

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***RESEARCH AND DEVELOPMENT
DEPARTMENT***

REPORT NO. 07-40

MONTHLY CONTROLLED SOLIDS

DISTRIBUTION REPORT

MAY 2007

JULY 2007

Metropolitan Water Reclamation District of Greater Chicago

100 EAST ERIE STREET CHICAGO, ILLINOIS 60611-3154 312-751-5600

Louis Kollias, P.E., BCEE
Director of Research and Development

July 27, 2007

312-751-5190

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, May 2007

This letter transmits information and data for the Metropolitan Water Reclamation District of Greater Chicago (District) - Controlled Solids Distribution Program for May 2007, as required by Illinois Environmental Protection Agency Permit No. 2005-SC-3793.

Sludge flow schematic diagrams for solids processed during May 2007 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 six sites in May. The user information report for the Dominican University, 7900 Division Street, River Forest is presented in Table 1, and the analysis of composite biosolids delivered in May to that site is presented in Table 2.

The user information report for the Stickney WRP Natural Prairie Research Plots, 6001 West Pershing Road, Cicero is presented in Table 3, and the analysis of composited biosolids delivered in May to that site is presented in Table 4.

The user information report for the Coyote Run Golf Course, 720 Kedzie Avenue, Flossmoor is presented in Table 5, and the analysis of composited biosolids delivered in May to that site is presented in Table 6.

The user information report for the Hickory Hills Golf Course, 8201 West 95th Street, Hickory Hills is presented in Table 7, and the analysis of composited biosolids delivered in May to that site is presented in Table 8.

The user information report for the Champion Lawn Maintenance, Inc., 4830 West Lawrence Avenue, Chicago is presented in Table 9, and the analysis of composited biosolids delivered in May to that site is presented in Table 10.

Mr. S. Alan Keller

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July 27, 2007

Subject: Metropolitan Water Reclamation District of Greater Chicago – Controlled
Solids Distribution Program IEPA Permit No. 2005-SC-3793, May 2007

The user information report for the Milieu Design, Inc., 2945 N. Callahan Road, Round Lake is presented in Table 11, and the analysis of composited biosolids delivered in May to that site is presented in Table 12.

