

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 09-61

MONTHLY CONTROLLED SOLIDS

DISTRIBUTION REPORT

JUNE 2009

SEPTEMBER 2009

Protecting Our Water Environment

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September 23, 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: Metropolitan Water Reclamation District of Greater Chicago – Controlled Solids
Distribution Program IEPA Permit No. 2005-SC-3793, June 2009

This letter transmits information and data for the Metropolitan Water Reclamation District of Greater Chicago - Controlled Solids Distribution Program for June 2009, as required by Illinois Environmental Protection Agency Permit No. 2005-SC-3793

Sludge flow schematic diagrams for solids processed during June 2009 are shown in Figure 1 - John E. Egan Water Reclamation Plant (WRP), Figure 2 - Calumet WRP, and Figure 3 - Stickney WRP.

Biosolids were distributed to seven sites in June. The user information report for those sites are presented in Table 1, and the analyses of composited biosolids delivered to those sites are presented in Tables 2 - 8.

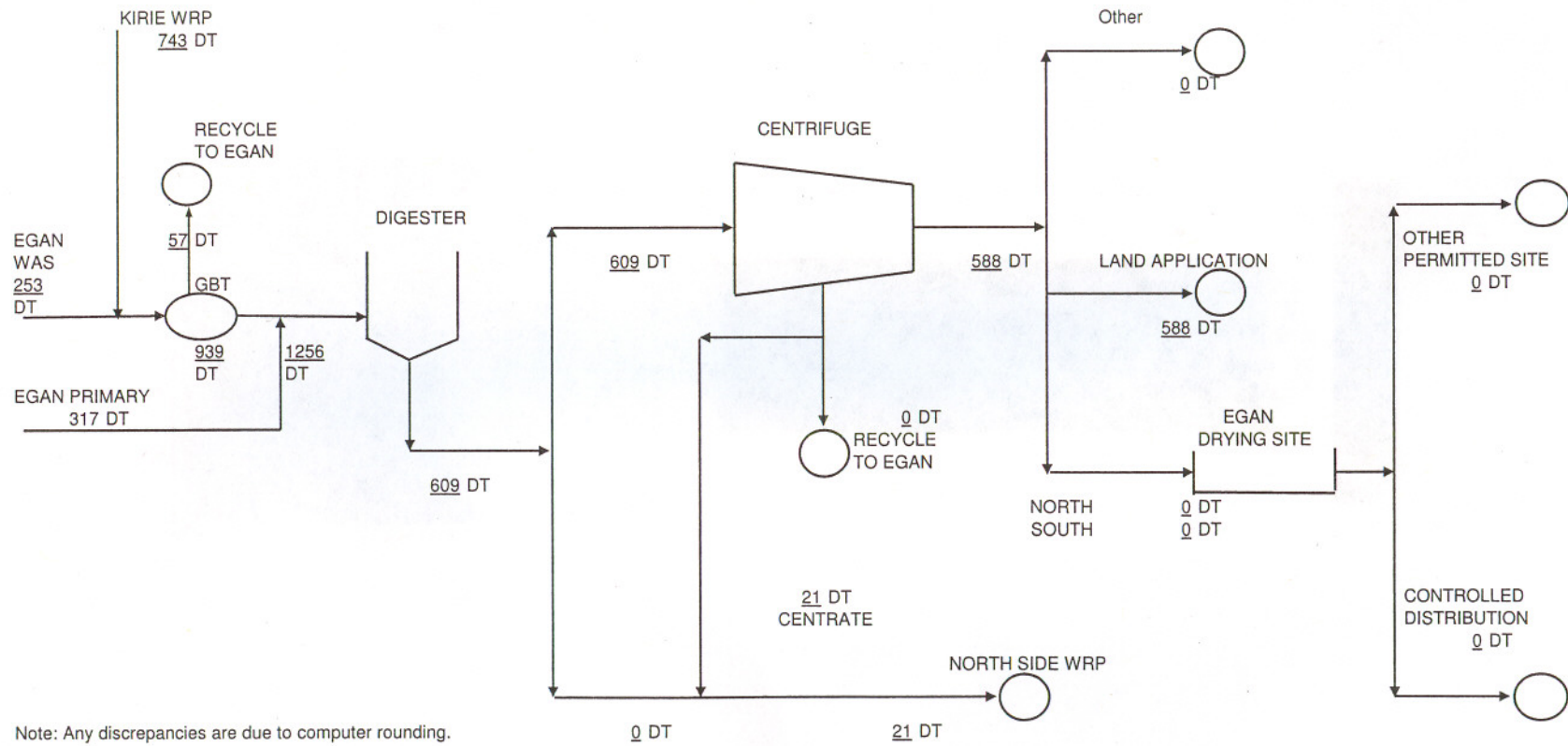
Very truly yours,

Louis Kollias
Director
Monitoring and Research

LK:KK:kq
Attachments
cc: Aistars (USEPA)
Sulski (IEPA)
Sobanski

J.E. EGAN WRP SOLIDS DISTRIBUTION- FIGURE 1

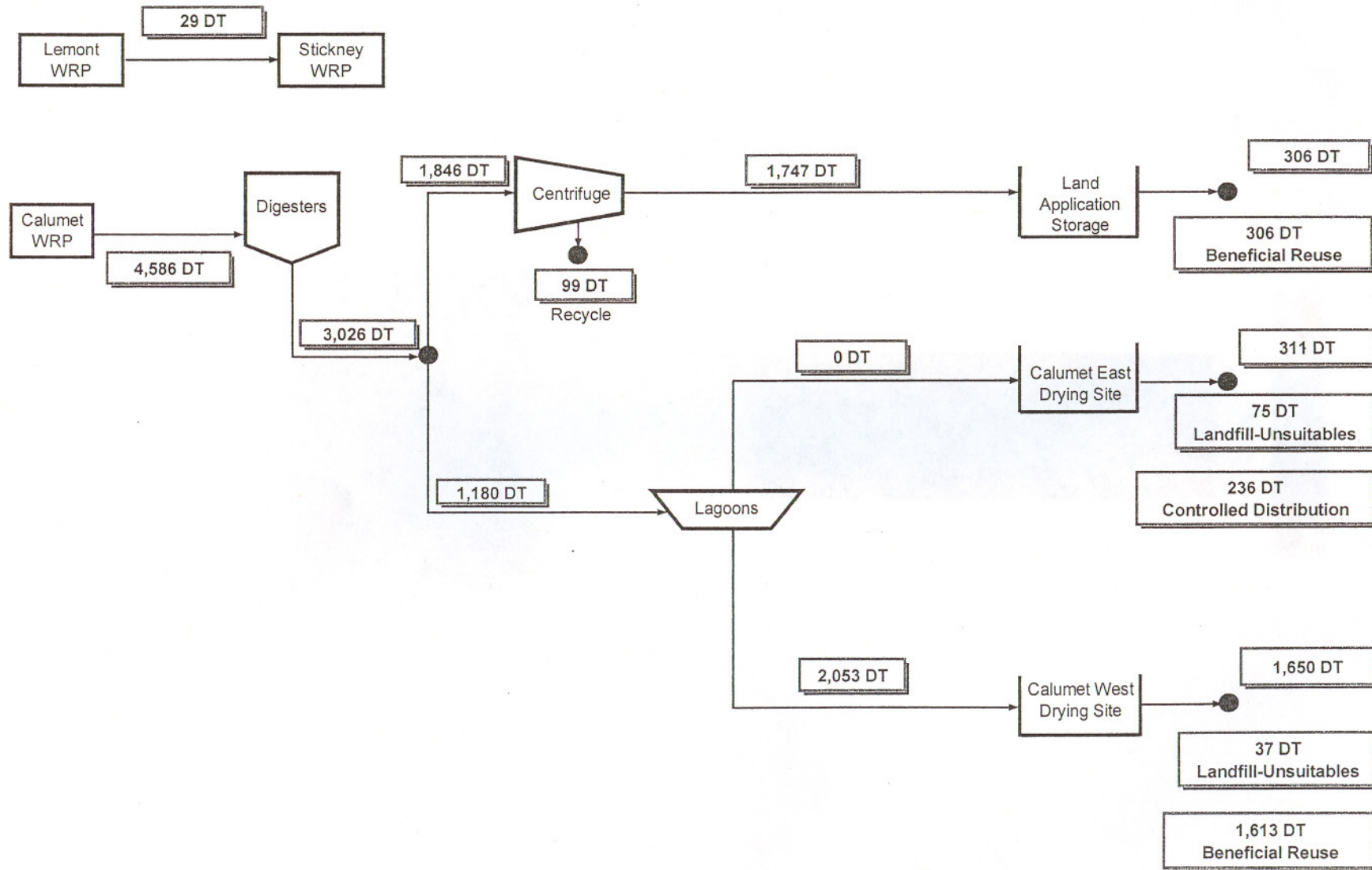
June-09



Note: Any discrepancies are due to computer rounding.

