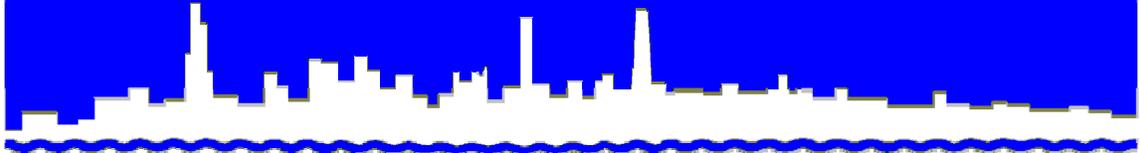


*Protecting Our Water Environment*



*Metropolitan Water Reclamation District of Greater Chicago*

***MONITORING AND RESEARCH  
DEPARTMENT***

*REPORT NO. 10-20*

*CALUMET EAST SOLIDS MANAGEMENT AREA*

*MONITORING REPORT FOR*

*FIRST QUARTER 2010*

*MAY 2010*

## Protecting Our Water Environment



### Metropolitan Water Reclamation District of Greater Chicago

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#### Louis Kollias, P.E., BCEE

Director of Monitoring and Research

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May 27, 2010

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 East Solids Management Area - Calumet Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2005-AO-4281-2, Monitoring Report for January, February, and March 2010

The attached table contains the monitoring data for the Calumet East Solids Management Area for January, February, and March 2010, as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2005-AO-4281-2.

The data reported are as follows:

Table 1, Analysis of Water from Lysimeters L-1N through L-6N at the Calumet East Solids Management Area Sampled on March 10, 2010

Four new lysimeters, L-2N, L-3N, L-4N, and L-6N, were installed at this site in September 2008 as replacements for L-2, L-3, L-4, and L-6, respectively. The new and old lysimeters have been monitored simultaneously. A request has been submitted to the IEPA to terminate monitoring of the old lysimeters.

Mr. S. Alan Keller

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May 27, 2010

Subject: Calumet East Solids Management Area - Calumet Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2005-AO-4281-2, Monitoring Report for January, February, and March 2010

A supplemental permit was issued by the IEPA on July 30, 2009, to modify the monitoring schedule for lysimeters at the Calumet East drying site to once per quarter.

No biosolids were placed in or removed from the solids drying area during this quarter.

Very truly yours,

Louis Kollias  
Director  
Monitoring and Research

LK:PL:kq  
Attachments  
cc w/att: Mr. Sulski, IEPA  
Records Unit, IEPA  
O'Connor/Cox/Lindo

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON MARCH 10, 2010

Parameter	Unit	Lysimeter No.				
		L-1N	L-2	L-2N	L-3	L-3N
pH <sup>1</sup>			8.0	7.9	8.0	8.1
EC	mS/m		417	367	197	290
Total Dissolved Solids	mg/L		4,048	3,534	1,656	2,800
Total Diss. Org. Carbon	"		4	25	6	8
Cl <sup>-</sup>	"		179	145	32	54
SO <sub>4</sub> <sup>=</sup>	"		2,061	1,615	703	1,351
		L				
TKN	"	Y	1	4	<0.2	1
NH <sub>3</sub> -N	"	S	0.1	3	<0.1	0.4
NO <sub>2</sub> +NO <sub>3</sub> -N	"	I	0.18	0.12	0.19	0.36
Total P	"	M	0.1	0.3	<0.1	2
Alkalinity as CaCO <sub>3</sub>	"	E	449	573	428	452
		T				
Al	"	E	0.099	0.092	0.055	0.093
Ca	"	R	545	490	208	399
Cd	"		<0.002	<0.002	<0.002	<0.002
Cr	"	F	<0.003	<0.003	<0.003	<0.003
Cu	"	R	<0.01	<0.01	<0.01	<0.01
		O				
Fe	"	Z	0.87	25	0.37	11
Hg	µg/L	E	<0.20	<0.20	<0.20	<0.20
K	mg/L	N	6	12	2	6
Mg	"		256	220	125	177
Mn	"		0.041	0.846	0.036	0.660
Na	"		140	103	49	55
Ni	"		<0.002	<0.002	0.010	<0.002
Pb	"		<0.02	<0.02	<0.02	<0.02
Zn	"		0.03	0.02	0.07	0.03

TABLE 1 (Continued): ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON MARCH 10, 2010

Parameter	Unit	Lysimeter No.				
		L-4	L-4N	L-5	L-6	L-6N
pH <sup>1</sup>		8.0	7.9	8.1	8.1	8.2
EC	mS/m	447	689	209	160	159
Total Dissolved Solids	mg/L	4,082	6,080	1,620	1,340	1,338
Total Diss. Org. Carbon	"	3	14	1	1	9
Cl <sup>-</sup>	"	506	891	218	14	22
SO <sub>4</sub> <sup>=</sup>	"	1,648	2,333	548	622	532
TKN	"	0.7	4	0.2	<0.2	2
NH <sub>3</sub> -N	"	0.4	2	0.1	<0.1	1
NO <sub>2</sub> +NO <sub>3</sub> -N	"	0.17	0.08	0.12	0.50	0.22
Total P	"	< 0.1	1	<0.1	0.2	6
Alkalinity as CaCO <sub>3</sub>	"	360	631	227	259	325
Al	"	0.085	0.099	0.047	0.038	0.036
Ca	"	493	605	203	166	175
Cd	"	<0.002	<0.002	<0.002	<0.002	<0.002
Cr	"	<0.003	<0.003	<0.003	<0.003	<0.003
Cu	"	<0.01	<0.01	<0.01	<0.01	<0.01
Fe	"	9.5	82	0.64	0.13	3.2
Hg	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
K	mg/L	6	13	4	3	4
Mg	"	268	300	95	82	73
Mn	"	0.114	0.607	0.052	0.041	0.260
Na	"	156	621	84	68	66
Ni	"	<0.002	<0.002	<0.002	<0.002	<0.002
Pb	"	<0.02	<0.02	<0.02	<0.02	<0.02
Zn	"	0.02	0.01	<0.01	<0.01	<0.01

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