

Metropolitan Water Reclamation District of Greater Chicago

# MONITORING AND RESEARCH DEPARTMENT

REPORT NO. 13-13

CALUMET EAST SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

FIRST QUARTER 2013

**MAY 2013** 

# Protecting Our Water Environment

### Metropolitan Water Reclamation District of Greater Chicago

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May 24, 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 East Solids Management Area - Calumet Water Reclamation Plant,

Illinois Environmental Protection Agency Permit No. 2010-AO-0265, Monitor-

ing Report for January, February, and March 2013

The attached table contains the monitoring data for the Calumet East Solids Management Area for January, February, and March 2013 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2010-AO-0265.

The data reported are as follows:

<u>Table 1</u>, Analysis of Water from Lysimeters L-1N Through L-6N at the Calumet East Solids Management Area Sampled on March 13, 2013

No biosolids were placed in or removed from the solids drying area during January, February, and March 2013.

Very truly yours,

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

TCG:PL:cm Attachment

cc w/att: Mr. Patel, IEPA

Records Unit, IEPA

## TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON MARCH 13, 2013

		Lysimeter No.			
Parameter	Unit	L-1N	L-2N	L-3N	L-4N
$pH^1$		7.9	8.1	8.0	7.7
EC	mS/m	392	336	270	893
Total Dissolved Solids	mg/L	$NA^2$	3,726	2,960	6,450
Total Dissolved Organic Carbon	,,	9	12	6	10
Cl-	,,	184	137	52	870
SO <sub>4</sub>	"	1,890	1,719	1,496	2,567
TKN	,,	9	3	< 1	2
NH <sub>3</sub> -N	13	8	2	0.4	2
$NO_2 + NO_3 - N$	**	< 0.15	< 0.15	< 0.15	< 0.15
Total P	11	< 0.20	3.4	1.3	0.30
Alkalinity as CaCO <sub>3</sub>	"	95	571	474	637
Al	"	< 1.0	< 1.0	< 1.0	< 1.0
Ca	**	421	460	385	501
Cd	,,	< 0.001	< 0.001	< 0.001	< 0.001
Cr	5.7	< 0.005	< 0.005	< 0.005	< 0.005
Cu	"	< 0.005	< 0.005	< 0.005	< 0.005
Fe	,,	4	20	19	77
Hg	$\mu$ g/L	< 0.20	< 0.20	< 0.20	< 0.20
K	mg/L	19	13	9	19
Mg	**	293	268	220	358
Mn	15	0.276	0.568	0.518	0.508
Na	,,	213	127	73	556
Ni	27	0.019			
Pb	**	< 0.02	< 0.02	< 0.02	< 0.02
Zn	"	< 0.01	< 0.01	< 0.01	< 0.01

# TABLE 1 (Continued): ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON MARCH 13, 2013

Parameter Unit $ \begin{array}{cccccccccccccccccccccccccccccccccc$	1,538 < 1 222 547 < 1	8.2 165 1,568 7 20 706
EC mS/n Total Dissolved Solids mg/L Total Dissolved Organic Carbon Cl- " SO <sub>4</sub> " TKN "	184 1,538 < 1 222 547	165 1,568 7 20 706
EC mS/n Total Dissolved Solids mg/L Total Dissolved Organic Carbon Cl- " SO <sub>4</sub> " TKN "	1,538 < 1 222 547 < 1	1,568 7 20 706
Total Dissolved Solids mg/L  Total Dissolved Organic Carbon $Cl^ SO_4^=$ TKN  mg/L  " " " " " " "	1,538 < 1 222 547 < 1	7 20 706
Total Dissolved Organic Carbon $Cl^ SO_4^-$ "  TKN  "	< 1 222 547 < 1	20 706
$Cl^-$ " $SO_4^=$ "  TKN "	547 < 1	706
$SO_4^{=}$ " TKN "	< 1	
INN		< 1
	0.2	0.7
$NO_2 + NO_3 - N$	0.19	0.22
Total P	< 0.20	2.5
Alkalinity as CaCO <sub>3</sub>	243	365
Al "	< 1.0	< 1.0
Ca "	205	208
Cd "	< 0.001	< 0.001
Cr "	< 0.005	< 0.005
Cu "	< 0.005	< 0.005
Fe "	0.9	2
$\mu$ g/L	< 0.20	< 0.20
K mg/J	L 5	6
Mg "	106	105
Mn "	0.073	0.203
Na "	108	98
Ni "	< 0.005	< 0.005
Pb "	< 0.02	< 0.02
Zn "	< 0.01	< 0.01

<sup>&</sup>lt;sup>1</sup>pH analyzed beyond recommended holding time of 15 minutes.
<sup>2</sup>No analysis.