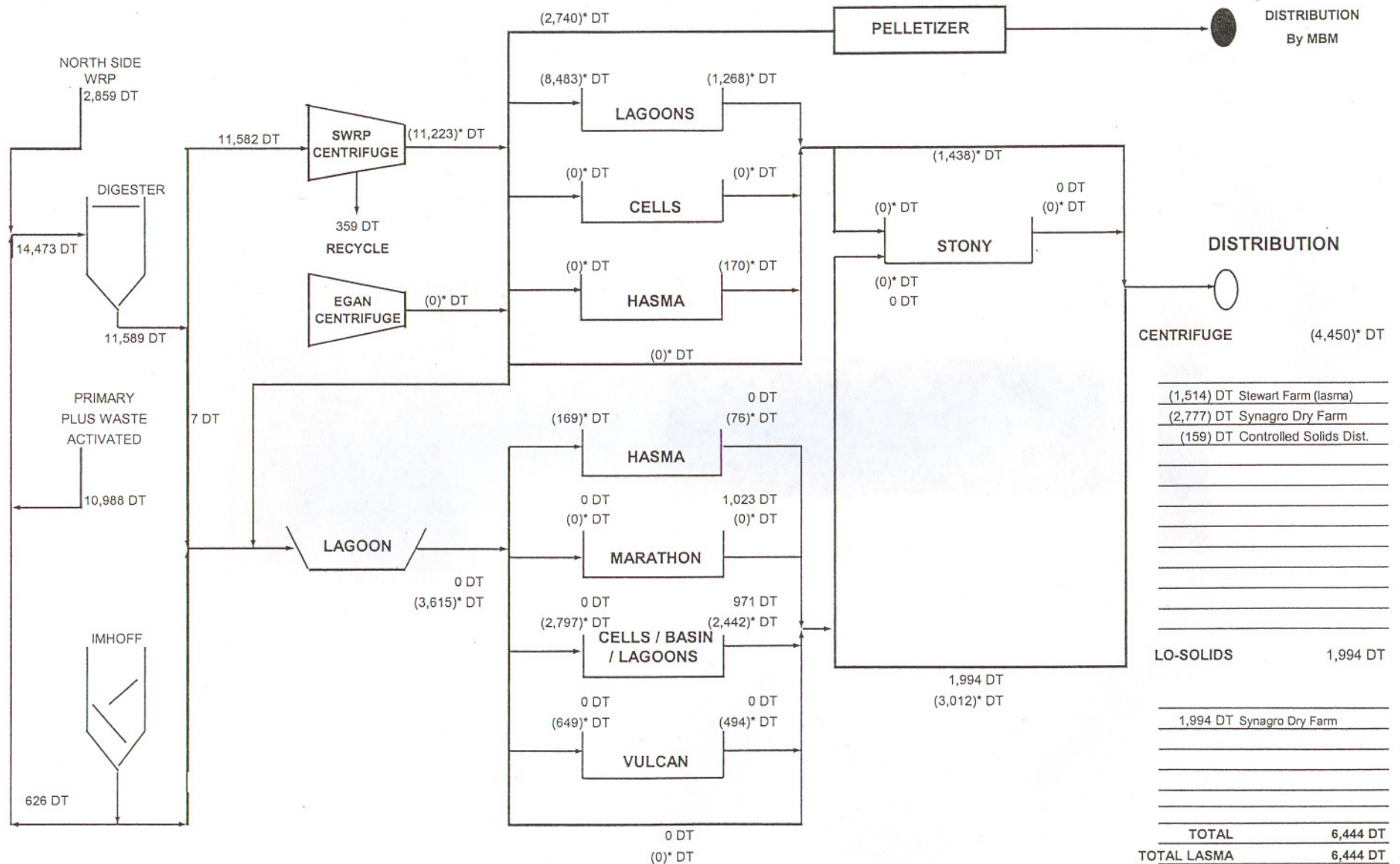
CALUMET WRP SOLIDS DISTRIBUTION - June 2009

