SOLID WASTE COMPOSITION STUDY
EXECUTIVE SUMMARY AND TEST REPORT
COVANTA HENNEPIN ENERGY RESOURCE COMPANY, L.P.

DATE:	September 14, 2007
FACILITY NAME AND LOCATION:	Covanta Hennepin Energy Resource Company, L.P. 505 6th Avenue North Minneapolis, Minnesota 55405
PREPARED FOR:	Minnesota Pollution Control Agency 520 Lafayette Road North St. Paul, Minnesota 55155-4194
AIR PERMIT:	MPCA Air Emissions Permit No. 05300400-003.
PURPOSE:	Compliance with Air Emission Permit No. 05300440-003 and Minnesota Rule 7011.1270
TEST DATES:	July 23 – July 27, 2007
ASSOCIATED REPORTS:	Solid Waste Composition Study: Plan & Procedures Covanta Hennepin Energy Resource Co., L.P. Prepared by: Psihos & Associates, Inc. 3130 Excelsior Boulevard Minneapolis, Minnesota 55416
SOLID WASTE COMPOSITION REPORT PREPARED BY:	Covanta Hennepin Energy Resource Company, L.P. 505 6th Avenue North Minneapolis, Minnesota 55405

Table of Contents

1.0 INTRODUCTION

This Report presents analysis and data collected during the Solid Waste Composition Study test program conducted at the Covanta Hennepin Energy Resource Company, L.P. facility located in Minneapolis Minnesota. A tabular summary of the results is included in Section 2.0, Summary of Results. All sampling procedures used during the test program are presented in Section 3.0, Sampling Procedures. Appendix A includes all field data sheets gathered at the site. Appendix B contains all laboratory analytical data.

Covanta Hennepin Energy Resource Company, L.P. performed the Solid Waste Composition Study testing at the Hennepin Resource Recovery Facility from July 23 – July 27, 2007. The purpose of this test program was to demonstrate compliance with the requirements of Minnesota Pollution Control Agency (MPCA), Permit No. 05300400-003 most recently amended in September, 2004. The testing was performed by Psihos & Associates, Inc. in accordance with all procedures in the test protocol. The MPCA was notified of the test dates and the conduct of the testing at the site. This testing satisfies the 5 -Year test requirements of the Permit. A summary of test results is presented in Section 2.0, Tables 2.1-2.8.

1.1 Facility Description

The Covanta Hennepin Energy Resource Company municipal solid waste combustion facility is located in Minneapolis, Minnesota. The facility consists of two identical mass-fired boilers of W&E design which are capable of converting up to 1212 tons per day of post-recycled municipal solid waste (MSW) into 37.5 megawatts of electricity. Each unit has a maximum capacity rating of 172,000 pounds of steam per hour.

1.2 Solid Waste Composition Study Requirements

Minnesota Rules (Minn. R.) 7011.1270, item A(6), requires Class A waste combustors to conduct a Waste Composition Study, as described in part 7007.0501, subp. 2, every five years. Pursuant to Minn. R. 7007.0501, Subp. 2A,

1.3 Solid Waste Composition Study Plan

A Solid Waste Composition Study Plan (Plan) was submitted to the Commissioner for approval as equivalent in precision and accuracy to the methods set forth in "Test Methods for Evaluating Solid Waste," SW-846. The Plan describes the procedures used by Covanta Hennepin Energy Resource Company for selecting loads of Municipal Solid Waste (MSW) for sampling, collecting representative samples from a load, separating out specified fractions of materials identified in this Plan, and weighing these fractions of materials to determine the weight composition of the fractions present in the waste stream.

The Plan also specifies procedures for collecting composite samples of the specified representative fractions to be submitted for proximate analysis, ultimate analysis and heat value at a certified testing laboratory. The procedures identified in the Plan are extracted and modified from the procedures specified in the 1990-1991 Solid Waste Composition Study performed by the Minnesota Pollution Control Agency (MPCA).

1.4 Intent of Study

This Plan is intended to determine the average composition of solid waste received at the Facility from all service areas combined. This Plan is not intended to identify variations in solid waste composition received from individual service areas.

