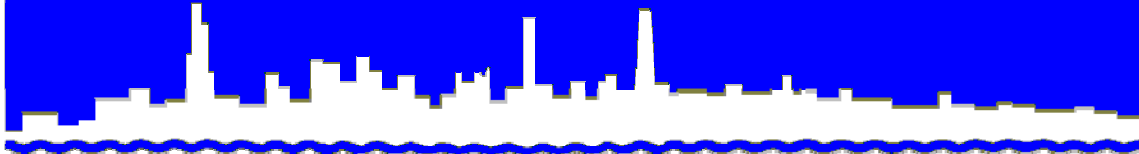


Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 09-72

122ND AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

THIRD QUARTER 2009

DECEMBER 2009

Protecting Our Water Environment

Board of Commissioners

Terrence J. O'Brien
President
Kathleen Therese Meany
Vice President
Gloria Alitto Majewski
Chairman of Finance
Frank Avila
Patricia Horton
Barbara J. McGowan
Cynthia M. Santos
Debra Shore
Mariyana T. Spyropoulos

Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street

Chicago, Illinois 60611-3154

312.751.5190

Louis Kollias, P.E., BCEE

Director of Monitoring and Research

louis.kollias@mwr.org

December 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-4283-2, Monitoring Report for July, August, and September 2009

The attached three tables contain the monitoring data for the 122nd and Stony Island Avenue Solids Management Area for July, August, and September 2009 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2005-AO-4283-2.

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 July 8, 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 August 5, 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 September 2, 2009

Mr. S. Alan Keller

2

December 3, 2009

Subject: 122nd and Stony Island Avenue Solids Management Area – Stickney
Water Reclamation Plant, Illinois Environmental Protection Agency
Permit No. 2005-AO-4283-2, Monitoring Report for July, August, and
September 2009

No biosolids were placed in or removed from the solids drying area during July, August,
and September 2009.

Very truly yours,

Louis Kollias
Director
Monitoring and Research

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

TABLE 1: ANALYSIS¹ OF WATER FROM LYSIMETERS
L-1 THROUGH L-4 AT THE 122ND AND STONY ISLAND AVENUE
SOLIDS MANAGEMENT AREA SAMPLED ON JULY 8, 2009

Parameter	Unit	Lysimeter No.			
		L-1	L-2	L-3	L-4
pH ²		7.6	7.7	7.3	7.8
EC	mS/m	289	186	314	195
Total Dissolved Solids	mg/L	1,948	1,300	2,752	1,404
Total Diss. Org. Carbon	"	40	16	51	21
Cl ⁻	"	233	315	106	311
SO ₄ ⁼	"	169	169	628	30
TKN	"	30	3	11	8
NH ₃ -N	"	26	1	7	5
NO ₂ + NO ₃ -N	"	0.12	0.08	0.16	<0.04
Total P	"	<0.1	NRR	<0.1	<0.1
Alkalinity as CaCO ₃	"	1,306	413	1,378	767
Al	"	0.049	<0.035	0.059	<0.035
B	"	4.1	0.77	0.36	1.5
Ca	"	247	102	464	134
Cd	"	<0.002	0.004	<0.002	<0.002
Cr	"	<0.0025	<0.0025	<0.0025	<0.0025
Cu	"	<0.01	<0.01	<0.01	<0.01
Fe	"	14	12	26	4.9
Hg	μg/L	<0.20	<0.20	<0.20	<0.20
K	mg/L	24	28	6	18
Mg	"	118	58	148	69
Mn	"	0.296	0.946	0.496	0.141
Na	"	179	186	47	198
Ni	"	<0.002	<0.002	<0.002	0.003
Pb	"	<0.02	<0.02	<0.02	<0.02
Zn	"	<0.01	<0.01	<0.01	<0.01

¹Limit of quantitation (LOQ) instead of MDL was used as reporting limit.

²pH analyzed beyond recommended holding time of 15 minutes.

NRR = No reportable result.

TABLE 2: ANALYSIS¹ OF WATER FROM LYSIMETERS
L-1 THROUGH L-4 AT THE 122ND AND STONY ISLAND AVENUE
SOLIDS MANAGEMENT AREA SAMPLED ON AUGUST 5, 2009

Parameter	Unit	Lysimeter No.			
		L-1	L-2	L-3	L-4
pH ²		7.7	7.9	7.6	7.8
EC	mS/m	289	191	307	183
Total Dissolved Solids	mg/L	1,996	1,368	3,144	1,420
Total Diss. Org. Carbon	"	35	16	44	22
Cl ⁻	"	220	297	103	299
SO ₄ ⁼	"	182	168	709	26
TKN	"	29	2	9	6
NH ₃ -N	"	27	1	7	5
NO ₂ + NO ₃ -N	"	0.25	0.15	0.10	<0.04
Total P	"	<0.1	0.2	<0.1	<0.1
Alkalinity as CaCO ₃	"	1,299	454	1,306	787
Al	"	0.077	0.037	0.114	0.049
B	"	4.0	0.89	0.36	1.5
Ca	"	251	103	495	143
Cd	"	<0.002	0.003	<0.002	<0.002
Cr	"	<0.0025	<0.0025	<0.0025	<0.0025
Cu	"	<0.01	<0.01	<0.01	<0.01
Fe	"	15	12	26	5.6
Hg	µg/L	<0.20	<0.20	<0.20	<0.20
K	mg/L	26	30	6	20
Mg	"	124	58	158	74
Mn	"	0.305	0.907	0.514	0.142
Na	"	180	188	51	211
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

¹Limit of quantitation (LOQ) instead of MDL was used as reporting limit.

²pH analyzed beyond recommended holding time of 15 minutes.

TABLE 3: ANALYSIS¹ OF WATER FROM LYSIMETERS
L-1 THROUGH L-4 AT THE 122ND AND STONY ISLAND AVENUE
SOLIDS MANAGEMENT AREA SAMPLED ON SEPTEMBER 2, 2009

Parameter	Unit	Lysimeter No.			
		L-1	L-2	L-3	L-4
pH ²		7.7	7.9	7.5	7.9
EC	mS/m	268	173	284	196
Total Dissolved Solids	mg/L	1,968	1,200	3,016	1,356
Total Diss. Org. Carbon	"	36	15	45	20
Cl ⁻	"	216	274	102	299
SO ₄ ⁼	"	180	111	667	23
TKN	"	29	2	9	6
NH ₃ -N	"	29	0.9	7	5
NO ₂ + NO ₃ -N	"	0.21	0.08	0.17	<0.04
Total P	"	<0.1	<0.1	<0.1	<0.1
Alkalinity as CaCO ₃	"	1,250	440	1,332	771
Al	"	0.084	<0.035	0.138	0.053
B	"	4.0	0.96	0.38	1.5
Ca	"	261	96	495	145
Cd	"	<0.002	<0.002	<0.002	<0.002
Cr	"	0.0036	<0.0025	0.0039	0.0026
Cu	"	<0.01	<0.01	<0.01	<0.01
Fe	"	5.0	4.9	15	4.4
Hg	μg/L	<0.20	<0.20	<0.20	<0.20
K	mg/L	27	30	6	19
Mg	"	125	54	154	70
Mn	"	0.285	0.851	0.490	0.137
Na	"	187	180	49	205
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

¹Limit of quantitation (LOQ) instead of MDL was used as reporting limit.

²pH analyzed beyond recommended holding time of 15 minutes.