

*Protecting Our Water Environment*



*Metropolitan Water Reclamation District of Greater Chicago*

***MONITORING AND RESEARCH  
DEPARTMENT***

***REPORT NO. 14-13***

***LAWNDALE AVENUE SOLIDS MANAGEMENT AREA***

***MONITORING REPORT FOR***

***FIRST QUARTER 2014***

***MAY 2014***

## Protecting Our Water Environment

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May 21, 2014

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: Lawndale Avenue Solids Management Area - Stickney Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2010-AO-0267-1, Monitoring Report for January, February, and March 2014

The attached four tables contain the monitoring data for the Lawndale Avenue Solids Management Area for January, February, and March 2014 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2010-AO-0267-1.

The data reported are as follows:

- Table 1, Analysis of Water from Monitoring Wells M-11 Through M-15 at the Lawndale Avenue Solids Management Area Sampled on January 22, 2014
- Table 2, Analysis of Water from Lysimeters L-4N and L-6N at the Lawndale Avenue Solids Management Area Sampled During January, February, and March 2014
- Table 3, Analysis of Water from Lysimeters L-1N Through L-9N at the Lawndale Avenue Solids Management Area Sampled on March 19, 2014
- Table 4, Analysis of Compositing Biosolids Placed in the Lawndale Avenue Solids Management Drying Area During March 2014

Mr. S. Alan Keller

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May 21, 2014

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Biosolids were placed in the solids drying area during March 2014. Based on the requirements of the revised IEPA permit issued on January 27, 2014, and effective immediately, biosolids removed from this site will no longer be sampled and analyzed. The list of parameters for lysimeter samples has also been modified to include only pH, Cl<sup>-</sup>, SO<sub>4</sub><sup>2-</sup>, and NO<sub>2</sub> + NO<sub>3</sub>-N.

Very truly yours,

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

TCG:PL:cm

Attachments

cc w/att: Mr. J. Patel, IEPA  
Records Unit, IEPA

TABLE 1: ANALYSIS OF WATER FROM MONITORING WELLS M-11 THROUGH M-15 AT THE LAWNSDALE AVENUE SOLIDS MANAGEMENT AREA SAMPLED ON JANUARY 22, 2014

Parameter	Unit	Monitoring Well No.				
		M-11	M-12	M-13	M-14	M-15
pH <sup>1</sup>		7.4	7.9	7.6	7.7	7.8
Cl <sup>-</sup>	mg/L	14	14	10	<10	<10
SO <sub>4</sub> <sup>=</sup>	"	187	362	656	143	893
NO <sub>2</sub> +NO <sub>3</sub> -N	"	<0.15	<0.15	<0.15	<0.15	<0.15

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

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-4N AND L-6N AT THE LAWDALE AVENUE SOLIDS MANAGEMENT AREA SAMPLED DURING JANUARY, FEBRUARY, AND MARCH 2014

Parameter	Unit	Date Sampled					
		01/15/2014		02/19/2014		03/19/2014	
		L-4N <sup>1</sup>	L-6N	L-4N	L-6N	L-4N	L-6N
pH <sup>2</sup>			8.0	7.9	7.8	7.8	7.6
Cl <sup>-</sup>	mg/L		75	18	71	20	71
SO <sub>4</sub> <sup>=</sup>	"		1,476	1,398	1,486	NA <sup>3</sup>	NA <sup>3</sup>
NO <sub>2</sub> +NO <sub>3</sub> -N	"		NRR <sup>4</sup>	0.53	0.31	0.55	0.39

<sup>1</sup>No sample; lysimeter frozen.

<sup>2</sup>pH analyzed beyond recommended holding time of 15 minutes.

<sup>3</sup>No analysis; insufficient sample.

<sup>4</sup>No reportable result.

TABLE 3: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-9N AT THE LAWNDALE AVENUE SOLIDS MANAGEMENT AREA SAMPLED ON MARCH 19, 2014

Parameter	Unit	Lysimeter No.						
		L-1N	L-2N	L-3N	L-5N	L-7N	L-8N	L-9N
pH <sup>1</sup>		8.1	8.3	7.4	7.9	8.4	8.0	8.02
Cl <sup>-</sup>	mg/L	16	344	144	718	239	476	NA <sup>2</sup>
SO <sub>4</sub> <sup>-</sup>	"	740	463	NA <sup>2</sup>	1,790	NA <sup>2</sup>	NA <sup>2</sup>	NA <sup>2</sup>
NO <sub>2</sub> +NO <sub>3</sub> -N	"	<0.15	1.3	0.15	0.34	0.88	<0.15	0.25

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

<sup>2</sup>No analysis; insufficient sample.

TABLE 4: ANALYSIS OF COMPOSITED BIOSOLIDS PLACED  
IN THE LAWNSDALE AVENUE SOLIDS MANAGEMENT DRYING AREA  
DURING MARCH 2014

Parameter	Unit	Concentration <sup>1</sup>
pH		7.5
Total Solids	%	30.8
Total Volatile Solids <sup>2</sup>	"	41.4

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

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