SOLID WASTE COMPOSITION STUDY

REPORT

SOLID WASTE BOILER FACILITY

AUGUST 5, 2009

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August 5, 2009

Mr. Jeff Huppert
Red Wing Solid Waste Boiler Facility
1873 Bench Street
Red Wing, MN 55066

Re: 2009 Solid Waste Composition Study Results

Dear Mr. Huppert:

This report summarizes the results from the Solid Waste Composition Study (Study) performed by your facility during the month of July, 2009.

For each of the 40 samples collected, results were tabulated and averaged to determine the overall percentages of the fractions separated from the waste streams. The field data sheets from the Study are included in Appendix D. Tabulated results are included in Appendix A. Results are summarized as follows for the combustible and non-combustible waste fraction groupings in Table 1:

Table 1: Weight Fractions of each Fraction Grouping Present in MSW

Total Combustibles

Item	Lbs	wt%
Paper	2,149.1	18.30%
Cardboard	1,248.2	10.63%
Plastic	2,932.5	24.96%
Organics	2,552.9	21.73%
Electronics	141.0	1.20%
Total	**9,023.7**	**76.82%**

Total Non-Combustibles

Item	Lbs	wt%
Various	**2,723.3**	**23.18%**

Total	**11,747.0**	**100.00%**

Results for each of the individual fractions are presented below in Table 2:

Table 2: Weight Fractions of Each Individual Fraction Present in MSW

Fraction	Sample	Top Fines	Bottom Fines	Non-separables	Total (Lbs)	Wt%
Paper – Newsprint	347.0				347.0	3.0%
Paper – Other	1,556.0	210.7	35.4	0.0	1,802.1	15.3%
Cardboard – Corrugated	604.0				604.0	5.1%
Cardboard – Other	542.0	99.4	2.8	0.0	644.2	5.5%
Plastic – HDPE	515.0				515.0	4.4%
Plastic – PET	495.0				495.0	4.2%
Plastic – PVC	21.0				21.0	0.2%
Plastic – Other	1,604.0	261.4	36.2	0.0	1,901.5	16.2%
Organic Material – Yard Waste	106.0				106.0	0.9%
Organic Material – Other	1,783.0	294.2	369.7	0.0	2,446.9	20.8%
Electronics / Small Appliances	141.0				141.0	1.2%
Ferrous Metals	68.0	0.0	0.0	0.0	68.0	0.6%
Non-Ferrous Metals – Aluminum Cans	347.0				347.0	3.0%
Non-Ferrous Metals – Other	69.0	0.0	0.0	0.0	69.0	0.6%
Glass	354.0	30.9	5.5	0.0	390.4	3.3%
Inorganic Material	1,661.0	129.5	8.4	0.0	1,798.9	15.3%
Solid Wastes Containing Mercury	10.0	0.0	0.0	0.0	10.0	0.1%
Household Hazardous Waste	40.0				40.0	0.3%
Total	**10,263.0**	**1,026.0**	**458.0**	**0.0**	**11,747.0**	**100.0%**

Samples were submitted to MVTL Laboratories for analysis to determine proximate analysis, heating value, and ultimate analysis of the combustible fractions. MVTL homogenized and split samples pursuant to the Solid Waste Composition Study procedures. Four individual samples were analyzed. Analytical results are included in Appendix B.

A Summary of the proximate analysis, ultimate analysis, and heating value analytical results are presented below in Tables 3, 4, and 5, respectively. Calculations are included in Appendix C.

Table 3: Proximate Analysis (Combustible Fractions Only)

Analyte	Units	Sample 1	Sample 2	Sample 3	Sample 4	Average
Total Moisture	wt%	27.05%	26.87%	27.00%	27.08%	**27.00%**
Ash	wt%	4.59%	4.76%	4.90%	4.99%	**4.81%**
Volatile Matter	wt%	58.96%	58.80%	59.11%	57.75%	**58.66%**
Total Sulfur	wt%	0.06%	0.06%	0.05%	0.07%	**0.06%**
Fixed Carbon (By Difference)	wt%	9.34%	9.51%	8.94%	10.91%	**9.48%**
Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Table 4: Ultimate Analysis (Combustible Fractions Only)

Analyte	Units	Sample 1	Sample 2	Sample 3	Sample 4	Average
Total Moisture	wt%	27.05%	26.87%	27.00%	27.08%	**27.00%**
Ash	wt%	4.59%	4.76%	4.90%	4.99%	**4.81%**
Carbon	wt%	35.67%	35.71%	35.69%	36.48%	**35.89%**
Hydrogen	wt%	8.08%	7.91%	7.88%	7.89%	**7.94%**
Nitrogen	wt%	0.50%	0.53%	0.55%	0.48%	**0.52%**
Total Sulfur	wt%	0.06%	0.06%	0.05%	0.07%	**0.06%**
Chlorine	wt%	0.58%	0.77%	0.91%	0.72%	**0.75%**
Oxygen (By Difference)	wt%	50.52%	50.26%	50.02%	49.37%	**50.04%**
Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Table 5: Heating Value (Combustible Fractions Only)

Analyte	Units	Sample 1	Sample 2	Sample 3	Sample 4	Average
Heating Value	Btu/lb.	6,442	6,451	6,417	6,491	**6,450**

The above results were numerically adjusted to take into account the non-combustible fraction of waste to represent the proximate analysis, ultimate analysis, and heating value of MSW as incinerated. These results are presented below in Tables 6, 7, and 8, respectively:

Table 6: Proximate Analysis (As Incinerated)

Analyte	Result as Incinerated
Total Moisture	**20.74%**
Ash	**3.69%**
Volatile Matter	**45.06%**
Total Sulfur	**0.05%**
Fixed Carbon (By Difference)	**7.28%**
Non-Combustibles	**23.18%**
Total	**100.00%**

Table 7: Ultimate Analysis (As Incinerated)

Analyte	Result as Incinerated
Total Moisture	**20.74%**
Ash	**2.70%**
Carbon	**20.12%**
Hydrogen	**4.45%**
Nitrogen	**0.29%**
Total Sulfur	**0.03%**
Chlorine	**0.42%**
Oxygen (By Difference)	**28.06%**
Non-Combustibles	**23.18%**
Total	**100.00%**

Table 8: Heating Value (As Incinerated)

Analyte	Units	
Heating Value	Btu/lb.	**4,955**

If you have any questions or comments regarding this report, or if you require any additional information, please feel free to contact us at (612) 285-9865.

Sincerely,
SWDI

David W. Estensen
Compliance & Regulatory Affairs Manager

cc: Anne Jackson
Kathy Holland-Hanson

Appendix A

Field Data Sheet Numerical Analysis

Red Wing Solid Waste Boiler Facility

2009 Solid Waste Composition Study Field Sheet Data Analysis

Sample		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Fraction	**Lbs**	**194.0**	**316.0**	**211.0**	**208.0**	**252.0**	**221.0**	**227.0**	**144.0**	**155.0**	**228.0**	**220.0**	**271.0**	**280.0**	**159.0**	**312.0**	**272.0**	**261.0**	**252.0**	**232.0**	**181.0**
Paper – Newsprint	Lbs	4.0	2.0		4.0	30.0	10.0	4.0	9.0	5.0	2.0	9.0	6.0	11.0	6.0	16.0	13.0	29.0		20.0	6.0
Paper – Other	Lbs	33.0	22.0	35.0	33.0	34.0	58.0	38.0	17.0	12.0	35.0	41.0	66.0	68.0	18.0	48.0	54.0	56.0	52.0	53.0	32.0
Cardboard – Corrugated	Lbs	3.0		18.0	7.0		13.0	5.0	10.0	6.0	10.0	13.0	15.0	4.0	6.0	14.0	10.0	24.0	25.0	6.0	9.0
Cardboard – Other	Lbs	3.0	8.0	7.0	16.0	14.0	14.0	11.0	13.0	4.0	22.0	11.0	16.0	16.0	14.0	20.0	16.0	21.0	27.0	26.0	6.0
Plastic – HDPE	Lbs	17.0	11.0	3.0	5.0	19.0	21.0	9.0	3.0	12.0	16.0	9.0	20.0	9.0	12.0	16.0	12.0	7.0	18.0	5.0	9.0
Plastic – PET	Lbs	4.0	1.0	10.0	4.0	15.0	8.0	14.0	9.0	5.0	11.0	12.0	10.0	7.0	8.0	16.0	12.0	6.0	7.0	11.0	21.0
Plastic – PVC	Lbs													1.0		8.0	4.0	3.0			
Plastic – Other	Lbs	33.0	42.0	20.0	24.0	32.0	28.0	40.0	19.0	14.0	27.0	32.0	31.0	53.0	29.0	45.0	51.0	22.0	62.0	32.0	18.0
Organic Material – Yard Waste	Lbs				27.0	3.0	3.0	16.0	3.0				7.0	1.0			1.0				1.0
Organic Material – Other	Lbs	48.0	2.0	79.0	6.0	20.0	9.0	18.0	15.0		41.0	15.0	24.0	35.0	7.0	29.0	45.0	8.0	28.0	40.0	36.0
Electronics / Small Appliances	Lbs					2.0							6.0		35.0	5.0	4.0		3.0		
Ferrous Metals	Lbs										4.0	1.0	2.0	6.0	1.0	18.0	4.0	1.0			3.0
Non-Ferrous Metals – Aluminum Cans	Lbs	7.0	8.0	15.0	5.0	10.0	10.0	19.0	12.0	5.0	9.0	12.0	4.0	16.0	8.0	9.0	9.0	11.0	6.0	9.0	20.0
Non-Ferrous Metals – Other	Lbs					6.0	1.0	4.0	4.0							6.0	2.0	13.0	9.0		
Glass	Lbs	26.0	1.0	19.0	3.0	12.0	6.0	10.0	12.0		25.0	6.0	13.0	11.0	6.0	6.0	9.0	2.0		30.0	2.0
Inorganic Material	Lbs	16.0	219.0	5.0	74.0	55.0	40.0	39.0	18.0	92.0	23.0	59.0	51.0	42.0	8.0	46.0	26.0	58.0	15.0		18.0
Solid Wastes Containing Mercury	Lbs															8.0					
Household Hazardous Waste	Lbs										3.0				1.0	2.0					