Very truly yours,

Louis Kollias
Director
Research and Development

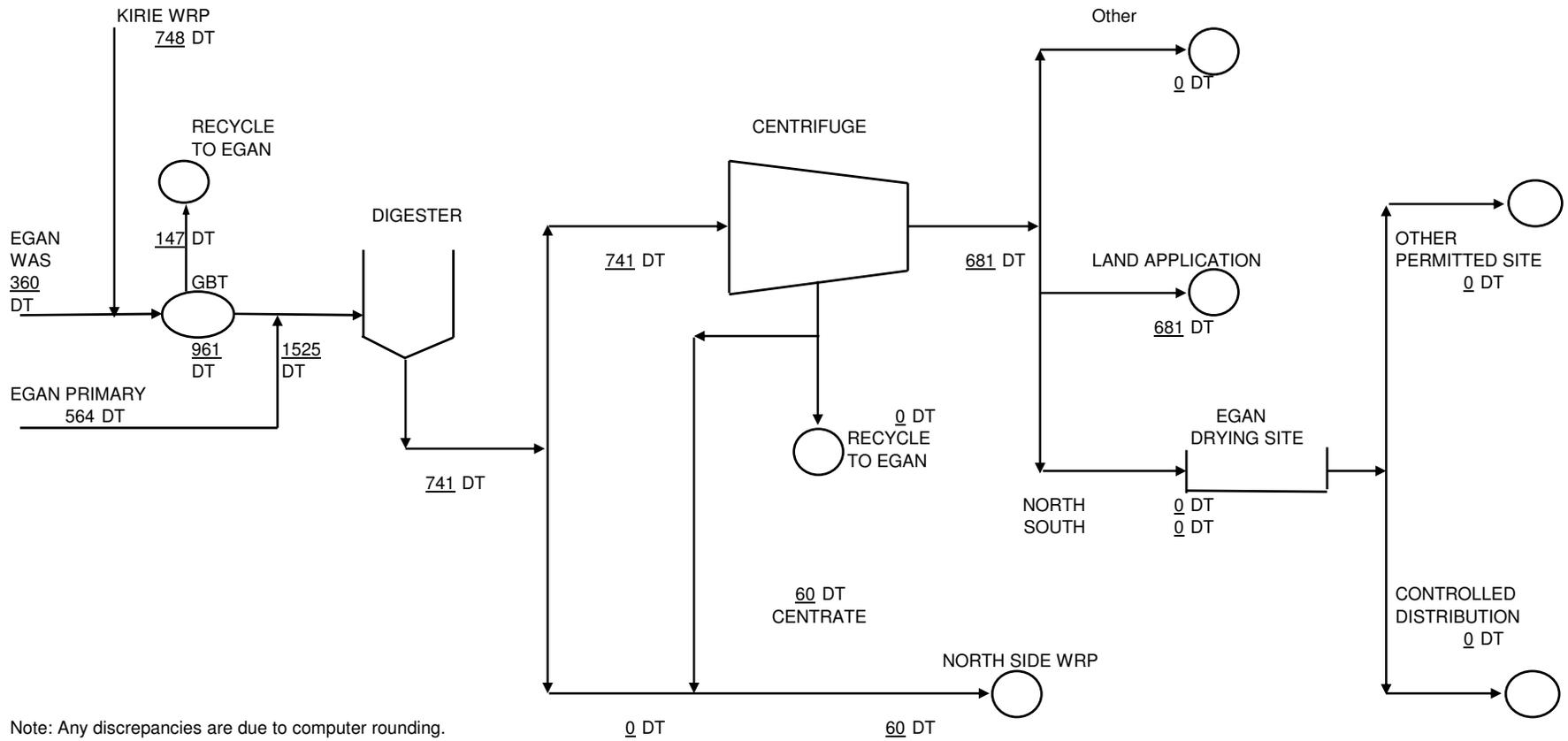
LK:KK:spy

Attachments

cc w/att.: Aistars (USEPA)
Sulski (IEPA)
Sobanski
Granato/O'Connor/Cox
cc wo/att: Levy/Quintanilla
Sharma /Carmody
Frost/Collins