1.5 Fractions Identified, Separated, and Composited in the Study

The fractions in the waste stream identified in the Study are specified in Minn. R. 7007.0501, Subp. 2A(1), and include the percent by weight of paper, cardboard, plastic, ferrous and nonferrous metals, solid wastes which contain mercury, glass, organic, and inorganic material. The Facility has elected to break down certain categories into subcategories and has added certain categories not specified in Minn. R. 7007.0501, Subp. 2A(1). These fractions, which were separated from the bulk waste stream, include the following:

Paper	**Paper subcategories**
	newsprint and inserts
	mail, office, and school papers
	magazines and catalogs
	phone books
	boxboard/paperboard including cereal boxes, cracker boxes, pasta boxes, cake mix boxes, toothpaste boxes, boxes from medications and other toiletries, office supplies
Cardboard	**Cardboard subcategories**
	corrugated
	other
Plastic	**Plastic subcategories**
	HDPE
	PET
	other
Metals	**Metal subcategories**
	Ferrous
	Nonferrous
	aluminum
	other
Glass	**Glass**
Organic material	**Organic material**
	including fruit, vegetables, meat, fish, bones, bread, pasta, baked goods, dairy products, coffee grounds, paper towels and napkins, paper plates and cups, milk and juice cartons, pizza boxes, egg cartons, boxes from frozen and refrigerated foods, waxed paper and paper containers, coffee filters and tea bags, full vacuum cleaner bags, dryer lint, tissues and cotton balls, floral trimmings and house plants, yard waste
Inorganic material	**Inorganic material**
Solid wastes containing mercury	**Solid wastes containing mercury - subcategories**
	batteries by chemistry and size
	fluorescent/HID lamps
	thermometers
	thermostats
	electrical switches
	medical and scientific equipment
	other items containing mercury
	Electronics subcategories
	CRT
	non-CRT
	Major appliances
	Household hazardous waste
	by characteristic and product or grouped as a % of waste stream

1.6 Number of Incoming MSW Samples Fractionated

As noted in the 1990-1991 Study performed by the MPCA, the proper number of samples to obtain during a waste sort is determined by the nature of the sample being studied (MSW) and the number of fractions into which the MSW will be separated. Each of the fractions must be adequately represented, and a sufficient number of samples assures that each of the fractions will be identified, separated and weighed.

The MPCA Study states that the "target number of samples to be taken during each sort was 40-60 samples". (MPCA, page 27). The Study performed by the Facility is, like the MPCA Study, aimed to provide information on the nature and composition of solid waste from the area where it is generated, collected, and ultimately disposed of at the Facility. Therefore, the Facility fractionated 60 samples of MSW, the maximum target number of samples sorted in the MPCA Study. The fractionated results are detailed in the tables of Section 2.0.

2.0 SUMMARY OF RESULTS

For each of the 60 samples collected, results were tabulated and averaged to determine the overall percentages of the fractions separated from the waste streams. Field Data Numerical Analysis is presented in **Appendix C** of this report. The field data sheets from the study are included herewith in **Appendix A** of this report.

2.1 Weight Fractions by Category

Results are summarized as follows for the combustible and non-combustible waste fraction groupings in Table 2.1:

Table 2.1
Weight Fractions of each Fraction Grouping Present in MSW

Total Combustibles

Item	Lbs	wt%
Paper	3642.9	18.33%
Cardboard	2038.7	10.26%
Plastic	2793.2	14.05%
Organics	5646.4	28.41%
Electronics	362.2	1.82%
SWCM	0.0	0.00%
HHW	37.0	0.19%
Total	**14520.5**	**73.06%**

Total Non-Combustibles

Item	Lbs	wt%
Misc.	**5353.2**	**26.94%**

Total	**19873.7**	**100.00%**

2.2 Weight Fractions by Sub-Category

Results for each of the individual fractions are presented below in Table 2.2:

