

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 18-05

CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS

MONITORING REPORT FOR

FOURTH QUARTER 2017

February 2018

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

February 16, 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 October, November, and December 2017

The attached tables contain the monitoring data for the Calumet East and West Solids Management Areas for October, November, and December 2017 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 October and November and in the Calumet West Solids Management Area in October 2017.

Table 1 Analysis of Water From Lysimeters L-1N through L-6N at the Calumet East Solids Management Area Sampled on November 8, 2017.

Table 2 Analysis of Water From Lysimeters L-1N through L-3N at the Calumet West Solids Management Area Sampled on November 8, 2017.

Table 3 Analysis of Biosolids Placed in the Calumet East Solids Management Area During October 2017.

Table 4 Analysis of Biosolids Placed in the Calumet East Solids Management Area During November 2017.

Mr. Roger Callaway

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February 16, 2018

Subject: Calumet East and West Solids Management Areas - Calumet Water Reclamation Plant, Illinois Environmental Protection Agency Permit Nos. 2015-AO-59622, Monitoring Report for October, November, and December 2017

Table 5 Analysis of Biosolids Placed in the Calumet West Solids Management Area During October 2017.

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

Mr. E. Podczerwinski

Dr. H. Zhang

Dr. G. Tian

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**CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS
MONITORING REPORT FOR FOURTH QUARTER 2017**

Monitoring and Research Department
Edward W. Podczewinski, Director

February 2018

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON NOVEMBER 8, 2017

Parameter	Lysimeter No.					
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N
pH ¹	7.1	7.5	7.2	6.9	7.3	7.5
	----- mg L ⁻¹ -----					
Cl ⁻	171	135	35	363	251	19
SO ₄ ²⁻	2,075	1,960	1,364	2,598	565	713
NO ₂ +NO ₃ -N	0.64	<0.15	<0.15	<0.15	0.22	0.18

¹pH analyzed beyond recommended holding time of 15 minutes.

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-3N AT THE CALUMET WEST SOLIDS MANAGEMENT AREA SAMPLED ON NOVEMBER 8, 2017

Parameter	Lysimeter No.		
	L-1N	L-2N	L-3N
pH ¹	7.4	7.7	7.2
	----- mg L ⁻¹ -----		
Cl ⁻	35	22	60
SO ₄ ²⁻	1,935	2,018	2,358
NO ₂ +NO ₃ -N	<0.15	<0.15	0.22

¹pH analyzed beyond recommended holding time of 15 minutes.

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE
 CALUMET EAST SOLIDS MANAGEMENT DRYING
 AREA DURING OCTOBER 2017

Parameter	Analysis ¹
pH	8.2
	---- % ----
Total Solids	22
Total Volatile Solids ²	62

¹Mean of four samples.

²Total volatile solids as a percentage of total solids.

TABLE 4: ANALYSIS OF BIOSOLIDS PLACED IN THE
CALUMET EAST SOLIDS MANAGEMENT DRYING
AREA DURING NOVEMBER 2017

Parameter	Analysis ¹
pH	7.4
	---- % ----
Total Solids	13
Total Volatile Solids ²	29

¹One sample.

²Total volatile solids as a percentage of total solids.

TABLE 5: ANALYSIS OF BIOSOLIDS PLACED IN THE
 CALUMET WEST SOLIDS MANAGEMENT DRYING
 AREA DURING OCTOBER 2017

Parameter	Analysis ¹
pH	7.4
	---- % ----
Total Solids	12
Total Volatile Solids ²	36

¹One sample.

²Total volatile solids as a percentage of total solids.