

*Protecting Our Water Environment*



*Metropolitan Water Reclamation District of Greater Chicago*

***MONITORING AND RESEARCH  
DEPARTMENT***

*REPORT NO. 19-29*

*CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS*

*MONITORING REPORT FOR*

*THIRD QUARTER 2019*

*November 2019*

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

November 8, 2019

Mr. Roger Callaway  
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 Mr. Callaway:

**Subject:** Calumet East and West Solids Management Areas - Calumet Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2015-AO-59622, Monitoring Report for July, August, and September 2019

The attached tables contain the monitoring data for the Calumet East and West Solids Management Areas for July, August, and September 2019 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2015-AO-59622. Biosolids were placed in both the Calumet East and Calumet West Solids Management Areas in July, August, and September.

Table 1 Analysis of Water From Lysimeters L-1N through L-6N at the Calumet East Solids Management Area Sampled on August 14, 2019.

Table 2 Analysis of Water From Lysimeters L-1N through L-3N at the Calumet West Solids Management Area Sampled on August 14, 2019.

Table 3 Analysis of Biosolids Placed in the Calumet East Solids Management Area During July, August, and September 2019.

Table 4 Analysis of Biosolids Placed in the Calumet West Solids Management Area During July, August, and September 2019.

Very truly yours,

  
Albert E. Cox  
Environmental Monitoring and Research Manager  
Monitoring and Research Department

AC:BM:cm  
Attachments  
cc/att: Mr. J. Patel, IEPA/Records Unit, IEPA  
Dr. H. Zhang

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**CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS  
MONITORING REPORT FOR THIRD QUARTER 2019**

**Monitoring and Research Department**  
**Edward W. Podczewinski, Director**

**November 2019**

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON AUGUST 14, 2019

Parameter	Lysimeter No.					
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N
pH	6.8	7.4	7.1	6.8	7.2	7.4
	----- mg L <sup>-1</sup> -----					
Cl <sup>-</sup>	141	139	35	787	232	18
SO <sub>4</sub> <sup>2-</sup>	1,880	1,808	1,248	2,347	533	705
NO <sub>2</sub> <sup>-</sup> +NO <sub>3</sub> <sup>-</sup> -N	0.69	<0.25	<0.25	<0.25	0.55	0.33

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-3N AT THE CALUMET WEST SOLIDS MANAGEMENT AREA SAMPLED ON AUGUST 14, 2019

Parameter	Lysimeter No.		
	L-1N	L-2N	L-3N
pH <sup>1</sup>	7.3	8.3	7.3
	----- mg L <sup>-1</sup> -----		
Cl <sup>-</sup>	41	24	62
SO <sub>4</sub> <sup>2-</sup>	1,865	1,891	2,264
NO <sub>2</sub> <sup>-</sup> +NO <sub>3</sub> <sup>-</sup> -N	<0.25	<0.25	0.29

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET EAST SOLIDS MANAGEMENT AREA DURING JULY, AUGUST, AND SEPTEMBER 2019

Parameter	July	August	September
pH	7.4	7.4	7.7
	----- % -----		
Total Solids	7.0	7.1	12.6
Total Volatile Solids <sup>1</sup>	52.3	53.1	54.4

<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 JULY, AUGUST, AND SEPTEMBER 2019

Parameter	July	August	September
pH	7.5	7.4	7.5
	----- % -----		
Total Solids	9.6	9.2	6.7
Total Volatile Solids <sup>1</sup>	50.2	50.8	52.3

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