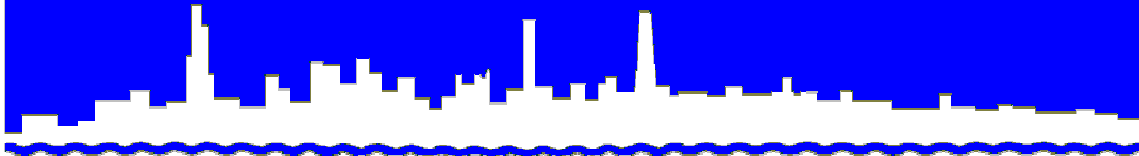


Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 09-54

122ND AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA

MONITORING REPORT

SECOND QUARTER 2009

SEPTEMBER 2009

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Louis Kollias, P.E., BCEE
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September 3, 2009

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. 2005-AO-4283, Monitoring Report for April, May, and June 2009

The attached three tables contain the monitoring data for the 122nd and Stony Island Avenue Solids Management Area for April, May, and June 2009 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2005-AO-4283.

The data reported are as follows:

Table 1, Analysis of Water from Lysimeters L-1 through L-4 at the 122nd and Stony Island Avenue Solids Management Area Sampled on April 1, 2009

Table 2, Analysis of Water from Lysimeters L-1 through L-4 at the 122nd and Stony Island Avenue Solids Management Area Sampled on May 13, 2009

Table 3, Analysis of Water from Lysimeters L-1 through L-4 at the 122nd and Stony Island Avenue Solids Management Area Sampled on June 10, 2009

Mr. S. Alan Keller

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September 3, 2009

Subject: 122nd and Stony Island Avenue Solids Management Area – Stickney
Water Reclamation Plant, Illinois Environmental Protection Agency
Permit No. 2005-AO-4283, Monitoring Report for April, May, and June
2009

No biosolids were placed in or removed from the solids drying area during April, May,
and June 2009.

Very truly yours,

Louis Kollias
Director
Monitoring and Research

LK:PL:kq
Attachments
cc w/att: Mr. Sulski, IEPA
Records Unit, IEPA

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS
L-1 THROUGH L-4 AT THE 122ND AND STONY ISLAND AVENUE
SOLIDS MANAGEMENT AREA SAMPLED ON APRIL 1, 2009

Parameter	Unit	Lysimeter No.			
		L-1	L-2	L-3	L-4
pH ¹		7.6	7.8	7.4	7.8
EC	mS/m	273	197	326	197
Total Dissolved Solids	mg/L	1,980	1,316	2,580	1,368
Total Diss. Org. Carbon	"	32	15	41	20
Cl ⁻	"	214	346	103	306
SO ₄ ⁼	"	242	135	607	11
TKN	"	26	2	9	6
NH ₃ -N	"	27	0.4	7	5
NO ₂ + NO ₃ -N	"	<0.1	<0.1	<0.1	<0.1
Total P	"	<0.25	<0.25	<0.25	<0.25
Alkalinity as CaCO ₃	"	1,210	434	1,310	732
Al	"	0.085	0.038	0.120	0.053
B	"	4.1	0.73	0.38	1.6
Ca	"	233	101	484	113
Cd	"	<0.002	<0.002	<0.002	<0.002
Cr	"	<0.003	<0.003	<0.003	<0.003
Cu	"	<0.01	<0.01	<0.01	<0.01
Fe	"	0.89	1.8	8.2	0.22
Hg	μg/L	<0.20	<0.20	<0.20	<0.20
K	mg/L	25	29	5	23
Mg	"	117	58	149	65
Mn	"	0.278	0.844	0.526	0.121
Na	"	184	209	47	213
Ni	"	<0.002	<0.002	<0.002	<0.002
Pb	"	<0.02	<0.02	<0.02	<0.02
Zn	"	<0.01	<0.01	<0.01	<0.01

¹pH analyzed beyond recommended holding time of 15 minutes.

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS
L-1 THROUGH L-4 AT THE 122ND AND STONY ISLAND AVENUE
SOLIDS MANAGEMENT AREA SAMPLED ON MAY 13, 2009

Parameter	Unit	Lysimeter No.			
		L-1	L-2	L-3	L-4
pH ¹		7.6	7.7	7.4	7.8
EC	mS/m	261	170	289	184
Total Dissolved Solids	mg/L	1,840	1,400	2,672	1,408
Total Diss. Org. Carbon	"	35	15	82	21
Cl ⁻	"	223	364	113	324
SO ₄ ⁼	"	190	112	655	29
TKN	"	27	2	10	7
NH ₃ -N	"	26	0.5	7	5
NO ₂ + NO ₃ -N	"	<0.1	<0.1	<0.1	<0.1
Total P	"	<0.25	<0.25	<0.25	<0.25
Alkalinity as CaCO ₃	"	1,231	445	1,346	791
Al	"	0.075	<0.035	0.089	0.036
B	"	4.2	0.69	0.40	1.6
Ca	"	232	102	472	128
Cd	"	<0.002	<0.002	<0.002	<0.002
Cr	"	<0.003	<0.003	<0.003	<0.003
Cu	"	<0.01	<0.01	<0.01	<0.01
Fe	"	0.54	0.85	7.5	0.53
Hg	μg/L	<0.20	<0.20	<0.20	<0.20
K	mg/L	24	28	6	21
Mg	"	118	58	150	72
Mn	"	0.285	0.789	0.562	0.129
Na	"	179	201	51	202
Ni	"	<0.002	<0.002	<0.002	<0.002
Pb	"	<0.02	<0.02	<0.02	<0.02
Zn	"	<0.01	<0.01	<0.01	<0.01

¹pH analyzed beyond recommended holding time of 15 minutes.

TABLE 3: ANALYSIS OF WATER FROM LYSIMETERS
L-1 THROUGH L-4 AT THE 122ND AND STONY ISLAND AVENUE
SOLIDS MANAGEMENT AREA SAMPLED ON JUNE 10, 2009

Parameter	Unit	Lysimeter No.			
		L-1	L-2	L-3	L-4
pH ¹		7.6	7.6	7.3	7.7
EC	mS/m	185	168	265	178
Total Dissolved Solids	mg/L	1,884	1,148	2,596	1,292
Total Diss. Org. Carbon	"	37	15	49	20
Cl ⁻	"	230	332	99	313
SO ₄ ⁼	"	188	175	653	15
TKN	"	30	3	13	9
NH ₃ -N	"	26	0.5	7	5
NO ₂ + NO ₃ -N	"	0.2	0.2	0.4	<0.1
Total P	"	<0.25	<0.25	<0.25	<0.25
Alkalinity as CaCO ₃	"	1,242	413	1,324	753
Al	"	0.061	<0.035	0.088	<0.035
B	"	4.4	0.68	0.34	1.6
Ca	"	248	109	497	128
Cd	"	<0.002	0.003	<0.002	<0.002
Cr	"	<0.003	<0.003	<0.003	<0.003
Cu	"	<0.01	<0.01	<0.01	<0.01
Fe	"	6.2	11	29	2.9
Hg	μg/L	<0.20	<0.20	<0.20	<0.20
K	mg/L	25	30	6	21
Mg	"	122	61	155	72
Mn	"	0.338	1.06	0.469	0.134
Na	"	186	200	47	212
Ni	"	<0.002	<0.002	<0.002	<0.002
Pb	"	<0.02	<0.02	<0.02	<0.02
Zn	"	<0.01	<0.01	<0.01	<0.01

¹pH analyzed beyond recommended holding time of 15 minutes.