Sample		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Top Fines (#)	**Lbs**	**21.0**	**15.0**	**15.0**	**18.0**	**20.0**	**19.0**	**65.0**	**17.0**	**20.0**	**16.0**	**44.0**	**23.0**	**24.0**	**8.0**	**18.0**	**48.0**	**19.0**	**17.0**	**45.0**	**27.0**
Paper	Lbs	1.1	3.0	1.5	1.8	5.0	5.7	13.0	1.7	4.0	3.2	11.0	5.8	7.2	2.0	3.6	12.0	6.7	5.1	15.8	6.8
Cardboard	Lbs	1.1	0.0	0.8	0.9	1.0	1.9	3.3	1.7	2.0	2.4	2.2	3.5	2.4	0.8	1.8	7.2	3.8	4.3	6.8	2.7
Plastic	Lbs	1.1	2.3	3.0	1.8	6.0	3.8	16.3	1.7	4.0	4.0	8.8	5.8	7.2	2.8	4.5	14.4	3.8	6.0	13.5	8.1
Organic Material	Lbs	16.8	3.8	9.0	9.0	3.0	1.9	16.3	8.5	0.0	3.2	11.0	3.5	4.8	1.6	3.6	9.6	1.9	1.7	9.0	6.8
Ferrous Metals	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-Ferrous Metals	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glass	Lbs	0.0	0.0	0.0	0.9	1.0	1.0	3.3	0.0	0.0	1.6	2.2	1.2	1.2	0.4	0.9	2.4	1.0	0.0	0.0	1.4
Inorganic Material	Lbs	1.1	6.0	0.8	3.6	4.0	4.8	13.0	3.4	10.0	1.6	8.8	3.5	1.2	0.4	3.6	2.4	1.9	0.0	0.0	1.4
Solid Wastes Containing Mercury	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Paper	%	5%	20%	10%	10%	25%	30%	20%	10%	20%	20%	25%	25%	30%	25%	20%	25%	35%	30%	35%	25%
Cardboard	%	5%		5%	5%	5%	10%	5%	10%	10%	15%	5%	15%	10%	10%	10%	15%	20%	25%	15%	10%
Plastic	%	5%	15%	20%	10%	30%	20%	25%	10%	20%	25%	20%	25%	30%	35%	25%	30%	20%	35%	30%	30%
Organic Material	%	80%	25%	60%	50%	15%	10%	25%	50%		20%	25%	15%	20%	20%	20%	20%	10%	10%	20%	25%
Ferrous Metals	%																				
Non-Ferrous Metals	%																				
Glass	%				5%	5%	5%	5%			10%	5%	5%	5%	5%	5%	5%	5%			5%
Inorganic Material	%	5%	40%	5%	20%	20%	25%	20%	20%	50%	10%	20%	15%	5%	5%	20%	5%	10%			5%
Solid Wastes Containing Mercury	%																				
Total	**%**	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Red Wing Solid Waste Boiler Facility

2009 Solid Waste Composition Study Field Sheet Data Analysis

Sample		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Bottom Fines (#)	**Lbs**	**5.0**	**1.0**	**10.0**	**3.0**	**6.0**	**16.0**	**17.0**	**6.0**	**1.0**	**12.0**	**14.0**	**14.0**	**10.0**	**8.0**	**19.0**	**37.0**	**24.0**	**15.0**	**3.0**	**9.0**
Paper	Lbs	0.3	0.3	2.0	0.3	0.6	0.8	0.9	0.6	0.5	0.6	1.4	0.7	0.5	0.8	1.0	1.9	2.4	4.5	0.3	0.9
Cardboard	Lbs	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plastic	Lbs	0.3	0.3	2.0	0.3	0.6	0.8	0.9	0.6	0.5	0.6	1.4	0.7	0.5	0.8	1.0	1.9	2.4	4.5	0.3	0.5
Organic Material	Lbs	4.5	0.5	5.0	2.4	4.5	13.6	15.3	4.8	0.0	10.2	11.2	11.2	9.0	6.3	15.2	33.3	19.2	3.8	2.4	7.2
Ferrous Metals	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-Ferrous Metals	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glass	Lbs	0.0	0.0	0.5	0.0	0.3	0.8	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.1	1.0	0.0	0.0	0.0	0.0	0.0
Inorganic Material	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.0	0.7	0.0	0.0	1.0	0.0	0.0	2.3	0.0	0.5
Solid Wastes Containing Mercury	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Paper	%	5%	25%	20%	10%	10%	5%	5%	10%	45%	5%	10%	5%	5%	10%	5%	5%	10%	30%	10%	10%
Cardboard	%			5%						5%											
Plastic	%	5%	25%	20%	10%	10%	5%	5%	10%	45%	5%	10%	5%	5%	10%	5%	5%	10%	30%	10%	5%
Organic Material	%	90%	50%	50%	80%	75%	85%	90%	80%		85%	80%	80%	90%	79%	80%	90%	80%	25%	80%	80%
Ferrous Metals	%																				
Non-Ferrous Metals	%																				
Glass	%			5%		5%	5%						5%		1%	5%					
Inorganic Material	%									5%	5%		5%			5%			15%		5%
Solid Wastes Containing Mercury	%																				
Total	**%**	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Sample		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Non-separable #1 (#)	**Lbs**																				
Paper	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cardboard	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plastic	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Organic Material	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ferrous Metals	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-Ferrous Metals	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glass	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Inorganic Material	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solid Wastes Containing Mercury	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Paper	%																				
Cardboard	%																				
Plastic	%																				
Organic Material	%																				
Ferrous Metals	%																				
Non-Ferrous Metals	%																				
Glass	%																				
Inorganic Material	%																				
Solid Wastes Containing Mercury	%																				
Total	**%**	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Red Wing Solid Waste Boiler Facility

2009 Solid Waste Composition Study Field Sheet Data Analysis

Sample		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Fraction	**Lbs**	**320.0**	**301.0**	**129.0**	**243.0**	**267.0**	**283.0**	**459.0**	**259.0**	**230.0**	**297.0**	**238.0**	**212.0**	**325.0**	**210.0**	**665.0**	**188.0**	**240.0**	**246.0**	**305.0**	**250.0**
Paper – Newsprint	Lbs	19.0	3.0	2.0	5.0	4.0	21.0		10.0	6.0		3.0	2.0	8.0	2.0		32.0	6.0	15.0	16.0	7.0
Paper – Other	Lbs	50.0	45.0	18.0	39.0	49.0	19.0	17.0	32.0	37.0	56.0	51.0	25.0	45.0	35.0	8.0	38.0	29.0	54.0	75.0	29.0
Cardboard – Corrugated	Lbs	20.0	18.0	37.0	9.0	3.0	24.0	28.0	18.0	4.0	7.0	5.0	18.0	27.0	13.0	72.0	6.0	16.0	30.0	44.0	7.0
Cardboard – Other	Lbs	18.0	22.0	6.0	11.0	11.0	9.0	10.0	18.0	23.0	21.0	5.0	14.0	16.0	11.0	9.0	2.0	21.0	8.0	9.0	13.0
Plastic – HDPE	Lbs	21.0	15.0	3.0	17.0	15.0	5.0	29.0	12.0	11.0	11.0	8.0	14.0	10.0	25.0	10.0	5.0	14.0	14.0	9.0	34.0
Plastic – PET	Lbs	18.0	14.0	18.0	11.0	13.0	42.0	39.0	8.0	11.0	16.0	10.0	16.0	5.0	19.0	4.0	15.0	12.0	14.0	10.0	9.0
Plastic – PVC	Lbs								1.0				1.0			1.0			2.0		
Plastic – Other	Lbs	67.0	42.0	12.0	52.0	51.0	45.0	106.0	39.0	34.0	51.0	39.0	14.0	83.0	15.0	117.0	63.0	47.0	25.0	29.0	19.0
Organic Material – Yard Waste	Lbs							14.0				9.0		1.0		15.0				1.0	4.0
Organic Material – Other	Lbs	51.0	30.0	2.0	47.0	56.0	9.0	201.0	93.0	47.0	31.0	38.0	22.0	64.0	42.0	404.0	14.0	40.0	6.0	29.0	52.0
Electronics / Small Appliances	Lbs	6.0	12.0						10.0	2.0		12.0	28.0					9.0	2.0	5.0	
Ferrous Metals	Lbs				2.0			7.0			1.0		3.0	10.0		5.0					
Non-Ferrous Metals – Aluminum Cans	Lbs	6.0	12.0	8.0	5.0	11.0	10.0	3.0	13.0	6.0	8.0	5.0	11.0	7.0	6.0	2.0	2.0	7.0	8.0	9.0	4.0
Non-Ferrous Metals – Other	Lbs	1.0	12.0		1.0	3.0	1.0				1.0							2.0	2.0	1.0	
Glass	Lbs		10.0	2.0	2.0	10.0	22.0		5.0	9.0	33.0	6.0	16.0	4.0	5.0				4.0	27.0	
Inorganic Material	Lbs	42.0	52.0	21.0	37.0	41.0	75.0	5.0		40.0	61.0	42.0	28.0	41.0	37.0	18.0	11.0	37.0	61.0	36.0	72.0
Solid Wastes Containing Mercury	Lbs													2.0							
Household Hazardous Waste	Lbs	1.0	14.0		5.0		1.0					5.0		2.0					1.0	5.0	

Sample		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Top Fines (#)	**Lbs**	**51.0**	**40.0**	**7.0**	**43.0**	**34.0**	**24.0**	**43.0**	**17.0**	**31.0**	**23.0**	**51.0**	**15.0**	**14.0**	**14.0**	**57.0**	**23.0**	**23.0**	**8.0**	**3.0**	**6.0**
Paper	Lbs	12.8	10.0	1.8	8.6	6.8	3.6	2.2	3.4	6.2	4.6	10.2	3.0	2.8	2.1	2.9	6.9	3.5	2.0	0.9	0.9
Cardboard	Lbs	7.7	6.0	1.4	4.3	1.7	2.4	2.2	1.7	3.1	2.3	2.6	1.5	1.4	1.4	5.7	1.2	1.2	0.8	0.5	0.3
Plastic	Lbs	15.3	12.0	1.8	12.9	10.2	8.4	15.1	4.3	7.8	5.8	10.2	3.8	4.2	4.2	11.4	6.9	4.6	2.0	0.6	1.5
Organic Material	Lbs	10.2	6.0	0.0	15.1	8.5	6.0	21.5	6.8	9.3	5.8	15.3	4.5	4.2	4.2	34.2	6.9	8.1	0.8	0.6	1.5
Ferrous Metals	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-Ferrous Metals	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glass	Lbs	0.0	2.0	0.4	0.0	1.7	1.2	0.0	0.9	1.6	1.2	2.6	0.8	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.0
Inorganic Material	Lbs	5.1	4.0	1.8	2.2	5.1	2.4	2.2	0.0	3.1	3.5	10.2	1.5	1.4	2.1	2.9	1.2	5.8	2.0	0.3	1.8
Solid Wastes Containing Mercury	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Paper	%	25%	25%	25%	20%	20%	15%	5%	20%	20%	20%	20%	20%	20%	15%	5%	30%	15%	25%	30%	15%
Cardboard	%	15%	15%	20%	10%	5%	10%	5%	10%	10%	10%	5%	10%	10%	10%	10%	5%	5%	10%	15%	5%
Plastic	%	30%	30%	25%	30%	30%	35%	35%	25%	25%	25%	20%	25%	30%	30%	20%	30%	20%	25%	20%	25%
Organic Material	%	20%	15%		35%	25%	25%	50%	40%	30%	25%	30%	30%	30%	30%	60%	30%	35%	10%	20%	25%
Ferrous Metals	%																				
Non-Ferrous Metals	%																				
Glass	%		5%	5%		5%	5%		5%	5%	5%	5%	5%						5%	5%	
Inorganic Material	%	10%	10%	25%	5%	15%	10%	5%		10%	15%	20%	10%	10%	15%	5%	5%	25%	25%	10%	30%
Solid Wastes Containing Mercury	%																				
Total	**%**	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Red Wing Solid Waste Boiler Facility

