

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 18-34

CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS

MONITORING REPORT FOR

THIRD QUARTER 2018

November 2018

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Edward W. Podczewinski, P.E.
Director of Monitoring and Research

November 26, 2018

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 2018

The attached tables contain the monitoring data for the Calumet East and West Solids Management Areas for July, August, and September 2018 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2015-AO-59622. Biosolids were placed in the Calumet East Solids Management Area in July and August and in the Calumet West Solids Management Area 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 1, 2018.

Table 2 Analysis of Water From Lysimeters L-1N through L-3N at the Calumet West Solids Management Area Sampled on August 1, 2018.

Table 3 Analysis of Biosolids Placed in the Calumet East Solids Management Area During July 2018.

Table 4 Analysis of Biosolids Placed in the Calumet East Solids Management Area During August 2018.

Table 5 Analysis of Biosolids Placed in the Calumet West Solids Management Area During July 2018.

Mr. Roger Callaway

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Table 6 Analysis of Biosolids Placed in the Calumet West Solids Management Area During August 2018.

Table 7 Analysis of Biosolids Placed in the Calumet West Solids Management Area During September 2018.

Very truly yours,



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

AC:DB:cm

Attachments

cc/att: Mr. J. Patel, IEPA
Records Unit, IEPA
Dr. H. Zhang
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TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON AUGUST 1, 2018

Parameter	Lysimeter No.					
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N
pH ¹	7.3	7.2	7.4	7.1	7.5	7.8
	----- mg L ⁻¹ -----					
Cl ⁻	177	131	36	949	235	18
SO ₄ ²⁻	1,831	1,696	1,204	2,482	521	707
NO ₂ +NO ₃ -N	0.71	<0.25	<0.25	<0.25	0.50	<0.25

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-3N AT THE CALUMET WEST SOLIDS MANAGEMENT AREA SAMPLED ON AUGUST 1, 2018

Parameter	Lysimeter No.		
	L-1N	L-2N	L-3N
pH	7.8	8.0	7.5
	----- mg L ⁻¹ -----		
Cl ⁻	36	22	58
SO ₄ ²⁻	1,729	1,881	2,152
NO ₂ +NO ₃ -N	<0.25	<0.25	0.27

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET EAST SOLIDS
MANAGEMENT AREA DURING JULY 2018

Parameter	Analysis ¹
pH	7.7
	---- % ----
Total Solids	8.6
Total Volatile Solids ²	50

¹Mean of three samples.

²Total volatile solids as a percentage of total solids.

TABLE 4: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET EAST SOLIDS MANAGEMENT AREA DURING AUGUST 2018

Parameter	Analysis ¹
pH	7.4
	---- % ----
Total Solids	9.3
Total Volatile Solids ²	52

¹One sample.

²Total volatile solids as a percentage of total solids.

TABLE 5: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET WEST SOLIDS MANAGEMENT AREA DURING JULY 2018

Parameter	Analysis ¹
pH	7.9
	---- % ----
Total Solids	7.8
Total Volatile Solids ²	53

¹Mean of three samples.

²Total volatile solids as a percentage of total solids.

TABLE 6: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET WEST SOLIDS MANAGEMENT AREA DURING AUGUST 2018

Parameter	Analysis ¹
pH	7.3
Total Solids	8.7
Total Volatile Solids ²	---- % ---- 52

¹One sample.

²Total volatile solids as a percentage of total solids.

TABLE 7: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET WEST SOLIDS MANAGEMENT AREA DURING SEPTEMBER 2018

Parameter	Analysis ¹
pH	7.7
	---- % ----
Total Solids	10
Total Volatile Solids ²	61

¹Mean of two samples.

²Total volatile solids as a percentage of total solids.