J.E. EGAN WRP SOLIDS DISTRIBUTION- FIGURE 1

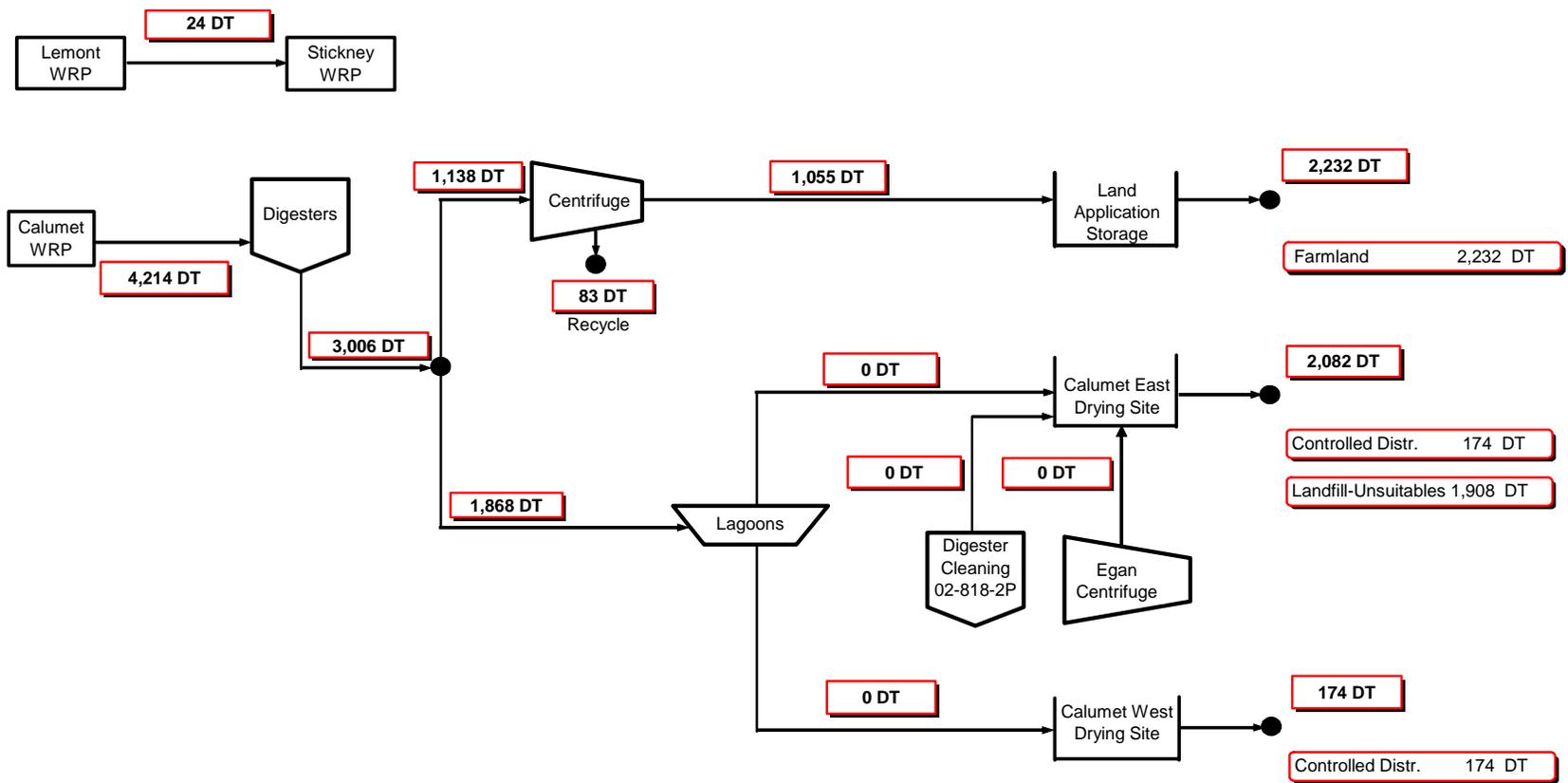
May-07



Note: Any discrepancies are due to computer rounding.