2009 Solid Waste Composition Study Field Sheet Data Analysis

Sample		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Bottom Fines (#)	**Lbs**	**6.0**	**19.0**	**6.0**	**28.0**	**20.0**	**19.0**	**14.0**	**7.0**	**5.0**	**6.0**	**18.0**	**6.0**	**9.0**	**2.0**	**12.0**	**8.0**	**11.0**	**19.0**	**5.0**	**8.0**
Paper	Lbs	0.6	1.9	1.2	1.4	2.0	1.9	0.7	0.3	0.3	0.3	0.9	0.3	0.5	0.1	0.0	0.0	0.6	1.0	0.3	0.4
Cardboard	Lbs	0.0	0.0	0.0	0.0	0.4	1.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4
Plastic	Lbs	0.6	1.9	1.2	1.4	2.0	1.9	0.7	0.4	0.3	0.3	0.7	0.2	0.5	0.1	0.6	0.8	0.6	1.0	0.3	0.4
Organic Material	Lbs	4.8	15.2	2.4	25.2	14.0	12.4	12.6	6.3	4.0	5.4	16.2	5.4	8.1	1.8	11.4	7.2	9.9	17.1	4.0	6.8
Ferrous Metals	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-Ferrous Metals	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glass	Lbs	0.0	0.0	0.0	0.0	0.6	1.0	0.0	0.1	0.1	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Inorganic Material	Lbs	0.0	0.0	1.2	0.0	1.0	1.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solid Wastes Containing Mercury	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Paper	%	10%	10%	20%	5%	10%	10%	5%	4%	5%	5%	5%	5%	5%	5%			5%	5%	5%	5%
Cardboard	%					2%	5%			4%			1%							5%	5%
Plastic	%	10%	10%	20%	5%	10%	10%	5%	5%	5%	5%	4%	3%	5%	5%	5%	10%	5%	5%	5%	5%
Organic Material	%	80%	80%	40%	90%	70%	65%	90%	90%	80%	90%	90%	90%	90%	90%	95%	90%	90%	90%	80%	85%
Ferrous Metals	%																				
Non-Ferrous Metals	%																				
Glass	%					3%	5%		1%	1%		1%	1%							5%	
Inorganic Material	%			20%		5%	5%			5%											
Solid Wastes Containing Mercury	%																				
Total	**%**	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Sample		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Non-separable #1 (#)	**Lbs**																				
Paper	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cardboard	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plastic	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Organic Material	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ferrous Metals	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-Ferrous Metals	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glass	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Inorganic Material	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solid Wastes Containing Mercury	Lbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Paper	%																				
Cardboard	%																				
Plastic	%																				
Organic Material	%																				
Ferrous Metals	%																				
Non-Ferrous Metals	%																				
Glass	%																				
Inorganic Material	%																				
Solid Wastes Containing Mercury	%																				
Total	**%**	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Red Wing Solid Waste Boiler Facility

2009 Solid Waste Composition Study Field Sheet Data Analysis

Sample		Item Subtotal	Wt % of Total				Wt % Primary Fraction	
Fraction	Lbs							
Paper – Newsprint	Lbs	347.0	3.0%	Combustibles			18.2%	
Paper – Other	Lbs	1556.0	13.2%		Paper	1903.0	81.8%	100%
Cardboard – Corrugated	Lbs	604.0	5.1%				52.7%	
Cardboard – Other	Lbs	542.0	4.6%		Cardboard	1146.0	47.3%	100%
Plastic – HDPE	Lbs	515.0	4.4%				19.5%	
Plastic – PET	Lbs	495.0	4.2%				18.8%	
Plastic – PVC	Lbs	21.0	0.2%				0.8%	
Plastic – Other	Lbs	1604.0	13.7%		Plastic	2635.0	60.9%	100%
Organic Material – Yard Waste	Lbs	106.0	0.9%				5.6%	
Organic Material – Other	Lbs	1783.0	15.2%		Organics	1889.0	94.4%	100%
Electronics / Small Appliances	Lbs	141.0	1.2%		Electronics	141.0	100.0%	100%
Ferrous Metals	Lbs	68.0	0.6%	Non-Combustibles				
Non-Ferrous Metals – Aluminum Cans	Lbs	347.0	3.0%					
Non-Ferrous Metals – Other	Lbs	69.0	0.6%					
Glass	Lbs	354.0	3.0%					
Inorganic Material	Lbs	1661.0	14.1%					
Solid Wastes Containing Mercury	Lbs	10.0	0.1%					
Household Hazardous Waste	Lbs	40.0	0.3%		Various	2549.0		
			0.0%					

Sample		Item Subtotal	Wt % of Total			
Top Fines (#)	Lbs	1026.0	8.7%			
Paper	Lbs	210.7	1.8%	Combustibles	Paper	210.7
Cardboard	Lbs	99.4	0.8%		Cardboard	99.4
Plastic	Lbs	261.4	2.2%		Plastic	261.4
Organic Material	Lbs	294.2	2.5%		Organics	294.2
Ferrous Metals	Lbs	0.0	0.0%	Non-Combustibles		
Non-Ferrous Metals	Lbs	0.0	0.0%			
Glass	Lbs	30.9	0.3%			
Inorganic Material	Lbs	129.5	1.1%			
Solid Wastes Containing Mercury	Lbs	0.0	0.0%		Various	160.4
Paper	%					
Cardboard	%					
Plastic	%					
Organic Material	%					
Ferrous Metals	%					
Non-Ferrous Metals	%					
Glass	%					
Inorganic Material	%					
Solid Wastes Containing Mercury	%					
Total	**%**					

Fraction	Samples	Top Fines	Bottom Fines	Non-separables	Total	Wt% Total
Paper – Newsprint	347.0				347.0	3.0%
Paper – Other	1556.0	210.7	35.4	0.0	1802.1	15.3%
Cardboard – Corrugated	604.0				604.0	5.1%
Cardboard – Other	542.0	99.4	2.8	0.0	644.2	5.5%
Plastic – HDPE	515.0				515.0	4.4%
Plastic – PET	495.0				495.0	4.2%
Plastic – PVC	21.0				21.0	0.2%
Plastic – Other	1604.0	261.4	36.2	0.0	1901.5	16.2%
Organic Material – Yard Waste	106.0				106.0	0.9%
Organic Material – Other	1783.0	294.2	369.7	0.0	2446.9	20.8%
Electronics / Small Appliances	141.0				141.0	1.2%
Ferrous Metals	68.0	0.0	0.0	0.0	68.0	0.6%
Non-Ferrous Metals – Aluminum Cans	347.0				347.0	3.0%
Non-Ferrous Metals – Other	69.0	0.0	0.0	0.0	69.0	0.6%
Glass	354.0	30.9	5.5	0.0	390.4	3.3%
Inorganic Material	1661.0	129.5	8.4	0.0	1798.9	15.3%
Solid Wastes Containing Mercury	10.0	0.0	0.0	0.0	10.0	0.1%
Household Hazardous Waste	40.0				40.0	0.3%
Total	**10263.0**	**1026.0**	**458.0**	**0.0**	**11747.0**	**100.0%**

Total Combustibles		Wt % Total	Wt % Combustibles
Item	Lbs		
Paper	2149.1	18.30%	23.82%
Cardboard	1248.2	10.63%	13.83%
Plastic	2932.5	24.96%	32.50%
Organic Material	2552.9	21.73%	28.29%
Electronics	141.0	1.20%	1.56%
Total	**9023.7**	**76.82%**	**100.00%**

Total Non-Combustibles		Wt %
Various	2723.3	**23.18%**
		100.00%

Red Wing Solid Waste Boiler Facility

2009 Solid Waste Composition Study Field Sheet Data Analysis

Sample		Item Subtotal	Wt % of Total			
Bottom Fines (#)	**Lbs**	**458.0**	**3.9%**			
Paper	Lbs	35.4	0.3%	Combustibles	Paper	35.4
Cardboard	Lbs	2.8	0.0%		Cardboard	2.8
Plastic	Lbs	36.2	0.3%		Plastic	36.2
Organic Material	Lbs	369.7	3.1%		Organics	369.7
Ferrous Metals	Lbs	0.0	0.0%	Non-Combustibles		
Non-Ferrous Metals	Lbs	0.0	0.0%			
Glass	Lbs	5.5	0.0%			
Inorganic Material	Lbs	8.4	0.1%			
Solid Wastes Containing Mercury	Lbs	0.0	0.0%		Various	13.9
Paper	%					
Cardboard	%					
Plastic	%					
Organic Material	%					
Ferrous Metals	%					
Non-Ferrous Metals	%					
Glass	%					
Inorganic Material	%					
Solid Wastes Containing Mercury	%					
Total	**%**					

Sample		Item Subtotal	Wt % of Total			
Non-separable #1 (#)	**Lbs**	**0.0**	**0.0%**			
Paper	Lbs	0.0	0.0%	Combustibles	Paper	0.0
Cardboard	Lbs	0.0	0.0%		Cardboard	0.0
Plastic	Lbs	0.0	0.0%		Plastic	0.0
Organic Material	Lbs	0.0	0.0%		Organics	0.0
Ferrous Metals	Lbs	0.0	0.0%	Non-Combustibles		
Non-Ferrous Metals	Lbs	0.0	0.0%			
Glass	Lbs	0.0	0.0%			
Inorganic Material	Lbs	0.0	0.0%			
Solid Wastes Containing Mercury	Lbs	0.0	0.0%		Various	0.0
Paper	%					
Cardboard	%					
Plastic	%					
Organic Material	%					
Ferrous Metals	%					
Non-Ferrous Metals	%					
Glass	%					
Inorganic Material	%					
Solid Wastes Containing Mercury	%					
Total	**%**					

	11747.0	**100.0%**		**Total Lbs.**	**11747.0**

Appendix B

MVTL Analytical Results

MVTL

MINNESOTA VALLEY TESTING LABORATORIES, INC.

1126 N. Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
1411 S. 12th St. ~ Bismarck, ND 58502 ~ 800-279-6885 ~ Fax 701-258-9724
51 W. Lincoln Way ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885

MEMBER
ACIL

Sample Number: 09-M1987

Report Date: 7/31/09

Jeff Huppert
Red Wing Solid Waste Boiler
1873 Bench Street
Red Wing MN 55066

Work Order #: 81-891
P.O. #: J. Huppert
Date Collected: 7/20/09 9:00

Date Received: 7/23/09

Sample Description: Composite #1
Sample Site: Solid Waste

*** PROXIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	27.05	wt. %		
Ash	4.59	wt. %	6.29	wt. %
Volatile Matter	58.96	wt. %	80.82	wt. %
Fixed Carbon	9.40	wt. %	12.89	wt. %
BTU/lb	6442	BTU/lb	8831	BTU/lb
Total Sulfur	0.06	wt. %	0.08	wt. %

*** ULTIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	27.05	wt. %		
Ash	4.59	wt. %	6.29	wt. %
Carbon	35.67	wt. %	48.90	wt. %
Hydrogen	8.08	wt. %	6.93	wt. %
Nitrogen	0.50	wt. %	0.69	wt. %
Total Sulfur	0.06	wt. %	0.08	wt. %
Oxygen by Difference	51.10	wt. %	37.12	wt. %
Chlorine	5830	ug/g	7990	ug/g

*** SULFUR FORMS ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Sulfur	0.06	wt. %	0.08	wt. %

*** ASH FUSION ***

ANALYTE	REDUCING	OXIDIZING

*** MINERAL ANALYSIS OF ASH ***

ANALYTE	DRY BASIS

*** MISCELLANEOUS ***

ANALYTE	AS RECEIVED	DRY BASIS

Comment: Each of the solid waste fractions was combined based on the weight % present in the combustible waste stream provided by SWDI. The combine homogenized waste was riffled into four separate samples for analysis. All metal was removed from the electronics fraction and was not included in the analysis.

Approved by: Stacy Larson

MINNESOTA VALLEY TESTING LABORATORIES, INC.

