

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

*MONITORING AND RESEARCH
DEPARTMENT*

REPORT NO. 14-03

122ND AND STONY ISLAND AVENUE SOLIDS MANAGEMENT

AREA MONITORING REPORT FOR

FOURTH QUARTER 2013

February 2014

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

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February 20, 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: 122nd and Stony Island Avenue Solids Management Area –
Stickney Water Reclamation Plant, Illinois Environmental Protection
Agency Permit No. 2010-AO-0267, Monitoring Report for October,
November, and December 2013

The attached two tables contain the monitoring data for the 122nd and Stony Island Avenue Solids Management Area for October, November, and December 2013 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2010-AO-0267.

The data reported are as follows:

Table 1, Analysis of Water from Lysimeter L-1 at the 122nd and Stony Island Avenue Solids Management Area Sampled During October, November, and December 2013

Table 2, Analysis of Water from Lysimeters L-2 Through L-4 at the 122nd and Stony Island Avenue Solids Management Area Sampled on November 13, 2013

No biosolids were placed in or removed from the solids drying area during October, November, and December 2013.

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 LYSIMETER L-1
AT THE 122ND AND STONY ISLAND AVENUE SOLIDS MANAGEMENT
AREA SAMPLED DURING OCTOBER, NOVEMBER, AND DECEMBER 2013

Parameter	Unit	Date Sampled		
		10/02/13	11/13/13	12/04/13
pH ¹		7.6	7.7	7.4
EC	mS/m	324	318	263
Total Dissolved Solids	mg/L	2,372	2,326	2,294
Total Dissolved Organic Carbon	"	37	35	36
Cl ⁻	"	211	215	199
SO ₄ ⁼	"	234	250	266
Alkalinity as CaCO ₃	"	1,501	1,518	1,447
TKN	"	38	38	31
NH ₃ -N	"	35	36	35
NO ₂ + NO ₃ -N	"	< 0.15	< 0.15	< 0.15
Total P	"	< 0.20	< 0.20	< 0.20
Al	"	< 1.0	< 1.0	< 1.0
B	"	13	12	12
Ca	"	306	302	294
Cd	"	< 0.001	< 0.001	< 0.001
Cr	"	< 0.005	< 0.005	< 0.005
Cu	"	< 0.005	< 0.005	< 0.005
Fe	"	19	21	19
Hg	μg/L	< 0.20	< 0.20	< 0.20
K	mg/L	33	31	32
Mg	"	141	135	131
Mn	"	0.260	0.267	0.264
Na	"	197	180	176
Ni	"	< 0.005	< 0.005	< 0.005
Pb	"	< 0.02	< 0.02	< 0.02
Zn	"	< 0.01	< 0.01	< 0.01

¹pH analyzed beyond recommended holding time of 15 minutes.

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-2 THROUGH L-4 AT THE 122ND AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA SAMPLED ON NOVEMBER 13, 2013

Parameter	Unit	Lysimeter No.		
		L-2	L-3	L-4
pH ¹		7.6	7.7	8.1
EC	mS/m	348	287	184
Total Dissolved Solids	mg/L	2,940	2,340	1,188
Total Dissolved Organic Carbon	"	20	59	17
Cl ⁻	"	439	187	506
SO ₄ ⁼	"	941	313	23
Alkalinity as CaCO ₃	"	477	3,080	1,313
TKN	"	3	17	6
NH ₃ -N	"	1	12	4
NO ₂ + NO ₃ -N	"	< 0.15	< 0.15	< 0.15
Total P	"	0.82	0.25	< 0.20
Al	"	< 1.0	< 1.0	< 1.0
B	"	1.3	0.72	1.4
Ca	"	235	421	111
Cd	"	< 0.001	< 0.001	< 0.001
Cr	"	< 0.005	< 0.005	< 0.005
Cu	"	< 0.005	< 0.005	< 0.005
Fe	"	55	10	4
Hg	μg/L	< 0.20	< 0.20	< 0.20
K	mg/L	69	6	21
Mg	"	173	153	64
Mn	"	2.52	0.330	0.160
Na	"	235	57	172
Ni	"	< 0.005	< 0.005	< 0.005
Pb	"	< 0.02	< 0.02	< 0.02
Zn	"	< 0.01	< 0.01	< 0.01

¹pH analyzed beyond recommended holding time of 15 minutes.