorofluoromethane	ug/L	<5.000
BMOUTHP	Vinyl chloride	ug/L	<5.000
BMOUTHP	alpha-BHC	ug/L	<0.050
BMOUTHP	beta-BHC	ug/L	<0.070
BMOUTHP	delta-BHC	ug/L	<0.050
BMOUTHP	gamma-BHC (lindane)	ug/L	<0.050
BMOUTHP	p-Chloro-m-cresol	ug/L	<5.000
BMOUTHP	trans-1,2-Dichloroethylene	ug/L	<5.000