MVTL

1126 N. Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
1411 S. 12th St. ~ Bismarck, ND 58502 ~ 800-279-6885 ~ Fax 701-258-9724
51 W. Lincoln Way ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885

MEMBER ACIL

Sample Number: 09-M1988

Report Date: 7/31/09

Jeff Huppert
Red Wing Solid Waste Boiler
1873 Bench Street
Red Wing MN 55066

Work Order #: 81-891
P.O. #: J. Huppert
Date Collected: 7/20/09 9:00

Date Received: 7/23/09

Sample Description: Composite #2
Sample Site: Solid Waste

*** PROXIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	26.87	wt. %		
Ash	4.76	wt. %	6.51	wt. %
Volatile Matter	58.80	wt. %	80.40	wt. %
Fixed Carbon	9.57	wt. %	13.09	wt. %
BTU/lb	6451	BTU/lb	8822	BTU/lb
Total Sulfur	0.06	wt. %	0.08	wt. %

*** ULTIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	26.87	wt. %		
Ash	4.76	wt. %	6.51	wt. %
Carbon	35.71	wt. %	48.83	wt. %
Hydrogen	7.91	wt. %	6.70	wt. %
Nitrogen	0.53	wt. %	0.72	wt. %
Total Sulfur	0.06	wt. %	0.08	wt. %
Oxygen by Difference	51.03	wt. %	37.15	wt. %
Chlorine	7720	ug/g	10600	ug/g

*** SULFUR FORMS ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Sulfur	0.06	wt. %	0.08	wt. %

*** ASH FUSION ***

ANALYTE	REDUCING	OXIDIZING

*** MINERAL ANALYSIS OF ASH ***

ANALYTE	DRY BASIS

*** MISCELLANEOUS ***

ANALYTE	AS RECEIVED	DRY BASIS

Comment: Each of the solid waste fractions was combined based on the weight % present in the combustible waste stream provided by SWDI. The combine homogenized waste was riffled into four separate samples for analysis. All metal was removed from the electronics fraction and was not included in the analysis.

Approved by: 

MINNESOTA VALLEY TESTING LABORATORIES, INC.

MVTL

1126 N. Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
1411 S. 12th St. ~ Bismarck, ND 58502 ~ 800-279-6885 ~ Fax 701-258-9724
51 W. Lincoln Way ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885

MEMBER
ACIL

Sample Number: 09-M1989

Report Date: 7/31/09

Jeff Huppert
Red Wing Solid Waste Boiler
1873 Bench Street
Red Wing MN 55066

Work Order #: 81-891
P.O. #: J. Huppert
Date Collected: 7/20/09 9:00

Date Received: 7/23/09

Sample Description: Composite #3
Sample Site: Solid Waste

*** PROXIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	27.00	wt. %		
Ash	4.90	wt. %	6.71	wt. %
Volatile Matter	59.11	wt. %	80.97	wt. %
Fixed Carbon	8.99	wt. %	12.31	wt. %
BTU/lb	6417	BTU/lb	8790	BTU/lb
Total Sulfur	0.05	wt. %	0.07	wt. %

*** ULTIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	27.00	wt. %		
Ash	4.90	wt. %	6.71	wt. %
Carbon	35.69	wt. %	48.89	wt. %
Hydrogen	7.88	wt. %	6.66	wt. %
Nitrogen	0.55	wt. %	0.75	wt. %
Total Sulfur	0.05	wt. %	0.07	wt. %
Oxygen by Difference	50.93	wt. %	36.92	wt. %
Chlorine	9100	ug/g	12500	ug/g

*** SULFUR FORMS ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Sulfur	0.05	wt. %	0.07	wt. %

*** ASH FUSION ***

ANALYTE	REDUCING	OXIDIZING

*** MINERAL ANALYSIS OF ASH ***

ANALYTE	DRY BASIS

*** MISCELLANEOUS ***

ANALYTE	AS RECEIVED	DRY BASIS

Comment: Each of the solid waste fractions was combined based on the weight % present in the combustible waste stream provided by SWDI. The combine homogenized waste was riffled into four separate samples for analysis. All metal was removed from the electronics fraction and was not included in the analysis.

Approved by: Stacy Larson

MINNESOTA VALLEY TESTING LABORATORIES, INC.

MVTL

1126 N. Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
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51 W. Lincoln Way ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885

MEMBER ACIL

Sample Number: 09-M1990

Report Date: 7/31/09

Jeff Huppert
Red Wing Solid Waste Boiler
1873 Bench Street
Red Wing MN 55066

Work Order #: 81-891
P.O. #: J. Huppert
Date Collected: 7/20/09 9:00

Date Received: 7/23/09

Sample Description: Composite #4
Sample Site: Solid Waste

*** PROXIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	27.08	wt. %		
Ash	4.99	wt. %	6.84	wt. %
Volatile Matter	57.75	wt. %	79.20	wt. %
Fixed Carbon	10.17	wt. %	13.95	wt. %
BTU/lb	6491	BTU/lb	8901	BTU/lb
Total Sulfur	0.07	wt. %	0.10	wt. %

*** ULTIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	27.08	wt. %		
Ash	4.99	wt. %	6.84	wt. %
Carbon	36.48	wt. %	50.03	wt. %
Hydrogen	7.89	wt. %	6.67	wt. %
Nitrogen	0.48	wt. %	0.66	wt. %
Total Sulfur	0.07	wt. %	0.10	wt. %
Oxygen by Difference	50.09	wt. %	35.71	wt. %
Chlorine	7240	ug/g	9930	ug/g

*** SULFUR FORMS ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Sulfur	0.07	wt. %	0.10	wt. %

*** ASH FUSION ***

ANALYTE	REDUCING	OXIDIZING

*** MINERAL ANALYSIS OF ASH ***

ANALYTE	DRY BASIS

*** MISCELLANEOUS ***

ANALYTE	AS RECEIVED	DRY BASIS

Comment: Each of the solid waste fractions was combined based on the weight % present in the combustible waste stream provided by SWDI. The combine homogenized waste was riffled into four separate samples for analysis. All metal was removed from the electronics fraction and was not included in the analysis.

Approved by: Stacy Larson

MVTL LABORATORIES, Inc.
1411 South 12th Street
Bismarck, ND 58502
Phone: (701) 258-9720
Toll Free: (800) 279-6885 Fax: (701) 258-9724

Chain of Custody Record

Work Order # 81-891

Company Name and Address: Red Wing Solid Waste Boiler Facility, 1873 Bench Street, Red Wing, MN 55066	**Account #:** 18240	**Phone #:** (651) 385-3658
	Contact: Jeff Huppert	**Fax #:** For faxed report check box ☐
	Name of Sampler: Eric Anderson	**E-mail:** destensen@stericycle.com For e-mail report check box ☐
Billing Address (indicate if different from above):	**Quote Number** JD032409-01	**Date Submitted:** 7/20/2009
	Project Name/Number: Solid Waste	**Purchase Order #:**

Sample Information					Bottle Type												Analysis
Lab Number	Sample ID	Sample Type (Food, Soil, Water, Etc.)	Date Sampled	Time Sampled	VOC Vials	500 ml unpres.	1000 ml unpres.	500 ml HNO3	1000 ml HNO3	500 ml H2SO4	1000 ml H2SO4	Sterile plastic	Amber H2SO4	500 ml NaOH	Filtered? Y or N	Other:	Analysis Required
M1987	Paper	Solid Waste	7/20/2009	9:00 a.m.												X	Ultimate, Proximate, Chlorine
-1990	Cardboard	Solid Waste	7/20/2009	9:00 a.m.												X	Ultimate, Proximate, Chlorine
	Plastic	Solid Waste	7/20/2009	9:00 a.m.												X	Ultimate, Proximate, Chlorine
	Organic	Solid Waste	7/20/2009	9:00 a.m.												X	Ultimate, Proximate, Chlorine
	Electronic	Solid Waste	7/20/2009	9:00 a.m.				✓								X	Ultimate, Proximate, Chlorine

Comments: Homogenize each sample separately, then form a composite sample based on ratios provided by RWSWBF. Analyze 4 subsamples.

	Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Time:	Temp:
1.	Jeff Huppert	7/21/09	12:30	Good	Tera K Olson	23 Jul 2009	1000	
2.								

Appendix C

Proximate Analysis, Ultimate Analysis, and Heating Value Calculations

Red Wing Solid Waste Boiler Facility

2009 Solid Waste Composition Study Results

Total Combustibles

Item	Lbs	wt%
Paper	2149.1	18.30%
Cardboard	1248.2	10.63%
Plastic	2932.5	24.96%
Organics	2552.9	21.73%
Electronics	141.0	1.20%
Total	**9023.7**	**76.82%**

Total Non-Combustibles

Item	Lbs	wt%
Total	**2723.3**	**23.18%**

Total	**11747.0**	**100.00%**

Proximate Analysis (Combustible Fractions Only - As Received Basis)

Analyte	Units	Sample 1	Sample 2	Sample 3	Sample 4	Average
Total Moisture	wt%	27.05%	26.87%	27.00%	27.08%	**27.00%**
Ash	wt%	4.59%	4.76%	4.90%	4.99%	**4.81%**
Volatile Matter	wt%	58.96%	58.80%	59.11%	57.75%	**58.66%**
Total Sulfur[1]	wt%	0.06%	0.06%	0.05%	0.07%	**0.06%**
Fixed Carbon (by difference)[2]	wt%	9.34%	9.51%	8.94%	10.11%	**9.48%**
Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Heating Value	**Btu/lb.**	**6442**	**6451**	**6417**	**6491**	**6450**

Proximate Analysis (Including Non-Combustibles)

Analyte	Result as Incinerated (Including Non-Combustibles)
Total Moisture	**20.74%**
Ash	**3.69%**
Volatile Matter	**45.06%**
Total Sulfur[1]	**0.05%**
Fixed Carbon (by difference)	**7.28%**
Non-Combustibles	**23.18%**
Total	**100.00%**
Heating Value	**4955**

Ultimate Analysis (Combustible Fractions Only - As Received Basis)

Analyte	Units	Sample 1	Sample 2	Sample 3	Sample 4	Average
Total Moisture	wt%	27.05%	26.87%	27.00%	27.08%	**27.00%**
Ash[3]	wt%	4.59%	4.76%	4.90%	4.99%	**4.81%**
Carbon	wt%	35.67%	35.71%	35.69%	36.48%	**35.89%**
Hydrogen	wt%	8.08%	7.91%	7.88%	7.89%	**7.94%**
Nitrogen	wt%	0.50%	0.53%	0.55%	0.48%	**0.52%**
Total Sulfur	wt%	0.06%	0.06%	0.05%	0.07%	**0.06%**
Chlorine	wt%	0.58%	0.77%	0.91%	0.72%	**0.75%**
Oxygen (by difference)[4]	wt%	50.52%	50.26%	50.02%	49.37%	**50.04%**
Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Ultimate Analysis (Including Non-Combustibles)

Analyte	Result as Incinerated (Including Non-Combustibles)
Total Moisture	**20.74%**
Ash[3]	**2.70%**
Carbon	**20.12%**
Hydrogen	**4.45%**
Nitrogen	**0.29%**
Total Sulfur	**0.03%**
Chlorine	**0.42%**
Oxygen (by difference)	**28.06%**
Non-Combustibles	**23.18%**
Total	**100.00%**

