

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 23-30

CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS

MONITORING REPORT

FOR SECOND QUARTER 2023

August 2023

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

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August 11, 2023

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 April, May, and June 2023

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

Table 1 Analysis of Water from Lysimeters L-1N through L-6N at the Calumet East Solids Management Area Sampled on May 31, 2023.

Table 2 Analysis of Water from Lysimeters L-1N through L-3N at the Calumet West Solids Management Area Sampled on May 31, 2023

Table 3 Analysis of Biosolids Placed in the Calumet East Solids Management Area During May and June 2023.

Table 4 Analysis of Biosolids Placed in the Calumet West Solids Management Area During May and June 2023.

Very truly yours,

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

AC:BM:lf
Attachment

cc: Mr. J. Patel, IEPA/Mr. T. Bennett, IEPA
Mr. B. Fleming, IEPA/Dr. H. Zhang

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**CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS
MONITORING REPORT
FOR SECOND 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 MAY 31, 2023¹

Parameter	Lysimeter No.					
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N
pH	6.9	7.3	6.9	6.8	7.4	7.7
	-----mg L ⁻¹ -----					
Cl ⁻	146	136	27	798	246	18
SO ₄ ²⁻	2,100	1,854	868	2,493	557	708
NO ₂ ⁻ +NO ₃ ⁻ -N	0.50	<0.50	<0.50	<0.50	0.53	<0.50

¹Lysimeters L-2N, L-5N, and L-6N were sampled on June 12, 2023.

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-3N AT THE CALUMET WEST SOLIDS MANAGEMENT AREA SAMPLED ON MAY 31, 2023¹

Parameter	Lysimeter No.		
	L-1N	L-2N	L-3N
pH	7.5	7.8	7.5
	-----mg L ⁻¹ -----		
Cl ⁻	33	23	61
SO ₄ ²⁻	1,733	1,987	2,279
NO ₂ ⁻ +NO ₃ ⁻ -N	<0.50	<0.50	<0.50

¹Lysimeters L-2N and L-3N were sampled on June 12, 2023.

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

Parameter	May	June
pH	7.4	7.3
	-----%-----	
Total Solids	7.3	8.6
Total Volatile Solids ¹	52.7	51.2

¹Total volatile solids as a percentage of total solids.

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

Parameter	May	June
pH	7.5	7.6
	-----%-----	
Total Solids	6.8	9.5
Total Volatile Solids ¹	52.4	52.3

¹Total volatile solids as a percentage of total solids.