Figure 2



STICKNEY WATER RECLAMATION PLANT SOLIDS DISTRIBUTION FOR JUNE 2009

Figure 3



(CENTRIFUGE CAKE)*

TOTAL	6,444 DT
TOTAL LASMA	6,444 DT

jg 7/22/09

TABLE 1: CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT FOR AGITATION DRIED ANAEROBICALLY DIGESTED SOLIDS

No.	Name and Address of User	Source	Dates	Quantity (dry tons)		Biosolids Use	Application		Analysis
				June 2009	Cumulative 2009		Area (acres)	Rate (tons/acre)	
1.	Frankfort High School Laraway Rd. & 116th Ave. Frankfort, IL 60423	Stickney WRP ¹ - Vulcan Drying Area	5	57.0	57.0	Topdressing as fertilizer for turf growth on soccer fields.	4	14.2	Table 2
2.	Turfcare Landscaping, Inc. 1018 Darrow St. Evanston, IL 60202	Stickney WRP - Vulcan Drying Area	12	87.4	87.4	Biosolids amended soil to store burlapped trees.	2	43.7	Table 3
3.	Glenbrook North High School 2300 Shermer Rd. Northbrook, IL 60062	Stickney WRP - Vulcan Drying Area	16	14.4	93.5	Topdressing as fertilizer for turf growth on athletic fields	7	13.4	Table 4
		Calumet WRP - East Drying Area	29	79.1					
4.	North Shore Country Club 1340 Glenview Rd. Glenview, IL 60025	Calumet WRP - East Drying Area	29	73.6	73.6	Topdressing as fertilizer for turf growth on golf course	10	7.4	Table 5
5.	Oak Forest High School 15201 S. Central Ave. Oak Forest, IL 60452	Calumet WRP - East Drying Area	29	16.3	16.3	Turf topdressing on varsity and practice football fields	2	8.1	Table 6
6.	Westmont Park District 350 W. 59th St. Westmont, IL 60554	Calumet WRP - East Drying Area	29	32.3	32.3	Topdressing as fertilizer for turf growth on recreation fields	2.5	12.9	Table 7
7.	Frankfort Park District 140 Oak St. Frankfort, IL 60423	Calumet WRP - East Drying Area	29, 30	34.4	34.4	Topdressing as fertilizer for turf growth on recreation fields	1	34.4	Table 8

¹WRP – Water Reclamation Plant.

TABLE 2: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND
 LOCATED AT THE FRANKFORT HIGH SCHOOL SOCCER FIELDS,
 FRANKFORT, IL, FROM THE STICKNEY WATER RECLAMATION PLANT
 LASMA DRYING AREA DURING JUNE 2009

Constituent	Units	Concentration
pH		5.9
Total Solids	%	52.5
Total Volatile Solids	"	37.5
Volatile Acids as Acetic Acid	mg/dry kg	69
Total Kjeldahl-N	"	25,723
NH ₃ -N	"	107
Total P	"	23,890
K	"	2,077
Cd	"	3.8
Cr	"	180
Cu	"	455
Pb	"	133
Hg	"	1.23
Mo	"	10.0
As	"	<10.0
Mn	"	537
Ni	"	38.9
Se	"	<8.0
Zn	"	1,054

¹Results based on one sample.

TABLE 3: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND LOCATED AT TURFCARE LANDSCAPING, INC., 8126 S. HOYNE AVE., CHICAGO, IL, FROM THE STICKNEY WATER RECLAMATION PLANT VULCAN DRYING AREA DURING JUNE 2009

Constituent	Units	Concentration
pH		5.9
Total Solids	%	51.5
Total Volatile Solids	"	38.5
Volatile Acids as Acetic Acid	mg/dry kg	83
Total Kjeldahl-N	"	24,757
NH ₃ -N	"	76
Total P	"	22,539
K	"	3,156
Cd	"	4.8
Cr	"	187
Cu	"	444
Pb	"	161
Hg	"	1.21
Mo	"	12.7
As	"	<10.0
Mn	"	543
Ni	"	48.7
Se	"	<8.0
Zn	"	1,055

¹Results based on one sample.