[1] Total Sulfur has been included in Proximate Analysis

[2] Fixed Carbon (by difference) is slightly lower than reported in MVTL analytical due to inclusion of Total Sulfur

[3] Ash has been included in Ultimate Analysis

[4] Oxygen (by difference) is slightly lower than reported in MVTL analytical due to inclusion of Chlorine

Appendix D

Field Data Sheets

Load Information Form

GENERAL INFORMATION:	Sample #: 1	Date: 7-13-09	
	Time: 9:40	Person Recording: Eric Anderson	
HAULER INFORMATION:	Company Name: WM	Truck #: 411273	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐ Commercial: ☒ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: Treasure Island		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 62860		
	Outgoing Truck Weight (#): 41960		
	Weight of MSW (#): 20900		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	28	4
2. Paper - Other	24	57	33
3. Cardboard - Corrugated	24	27	3
4. Cardboard - Other	24	27	3
5. Plastic - HDPE	24	41	17
6. Plastic - PET	24	28	4
7. Plastic - PVC			
8. Plastic - Other	24	57	33
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	72	48
11. Electronics / Small Appliances			
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	31	7
14. Non-Ferrous Metal - Other			
15. Glass	24	49	25
16. Inorganic Material	24	40	16
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 21 165								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%	5%	5%	80%				5%	

Bottom Fines: 5 165								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%		5%	90%					

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 2	Date: 7-13-09	
	Time: 10:20	Person Recording: Eric Anderson	
HAULER INFORMATION:	Company Name: WM	Truck #: 411273	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐ Commercial: ☒ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: RW Health Care		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 55760		
	Outgoing Truck Weight (#): 41840		
	Weight of MSW (#): 14020		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	26	2
2. Paper - Other	24	46	22
3. Cardboard - Corrugated			
4. Cardboard - Other	24	32	8
5. Plastic - HDPE	24	35	11
6. Plastic - PET	24	25	1
7. Plastic - PVC			
8. Plastic - Other	24	66	42
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	26	2
11. Electronics / Small Appliances			
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	32	8
14. Non-Ferrous Metal - Other			
15. Glass	24	25	1
16. Inorganic Material	24	243	219
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

	% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
Top Fines: 15 lbs	20%		15%	25%				40%	
Bottom Fines: 1 lb	25%		25%	50%					
Non-Separable Item #1:									
Non-Separable Item #2:									

Load Information Form

GENERAL INFORMATION:	Sample #: 3	Date: 7-13-09	
	Time:	Person Recording: Eric Anderson	
HAULER INFORMATION:	Company Name: City of R.W	Truck #: 531	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐ Commercial: ☒ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: Red Wing		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 40020		
	Outgoing Truck Weight (#): 25660		
	Weight of MSW (#): 14360		
WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint			
2. Paper - Other	24	59	35
3. Cardboard - Corrugated	24	42	18
4. Cardboard - Other	24	31	7
5. Plastic - HDPE	24	27	3
6. Plastic - PET	24	34	10
7. Plastic - PVC			
8. Plastic - Other	24	44	20
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	103	79
11. Electronics / Small Appliances			
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	39	15
14. Non-Ferrous Metal - Other			
15. Glass	24	43	19
16. Inorganic Material	24	29	5
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 15 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
10%	5%	20%	60%			5%		

Bottom Fines: 10 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
20%	5%	20%	50%			5%		

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 4	Date: 7-13-09	
	Time: 11:40	Person Recording: Erin Anderson	
HAULER INFORMATION:	Company Name: City of R.W.	Truck #: 305	
TYPE OF LOAD:	Residential: ☒ Industrial: ☐	Commercial: ☐	Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: Lake City		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 51240		
	Outgoing Truck Weight (#): 34480		
	Weight of MSW (#): 16760		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	28	4
2. Paper - Other	24	57	33
3. Cardboard - Corrugated	24	31	7
4. Cardboard - Other	24	40	16
5. Plastic - HDPE	24	29	5
6. Plastic - PET	24	28	4
7. Plastic - PVC			
8. Plastic - Other	24	48	24
9. Organic Material - Yard Waste	24	51	27
10. Organic Material - Other	24	30	6
11. Electronics / Small Appliances			
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	29	5
14. Non-Ferrous Metal - Other			
15. Glass	24	27	3
16. Inorganic Material	24	98	74
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 18 165								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
10%	5%	10%	40%			5%	20%	

Bottom Fines: 316 5								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
10%		10%	80%					

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 5	Date: 7-13-09	
	Time: 12:15	Person Recording: Eric Anderson	
HAULER INFORMATION:	Company Name: Gibson	Truck #: 61	
TYPE OF LOAD:	Residential: [X] Industrial: [ ]	Commercial: [ ]	Mixed: [ ]
ORIGINATION OF TRUCK:	Service Area: Waninango		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 48460		
	Outgoing Truck Weight (#): 33280		
	Weight of MSW (#): 15360		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	54	30
2. Paper - Other	24	58	34
3. Cardboard - Corrugated			
4. Cardboard - Other	24	38	14
5. Plastic - HDPE	24	43	19
6. Plastic - PET	24	39	15
7. Plastic - PVC			
8. Plastic - Other	24	56	32
9. Organic Material - Yard Waste	5	8	3
10. Organic Material - Other	24	44	20
11. Electronics / Small Appliances	5	7	2
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	34	10
14. Non-Ferrous Metal - Other	5	11	6
15. Glass	24	36	17
16. Inorganic Material	24	79	55
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 20 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
25%	5%	30%	15%			5%	20%	

Bottom Fines: 6 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
10%		10%	75%			5%		

Non-Separable Item #1: [redacted]								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 6	Date: 7-13-09	
	Time: ~~Wed~~ 12:40	Person Recording: Eric Anderson	
HAULER INFORMATION:	Company Name: WM	Truck #: 102739	
TYPE OF LOAD:	Residential: ☒ Industrial: ☐	Commercial: ☐	Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: P.I. Prairie Island		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 44540		
	Outgoing Truck Weight (#): 34700		
	Weight of MSW (#): 9840		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	34	10
2. Paper - Other	24	~~82~~	~~58~~
3. Cardboard - Corrugated	24	37	13
4. Cardboard - Other	24	38	14
5. Plastic - HDPE	24	45	21
6. Plastic - PET	24	32	8
7. Plastic - PVC			
8. Plastic - Other	24	52	28
9. Organic Material - Yard Waste	5	8	3
10. Organic Material - Other	24	33	9
11. Electronics / Small Appliances			
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	34	10
14. Non-Ferrous Metal - Other	5	6	1
15. Glass	24	30	6
16. Inorganic Material	24	64	40
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 19 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
30%	10%	20%	10%			5%	25%	

Bottom Fines: 16 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%		5%	85%			5%		

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 7	Date: 7-13-09	
	Time: 1115	Person Recording: Eric Anderson	
HAULER INFORMATION:	Company Name: City of RW	Truck #: 550	
TYPE OF LOAD:	Residential: ☒ Industrial: ☐	Commercial: ☐	Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: Red Wing		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 33980		
	Outgoing Truck Weight (#): 21500		
	Weight of MSW (#): 12480		
WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	28	4
2. Paper - Other	24	62	38
3. Cardboard - Corrugated	24	29	5
4. Cardboard - Other	24	35	11
5. Plastic - HDPE	24	33	9
6. Plastic - PET	24	38	14
7. Plastic - PVC			
8. Plastic - Other	24	64	40
9. Organic Material - Yard Waste	~~24~~ 5	~~42~~ 21	~~26~~ 16
10. Organic Material - Other	24	42	18
11. Electronics / Small Appliances			
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	43	19
14. Non-Ferrous Metal - Other	5	9	4
15. Glass	24	34	10
16. Inorganic Material	24	63	39
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 65								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
20%	5%	25%	25%			5%	20%	

Bottom Fines: 17								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%		5%	90%					

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 8	Date: 7-13-09	
	Time: 1:30	Person Recording: Eric Anderson	
HAULER INFORMATION:	Company Name: Gibson	Truck #: Tony	
TYPE OF LOAD:	Residential: ☒ Industrial: ☐	Commercial: ☐	Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: Goodhue		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 45240		
	Outgoing Truck Weight (#): 31200		
	Weight of MSW (#): 14040		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	33	9
2. Paper - Other	24	51	17
3. Cardboard - Corrugated	24	34	10
4. Cardboard - Other	24	37	13
5. Plastic - HDPE	24	27	3
6. Plastic - PET	24	33	9
7. Plastic - PVC			
8. Plastic - Other	24	43	19
9. Organic Material - Yard Waste	5	8	3
10. Organic Material - Other	24	39	15
11. Electronics / Small Appliances			
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	36	12
14. Non-Ferrous Metal - Other	5	9	4
15. Glass	24	36	12
16. Inorganic Material	24	42	18
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

	% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
Top Fines: 17 165	10%	10%	10%	50%				20%	
Bottom Fines: 16 165	10%		10%	80%					
Non-Separable Item #1:									
Non-Separable Item #2:									

Load Information Form

GENERAL INFORMATION:	Sample #: 1	Date: 7-14-09	
	Time: 7:30 A.M.	Person Recording: Jon	
HAULER INFORMATION:	Company Name: W. M.	Truck #: 411273	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐	Commercial: ☒	Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: Hastings MN (Regina Medical)		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 47880		
	Outgoing Truck Weight (#): 39820		
	Weight of MSW (#): 8060		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	29	5
2. Paper - Other	24	36	12
3. Cardboard - Corrugated	24	30	6
4. Cardboard - Other	24	28	4
5. Plastic - HDPE	24	36	12
6. Plastic - PET	24	29	5
7. Plastic - PVC			
8. Plastic - Other	24	38	14
9. Organic Material - Yard Waste			
10. Organic Material - Other			
11. Electronics / Small Appliances			
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	29	5
14. Non-Ferrous Metal - Other			
15. Glass			
16. Inorganic Material	24	116	92
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 20 lbs.								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
20%	10%	20%	50%				50%	

Bottom Fines: 1 lbs.								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
45%	5%	45%					5%	

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 2	Date: 7-14-09	
	Time: 8:33 A.M.	Person Recording: Jon	
HAULER INFORMATION:	Company Name: W M,	Truck #: 207961	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐	Commercial: ☒	Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: T.I. Red Wing		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 52920		
	Outgoing Truck Weight (#): 42840		
	Weight of MSW (#): 10080		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	26	2
2. Paper - Other	24	59	35
3. Cardboard - Corrugated	24	34	10
4. Cardboard - Other	24	46	22
5. Plastic - HDPE	24	40	16
6. Plastic - PET	24	35	11
7. Plastic - PVC			
8. Plastic - Other	24	51	27
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	65	41
11. Electronics / Small Appliances			
12. Ferrous Metals	5	[illegible] 9	4
13. Non-Ferrous Metal - Aluminum	24	33	9
14. Non-Ferrous Metal - Other			
15. Glass	24	49	25
16. Inorganic Material	24	47	23
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste	5	8	3

Top Fines: 16 165.								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
70%	15%	25%	20%			10%	10%	

Bottom Fines: 12 165								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%		5%	85%				5%	

