

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 23-45

CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS

MONITORING REPORT

FOR THIRD QUARTER 2023

December 2023

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

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November 27, 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 July, August, and September 2023

The attached tables contain the monitoring data for the Calumet East and West Solids Management Areas (SMAs) for July, August, and September 2023, as required by Illinois Environmental Protection Agency Operating Permit No. 2020-AO-64905. Biosolids were placed in the Calumet East SMA in July, August, and September 2023, and in the Calumet West SMA in July and August 2023.

Table 1: Analysis of Water from Lysimeters L-1N through L-6N at the Calumet East Solids Management Area Sampled on August 3, 2023.

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

Table 3: Analysis of Biosolids Placed in the Calumet East Solids Management Area During July, August, and September 2023.

Table 4: Analysis of Biosolids Placed in the Calumet West Solids Management Area During July and August 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
100 East Erie Street Chicago, Illinois 60611-2803 (312) 751-5600

**CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS
MONITORING REPORT
FOR THIRD QUARTER 2023**

By

**Benjamin Morgan
Environmental Soil Scientist**

**Albert Cox
Environmental Monitoring and Research Manager**

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

Parameter	Lysimeter No.		
	L-1N	L-2N	L-3N
pH	7.3	7.4	7.3
	-----mg L ⁻¹ -----		
Cl ⁻	40	23	64
SO ₄ ²⁻	1,885	1,920	2,276
NO ₂ ⁻ +NO ₃ ⁻ -N	<0.50	<0.50	<0.50

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET EAST SOLIDS MANAGEMENT AREA DURING JULY, AUGUST, AND SEPTEMBER 2023

Parameter	July	August	September
pH	7.3	7.5	7.3
	-----%-----		
Total Solids	8.0	8.0	7.7
Total Volatile Solids ¹	51.5	49.5	52.1

¹Total volatile solids as a percentage of total solids.

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

Parameter	July	August
pH	7.7	7.4
	-----%-----	
Total Solids	8.5	7.7
Total Volatile Solids ¹	53.5	50.5

¹Total volatile solids as a percentage of total solids.