

Metropolitan Water Reclamation District of Greater Chicago

MONITORING AND RESEARCH DEPARTMENT

REPORT NO. 25-29

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

August 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 JULY 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

August 2025

RESULTS OF ACUTE TOXICITY TESTS

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

Testing period: July 16-20, 2025
Sample collection dates: July 14-15, 2025
Report date: July 24, 2025

Conducted For:
HANOVER PARK WRP
1200 Sycamore Avenue
Hanover Park, IL 60133

IL0036137

Conducted and Prepared By:
ENVIROSCIENCE, INCORPORATED
5070 Stow Rd.
Stow, OH 44224
330-688-0111

EnviroScience
Excellence In Any Environment

NELAP ACCREDITED TNI LABORATORY

_____, Aquatic Biologist

July 24, 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 July 16, 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, 07/2025
sample collection period 07/14-15/25

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

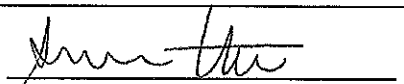
11. Test Species/Type: #1 *Ceriodaphnia dubia* (water flea) 48-hour definitive, static, non-renewal EPA 2002.0

#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

07/24/25
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	07/14/25-____	07/15/25-____	

Table 3. Testing periods.

Ceriodaphnia dubia (water flea)		*Pimephales promelas* (fathead minnow)	
Start Date: MM/DD/YY	07/16/25	Start Date: MM/DD/YY	07/16/25
Start Time:	1320 hrs	Start Time:	1400 hrs
End Date: MM/DD/YY	07/18/25	End Date: MM/DD/YY	07/20/25
End Time:	1230 hrs	End Time:	1420 hrs

Notes: Sample receipt: 07/16/25-1020; 4.7 °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	07/14-15/25	8.6	6.8	1033	140	260	<0.02	0.59

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:	07/16/25-1320 to 07/18/25-1230	07/16/25-1400 to 07/20/25-1420
2. Test type and duration:	static, non-renewal, 48 hours	static, non-renewal, 96-hours
3. Age and source of organisms:	<24 hours, EnviroScience 07/15/25-1600	8 days, ES 07/07/25-1535
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)** 07/16/25 to 07/18/25		***P. promelas* (fathead minnow)** 07/16/25 to 07/20/25			
	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	0	0
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	0	0	0	0
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 2.1.6.					

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

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

Client: Hanover Park WRP
Address: 1200 Sycamore Avenue
Hanover Park, IL 60133
Contact: Nicholas Kollias
Phone: 708-588-4074
Permit #: IL0036137

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	Sample Site	Sample Type		Number of	Chemistry				
Date	Time	Date	Time	No.		Comp	Grab	Cubitainers	TRC	Cond	D.O.	pH	Temp. °C
~~7/14/25~~		7/15/25		007	HPWRP Final Effluent	✓		1	0	966	8.84	7.41	5.6
7/14/25													

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:	Paula Brinkman Lowe
	Upstream	Collectors Signature:	Paula Brinkman Lowe
	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	
MWRDGC		7/15/25	11:30 am	Date Shipped	7/15/25	Client	Hanover Park
	Madelyn Johnson	071625	1020	Time Shipped	11:30	Sample ID's	HAPA071625 EFF
				Method Shipped	FedEx	Cond. Of Container	Good
				ES Vehicle		Temp. °C	4.7°

EnviroScience, Inc. Cooler Receipt Form (Form 7050-5 rev. 04/05/25)

Client Hanover Park

ES Sample ID HAPA 071625 EFF

Cooler Received by: MJ

Date Cooler Received and Opened 071625

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 ✓
   MJ 7-16
5. Sample Temperature upon receipt 4.7 °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. Presence or Absence of headspace: Present ___ Absent ✓
10. EPA method code: 1000.0: ___ 1002.0: ___ 2000.0: ✓ 2002.0: ✓

Explain any discrepancies or client notifications that occurred regarding this sample: no sample times recorded

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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: HAPA
No.: IL00360137
Start Date: 071625 Time: 1320
End Date: 071825 Time: 1230

Organism: C. dubia
Source: BBC070625(B)
Hatch/Age: 071525 1600/<24hrs
Diluent: MHR
Sample #: HAPA 071625 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	24.9	24.0	8.3		8.4	7.1	7.7	7.3 DA 7/18	291		312
	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	25.1	24.4	8.4		8.3	7.2		7.3	309		336
	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	25.0	24.4	8.6		8.3	7.2		7.3	316		343
	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	24.4	8.6		8.1	7.1		7.3	364		390
	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	24.9	24.4	8.6		8.0	7.0		7.2	454		479
	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	24.8	24.0	8.6		7.9	7.0		7.3	621		656
	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	24.6	24.0	8.6		7.8	6.9		7.3	991		1006
	B	5	0/0	0/0												
	C	5	0/0	0/0												
	D	5	0/0	0/0												
Time	1320		1220	1230	1320	1220	1230	1200		1315	1205		1315	1140		1310
Tech	RL		MB	TM	RL	MB	TM	TM		DA	TM		DA	TM		DA
					4	4	10	OX 4100L			Orion Star A211 A			Orion Star A212		
					ID or ✓ instrument used			TM		DA	TM		DA	TM		DA
								Other:			Orion Star A211 B			Other:		