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 3	Date: 7-14-09	
	Time: 9:00	Person Recording: Eric Anderson	
HAULER INFORMATION:	Company Name: City of R.W.	Truck #: 305	
TYPE OF LOAD:	Residential: ☒ Industrial: ☐	Commercial: ☐	Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: Lake City		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 52340		
	Outgoing Truck Weight (#): 34340		
	Weight of MSW (#): 18000		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	33	9
2. Paper - Other	24	65	41
3. Cardboard - Corrugated	24	37	13
4. Cardboard - Other	24	35	11
5. Plastic - HDPE	24	33	9
6. Plastic - PET	24	36	12
7. Plastic - PVC			
8. Plastic - Other	24	56	32
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	39	15
11. Electronics / Small Appliances			
12. Ferrous Metals	5	6	1
13. Non-Ferrous Metal - Aluminum	24	36	12
14. Non-Ferrous Metal - Other			
15. Glass	24	30	6
16. Inorganic Material	24	83	59
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 44 165								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
25%	5%	20%	25%			5%	20%	
Bottom Fines: 14 165								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
10%		10%	80%					
Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
Non-Separable Item #2:								

Load Information Form

GENERAL INFORMATION:	Sample #: 4	Date: 7-14-09	
	Time: 10:50	Person Recording: Eric Anderson	
HAULER INFORMATION:	Company Name: Gibson	Truck #: 61	
TYPE OF LOAD:	Residential: ☒ Industrial: ☐	Commercial: ☒ Mixed: ☐	
ORIGINATION OF TRUCK:	Service Area: Cannon Falls		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 46860		
	Outgoing Truck Weight (#): 33660		
	Weight of MSW (#): 13200		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	30	6
2. Paper - Other	24	90	66
3. Cardboard - Corrugated	24	39	15
4. Cardboard - Other	24	40	16
5. Plastic - HDPE	24	44	20
6. Plastic - PET	24	34	10
7. Plastic - PVC			
8. Plastic - Other	24	55	31
9. Organic Material - Yard Waste	5	12	7
10. Organic Material - Other	24	48	24
11. Electronics / Small Appliances	5	11	6
12. Ferrous Metals	5	7	2
13. Non-Ferrous Metal - Aluminum	24	28	4
14. Non-Ferrous Metal - Other			
15. Glass	24	37	13
16. Inorganic Material	24	75	51
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 93 165								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
25%	15%	25%	15%			5%	15%	
Bottom Fines: 14 165								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%		5%	80%			5%	5%	
Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
Non-Separable Item #2:								

Load Information Form

GENERAL INFORMATION:	Sample #: 5	Date: 7-14-09	
	Time: 11:30	Person Recording: Eric Anderson	
HAULER INFORMATION:	Company Name: City of RW	Truck #: 550	
TYPE OF LOAD:	Residential: ☒ Industrial: ☐	Commercial: ☐	Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: Lake City		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 50080		
	Outgoing Truck Weight (#): 34180		
	Weight of MSW (#): 15900		
WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	35	11
2. Paper - Other	24	92	68
3. Cardboard - Corrugated	24	28	4
4. Cardboard - Other	24	40	16
5. Plastic - HDPE	24	33	9
6. Plastic - PET	24	31	7
7. Plastic - PVC	5	6	1
8. Plastic - Other	24	77	53
9. Organic Material - Yard Waste	5	6	1
10. Organic Material - Other	24	59	35
11. Electronics / Small Appliances			
12. Ferrous Metals	5	11	6
13. Non-Ferrous Metal - Aluminum	24	36	12
14. Non-Ferrous Metal - Other			
15. Glass	24	35	11
16. Inorganic Material	24	66	42
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 24 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
30%	10%	30%	20%			5%	5%	

Bottom Fines: 10 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%		5%	90%					

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 6	Date: 7-14-09	
	Time: 12:15	Person Recording: Eric Anderson	
HAULER INFORMATION:	Company Name: W/M	Truck #: 208306	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐ Commercial: ☒ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: Red Wing		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 45620		
	Outgoing Truck Weight (#): 38180		
	Weight of MSW (#): 7440		
WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	30	6
2. Paper - Other	24	52	18
3. Cardboard - Corrugated	24	30	6
4. Cardboard - Other	24	38	14
5. Plastic - HDPE	24	36	12
6. Plastic - PET	24	32	8
7. Plastic - PVC			
8. Plastic - Other	24	53	29
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	31	7
11. Electronics / Small Appliances	5	40	35
12. Ferrous Metals	5	6	1
13. Non-Ferrous Metal - Aluminum	24	32	8
14. Non-Ferrous Metal - Other			
15. Glass	24	30	6
16. Inorganic Material	24	32	8
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste	5	6	1

Top Fines: 8/65								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
25%	10%	35%	20%			5%	5%	

Bottom Fines: 8/65								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
10%		10%	79%			1%		

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 7	Date: 7-14-09	
	Time: 1:20	Person Recording: Jon	
HAULER INFORMATION:	Company Name: Gibson	Truck #: 68	
TYPE OF LOAD:	Residential: ☒ Industrial: ☐	Commercial: ☐	Mixed: ☒
ORIGINATION OF TRUCK:	Service Area: Cannon Falls		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 43640		
	Outgoing Truck Weight (#): 31320		
	Weight of MSW (#): 12320		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	40	16
2. Paper - Other	24	72	48
3. Cardboard - Corrugated	24	38	14
4. Cardboard - Other	24	44	20
5. Plastic - HDPE	24	40	16
6. Plastic - PET	24	40	16
7. Plastic - PVC	5	13	8
8. Plastic - Other	24	69	45
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	53	29
11. Electronics / Small Appliances	6	10	5
12. Ferrous Metals	5	23	18
13. Non-Ferrous Metal - Aluminum	24	35	9
14. Non-Ferrous Metal - Other	5	11	6
15. Glass	24	30	6
16. Inorganic Material	24	70	46
17. Solid Wastes Containing Mercury	5	13	8
18. Household Hazardous Waste	5	7	2

Top Fines: 16								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
20%	10%	25%	20%			5%	20%	

Bottom Fines: 19								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%		5%	80%			5%	5%	

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

WM

Load Information Form

GENERAL INFORMATION:	Sample #: 8	Date: 7-14-09	
	Time: 1:30	Person Recording: Jon	
HAULER INFORMATION:	Company Name: City of R.W	Truck #: 550	
TYPE OF LOAD:	Residential: ☑	Industrial: ☐	Commercial: ☐ Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: Redwing		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 33680		
	Outgoing Truck Weight (#): 21480		
	Weight of MSW (#): 12200		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	37	13
2. Paper - Other	24	78	54
3. Cardboard - Corrugated	24	34	10
4. Cardboard - Other	24	40	16
5. Plastic - HDPE	24	36	12
6. Plastic - PET	24	36	12
7. Plastic - PVC	5	9	4
8. Plastic - Other	24	75	51
9. Organic Material - Yard Waste	5	6	1
10. Organic Material - Other	24	69	45
11. Electronics / Small Appliances	5	9	4
12. Ferrous Metals	5	9	4
13. Non-Ferrous Metal - Aluminum	24	33	9
14. Non-Ferrous Metal - Other	5	7	2
15. Glass	24	33	9
16. Inorganic Material	24	50	26
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 44 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
25%	15%	30%	20%			5%	5%	

Bottom Fines: 37 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%		5%	90%					

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 1	Date: 7-15-09	
	Time: 7:30	Person Recording: Jon	
HAULER INFORMATION:	Company Name: City of RW	Truck #: 305	
TYPE OF LOAD:	Residential: ☒ Industrial: ☐	Commercial: ☐	Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: Hazedorn - Lake City		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 46340		
	Outgoing Truck Weight (#): 34260		
	Weight of MSW (#): 12080		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	53	29
2. Paper - Other	24	80	56
3. Cardboard - Corrugated	24	48	24
4. Cardboard - Other	24	45	21
5. Plastic - HDPE	24	31	7
6. Plastic - PET	24	30	6
7. Plastic - PVC	5	8	3
8. Plastic - Other	24	46	22
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	32	8
11. Electronics / Small Appliances			
12. Ferrous Metals	5	6	1
13. Non-Ferrous Metal - Aluminum	24	35	11
14. Non-Ferrous Metal - Other	5	18	13
15. Glass	24	26	2
16. Inorganic Material	24	82	58
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 19 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
35%	20%	20%	10%			5%	10%	

Bottom Fines: 24 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
10%		10%	80%					

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 2	Date: 7-15-07	
	Time: 8:10 am	Person Recording: Jen	
HAULER INFORMATION:	Company Name: W/M	Truck #: 411273	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐ Commercial: ☒ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: (Target) Redwing		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 56560		
	Outgoing Truck Weight (#): 40880		
	Weight of MSW (#): 15680		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint			
2. Paper - Other	24	76	52
3. Cardboard - Corrugated	24	49	25
4. Cardboard - Other	24	51	27
5. Plastic - HDPE	24	42	18
6. Plastic - PET	24	31	7
7. Plastic - PVC			
8. Plastic - Other	24	86	62
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	52	28
11. Electronics / Small Appliances	5	8	3
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	30	6
14. Non-Ferrous Metal - Other	5	14	9
15. Glass			
16. Inorganic Material	24	39	15
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 17 165								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
30%	25%	35%	10%					

Bottom Fines: 15 165								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
30%		30%	25%				15%	

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 3	Date: 7/15/09	
	Time: 0955	Person Recording: DC.	
HAULER INFORMATION:	Company Name: W. M.	Truck #: 411273	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐ Commercial: ☒ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: T. Island [redacted]		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 56560		
	Outgoing Truck Weight (#): 40880		
	Weight of MSW (#): 15680		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	44	20
2. Paper - Other	24	77	53
3. Cardboard - Corrugated	24	30	6
4. Cardboard - Other	24	50	26
5. Plastic - HDPE	24	29	5
6. Plastic - PET	24	35	11
7. Plastic - PVC			
8. Plastic - Other	24	56	32
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	[redacted] 64	40
11. Electronics / Small Appliances			
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	33	9
14. Non-Ferrous Metal - Other			
15. Glass	24	54	30
16. Inorganic Material			
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 45 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
35%	15%	30%	[redacted]				[redacted]	

Bottom Fines: 3 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
10%		10%	80%					

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 4	Date: 7/15/09	
	Time: 1140	Person Recording: DC	
HAULER INFORMATION:	Company Name: W.M.	Truck #: 411273	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐ Commercial: ☒ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: T. Island		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 38620		
	Outgoing Truck Weight (#): 35380		
	Weight of MSW (#): 3240		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	30	6
2. Paper - Other	24	56	32
3. Cardboard - Corrugated	24	33	9
4. Cardboard - Other	24	30	6
5. Plastic - HDPE	24	33	9
6. Plastic - PET	24	45	21
7. Plastic - PVC		-	
8. Plastic - Other	24	42	18
9. Organic Material - Yard Waste	5	6	1
10. Organic Material - Other	24	60	36
11. Electronics / Small Appliances		-	
12. Ferrous Metals	5	8	3
13. Non-Ferrous Metal - Aluminum	24	44	20
14. Non-Ferrous Metal - Other	~~24~~	~~44~~	~~20~~
15. Glass	24	26	2
16. Inorganic Material	24	42	18
17. Solid Wastes Containing Mercury		-	
18. Household Hazardous Waste		-	

	% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
Top Fines: 27 lbs	25%	10%	30%	25%			5%	5%	
Bottom Fines: 9 lbs	10%		5%	80%				5%	
Non-Separable Item #1:									
Non-Separable Item #2:									

