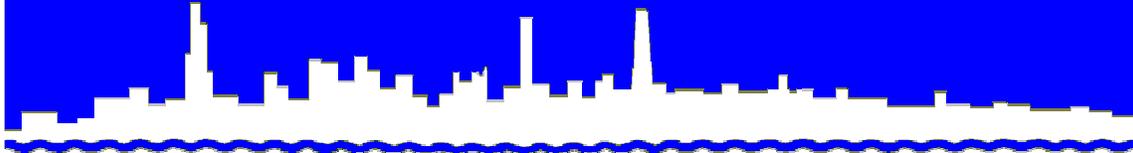


Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 11-8

CALUMET WEST SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

FOURTH QUARTER 2010

MARCH 2010

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Thomas C. Granato, Ph.D.
Acting Director of Monitoring and Research
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March 7, 2011

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 October, November, and December 2010

The attached five tables contain the monitoring data for the Calumet West Solids Management Area for October, November, and December 2010 as required by Illinois Environmental Protection Agency 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 October 13, 2010

Table 2, Analysis of Monthly Compositated Biosolids Placed in the Calumet West Solids Management Drying Area during October 2010

Table 3, Analysis of Monthly Compositated Biosolids Placed in the Calumet West Solids Management Drying Area during November 2010

Table 4, Analysis of Monthly Compositated Processed Digested Biosolids Removed from the Calumet West Solids Management Drying Area during October 2010

Subject: Calumet West Solids Management Area - Calumet Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2010-AO-0265, Monitoring Report for October, November, and December 2010

Table 5, Analysis of Monthly Composited Processed Digested Biosolids Removed from the Calumet West Solids Management Drying Area during November 2010

Biosolids were placed in the solids drying area and removed from the site during October and November.

Very truly yours,

Thomas C. Granato, Ph.D.
Acting Director
Monitoring and Research

TCG:PL:kq

Attachments

cc w/att: Mr. Sulski, IEPA
Records Unit, IEPA
Granato
O'Connor

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N
THROUGH L-3N AT THE CALUMET WEST SOLIDS MANAGEMENT
AREA SAMPLED ON OCTOBER 13, 2010

Parameter	Unit	Lysimeter No.		
		L-1N	L-2N	L-3N
pH ¹		8.2	8.7	
EC	mS/m	261	238	
Total Dissolved Solids	mg/L	2,864	2,152	
Total Dissolved Organic Carbon	"	3	7	
Cl ⁻	"	< 15	26	
SO ₄ ⁼	"	1,403	1,009	
TKN	"	1	2	D
NH ₃ -N	"	0.6	2	E
NO ₂ + NO ₃ -N	"	0.10	< 0.04	F
Total P	"	< 0.10	< 0.10	E
Alkalinity as CaCO ₃	"	254	50	C
				T
Al	"	< 1.0	< 1.0	I
Ca	"	313	374	V
Cd	"	< 0.001	< 0.001	E
Cr	"	< 0.003	< 0.003	
Cu	"	< 0.005	< 0.005	V
				A
Fe	"	0.5	0.5	L
Hg	μg/L	< 0.20	< 0.20	V
K	mg/L	13	30	E
Mg	"	200	9.96	
Mn	"	0.096	0.014	
Na	"	153	200	
Ni	"	0.020	0.012	
Pb	"	< 0.03	< 0.03	
Zn	"	< 0.02	< 0.02	

¹pH analyzed beyond recommended holding time of 15 minutes.

TABLE 2: ANALYSIS OF MONTHLY COMPOSITED BIOSOLIDS
 PLACED IN THE CALUMET WEST SOLIDS MANAGEMENT DRYING AREA
 DURING OCTOBER 2010

Parameter	Unit	Concentration ¹
pH		8.0
Total Solids	%	6.0
Total Volatile Solids ²	"	49.2

¹Values are for one sample.

²Total volatile solids as a percentage of total solids.

TABLE 3: ANALYSIS OF MONTHLY COMPOSITED BIOSOLIDS
 PLACED IN THE CALUMET WEST SOLIDS MANAGEMENT DRYING AREA
 DURING NOVEMBER 2010

Parameter	Unit	Concentration ¹
pH		7.9
Total Solids	%	6.2
Total Volatile Solids ²	"	48.2

¹Values are the means of eight samples.

²Total volatile solids as a percentage of total solids.

TABLE 4: ANALYSIS OF MONTHLY COMPOSITED PROCESSED DIGESTED BIOSOLIDS REMOVED FROM THE CALUMET WEST SOLIDS MANAGEMENT DRYING AREA DURING OCTOBER 2010

Parameter	Unit	Concentration ¹
pH		6.9
Total Solids	%	60.8
Total Volatile Solids ²	"	37.2
TKN	mg/kg	24,731
NH ₃ -N	"	2,742
Total P	"	20,941
Al	"	12,583
Ca	"	52,735
Cd	"	3
Cr	"	78
Cu	"	428
Fe	"	24,778
Hg	"	1.3
K	"	3,086
Mg	"	18,568
Mn	"	943
Na	"	891
Ni	"	38
Pb	"	99
Zn	"	1,133

¹Values are the means of six samples.

²Total volatile solids as a percentage of total solids.

TABLE 5: ANALYSIS OF MONTHLY COMPOSITED PROCESSED DIGESTED BIOSOLIDS REMOVED FROM THE CALUMET WEST SOLIDS MANAGEMENT DRYING AREA DURING NOVEMBER 2010

Parameter	Unit	Concentration ¹
pH		7.8
Total Solids	%	25.7
Total Volatile Solids ²	"	46.8
TKN	mg/kg	30,919
NH ₃ -N	"	6,457
Total P	"	23,647
Al	"	11,074
Ca	"	49,586
Cd	"	3
Cr	"	66
Cu	"	446
Fe	"	22,909
Hg	"	1.1
K	"	4,546
Mg	"	16,577
Mn	"	956
Na	"	2,661
Ni	"	35
Pb	"	87
Zn	"	1,113

¹Values are the means of five samples.

²Total volatile solids as a percentage of total solids.