USEPA Method: 2002.0
Form 8010-5 rev. 01/09/25

JMS

CETIS Analytical Report

Ceriodaphnia 48-h Acute Survival Test **EnviroScience**

Analysis ID:	16-4292-9504	**Endpoint:**	48h Survival Rate	**CETIS Version:**	CETIS v2.1.6
Analyzed:	24 Jul-25 7:55	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	24 Jul-25 0:00	**MD5 Hash:**	68E117461239090AA7E1427F0F536296	**Editor ID:**	006-866-707-0
Batch ID:	04-9002-8054	**Test Type:**	Survival (48h)	**Analyst:**	
Start Date:	16 Jul-25 13:20	**Protocol:**	EPA/821/R-02-012 (2002)	**Diluent:**	Upstream of Discharge
Ending Date:	18 Jul-25 12:30	**Species:**	Ceriodaphnia dubia	**Brine:**	
Test Length:	47h	**Taxon:**	Branchiopoda	**Source:**	In-House Culture **Age:**
Sample ID:	08-2071-9656	**Code:**	30EB3028	**Project:**	
Sample Date:	15 Jul-25 07:00	**Material:**	POTW Effluent	**Source:**	Discharge Monitoring Report
Receipt Date:	16 Jul-25 10:20	**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	1532319	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

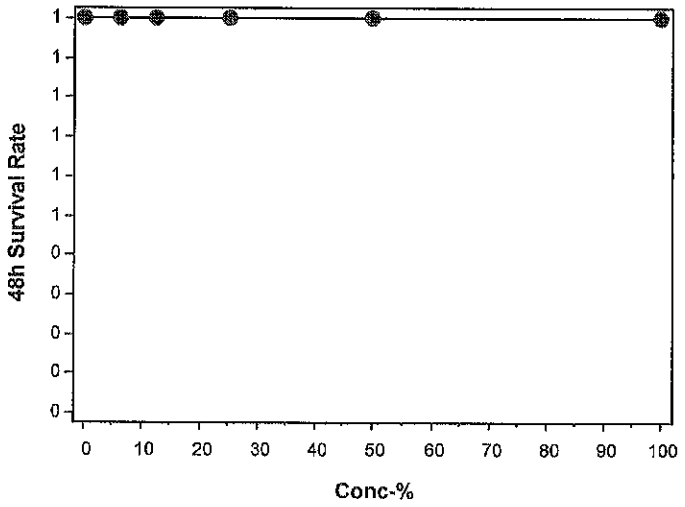
48h Survival Rate Binomials

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:	16-4292-9504	**Endpoint:**	48h Survival Rate	**CETIS Version:**	CETIS v2.1.6
Analyzed:	24 Jul-25 7:55	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	24 Jul-25 0:00	**MD5 Hash:**	68E117461239090AA7E1427F0F536296	**Editor ID:**	006-866-707-0

Graphics



ACUTE, 96 HOUR, NON- RENEWAL BIOASSAY:
Project: HAPA
No.: IL0036137
Start Date: 071625 Time: 1400
End Date: 072025 Time: 1420

Organism: Pimephales promelas (FHM)
Source: ES cultures
Hatch/Age: 070725 1535 / 8 days
Diluent: MHR
Sample #: HAPA 071625 FFF

