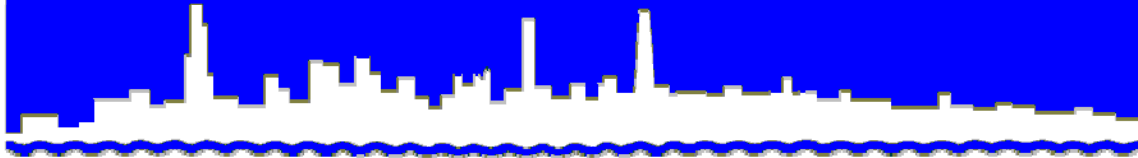


*Protecting Our Water Environment*



***Metropolitan Water Reclamation District of Greater Chicago***

*MONITORING AND RESEARCH  
DEPARTMENT*

***REPORT NO. 13-29***

***CALUMET WEST SOLIDS MANAGEMENT AREA***

***MONITORING REPORT FOR***

***SECOND QUARTER 2013***

***AUGUST 2013***

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August 22, 2013

Mr. S. Alan Keller, P.E.  
Manager, Permit Section  
Illinois Environmental Protection Agency  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794 - 9276

Dear Mr. Keller:

Subject: Calumet West Solids Management Area - Calumet Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2010-AO-0265, Monitoring Report for April, May, and June 2013

The attached three tables contain the monitoring data for the Calumet West Solids Management Area for April, May, and June 2013 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2010-AO-0265.

The data reported are as follows:

Table 1, Analysis of Water from Lysimeters L-1N Through L-3N at the Calumet West Solids Management Area Sampled on May 8, 2013

Table 2, Analysis of Monthly Compositated Processed Digested Biosolids Removed from the Calumet West Solids Management Drying Area During May 2013

Table 3, Analysis of Monthly Compositated Processed Digested Biosolids Removed from the Calumet West Solids Management Drying Area During June 2013

No biosolids were placed in the solids drying area during the second quarter of 2013. Biosolids were removed from the site during May and June 2013.

Very truly yours,

Thomas C. Granato, Ph.D.

Director

Monitoring and Research

TCG:PL:cm

Attachments

cc w/att: Mr. Patel, IEPA

Records Unit, IEPA

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N  
THROUGH L-3N AT THE CALUMET WEST SOLIDS MANAGEMENT  
AREA SAMPLED ON MAY 8, 2013

Parameter	Unit	Lysimeter No.		
		L-1N	L-2N	L-3N
pH <sup>1</sup>		8.1	8.2	8.0
EC	mS/m	326	285	369
Total Dissolved Solids	mg/L	3,326	2,858	3,892
Total Dissolved Organic Carbon	"	3	5	2
Cl <sup>-</sup>	"	62	23	53
SO <sub>4</sub> <sup>=</sup>	"	1,907	1,867	2,334
Alkalinity as CaCO <sub>3</sub>	"	293	31	241
TKN	"	< 1	2	< 1
NH <sub>3</sub> -N	"	0.7	1	0.4
NO <sub>2</sub> + NO <sub>3</sub> -N	"	< 0.15	< 0.15	0.48
Total P	"	< 0.20	< 0.20	< 0.20
Al	"	< 1.0	< 1.0	< 1.0
Ca	"	307	484	358
Cd	"	< 0.001	< 0.001	< 0.001
Cr	"	< 0.005	< 0.005	< 0.005
Cu	"	< 0.005	< 0.005	< 0.005
Fe	"	2	< 0.1	2
Hg	μg/L	< 0.20	< 0.20	< 0.20
K	mg/L	13	22	10
Mg	"	243	19	277
Mn	"	0.115	0.016	0.163
Na	"	189	189	192
Ni	"	< 0.005	< 0.005	< 0.005
Pb	"	< 0.02	< 0.02	< 0.02
Zn	"	< 0.01	< 0.01	< 0.01

<sup>1</sup>pH analyzed beyond recommended holding time of 15 minutes.

TABLE 2: ANALYSIS OF MONTHLY COMPOSITED PROCESSED DIGESTED  
 BIOSOLIDS REMOVED FROM THE CALUMET WEST SOLIDS  
 MANAGEMENT DRYING AREA DURING MAY 2013

Parameter	Unit	Concentration <sup>1</sup>
pH		7.6
Total Solids	%	10.3
Total Volatile Solids <sup>2</sup>	"	55.1
TKN	mg/kg	32,304
NH <sub>3</sub> -N	"	13,966
Total P	"	25,780
Al	"	11,189
Ca	"	46,341
Cd	"	2
Cr	"	49
Cu	"	363
Fe	"	20,787
Hg	"	0.90
K	"	3,750
Mg	"	16,411
Mn	"	953
Na	"	1,810
Ni	"	26
Pb	"	78
Zn	"	919

<sup>1</sup>Values are for one sample.

<sup>2</sup>Total volatile solids as a percentage of total solids.

TABLE 3: ANALYSIS OF MONTHLY COMPOSITED PROCESSED DIGESTED  
 BIOSOLIDS REMOVED FROM THE CALUMET WEST SOLIDS  
 MANAGEMENT DRYING AREA DURING JUNE 2013

Parameter	Unit	Concentration <sup>1</sup>
pH		6.9
Total Solids	%	49.5
Total Volatile Solids <sup>2</sup>	"	44.7
TKN	mg/kg	29,104
NH <sub>3</sub> -N	"	3,906
Total P	"	25,996
Al	"	12,015
Ca	"	48,313
Cd	"	2
Cr	"	51
Cu	"	399
Fe	"	21,439
Hg	"	0.91
K	"	2,816
Mg	"	15,239
Mn	"	910
Na	"	991
Ni	"	26
Pb	"	78
Zn	"	1,078

<sup>1</sup>Values are the means of four samples.

<sup>2</sup>Total volatile solids as a percentage of total solids.