Table 2.2
Weight Fractions of Each Individual Fraction Present in MSW

Fraction	Samples	Top Fines	Bottom Fines	Non-separables	Total (lbs)	Wt%
Paper – Newsprint & Inserts	818.2				818.2	4.1%
Paper – Mail, Office & School	527.3				527.3	2.7%
Paper – Magazines & Catalogs	617.9				617.9	3.1%
Paper – Phone Books	746.8				746.8	3.8%
Paper – Other	891.6	0.0	41.1	0.0	932.7	4.7%
Cardboard – Corrugated / Boxes	724.4				724.4	3.6%
Cardboard – Box Boards	661.1				661.1	3.3%
Cardboard – Other	632.7	0.0	20.5	0.0	653.2	3.3%
Plastic – HDPE	843.6				843.6	4.2%
Plastic – PET	633.0				633.0	3.2%
Plastic – Other	1296.1	0.0	20.5	0.0	1316.6	6.6%
Organic Material	5611.3	0.0	20.5	14.6	5646.4	28.4%
Electronics – CRT	68.3				68.3	0.3%
Electronics – non-CRT	293.9				293.9	1.5%
Solid Wastes Containing Mercury	0.0	0.0	0.0	0.0	0.0	0.0%
Household Hazardous Waste	37.0				37.0	0.2%
Ferrous Metals	312.1	0.0	20.5	0.0	332.6	1.7%
Non-Ferrous Metals – Aluminum	346.2				346.2	1.7%
Non-Ferrous Metals – Other	447.7	0.0	20.5	0.0	468.2	2.4%
Glass	826.5	0.0	41.1	0.0	867.6	4.4%
Inorganic Material	3112.6	0.0	225.9	0.0	3338.5	16.8%
Major Appliances	0.0				0.0	0.0%
Total	**19448.3**	**0.0**	**410.8**	**14.6**	**19873.7**	**100.0%**

2.3 Combustible Fraction

Samples were submitted to Minnesota Valley Testing Laboratories, Inc. (MVTL) for analysis to determine proximate analysis, ultimate analysis, and heating value of the combustible fractions. Analytical results are included herewith in **Appendix B**. MVTL homogenized and split samples pursuant to the solid waste composition study procedures. Four individual samples were analyzed.

A Summary of the proximate analysis, ultimate analysis, and heating value analytical results are presented below in Tables 3, 4 and 5 respectively:

Table 2.3
Proximate Analysis (Combustible Fractions Only – As Received Basis)

Analyte	Units	Sample 1	Sample 2	Sample 3	Sample 4	Average
Total Moisture	wt%	35.68%	35.43%	37.00%	36.59%	**36.18%**
Ash	wt%	8.22%	6.71%	4.91%	7.27%	**6.78%**
Volatile Matter	wt%	50.86%	50.71%	51.74%	49.27%	**50.65%**
Total Sulfur[1]	wt%	0.07%	0.04%	0.03%	0.04%	**0.05%**
Fixed Carbon[2]	wt%	5.17%	7.11%	6.32%	6.83%	**6.36%**
Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**	**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

Table 2.4
Ultimate Analysis (Combustible Fractions Only – As Received Basis)

Analyte	Units	Sample 1	Sample 2	Sample 3	Sample 4	Average
Total Moisture	wt%	35.68%	35.43%	37.00%	36.59%	**36.18%**
Ash[3]	wt%	8.22%	6.71%	4.91%	7.27%	**6.78%**
Carbon	wt%	31.52%	30.90%	30.23%	28.62%	**30.32%**
Hydrogen	wt%	8.52%	8.41%	8.52%	8.35%	**8.45%**
Nitrogen	wt%	0.20%	0.29%	0.20%	0.20%	**0.22%**
Total Sulfur	wt%	0.07%	0.04%	0.03%	0.04%	**0.05%**
Chlorine	wt%	0.10%	0.11%	0.10%	0.08%	**0.10%**
Oxygen (by difference)[4]	wt%	51.37%	53.55%	56.01%	55.44%	**54.09%**
Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

[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

Table 2.5
: Heating Value (Combustible Fractions Only – As Received Basis)

Analyte	Units	Sample 1	Sample 2	Sample 3	Sample 4	Average
Heating Value	Btu/lb.	**6145**	**5929**	**6305**	**5935**	**6079**

2.4 Incinerated Fraction

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 in Tables 2.6 - 2.8.

Table 2.6
Proximate Analysis (As Incinerated)

Analyte	Result as Incinerated
Total Moisture	**26.43%**
Ash	**4.95%**
Volatile Matter	**37.00%**
Total Sulfur[1]	**0.03%**
Fixed Carbon[2]	**4.65%**
Non-Combustibles	**26.94%**
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

Table 2.7
Ultimate Analysis (As Incinerated)

Analyte	Result as Incinerated
Total Moisture	**26.43%**

Ash[3]	**3.16%**
Carbon	**14.14%**
Hydrogen	**3.94%**
Nitrogen	**0.10%**
Total Sulfur	**0.02%**
Chlorine	**0.05%**
Oxygen (by Difference)[4]	**25.22%**
Non-Combustibles	**26.94%**
Total	**100.00%**

[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

Table 2.8
Heating Value (As Incinerated)

Heating Value (Btu/lb)	**4441**

3.0 SAMPLING PROCEDURES

3.1 Procedure for Selecting & Identifying Incoming Loads of MSW

MSW enters the Facility via garbage trucks, each containing approximately 5 tons of raw MSW. On average, 200 packer trucks deliver an approximate total of 1,000 tons of MSW per day. The MPCA Study used a random selection method to identify trucks that would be sorted and included in the Study, or when relatively few trucks were received, almost every truck was considered eligible.