Biological Parameters: # Mortalities / # Affected

			test levels→	MHR	DMW	6.25%	12.5%	25%	50%	100%
0 hours set-up	Tech	DA	n A	10	10	10	10	10	10	10
	Time	1400	n B	10	10	10	10	10	10	10
24 hours	Tech	MJ	A	0/0	0/0	0/0	0/0	0/0	0/0	0/0
	Time	1330	B	0/0	0/0	0/0	0/0	0/0	0/0	0/0
48 hours	Tech	SV	A	0/0	0/0	0/0	0/0	0/0	0/0	0/0
	Time	1300	B	0/0	0/0	0/0	0/0	0/0	0/0	0/0
72 hours	Tech	KM	A	0/0	0/0	0/0	0/0	0/0	0/0	0/0
	Time	1330	B	0/0	0/0	0/0	0/0	0/0	0/0	0/0
96 hours	Tech	SV	A	0/0	0/0	0/0	0/0	0/0	0/0	0/0
	Time	1300	B	0/0	0/0	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	DA	1400	11	24.0	24.0	24.0	24.0	24.0	24.0	24.0
	24 hr	MJ	1330	10	24.1	24.3	24.4	24.4	24.3	24.4	24.3
	48 hr	SV	1300	3	24.0	24.0	24.0	24.0	24.0	24.0	24.0
	72 hr	KM	1330	3	24.8	24.8	24.8	24.7	24.8	24.7	24.9
	96 hr	SV	1300	10	24.0	24.0	24.0	24.0	24.0	24.0	24.0
cond. µmhos/cm	0 hr	TM	1140	A212	291	309	316	314	454	631	991
	24hr	DA	1050	A212	292	318	335	372	472	641	997
	48 hr	DA	1015	A212	294	319	334	376	465	643	1004
	72 hr	DA	1030	A212	294	323	333	374	470	643	1008
	96 hr	HD	1315	A212	297	322	335	375	471	649	1013
DO mg/L	0 hr	TM	1145	OX 4100L	8.3	8.4	8.6	8.6	8.6	8.6	8.6
	24 hr	DA	1110	OX 4100L	8.3	8.1	8.1	8.1	8.3	8.4	8.2
	48 hr	DA	1050	OX 4100L	8.4	8.2	8.2	8.0	7.9	7.7	7.6
	72 hr	DA	1045	OX 4100L	8.5	8.5	8.4	8.4	8.4	8.4	8.4
	96 hr	HD	1315	OX 4100L	8.4	8.3	8.2	8.2	8.2	8.2	8.3
pH s.u.	0 hr	TM	1205	MANUAL	7.1	7.2	7.2	7.2	7.1	7.0	6.9
	24 hr	DA	1140	*A211A	7.2	7.2	7.2	7.2	7.3	7.3	7.4
	48 hr	DA	1130	*A211B	7.2	7.4	7.2	7.1	7.2	7.2	7.2
	72 hr	DA	1055	*A211A	7.2	7.2	7.2	7.2	7.2	7.4	7.4
	96 hr	HD	1315	*A211B	7.1	7.1	7.1	7.1	7.2	7.2	7.3

USEPA method 2000.0
Form 8040-6 rev. 01/09/2025

MJ

CETIS Analytical Report

Fathead Minnow 96-h Acute Survival Test — **EnviroScience**

Analysis ID:	05-2739-7414	**Endpoint:**	96h Survival Rate	**CETIS Version:**	CETIS v2.1.6
Analyzed:	24 Jul-25 7:57	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	24 Jul-25 0:00	**MD5 Hash:**	509FC2E8BA2BA32D9479C7B479A5A46A	**Editor ID:**	006-866-707-0
Batch ID:	03-5567-0254	**Test Type:**	Survival (96h)	**Analyst:**	
Start Date:	16 Jul-25 14:00	**Protocol:**	EPA/821/R-02-012 (2002)	**Diluent:**	Upstream of Discharge
Ending Date:	20 Jul-25 14:20	**Species:**	Pimephales promelas	**Brine:**	
Test Length:	4d 0h	**Taxon:**	Actinopterygii	**Source:**	In-House Culture **Age:**
Sample ID:	14-9381-2344	**Code:**	5909C478	**Project:**	
Sample Date:	15 Jul-25 07:00	**Material:**	POTW Effluent	**Source:**	Discharge Monitoring Report
Receipt Date:	16 Jul-25 10:20	**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	1937295	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	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%
100		2	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%

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		1.0000	1.0000
100		1.0000	1.0000

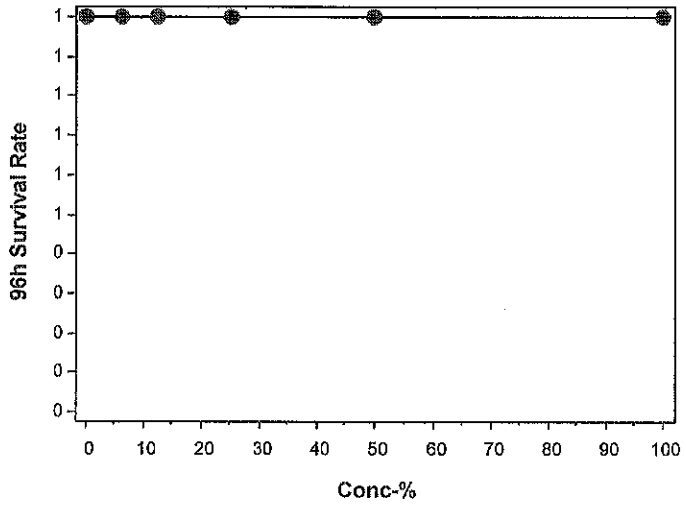
96h Survival Rate Binomials

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		10/10	10/10
100		10/10	10/10