Load Information Form

GENERAL INFORMATION:	Sample #: 5	Date: 7-15-09	
	Time: 11:55 Am	Person Recording: Jon	
HAULER INFORMATION:	Company Name: Gibson	Truck #: G12	
TYPE OF LOAD:	Residential: ☑ Industrial: ☐	Commercial: ☐	Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: Cannon Falls (west side)		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 47540		
	Outgoing Truck Weight (#): 31480		
	Weight of MSW (#): 16060		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	43	19
2. Paper - Other	24	74	50
3. Cardboard - Corrugated	24	44	20
4. Cardboard - Other	24	42	18
5. Plastic - HDPE	24	45	21
6. Plastic - PET	24	42	18
7. Plastic - PVC			
8. Plastic - Other	24	91	67
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	75	51
11. Electronics / Small Appliances	5	11	6
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	30	6
14. Non-Ferrous Metal - Other	5	6	1
15. Glass			
16. Inorganic Material	24	66	42
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste	5	6	1

Top Fines: 5								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
25%	15%	30%	20%				10%	
Bottom Fines: 6								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
10%		10%	80%					
Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
Non-Separable Item #2:								

Load Information Form

GENERAL INFORMATION:	Sample #: 6	Date: 7/15/09	
	Time: 1220	Person Recording: DG	
HAULER INFORMATION:	Company Name: City of Ru	Truck #: 305	
TYPE OF LOAD:	Residential: ☒ Industrial: ☐ Commercial: ☐ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: Hagedorn Lake City		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 52660		
	Outgoing Truck Weight (#): 34480		
	Weight of MSW (#): 18180		
WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	27	3
2. Paper - Other	24	69	45
3. Cardboard - Corrugated	24	42	18
4. Cardboard - Other	24	46	22
5. Plastic - HDPE	24	39	15
6. Plastic - PET	24	38	14
7. Plastic - PVC			
8. Plastic - Other	24	66	42
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	54	30
11. Electronics / Small Appliances	5	17	12
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	36	12
14. Non-Ferrous Metal - Other	5	17	12
15. Glass	24	34	10
16. Inorganic Material	24	76	52
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste	5	19	14

Top Fines: 40								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
25%	15%	30%	15%			5%	10%	

Bottom Fines: 19								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 7	Date: 7/15/09	
	Time: 1235	Person Recording: DC	
HAULER INFORMATION:	Company Name: W.M.	Truck #: 91073	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐ Commercial: ☒ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: Island		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 38540		
	Outgoing Truck Weight (#): 34860		
	Weight of MSW (#): 3680		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	26	2
2. Paper - Other	24	42	18
3. Cardboard - Corrugated	24	61	37
4. Cardboard - Other	24	30	6
5. Plastic - HDPE	24	27	3
6. Plastic - PET	24	42	18
7. Plastic - PVC			
8. Plastic - Other	24	36	12
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	26	2
11. Electronics / Small Appliances			
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	32	8
14. Non-Ferrous Metal - Other			
15. Glass	24	26	2
16. Inorganic Material	24	45	21
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 7 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
25%	20%	25%				5%	25%	

Bottom Fines: 6 lbs								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
20%		20%	40%				20%	

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 8	Date: 7/15/09	
	Time: 12:45	Person Recording: D. C.	
HAULER INFORMATION:	Company Name: City of RW	Truck #: 550	
TYPE OF LOAD:	Residential: [x] Industrial: [ ]	Commercial: [ ]	Mixed: [ ]
ORIGINATION OF TRUCK:	Service Area: Red Wing		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 35340		
	Outgoing Truck Weight (#): 21380		
	Weight of MSW (#): 13960		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	29	5
2. Paper - Other	24	63	39
3. Cardboard - Corrugated	24	33	9
4. Cardboard - Other	24	35	11
5. Plastic - HDPE	24	41	17
6. Plastic - PET	24	35	11
7. Plastic - PVC			
8. Plastic - Other	24	86	52
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	71	47
11. Electronics / Small Appliances			
12. Ferrous Metals	5	7	2
13. Non-Ferrous Metal - Aluminum	24	29	5
14. Non-Ferrous Metal - Other	5	6	1
15. Glass	24	26	2
16. Inorganic Material	24	61	37
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste	5	10	5

Top Fines: 4316s								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
20%	10%	30%	35%				5%	

Bottom Fines: 2816s								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%		5%	90%					

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 1	Date: 7-16-09	
	Time: 7:10	Person Recording: Jon	
HAULER INFORMATION:	Company Name: City of R.W.	Truck #: 305	
TYPE OF LOAD:	Residential: ☑ Industrial: ☐ Commercial: ☐ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: Hagedorn		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 52740		
	Outgoing Truck Weight (#): 34400		
	Weight of MSW (#): 18340		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	28	4
2. Paper - Other	24	73	49
3. Cardboard - Corrugated	24	27	3
4. Cardboard - Other	24	35	11
5. Plastic - HDPE	24	39	15
6. Plastic - PET	24	37	13
7. Plastic - PVC			
8. Plastic - Other	24	75	51
9. Organic Material - Yard Waste	5	5	—
10. Organic Material - Other	24	80	56
11. Electronics / Small Appliances			
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	35	11
14. Non-Ferrous Metal - Other	5	8	3
15. Glass	24	34	10
16. Inorganic Material	24	65	41
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

	% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
Top Fines: 34 165	20%	5%	30%	25%			5%	15%	
Bottom Fines: 20 165	10%	2%	10%	70%			3%	5%	
Non-Separable Item #1:									
Non-Separable Item #2:									

Load Information Form

GENERAL INFORMATION:	Sample #: 2	Date: 7/16/09	
	Time: 0850	Person Recording: D.C	
HAULER INFORMATION:	Company Name: W/M.	Truck #: 411273	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐ Commercial: ☒ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: T. Island Hotel		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 49220		
	Outgoing Truck Weight (#): 42520		
	Weight of MSW (#): 6700		
WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	45	21
2. Paper - Other	24	43	19
3. Cardboard - Corrugated	24	48	24
4. Cardboard - Other	24	33	9
5. Plastic - HDPE	24	29	5
6. Plastic - PET	24	46	42
7. Plastic - PVC			
8. Plastic - Other	24	69	45
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	33	9
11. Electronics / Small Appliances			
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	34	10
14. Non-Ferrous Metal - Other	5	6	1
15. Glass	24	46	22
16. Inorganic Material	24	98	75
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste	5	6	1

Top Fines: 24								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
15%	10%	35%	25%			5%	10%	

Bottom Fines:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
10%	5%	10%	65%			5%	5%	

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 3		Date: 7/16/09
	Time: 10:15		Person Recording: D. C.
HAULER INFORMATION:	Company Name: W/M		Truck #: 411273
TYPE OF LOAD:	Residential: ☐ Industrial: ☐ Commercial: ☒ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: Econo		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 49860		
	Outgoing Truck Weight (#): 39380		
	Weight of MSW (#): 10480		
WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint			
2. Paper - Other	24	41	17
3. Cardboard - Corrugated	24	52	28
4. Cardboard - Other	24	34	10
5. Plastic - HDPE	24	53	29
6. Plastic - PET	26	63	39
7. Plastic - PVC			
8. Plastic - Other	48	154	106
9. Organic Material - Yard Waste	5	19	14
10. Organic Material - Other	24	225	201
11. Electronics / Small Appliances			
12. Ferrous Metals	5	12	7
13. Non-Ferrous Metal - Aluminum	24	27	3
14. Non-Ferrous Metal - Other			
15. Glass			
16. Inorganic Material	24	29	5
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 43 165								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%	5%	35%	50%				5%	

Bottom Fines: 14 165								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%		5%	90%					

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 4	Date: 5/16/09	
	Time: 1110	Person Recording: DL	
HAULER INFORMATION:	Company Name: W. M.	Truck #: 207961	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐	Commercial: ☒	Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: Goodhue, Canon Falls		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 64080		
	Outgoing Truck Weight (#): 42760		
	Weight of MSW (#): 21320		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	34	10
2. Paper - Other	24	56	32
3. Cardboard - Corrugated	24	42	18
4. Cardboard - Other	24	42	18
5. Plastic - HDPE	24	36	12
6. Plastic - PET	24	32	8
7. Plastic - PVC	5	6	1
8. Plastic - Other	24	63	39
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	117	93
11. Electronics / Small Appliances	24	34	10
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	37	13
14. Non-Ferrous Metal - Other			
15. Glass	24	29	5
16. Inorganic Material			
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 17 165								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
20%	10%	25%	40%			5%	4	

Bottom Fines: 7 165								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
4%		5%	90%			1%		

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 5	Date: 7/16/09	
	Time: 1130	Person Recording:	
HAULER INFORMATION:	Company Name: Gibson	Truck #: 68	
TYPE OF LOAD:	Residential: ☑ Industrial: ☐	Commercial: ☐	Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: Goodhue		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 42960		
	Outgoing Truck Weight (#): 31320		
	Weight of MSW (#): 11640		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	30	6
2. Paper - Other	~~6~~ 24	61	37
3. Cardboard - Corrugated	24	28	4
4. Cardboard - Other	24	47	23
5. Plastic - HDPE	24	35	11
6. Plastic - PET	24	35	11
7. Plastic - PVC			
8. Plastic - Other	24	58	34
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	71	47
11. Electronics / Small Appliances	5	7	2
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	30	6
14. Non-Ferrous Metal - Other			
15. Glass	24	33	9
16. Inorganic Material	24	64	40
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

	% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
Top Fines: 31 lbs	20%	10%	25%	30%			5%	10%	
Bottom Fines: 5 lbs	5%	4%	5%	80%			1%	5%	
Non-Separable Item #1:									
Non-Separable Item #2:									

Load Information Form

GENERAL INFORMATION:	Sample #: 6	Date: 7/16/09	
	Time: 1150	Person Recording:	
HAULER INFORMATION:	Company Name: City RW	Truck #: 305	
TYPE OF LOAD:	Residential: ☒ Industrial: ☐ Commercial: ☐ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: Hagedorn Lake City		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 40920		
	Outgoing Truck Weight (#): 34320		
	Weight of MSW (#): 6600		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint			
2. Paper - Other	24	80	56
3. Cardboard - Corrugated	24	31	7
4. Cardboard - Other	24	45	21
5. Plastic - HDPE	24	35	11
6. Plastic - PET	24	40	16
7. Plastic - PVC			
8. Plastic - Other	24	75	51
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	55	31
11. Electronics / Small Appliances			
12. Ferrous Metals	5	6	1
13. Non-Ferrous Metal - Aluminum	24	32	8
14. Non-Ferrous Metal - Other	5	6	1
15. Glass	24	55	33
16. Inorganic Material	24	85	61
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

	% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
Top Fines: 23	20%	10%	25%	25%			5%	15%	
Bottom Fines: 10	5%		5%	90%					
Non-Separable Item #1:									
Non-Separable Item #2:									

Load Information Form

GENERAL INFORMATION:	Sample #: 7	Date: 7-16-09	
	Time: 1:00 pm	Person Recording: Jon	
HAULER INFORMATION:	Company Name: City of RW	Truck #: 550	
TYPE OF LOAD:	Residential: ☒ Industrial: ☐ Commercial: ☐ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: Red wing		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 36120		
	Outgoing Truck Weight (#): 21560		
	Weight of MSW (#): 14560		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	27	3
2. Paper - Other	24	75	51
3. Cardboard - Corrugated	24	29	5
4. Cardboard - Other	24	29	5
5. Plastic - HDPE	24	32	8
6. Plastic - PET	24	34	10
7. Plastic - PVC			
8. Plastic - Other	24	63	39
9. Organic Material - Yard Waste	5	14	9
10. Organic Material - Other	24	62	38
11. Electronics / Small Appliances	5	17	12
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	29	5
14. Non-Ferrous Metal - Other			
15. Glass	24	30	6
16. Inorganic Material	24	66	42
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste	5	10	5