TABLE 4: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND LOCATED AT GLENBROOK NORTH HIGH SCHOOL ATHLETIC FIELDS, NORTHBROOK, IL, FROM THE CALUMET EAST AND STICKNEY WATER RECLAMATION PLANT VULCAN DRYING AREA DURING JUNE 2009

Constituent	Units	Concentration
pH		6.2
Total Solids	%	68.3
Total Volatile Solids	"	36.8
Volatile Acids as Acetic Acid	mg/dry kg	40
Total Kjeldahl-N	"	15,301
NH ₃ -N	"	917
Total P	"	16,988
K	"	2,568
Cd	"	4.3
Cr	"	133
Cu	"	460
Pb	"	139
Hg	"	1.28
Mo	"	11.7
As	"	8.8
Mn	"	824
Ni	"	41.4
Se	"	6.6
Zn	"	1,069

¹Results based on two samples.

TABLE 5: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND LOCATED AT THE NORTH SHORE COUNTRY CLUB GOLF COURSE, GLENVIEW, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING JUNE 2009

Constituent	Units	Concentration
pH		6.5
Total Solids	%	78.8
Total Volatile Solids	"	36.5
Volatile Acids as Acetic Acid	mg/dry kg	9
Total Kjeldahl-N	"	9,622
NH ₃ -N	"	1,584
Total P	"	11,652
K	"	1,607
Cd	"	4.1
Cr	"	81
Cu	"	481
Pb	"	127
Hg	"	1.28
Mo	"	12.1
As	"	8.8
Mn	"	1,100
Ni	"	34.8
Se	"	6.6
Zn	"	1,115

¹Results based on one sample.

TABLE 6: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND LOCATED AT THE OAK FOREST HIGH SCHOOL FOOTBALL FIELDS, OAK FOREST, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING JUNE 2009

Constituent	Units	Concentration
pH		6.5
Total Solids	%	78.8
Total Volatile Solids	"	36.5
Volatile Acids as Acetic Acid	mg/dry kg	9
Total Kjeldahl-N	"	9,622
NH ₃ -N	"	1,584
Total P	"	11,652
K	"	1,607
Cd	"	4.1
Cr	"	81
Cu	"	481
Pb	"	127
Hg	"	1.28
Mo	"	12.1
As	"	8.8
Mn	"	1,100
Ni	"	34.8
Se	"	6.6
Zn	"	1,115

¹Results based on one sample.

TABLE 7: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND
 LOCATED AT THE WESTMONT PARK DISTRICT, WESTMONT, IL,
 FROM THE CALUMET WATER RECLAMATION PLANT
 EAST DRYING AREA DURING JUNE 2009

Constituent	Units	Concentration
pH		6.5
Total Solids	%	78.8
Total Volatile Solids	"	36.5
Volatile Acids as Acetic Acid	mg/dry kg	9
Total Kjeldahl-N	"	9,622
NH ₃ -N	"	1,584
Total P	"	11,652
K	"	1,607
Cd	"	4.1
Cr	"	81
Cu	"	481
Pb	"	127
Hg	"	1.28
Mo	"	12.1
As	"	8.8
Mn	"	1,100
Ni	"	34.8
Se	"	6.6
Zn	"	1,115

¹Results based on one sample.

TABLE 8: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND
 LOCATED AT COMMISSIONER'S PARK, FRANKFORT, IL,
 FROM THE CALUMET WATER RECLAMATION PLANT
 EAST DRYING AREA DURING JUNE 2009

Constituent	Units	Concentration
pH		6.5
Total Solids	%	78.8
Total Volatile Solids	"	36.5
Volatile Acids as Acetic Acid	mg/dry kg	9
Total Kjeldahl-N	"	9,622
NH ₃ -N	"	1,584
Total P	"	11,652
K	"	1,607
Cd	"	4.1
Cr	"	81
Cu	"	481
Pb	"	127
Hg	"	1.28
Mo	"	12.1
As	"	8.8
Mn	"	1,100
Ni	"	34.8
Se	"	6.6
Zn	"	1,115

¹Results based on one sample.