Fathead Minnow 96-h Acute Survival Test — **EnviroScience**

Analysis ID:	05-2739-7414	**Endpoint:**	96h Survival Rate	**CETIS Version:**	CETIS v2.1.6
Analyzed:	24 Jul-25 7:57	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	24 Jul-25 0:00	**MD5 Hash:**	509FC2E8BA2BA32D9479C7B479A5A46A	**Editor ID:**	006-866-707-0

Graphics



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

Client: HAPA Permit No.: IL0030137

Date: 071625

Form 5000 rev. 01/09/25

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
MHRW batch# 071625	8.6	7.4 ☐ Star A211 A ☑ Star A211 B	278 <0.02	<0.02	NA	(35)70	(24)96
HAPPA 071625 EFF	8.6	6.8 ☐ Star A211 A ☑ Star A211 B	TM 146 <0.02 1033	<0.02	-	(70)140	(65)260
		☐ Star A211 A ☐ Star A211 B					
		☐ Star A211 A ☐ Star A211 B					
		☐ Star A211 A ☐ Star A211 B					
INITIALS →	TM	TM	TM	TM		TM	TM

Dilution Record: Ammonia: 0.59 mg/L

SAMPLE ID	Composited	60µm Filtered
HAPPA 071625 EFF	☐Yes ☐~~No~~	☐Yes ☐~~No~~
	☐Yes ☐No	☐Yes ☐No
	☐Yes ☐No	☐Yes ☐No
Comments:		

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

Dilution Water:	☐ Upstream ☑ MHR	☐ Upstream ☐ MHR
MHR Batch:	071525	

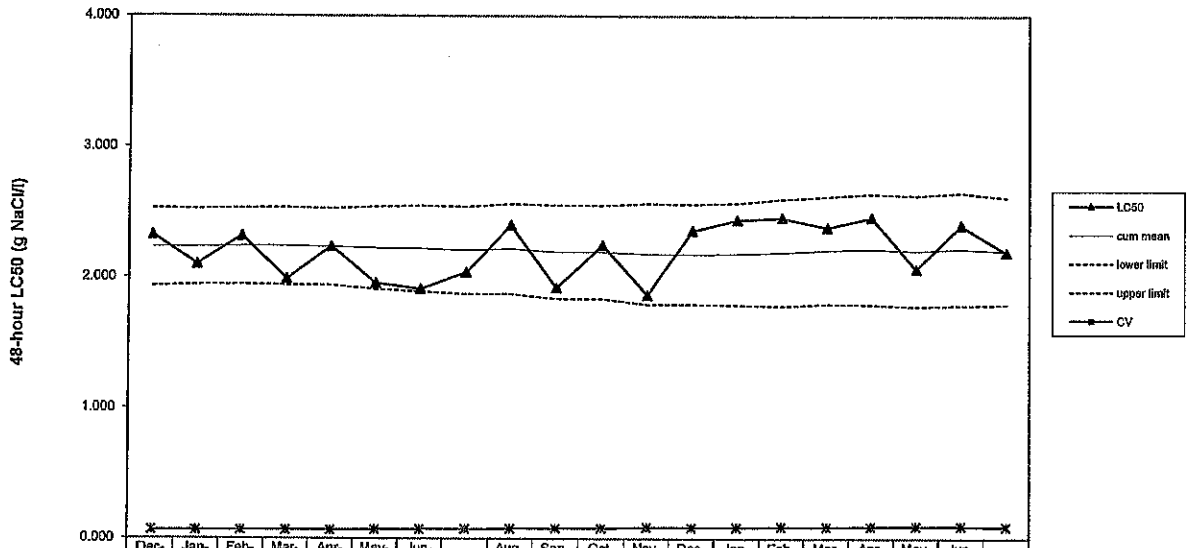
Methods/Instrumentation :
DO: APHA (1998) 4500-O G, OX4100L
pH: APHA (1998) 4500-H B, Star A211
Conductivity: APHA (1998) 2510-B, Orion Star A212
Hardness: APHA (1998) 2340-C
Alkalinity: APHA (1998) 2320-B
TRC: APHA (1998) 4500-Cl D, TitraLab AT 1000
USEPA Methods: 2000.0; 2002.0

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

TM

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.