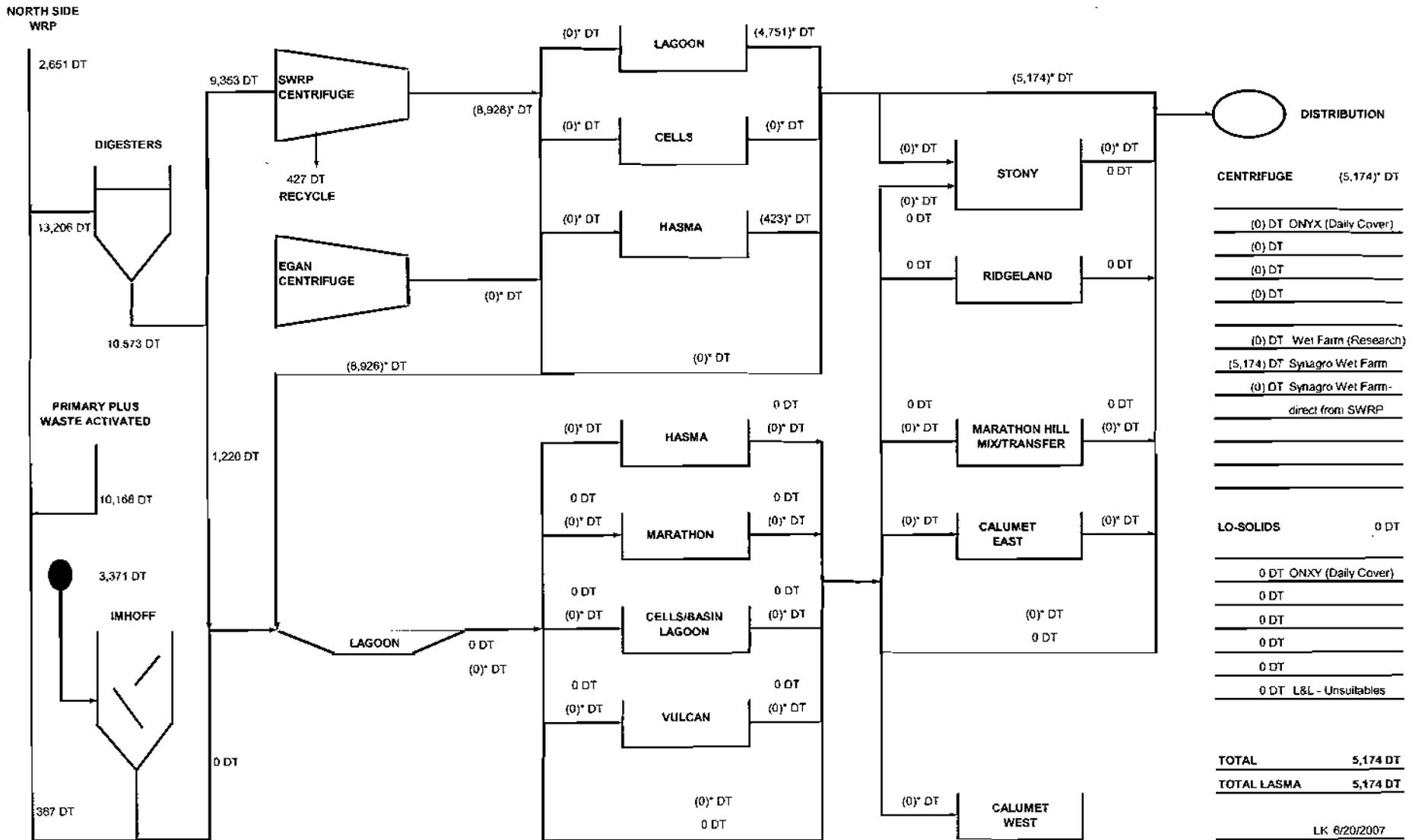
CALUMET WRP SOLIDS DISTRIBUTION – MAY 2007

Figure 2



STICKNEY WATER RECLAMATION PLANT SOLIDS DISTRIBUTION FOR MAY 2007

Figure 3



(CENTRIFUGE CAKE)*

TABLE 1: CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1.	Name of User:	Dominican University
2.	Address of User:	7900 Division Street River Forest, IL 60305
3.	Type of Solids and Source:	Agitation dried anaerobically digested biosolids from the Calumet WRP. Drying was done at the Calumet West solids drying area.
4.	Quantity Received (May 2007) :	173.86 dry tons
	Cumulative Quantity Received in 2007 :	173.86 dry tons
5.	Date Biosolids Received:	May 9 and 10, 2007
6.	Use of Biosolids at Site:	Used as soil amendment for the construction of new soccer field.
7.	Size of Application Area:	1 acre
8.	Application Rate:	173.86 dry tons/acre

TABLE 2: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE
 DOMINICAN UNIVERSITY NEW SOCCER FIELD 7900 DIVISION STREET
 RIVER FOREST, IL FROM THE CALUMET WEST DRYING AREA
 DURING MAY 2007

Constituent	Unit	Concentration
pH		6.9
Total Solids	%	84.6
Total Volatile Solids	"	18.9
Volatile Acids as Acetic Acid	mg/dry kg	30
Total Kjeldahl-N	"	6,751
NH ₃ -N	"	75
Total P	"	10,207
K	"	4,634
Cd	"	6.7
Cr	"	100
Cu	"	212
Pb	"	91
Hg	"	0.82
Mo	"	4.4
As	"	5.4
Mn	"	625
Ni	"	34.9
Se	"	12.0
Zn	"	626

*Results based on one sample.