Top Fines: 51								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
20%	5%	20%	30%			5%	20%	
Bottom Fines: 18								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%		4%	90%			1%		
Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
Non-Separable Item #2:								

Load Information Form

GENERAL INFORMATION:	Sample #: 8	Date: 7-16-09	
	Time: 1:25 pm	Person Recording: Jon	
HAULER INFORMATION:	Company Name: Gibson	Truck #: G1	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐ Commercial: ☐ Mixed: ☑		
ORIGINATION OF TRUCK:	Service Area: Cannon Falls / Wanamingo		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 50940		
	Outgoing Truck Weight (#): 33620		
	Weight of MSW (#): 17320		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	26	2
2. Paper - Other	24	49	25
3. Cardboard - Corrugated	24	42	18
4. Cardboard - Other	24	38	14
5. Plastic - HDPE	24	38	14
6. Plastic - PET	24	40	16
7. Plastic - PVC	5	6	1
8. Plastic - Other	24	38	14
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	46	22
11. Electronics / Small Appliances	5	33	28
12. Ferrous Metals	5	8	3
13. Non-Ferrous Metal - Aluminum	24	35	11
14. Non-Ferrous Metal - Other		~~23~~	
15. Glass	24	40	16
16. Inorganic Material	24	52	28
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 15								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
20%	10%	25%	30%			5%	10%	

Bottom Fines: 0								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%	1%	3%	90%			1%		

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 1	Date: 7-17-09
	Time: 7:30 am	Person Recording: KP
HAULER INFORMATION:	Company Name: Gibson	Truck #: 68
TYPE OF LOAD:	Residential: ☐ Industrial: ☐ Commercial: ☐ Mixed: ☒	
ORIGINATION OF TRUCK:	Service Area: Cannon Falls + Kw	
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 36740	
	Outgoing Truck Weight (#): 31020	
	Weight of MSW (#): 5720	

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	32	8
2. Paper - Other	24	69	45
3. Cardboard - Corrugated	24	51	27
4. Cardboard - Other	24	40	16
5. Plastic - HDPE	24	34	10
6. Plastic - PET	24	39	5
7. Plastic - PVC			
8. Plastic - Other	24	107	83
9. Organic Material - Yard Waste	5	6	1
10. Organic Material - Other	24	88	64
11. Electronics / Small Appliances			
12. Ferrous Metals	5	15	10
13. Non-Ferrous Metal - Aluminum	24	31	7
14. Non-Ferrous Metal - Other			
15. Glass	24	28	4
16. Inorganic Material	24	65	41
17. Solid Wastes Containing Mercury	5	7	2
18. Household Hazardous Waste	5	7	2

Top Fines: 14								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
20%	10%	30%	30%				10%	

Bottom Fines: 9								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%		5%	90%					

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 2	Date: 7-17-09	
	Time: 8:25	Person Recording:	
HAULER INFORMATION:	Company Name: WM	Truck #: 261063	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐ Commercial: ☒ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: Goodhue		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 54160		
	Outgoing Truck Weight (#): 41200		
	Weight of MSW (#): 12960		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	26	2
2. Paper - Other	24	59	35
3. Cardboard - Corrugated	24	37	13
4. Cardboard - Other	24	35	11
5. Plastic - HDPE	24	49	25
6. Plastic - PET	24	43	19
7. Plastic - PVC			
8. Plastic - Other	24	39	15
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	66	42
11. Electronics / Small Appliances			
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	30	6
14. Non-Ferrous Metal - Other			
15. Glass	24	29	5
16. Inorganic Material	24	61	37
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

	% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
Top Fines: 14	15%	10%	30%	20%				15%	
Bottom Fines: 2	5%		5%	90%					
Non-Separable Item #1:									
Non-Separable Item #2:									

Load Information Form

GENERAL INFORMATION:	Sample #: 3	Date: 7-17-09	
	Time: 8:25	Person Recording: Eric Anderson	
HAULER INFORMATION:	Company Name: City of RW	Truck #: 200	
TYPE OF LOAD:	Residential: ☐	Industrial: ☐	Commercial: ☒ Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: Wal-Mart		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 52020		
	Outgoing Truck Weight (#): 38140		
	Weight of MSW (#): 13880		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint			
2. Paper - Other	24	32	8
3. Cardboard - Corrugated	24	96	72
4. Cardboard - Other	24	33	9
5. Plastic - HDPE	24	34	10
6. Plastic - PET	24	28	4
7. Plastic - PVC	5	6	1
8. Plastic - Other	24	141	117
9. Organic Material - Yard Waste	5	20	15
10. Organic Material - Other	48	452	404
11. Electronics / Small Appliances			
12. Ferrous Metals	5	10	5
13. Non-Ferrous Metal - Aluminum	24	26	2
14. Non-Ferrous Metal - Other			
15. Glass			
16. Inorganic Material	24	42	18
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 57								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%	10%	20%	60%				5%	

Bottom Fines: 12								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
		5%	95%					

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 4	Date: 7-17-09
	Time: 9:05	Person Recording: Office
HAULER INFORMATION:	Company Name: city of RW	Truck #: 532
TYPE OF LOAD:	Residential: ☐ Industrial: ☐	Commercial: ☒ Mixed: ☒
ORIGINATION OF TRUCK:	Service Area: RW	
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 58420	
	Outgoing Truck Weight (#): 30080	
	Weight of MSW (#): 8340	

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	56	32
2. Paper - Other	24	62	38
3. Cardboard - Corrugated	24	30	6
4. Cardboard - Other	24	26	2
5. Plastic - HDPE	24	29	5
6. Plastic - PET	24	39	15
7. Plastic - PVC			
8. Plastic - Other 2 BINS weighed	48	111	63
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	38	14
11. Electronics / Small Appliances			
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	26	2
14. Non-Ferrous Metal - Other			
15. Glass			
16. Inorganic Material	24	35	11
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 23								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
30%	5%	30%	30%				5%	

Bottom Fines: 8								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
		10%	90%					

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 5	Date: 1-17-09	
	Time: 9:16	Person Recording: KP	
HAULER INFORMATION:	Company Name: WM	Truck #: 20961	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐ Commercial: ☒ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: RW Gwinnett County		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 60240		
	Outgoing Truck Weight (#): 47940		
	Weight of MSW (#): 12300		
WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	30	6
2. Paper - Other	24	53	29
3. Cardboard - Corrugated	24	40	16
4. Cardboard - Other	24	45	21
5. Plastic - HDPE	24	38	14
6. Plastic - PET	24	36	12
7. Plastic - PVC			
8. Plastic - Other	24	71	47
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	64	40
11. Electronics / Small Appliances	5	14	9
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	31	7
14. Non-Ferrous Metal - Other	5	7	2
15. Glass			
16. Inorganic Material	24	61	37
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 23								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
15%	5%	20%	35%				25%	

Bottom Fines: 11								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%		5%	90%					

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			

Load Information Form

GENERAL INFORMATION:	Sample #: 6	Date: 7-17-09	
	Time: 9:30	Person Recording: Eric Anderson	
HAULER INFORMATION:	Company Name: City of R.W	Truck #: 530	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐ Commercial: ☒ Mixed: ☐		
ORIGINATION OF TRUCK:	Service Area: R.W.		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 35760		
	Outgoing Truck Weight (#): 30460		
	Weight of MSW (#): 5300		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	39	15
2. Paper - Other	24	78	54
3. Cardboard - Corrugated	24	54	30
4. Cardboard - Other	24	32	8
5. Plastic - HDPE	24	38	14
6. Plastic - PET	24	38	14
7. Plastic - PVC	5	7	2
8. Plastic - Other	24	49	25
9. Organic Material - Yard Waste			
10. Organic Material - Other	24	30	6
11. Electronics / Small Appliances	5	7	2
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	32	8
14. Non-Ferrous Metal - Other	5	7	2
15. Glass	24	28	4
16. Inorganic Material	48	109	61
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste	5	6	1

	% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
Top Fines: 5	25%	10%	25%	10%			5%	25%	
Bottom Fines: 19	5%		5%	90%					
Non-Separable Item #1:									
Non-Separable Item #2:									

Load Information Form

GENERAL INFORMATION:	Sample #: 7	Date: 7-17-09	
	Time: 9:40	Person Recording: Eric Anderson	
HAULER INFORMATION:	Company Name: City of R.W.	Truck #: 531	
TYPE OF LOAD:	Residential: ☐ Industrial: ☐	Commercial: ☒	Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: Red Wing		
MSW LOAD WEIGHT:	Incoming Truck Weight (#): 317400		
	Outgoing Truck Weight (#): 25300		
	Weight of MSW (#): 6440		

WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	40	16
2. Paper - Other	24	69	75
3. Cardboard - Corrugated	48	92	44
4. Cardboard - Other	24	33	9
5. Plastic - HDPE	24	33	9
6. Plastic - PET	24	34	10
7. Plastic - PVC			
8. Plastic - Other	24	53	29
9. Organic Material - Yard Waste	5	6	1
10. Organic Material - Other	24	53	29
11. Electronics / Small Appliances	5	10	5
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	33	9
14. Non-Ferrous Metal - Other	5	6	1
15. Glass	24	51	27
16. Inorganic Material	24	60	36
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste	5	10	5

	% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
Top Fines: 3 165	30%	15%	20%	20%			5%	10%	
Bottom Fines: 5 165	5%	5%	5%	80%			5%		
Non-Separable Item #1:									
Non-Separable Item #2:									

Load Information Form

GENERAL INFORMATION:	Sample #: 8		Date: 7-17-09
	Time: 12:15		Person Recording: Eric Anderson
HAULER INFORMATION:	Company Name: WM		Truck #: 207961
TYPE OF LOAD:	Residential: ☐ Industrial: ☐		Commercial: ☒ Mixed: ☐
ORIGINATION OF TRUCK:	Service Area: Lake City		
MSW LOAD WEIGHT:	Incoming Truck Weight (#):		
	Outgoing Truck Weight (#):		
	Weight of MSW (#):		
WASTE COMP. INFORMATION:	TARE WEIGHT (#)	GROSS WEIGHT (#)	SAMPLE WEIGHT (#)
1. Paper - Newsprint	24	31	7
2. Paper - Other	24	53	29
3. Cardboard - Corrugated	24	31	7
4. Cardboard - Other	24	37	13
5. Plastic - HDPE	24	58	34
6. Plastic - PET	24	33	9
7. Plastic - PVC			
8. Plastic - Other	24	43	19
9. Organic Material - Yard Waste	5	9	4
10. Organic Material - Other	24	76	52
11. Electronics / Small Appliances			
12. Ferrous Metals			
13. Non-Ferrous Metal - Aluminum	24	28	4
14. Non-Ferrous Metal - Other			
15. Glass			
16. Inorganic Material	48	~~80~~ 120	72
17. Solid Wastes Containing Mercury			
18. Household Hazardous Waste			

Top Fines: 6								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
15%	5%	25%	25%				30%	

Bottom Fines: 4								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM
5%	5%	5%	85%					

Non-Separable Item #1:								
% Paper	% Cardboard	% Plastic	% Organic	% Ferrous	% Non-Ferr	% Glass	% Inorganic	% SWCM

Non-Separable Item #2:			