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



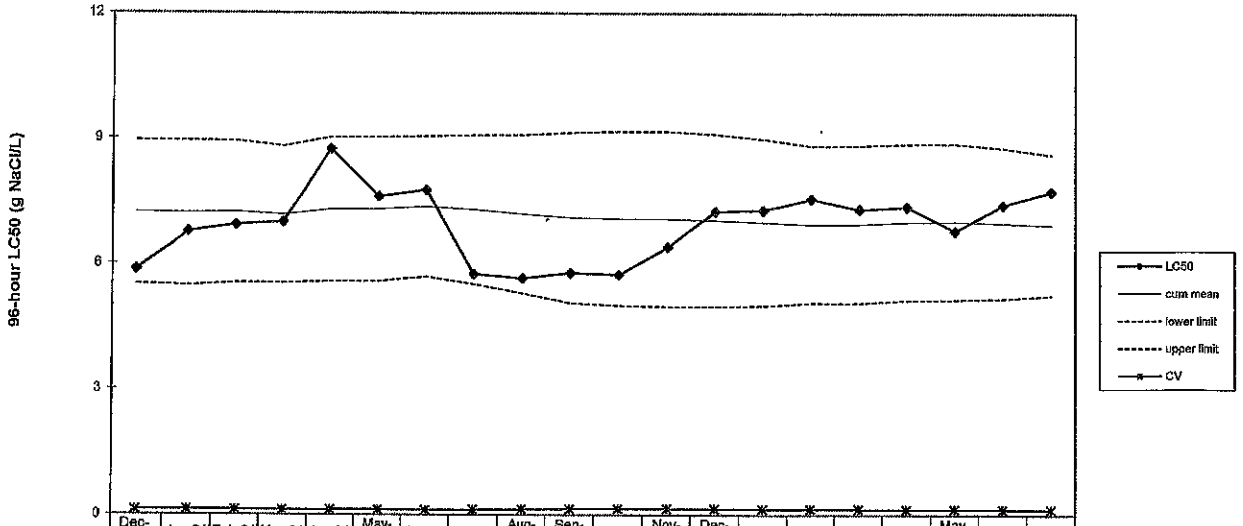
	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25
LC50	2.325	2.101	2.315	1.986	2.235	1.955	1.911	2.038	2.400	1.921	2.246	1.866	2.358	2.441	2.459	2.362	2.459	2.065	2.400	2.191
cum mean	2.231	2.234	2.239	2.236	2.233	2.224	2.221	2.206	2.218	2.195	2.193	2.180	2.178	2.181	2.192	2.209	2.217	2.203	2.218	2.203
lower limit	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	1.791	1.784	1.799	1.793	1.779	1.788	1.793
upper limit	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	2.57	2.601	2.619	2.641	2.628	2.649	2.612
CV	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	0.089	0.093	0.093	0.096	0.096	0.097	0.093

Test Date (MM.YY)

Tests conducted at Stow, OH facility

EnviroScience QC/SRT Chart rev. 07/29/25

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



	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-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25
LC50	5.888	6.772	6.926	6.996	8.746	7.605	7.762	5.757	5.65	5.784	5.741	6.403	7.256	7.284	7.557	7.304	7.365	6.793	7.407	7.732
cum mean	7.237	7.2125	7.2388	7.1782	7.3009	7.3041	7.3721	7.2951	7.1867	7.105	7.0859	7.0765	7.0444	6.9982	6.9499	6.9534	7.0017	7.0122	6.9763	6.9355
lower limit	5.5185	5.4815	5.5441	5.5438	5.5804	5.5815	5.6928	5.5129	5.2924	5.0667	5.0024	4.9818	4.9833	5.0067	5.0704	5.0714	5.1301	5.1481	5.1769	5.2519
upper limit	8.9554	8.9434	8.9334	8.8126	9.0213	9.0266	9.0515	9.0774	9.0809	9.1432	9.1694	9.1711	9.1054	8.9896	8.8293	8.8354	8.8733	8.8763	8.7757	8.6191
CV	0.1187	0.12	0.1171	0.1138	0.1178	0.1179	0.1139	0.1222	0.1318	0.1434	0.147	0.148	0.1463	0.1423	0.1352	0.1353	0.1337	0.1329	0.129	0.1214

Test Date (MM.YY)

Tests conducted at Stow, OH facility

EnviroScience QC/SRT Chart rev. 07/29/25

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					
7/14/2025	0700	NSR	Grab	OUTFALL	20.8	(YES)/NO	Norberto Suarez
7/14/2025	1300	KK	Grab	Outfall	21.5	(YES)/NO	Kevin Kaminski
7/14/2025	1900	PK	Grab	Outfall	21.9	(YES)/NO	Paul Kuzminski
7/15/2025	0100	AK	Grab	Outfall	21.4	(YES)/NO	Aidan Kelly
7/15/2025	0700	KK	Grab	Outfall	21.2	(YES)/NO	Kevin Kaminski

