

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***RESEARCH AND DEVELOPMENT
DEPARTMENT***

REPORT NO. 06-31

122ND AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA

MONITORING DATA FOR

FIRST QUARTER 2006

May 2006

May 31, 2006

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 WRP,
IEPA Permit No. 2005-AO-4283, Monitoring Data for January, February, and
March 2006

The attached three tables contain the monitoring data for the 122nd and Stony Island Avenue Solids Management Area for January, February, and March 2006 as required by 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 January 11, 2006

Table 2, Analysis of Water from Lysimeters L-1 through L-4 at the 122nd and Stony Island Avenue Solids Management Area Sampled on February 8, 2006

Table 3, Analysis of Water from Lysimeters L-1 through L-4 at the 122nd and Stony Island Avenue Solids Management Area Sampled on March 8, 2006

Subject: 122nd and Stony Island Avenue Solids Management Area - Stickney WRP,
IEPA Permit No. 2005-AO-4283, Monitoring Data for January, February, and
March 2006

No biosolids were placed in or removed from the solids drying area during the period of January
to March.

Very truly yours,

Richard Lanyon
Director
Research and Development

RL:PL:spy
Enclosure

cc w/enc: Records Unit (IEPA)
Sulski (IEPA)

cc via MWRDGC Web Site:
Levy/Sharma
Kollias/Granato
O'Connor/Cox
Lindo/Patel, M.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 1

ANALYSIS OF WATER FROM LYSIMETERS L-1 THROUGH L-4
 AT THE 122ND AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA
 SAMPLED ON JANUARY 11, 2006

Parameter	Unit	Lysimeter No.			
		L-1	L-2	L-3	L-4
pH ¹		7.5	7.8	7.4	7.6
EC	mS/m	273	279	276	172
Total Dissolved Solids	mg/L	2,100	1,976	2,660	1,168
Total Dissolved Organic Carbon	"	34	16	42	17
Cl ⁻	"	237	709	84	287
SO ₄ ⁼	"	253	59	619	28
TKN	"	34	5.1	9.9	4.8
NH ₃ -N	"	32	3.2	5.9	3.2
NO ₂ + NO ₃ -N	"	0.29	0.15	0.03	0.29
Total P	"	<0.05	<0.05	<0.05	<0.05
Alkalinity as CaCO ₃	"	1,252	475	1,293	597
Al	"	<0.06	<0.06	<0.06	<0.06
B	"	4.46	1.09	0.333	1.16
Ca	"	296	123	496	123
Cd	"	0.0003	0.0017	<0.0003	<0.0003
Cr	"	0.0010	0.0010	0.0010	0.0010
Cu	"	<0.002	<0.002	<0.002	<0.002
Fe	"	0.265	0.137	6.03	0.092
Hg	μg/L	<0.05	<0.05	<0.05	<0.05
K	mg/L	29	50	5.2	11
Mg	"	139	85.5	164	58.2
Mn	"	0.3939	0.6634	0.4978	0.1276
Na	"	166	343	42	196
Ni	"	<0.002	0.007	<0.002	0.002
Pb	"	<0.0009	<0.0009	<0.0009	<0.0009
Zn	"	0.004	0.003	0.006	0.003

¹pH analyzed beyond recommended holding time of 15 minutes.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 2

ANALYSIS OF WATER FROM LYSIMETERS L-1 THROUGH L-4
 AT THE 122ND AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA
 SAMPLED ON FEBRUARY 8, 2006

Parameter	Unit	Lysimeter No.			
		L-1	L-2	L-3	L-4
pH ¹		7.4	7.7	7.4	7.6
EC	mS/m	268	298	271	172
Total Dissolved Solids	mg/L	2,096	2,038	2,628	1,204
Total Dissolved Organic Carbon	"	33	16	42	17
Cl ⁻	"	245	786	89	295
SO ₄ ⁼	"	377	83	758	35
TKN	"	35	4.9	9.6	3.7
NH ₃ -N	"	31	3.1	5.9	2.4
NO ₂ + NO ₃ -N	"	0.98	0.69	0.23	0.91
Total P	"	<0.05	<0.05	<0.05	<0.05
Alkalinity as CaCO ₃	"	1,224	507	1,303	603
Al	"	<0.06	<0.06	<0.06	<0.06
B	"	5.94	1.55	0.467	1.56
Ca	"	297	133	519	128
Cd	"	0.0003	0.0024	0.0009	0.0005
Cr	"	0.0010	0.0010	0.0020	0.0020
Cu	"	<0.002	<0.002	<0.002	<0.002
Fe	"	0.753	0.047	7.80	0.257
Hg	μg/L	<0.05	<0.05	<0.05	<0.05
K	mg/L	29	52	5.1	11
Mg	"	134	91.8	160	57.9
Mn	"	0.3187	0.7319	0.6232	0.1144
Na	"	162	356	41	189
Ni	"	<0.002	0.007	<0.002	0.002
Pb	"	<0.0009	0.0030	<0.0009	0.0040
Zn	"	0.009	0.005	0.007	0.002

¹pH analyzed beyond recommended holding time of 15 minutes.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 3

ANALYSIS OF WATER FROM LYSIMETERS L-1 THROUGH L-4
 AT THE 122ND AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA
 SAMPLED ON MARCH 8, 2006

Parameter	Unit	Lysimeter No.			
		L-1	L-2	L-3	L-4
pH ¹		7.5	7.7	7.5	7.5
EC	mS/m	298	346	272	179
Total Dissolved Solids	mg/L	2,042	2,098	2,532	1,158
Total Dissolved Organic Carbon	"	30	14	40	16
Cl ⁻	"	236	778	88	287
SO ₄ ⁼	"	382	95	716	50
TKN	"	43	6.9	11	6.1
NH ₃ -N	"	33	3.6	5.1	3.1
NO ₂ + NO ₃ -N	"	0.24	0.62	0.30	0.12
Total P	"	<0.05	<0.05	<0.05	<0.05
Alkalinity as CaCO ₃	"	1,134	528	1,234	578
Al	"	<0.06	<0.06	<0.06	<0.06
B	"	5.43	1.44	0.477	1.46
Ca	"	290	145	493	131
Cd	"	0.0006	0.0011	0.0004	0.0006
Cr	"	0.0050	0.0040	0.0060	0.0030
Cu	"	<0.002	<0.002	<0.002	<0.002
Fe	"	0.180	0.037	2.37	0.128
Hg	μg/L	<0.05	0.05	<0.05	0.05
K	mg/L	33	55	5.7	11
Mg	"	142	105	168	62.2
Mn	"	0.3002	0.7703	0.6034	0.1318
Na	"	175	402	45	198
Ni	"	<0.002	0.006	<0.002	<0.002
Pb	"	0.0080	0.0090	0.0040	0.0050
Zn	"	0.012	0.005	0.007	0.005

¹pH analyzed beyond recommended holding time of 15 minutes.