TABLE 3: CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1.	Name of User:	Stickney WRP Natural Prairie Research Plots
2.	Address of User:	6001 West Pershing Road Cicero, IL 60804
3.	Type of Solids and Source:	Agitation dried anaerobically digested biosolids from the Calumet WRP. Drying was done at the Calumet East solids drying area.
4.	Quantity Received (May 2007):	17.36 dry tons
	Cumulative Quantity Received in 2007:	17.36 dry tons
5.	Date Biosolids Received:	May 11, 2007
6.	Use of Biosolids at Site:	Used as soil conditioner and nutrient source for native landscape (prairie) installation on the research plots.
7.	Size of Application Area:	3 acres
8.	Application Rate:	5.79 dry tons/acre

TABLE 4: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE
 STICKNEY WRP PRAIRIE RESEARCH PLOTS 6001 WEST PERSHING ROAD,
 CICERO, IL FROM THE CALUMET EAST DRYING AREA
 DURING MAY 2007

Constituent	Units	Concentration
pH		6.6
Total Solids	%	82.6
Total Volatile Solids	"	31.3
Volatile Acids as Acetic Acid	mg/dry kg	73.9
Total Kjeldahl-N	"	9,978
NH ₃ -N	"	596
Total P	"	18,437
K	"	3,672
Cd	"	8.9
Cr	"	124
Cu	"	329
Pb	"	108
Hg	"	1.20
Mo	"	7.8
As	"	7.9
Mn	"	729
Ni	"	34.2
Se	"	12.3
Zn	"	988

*Results based on one sample.

TABLE 5: CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1. Name of User:	Coyote Run Golf Course
2. Address of User:	720 Kedzie Avenue Flossmoor, IL 60422
3. Type of Solids and Source:	Agitation dried anaerobically digested biosolids from the Calumet WRP. Drying was done at the Calumet East solids drying area.
4. Quantity Received (May 2007):	62.63 dry tons
Cumulative Quantity Received in 2007:	62.63 dry tons
5. Date Biosolids Received:	May 11 and 24, 2007
6. Use of Biosolids at Site:	Used as soil conditioner and nutrient source for enhancing turf growth on golf course roughs.
7. Size of Application Area:	6 acres
8. Application Rate:	10.4 dry tons/acre

TABLE 6: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE
 COYOTE RUN GOLF COURSE AT 720 KEDZIE STREET, FLOSSMOOR, IL
 FROM THE CALUMET EAST DRYING AREA
 DURING MAY 2007

Constituent	Units	Concentration
pH		6.6
Total Solids	%	74.1
Total Volatile Solids	"	33.6
Volatile Acids as Acetic Acid	mg/dry kg	83
Total Kjeldahl-N	"	14,178
NH ₃ -N	"	993
Total P	"	21,016
K	"	4,644
Cd	"	9.2
Cr	"	146
Cu	"	374
Pb	"	119
Hg	"	1.54
Mo	"	12.5
As	"	5.9
Mn	"	809
Ni	"	37.4
Se	"	10.5
Zn	"	1,123

*Results based on two samples.