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 Kevin Kaminski Signature: Kevin Kaminski Date/Time: 7/15/25 0707
SAMPLES TRANSPORTED TO WET LAB. BY Name Paula Brinkman Signature: Paula Brinkman Date/Time: 7/15/25 0712

FOR WET LABORATORY USE ONLY:
Sample Received by: Name Paula Brinkman Lowe Signature: Paula Brinkman Lowe Date/Time 7/15/25 0830

1. Samples received with prescribed holding time (within 4 h of collection)? (Not Applicable, if chronic test) — (Yes) / No /(NA)
2. Samples logged in by Paula Brinkman Lowe Date 7/15/25 Time 0830 — (Yes) / No
3. Each sample container labeled with a unique ID? — (Yes) / No
4. Were collection times for effluent and receiving water within 1 h of each other? — Yes / No (NA)
5. Did samples have sufficient volume for analysis? — (Yes) / No
6. Samples accepted — (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
9854493-A	BMOUT_HP A	3.1	7.44	0 PBL	Indicate Total 0 ml of 5% Sodium-thio-sulfate added. Initial PBL. Final Residual Cl_2 reading = N/A mg/l Initial PBL	Paula Brinkman Lowe
9854493-B	BMOUT_HP B	2.0	7.44	Total Ammonia (mg-L) ALD Results		
9854493-C	BMOUT_HP C	1.5	7.46			
9854493-D	BMOUT_HP D	1.5	7.39	0.392		
9854493-E	BMOUT_HP E	3.7	7.35			

Note: Set aside one cubitainer for metals and chemical analyses

Sample Release for Disposal

Sample released for disposal following analysis on (Date) 7/17/25 by [signature]

Samples Discarded by [signature] Date/Time 7/17/25 10:00

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		
7/15/25	0936	Nick Kollias	BMOUT_HP		HK 071625 9854493-1 ~~9854493~~	3	1			25-456	0.9
7/15/25	0935	Nick Kollias	Trip Blanks		98594G4-1	2				25-455	2.4

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	25-020 G
Vials	25-028 V

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	Paula Brust	7/15/25	1008	Cooler D	7/18/25	1008
Indicated above	Cooler D	7-16-25	0845	Christina Jones	7-16-25	0845
Indicated above	Christina Jones	71625	10:28	Hanna Karic	7/16/25	1031
Indicated above						
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: **2025**

Collection Date: 7/15/2025
Collected By: Nick Kollias
Preparation Date: 7/15/2025

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			Trace Metals	Ammonia								For Lab Use Only				
Collection Time	Sample Point	LIMS ID										Temperature °C	Proper Container	Proper Label	Adequate Volume	Comments
0938	BMOUT_HP	9854493	X	X								12.0	✓	✓	✓	
ALD Specified Holding Time (in Days)																

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

Relinquished By	Date	Time	Received By	Date	Time
Paula Kunbi Stan	7/15/25	1006	Jm	7-15-25	1012

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: **2025**

Collection Date: 7 15 2025
Collected By: Nick Kollias
Preparation Date: 7/15/2025

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	TCN									Temperature °C	Proper Container	Proper Label	Adequate Volume	Comments
0938	BMOUT_HP	9854493	X									0.1	✓	✓	✓	
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]	07/15/25	1007	[signature]	7/15/25	1050

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"

RECEIVED
JUL 15 2025

Additonal Comments

TEMP 6U
23007339

\\hawk\M&R\120_EM&R_Division\126_Aquatic_Ecology\126_Biologists\WET Testing\2025\Hanover Park\ALD COCs

Metropolitan Water Reclamation District of Greater Chicago

Custody Transfer Record for Environmental Monitoring and Research Division Samples

(STFORMSR)

To: **CAL** Year: **2025**

Collection Date: 7/15/2025
Collected By: Nick Kollias
Preparation Date: 7/15/2025

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			Total Hg									For Lab Use Only				
Collection Time	Sample Point	LIMS ID										Temperature °C	Proper Container	Proper Label	Adequate Volume	Comments
0938	BMOUT_HP	9854493 ✓	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
Paul Burk	7/15/25	1008	Cooler D	7/15/25	1008
Cooler D	7/16/25	725	JL	7/16/25	725
JL	7/16/25	935	CP	07.16.25	10:45

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: **2025**

Collection Date: 7/15/2025
Collected By: Nick Kollias
Preparation Date: 7/15/2025

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
0938	BMOUT_HP	9854493	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
Paul Brunkow	07/15/25	1008	Cooler D	7/15/25	1008

