

*Protecting Our Water Environment*



*Metropolitan Water Reclamation District of Greater Chicago*

***MONITORING AND RESEARCH  
DEPARTMENT***

***REPORT NO. 24-06***

***CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS***

***MONITORING REPORT***

***FOR FOURTH QUARTER 2023***

***March 2024***

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**Edward W. Podczerwinski, P.E.**

February 26, 2024

Director of Monitoring and Research

Ms. Catherine Siders  
Illinois Environmental Protection Agency  
Bureau of Water  
DWPC Compliance Section #19  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, Illinois 62794-9274

Dear Ms. Siders:

Subject: Calumet East and West Solids Management Areas – Calumet Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2020-AO-64905, Monitoring Report for October, November, and December 2023

The attached tables contain the monitoring data for the Calumet East and West Solids Management Areas for October, November, and December 2023, as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2020-AO-64905. Biosolids were placed in the Calumet East Solids Management Area in November and December 2023, and in the West Solids Management Areas in October and November 2023.

Table 1: Analysis of Water from Lysimeters L-1N through L-6N at the Calumet East Solids Management Area Sampled on October 30, 2023.

Table 2: Analysis of Water from Lysimeters L-1N through L-3N at the Calumet West Solids Management Area Sampled on October 30, 2023.

Table 3: Analysis of Biosolids Placed in the Calumet East Solids Management Area During November and December 2023.

Table 4: Analysis of Biosolids Placed in the Calumet West Solids Management Area During October and November 2023.

Very truly yours,



Albert Cox, Ph.D.  
Environmental Monitoring and Research Manager  
Monitoring and Research Department

AC:BM:lf  
Attachment  
Mr. J. Patel, IEPA  
Mr. T. Bennett, IEPA  
Mr. B. Fleming, IEPA  
Dr. H. Zhang

**Metropolitan Water Reclamation District of Greater Chicago**  
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**CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS  
MONITORING REPORT  
FOR FOURTH QUARTER 2023**

**By**

**Benjamin Morgan  
Environmental Soil Scientist**

**Albert Cox  
Environmental Monitoring and Research Manager**

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON OCTOBER 30, 2023

Parameter	Lysimeter No.					
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N
pH	7.6	7.7	7.2	7.0	7.3	7.5
	-----mg L <sup>-1</sup> -----					
Cl <sup>-</sup>	152	142	31	904	268	19
SO <sub>4</sub> <sup>2-</sup>	2,062	1,835	1,014	2,777	571	721
NO <sub>2</sub> <sup>-</sup> +NO <sub>3</sub> <sup>-</sup> -N	0.81	0.75	<0.50	<0.50	<0.50	<0.50

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-3N AT THE CALUMET WEST SOLIDS MANAGEMENT AREA SAMPLED ON OCTOBER 30, 2023

Parameter	Lysimeter No.		
	L-1N	L-2N	L-3N
pH	7.4	7.4	7.5
	-----mg L <sup>-1</sup> -----		
Cl <sup>-</sup>	39	22	63
SO <sub>4</sub> <sup>2-</sup>	1,918	2,000	2,326
NO <sub>2</sub> <sup>-</sup> +NO <sub>3</sub> <sup>-</sup> -N	<0.50	<0.50	<0.50

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET EAST SOLIDS MANAGEMENT AREA DURING NOVEMBER AND DECEMBER 2023

Parameter	November	December
pH	7.5	7.6
	-----%-----	
Total Solids	7.0	8.6
Total Volatile Solids <sup>1</sup>	51.3	44.6

<sup>1</sup>Total volatile solids as a percentage of total solids.

TABLE 4: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET WEST SOLIDS MANAGEMENT AREA DURING OCTOBER AND NOVEMBER 2023

Parameter	October	November
pH	7.3	7.3
	-----%	
Total Solids	7.7	6.8
Total Volatile Solids <sup>1</sup>	51.0	53.3

<sup>1</sup>Total volatile solids as a percentage of total solids.