TABLE 7: CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1. Name of User:	Hickory Hills Golf Course
2. Address of User:	8201 West 95th Street Hickory Hills, IL 60457
3. Type of Solids and Source:	Agitation dried anaerobically digested biosolids from the Calumet WRP. Drying was done at Calumet East solids drying area.
4. Quantity Received (May 2007):	31.46 dry tons
Cumulative Quantity Received in 2007:	31.46 dry tons
5. Date Biosolids Received:	May 11, 2007
6. Use of Biosolids at Site:	Used as soil conditioner and nutrient source for enhancing turf growth on golf course fairways and roughs.
7. Size of Application Area:	2 acres
8. Application Rate:	15.73 dry tons/acre

TABLE 8: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE HICKORY HILLS GOLF COURSE AT 8201 W. 95th STREET, HICKORY HILLS, IL FROM THE CALUMET EAST DRYING AREA DURING MAY 2007

Constituent	Units	Concentration
pH		6.6
Total Solids	%	76.5
Total Volatile Solids	"	29.9
Volatile Acids as Acetic Acid	mg/dry kg	79.7
Total Kjeldahl-N	"	11,027
NH ₃ -N	"	696
Total P	"	18,252
K	"	3,719
Cd	"	9.3
Cr	"	130
Cu	"	331
Pb	"	118
Hg	"	1.01
Mo	"	8.3
As	"	8.2
Mn	"	720
Ni	"	35.5
Se	"	11.5
Zn	"	987

*Results based on one sample.

TABLE 9: CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1. Name of User:	Champion Lawn Maintenance, Inc.
2. Address of User:	4830 West Lawrence Avenue Chicago, IL 60630
3. Type of Solids and Source:	Agitation dried anaerobically digested biosolids from the Calumet WRP. Drying was done at the Calumet East solids drying area.
4. Quantity Received (May 2007):	30.21 dry tons
Cumulative Quantity Received in 2007:	30.21 dry tons
5. Date Biosolids Received:	May 23, 2007
6. Use of Biosolids at Site:	Used as soil amendment for the construction of new lawns.
7. Size of Application Area:	0.15 acre
8. Application Rate:	201.4 dry tons/acre

TABLE 10: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE
 CHAMPION LAWN MAINTENANCE, INC., 4830 W. LAWRENCE AVENUE
 CHICAGO, IL FROM THE CALUMET EAST DRYING AREA
 DURING MAY 2007

Constituent	Units	Concentration
pH		6.7
Total Solids	%	73.7
Total Volatile Solids	"	38.7
Volatile Acids as Acetic Acid	mg/dry kg	50.0
Total Kjeldahl-N	"	20,671
NH ₃ -N	"	1,805
Total P	"	24,679
K	"	4,618
Cd	"	7.5
Cr	"	151
Cu	"	378
Pb	"	115
Hg	"	9.84
Mo	"	11.1
As	"	7.2
Mn	"	762
Ni	"	38.1
Se	"	14.0
Zn	"	1,205

*Results based on one sample.

TABLE 11: CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1.	Name of User:	Milieu Design, Inc.
2.	Address of User:	29245 N. Callahan Road Round Lake, IL 60073
3.	Type of Solids and Source:	Agitation dried anaerobically digested biosolids from the Calumet WRP. Drying was done at the Calumet East solids drying area.
4.	Quantity Received (May 2007):	32.24 dry tons
	Cumulative Quantity Received in 2007:	32.24 dry tons
5.	Date Biosolids Received:	May 23, 2007
6.	Use of Biosolids at Site:	Used as soil conditioner and nutrient source for nursery and landscaping.
7.	Size of Application Area:	5 acres
8.	Application Rate:	6.45 dry tons/acre

TABLE 12: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE
MILIEU DESIGN INC., 29245 N. CALLAHAN ROAD, ROUND LAKE, IL
FROM THE CALUMET EAST DRYING AREA
DURING MAY 2007

Constituent	Units	Concentration
pH		6.6
Total Solids	%	73.3
Total Volatile Solids	"	38.7
Volatile Acids as Acetic Acid	mg/dry kg	114.6
Total Kjeldahl-N	"	17,668
NH ₃ -N	"	2,052
Total P	"	24,935
K	"	4,326
Cd	"	8.3
Cr	"	143
Cu	"	432
Pb	"	120
Hg	"	1.48
Mo	"	12.3
As	"	9.5
Mn	"	825
Ni	"	37.5
Se	"	12.4
Zn	"	1,217

*Results based on one sample.