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 JULY 14 - JULY 15, 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	0.03384
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	0.00617
BMOUTHP	Fe	mg/L	0.04456
BMOUTHP	Mn	mg/L	0.01049
BMOUTHP	Mo	mg/L	0.00339
BMOUTHP	Ni	mg/L	0.00204
BMOUTHP	Pb	mg/L	<0.00200
BMOUTHP	Sb	mg/L	<0.00200
BMOUTHP	Se	mg/L	<0.00400
BMOUTHP	Zn	mg/L	0.02761
BMOUTHP	NH3_N	mg/L	0.392
BMOUTHP	Al	mg/L	<1.00
BMOUTHP	Ca	mg/L	64.5
BMOUTHP	Hardness	mg/L	262
BMOUTHP	Mg	mg/L	24.5
BMOUTHP	CN	mg/L	0.005
BMOUTHP	ALKALINITY	mg/L	163.3
BMOUTHP	Cl	mg/L	128.846
BMOUTHP	Final Hg	ug/L	<0.500
BMOUTHP	1,1,1-Trichloroethane	ug/L	<5.00
BMOUTHP	1,1,2,2-Tetrachloroethane	ug/L	<5.00
BMOUTHP	1,1,2-Trichloroethane	ug/L	<5.00
BMOUTHP	1,1-Dichloroethane	ug/L	<5.00
BMOUTHP	1,1-Dichloroethylene	ug/L	<5.00
BMOUTHP	1,2,4-Trichlorobenzene	ug/L	<5.00
BMOUTHP	1,2-Dichlorobenzene	ug/L	<5.00
BMOUTHP	1,2-Dichloroethane	ug/L	<5.00
BMOUTHP	1,2-Dichloropropane	ug/L	<5.00
BMOUTHP	1,2-Diphenylhydrazine	ug/L	<5.00
BMOUTHP	1,3-Dichlorobenzene	ug/L	<5.00
BMOUTHP	1,3-Dichloropropylene	ug/L	<5.00
BMOUTHP	1,4-Dichlorobenzene	ug/L	<5.00
BMOUTHP	2,4,6-Trichlorophenol	ug/L	<10.0
BMOUTHP	2,4-Dichlorophenol	ug/L	<5.00
BMOUTHP	2,4-Dimethylphenol	ug/L	<10.0
BMOUTHP	2,4-Dinitrophenol	ug/L	<40.0
BMOUTHP	2,4-Dinitrotoluene	ug/L	<10.0
BMOUTHP	2,6-Dinitrotoluene	ug/L	<5.00
BMOUTHP	2-Chloroethyl vinyl ether	ug/L	<5.00

TABLE 8: WATER QUALITY RESULTS OF A HANOVER PARK WATER RECLAMATION PLANT FINAL EFFLUENT COMPOSITE SAMPLE COLLECTED JULY 14 - JULY 15, 2025, USED FOR WHOLE EFFLUENT TOXICITY TESTING

Sampling point	Analysis	Units	Result
BMOUTHP	2-Chloronaphthalene	ug/L	<5.00
BMOUTHP	2-Chlorophenol	ug/L	<10.0
BMOUTHP	2-Nitrophenol	ug/L	<10.0
BMOUTHP	3,3'-Dichlorobenzidine	ug/L	<15.0
BMOUTHP	3,4-Benzofluoranthene	ug/L	<10.0
BMOUTHP	4,4'-DDD	ug/L	<0.05
BMOUTHP	4,4'-DDE	ug/L	<0.13
BMOUTHP	4,4'-DDT	ug/L	<0.05
BMOUTHP	4,6-Dinitro-o-cresol	ug/L	<25.0
BMOUTHP	4-Bromophenyl phenyl ether	ug/L	<5.00
BMOUTHP	4-Chlorophenyl phenyl ether	ug/L	<5.00
BMOUTHP	4-Nitrophenol	ug/L	<20.0
BMOUTHP	Acenaphthene	ug/L	<5.00
BMOUTHP	Acenaphthylene	ug/L	<5.00
BMOUTHP	Acrolein	ug/L	<50.0
BMOUTHP	Acrylonitrile	ug/L	<10.0
BMOUTHP	Aldrin	ug/L	<0.05
BMOUTHP	Anthracene	ug/L	<5.00
BMOUTHP	Benzene	ug/L	<2.00
BMOUTHP	Benzo(a)anthracene	ug/L	<5.00
BMOUTHP	Benzo(a)pyrene	ug/L	<10.0
BMOUTHP	Benzo(g,h,i)perylene	ug/L	<10.0
BMOUTHP	Benzo(k)fluoranthene	ug/L	<5.00
BMOUTHP	Bis(2-chloro-iso-propyl)ether	ug/L	<10.0
BMOUTHP	Bis(2-chloroethoxy)methane	ug/L	<10.0
BMOUTHP	Bis(2-chloroethyl)ether	ug/L	<10.0
BMOUTHP	Bis(2-ethylhexyl)phthalate	ug/L	<18.0
BMOUTHP	Bromoform	ug/L	<5.00
BMOUTHP	Butyl benzyl phthalate	ug/L	<10.0
BMOUTHP	Carbon tetrachloride	ug/L	<5.00
BMOUTHP	Chlorobenzene	ug/L	<5.00
BMOUTHP	Chlorodibromomethane	ug/L	<2.00
BMOUTHP	Chloroethane	ug/L	<5.00
BMOUTHP	Chloroform	ug/L	7.44
BMOUTHP	Chrysene	ug/L	<5.00
BMOUTHP	Di-n-butyl phthalate	ug/L	<10.0
BMOUTHP	Di-n-octyl phthalate	ug/L	<15.0
BMOUTHP	Dibenzo(a,h)anthracene	ug/L	<15.0
BMOUTHP	Dichlorobromomethane	ug/L	<2.00
BMOUTHP	Dieldrin	ug/L	<0.05
BMOUTHP	Diethyl phthalate	ug/L	<10.0
BMOUTHP	Dimethyl phthalate	ug/L	<5.00
BMOUTHP	Endosulfan I	ug/L	<0.05
BMOUTHP	Endosulfan II	ug/L	<0.05
BMOUTHP	Endosulfan sulfate	ug/L	<0.05

TABLE 8: WATER QUALITY RESULTS OF A HANOVER PARK WATER RECLAMATION PLANT FINAL EFFLUENT COMPOSITE SAMPLE COLLECTED JULY 14 - JULY 15, 2025, USED FOR WHOLE EFFLUENT TOXICITY TESTING

Sampling point	Analysis	Units	Result
BMOUTHP	Endrin	ug/L	<0.05
BMOUTHP	Endrin aldehyde	ug/L	<0.05
BMOUTHP	Ethylbenzene	ug/L	<2.00
BMOUTHP	Fluoranthene	ug/L	<5.00
BMOUTHP	Fluorene	ug/L	<5.00
BMOUTHP	Heptachlor	ug/L	<0.07
BMOUTHP	Heptachlor epoxide	ug/L	<0.05
BMOUTHP	Hexachlorobenzene	ug/L	<5.00
BMOUTHP	Hexachlorobutadiene	ug/L	<5.00
BMOUTHP	Hexachlorocyclopentadiene	ug/L	<25.0
BMOUTHP	Hexachloroethane	ug/L	<10.0
BMOUTHP	Indeno(1,2,3-cd)pyrene	ug/L	<15.0
BMOUTHP	Isophorone	ug/L	<10.0
BMOUTHP	Methyl bromide	ug/L	<5.00
BMOUTHP	Methyl chloride	ug/L	<5.00
BMOUTHP	Methylene chloride	ug/L	<5.00
BMOUTHP	N-Nitrosodi-n-propylamine	ug/L	<10.0
BMOUTHP	N-Nitrosodimethylamine	ug/L	<5.00
BMOUTHP	N-Nitrosodiphenylamine	ug/L	<5.00
BMOUTHP	Naphthalene	ug/L	<5.00
BMOUTHP	Nitrobenzene	ug/L	<10.0
BMOUTHP	PCB-1016	ug/L	<0.80
BMOUTHP	PCB-1221	ug/L	<0.80
BMOUTHP	PCB-1232	ug/L	<0.80
BMOUTHP	PCB-1242	ug/L	<0.80
BMOUTHP	PCB-1248	ug/L	<0.80
BMOUTHP	PCB-1254	ug/L	<0.80
BMOUTHP	PCB-1260	ug/L	<1.16
BMOUTHP	Pentachlorophenol	ug/L	<30.0
BMOUTHP	Phenanthrene	ug/L	<5.00
BMOUTHP	Phenol	ug/L	<5.00
BMOUTHP	Pyrene	ug/L	<5.00
BMOUTHP	Technical chlordane	ug/L	<0.50
BMOUTHP	Tetrachloroethylene	ug/L	<5.00
BMOUTHP	Toluene	ug/L	<2.00
BMOUTHP	Toxaphene	ug/L	<1.00
BMOUTHP	Trichloroethylene	ug/L	<5.00
BMOUTHP	Trichlorofluoromethane	ug/L	<5.00
BMOUTHP	Vinyl chloride	ug/L	<5.00
BMOUTHP	alpha-BHC	ug/L	<0.05
BMOUTHP	beta-BHC	ug/L	<0.07
BMOUTHP	delta-BHC	ug/L	<0.05
BMOUTHP	gamma-BHC (lindane)	ug/L	<0.05
BMOUTHP	p-Chloro-m-cresol	ug/L	<5.00
BMOUTHP	trans-1,2-Dichloroethylene	ug/L	<5.00