During the Study, the first truck entering the Facility once sampling is ready to begin will be considered the first eligible truck. Upon completion of the sampling event, the next truck entering the Facility will be sampled. This selection process will continue throughout the day, and repeat for each day of the Study.

Selected loads were identified with a numbering system. The first selected load was identified as sample #1, the second load as sample #2, etc. A total of 60 separate loads were identified, marked, sorted, weighed, and composited. The drivers of trucks carrying a selected load of MSW were interviewed about the source of the MSW. A MSW Load Information Form was completed for each load of incoming MSW. The sample number and identifying information for each waste fraction was identified on this Form. The Field Data Sheets (MSW Load Information Form) are included in **Appendix A**.

Eligible trucks were rejected only if their loads are unsortable because of 1) hazardous and/or infectious material that is mixed/spilled throughout the load, 2) powdered material or dust throughout the load, making items indistinguishable from each other, or 3) significant quantities of excessively noxious material (sewage sludge, animal parts, etc.). In such cases, the load will be rejected, and the next truckload will replace the rejected truckload. Loads of industrial waste were rejected and the next truckload replaced the rejected truckload.

3.2 Fractionating MSW Piles and Sorting MSW Samples into the Specified Fractions

After the driver was interviewed, the entire load was dumped from the truck onto a specified

location used for sorting. MSW piles were identified and allocated a sample number. The quartering and coning method of sampling was used. This is the same method used during the MPCA Study. After the load was dumped onto the tipping floor, the pile was elongated representing a "cigar" shape. A payloader removed a 1500 to 2000 pound sample from the pile by scooping from the pile parallel to the length of the "cigar" shaped pile. This is done to assure a representative fraction is obtained, as typical garbage trucks are loaded from front to back. This 1500 to 2000 pound pile was "coned", and mixed by gently lifting and dropping the pile approximately half a dozen times. After mixing, a 300 to 400 pound sample was set aside for pre-sorting. The 300 to 400 pound sample was pre-sorted using a metal rake. All bags were opened by the Site Coordinator or a designee. Samples were inspected for hazardous materials.

The 300 to 400 pound sample was placed on the sorting table with a standard shovel and sorted by hand and placed into containers for each fraction identified above. The tare weight of the container was determined before a new load of the fraction is placed into the container so that the weight of the fraction may be determined. After sorting, small debris (top fines) remained on top of the sorting table screen. The bottom fines were located beneath the screen on the tipping floor. The top fines were collected, weighed and the relative percentages of all fraction categories were estimated and recorded on the MSW Load Information Form. The bottom fines were swept up off the tipping floor and collected. The bottom fines were weighed and the relative percentages of all fraction categories were estimated and recorded on the MSW Load Information Form.

Once the sample sort was completed, the individual containers of each fraction were weighed and the weights recorded on the MSW Load Information Form. Composite items were separated into individual fractions by breaking them apart (e.g., a toy truck which is plastic and metal will be broken into its plastic and metal components) and the fractions placed into the proper containers. If composite items were non-separable, then an estimate was made to determine the approximate weight percent of all fractions present in the item. The weight of the item and weight percent of all fractions present were entered in a non-separable item row of the MSW Load Information Form.

A grab sample of the **combustible fractions** were placed into their respective composite containers for later analysis. The procedures for identifying the combustible fractions and compositing them are specified below. Non-separable items were not be entered into the composite containers since the presence of the "wrong fraction" will distort proximate, ultimate, and heating value analyses. After each sample was sorted, the weights of the top fines, bottom fines, and non-separable fractions were added to the weights of the fractions contained in the containers. This step was done after the waste sort since all of the required data will be on the MSW Load Information Form and the weights mathematically adjusted to include all fractions. After all of the 60 samples were sorted and the top fines, bottom fines, and non-separable fractions added to the container fractions, a data average was calculated to determine the overall weight percentage of all fractions present in the MSW waste stream. A flow chart of the of the truck selection, sorting, and compositing of fractions is included in Section 3.8.

3.3 Compositing a Sample and Laboratory Analysis

Pursuant to Minn. R. 7007.0501, Subp. 2A(2-4), a composite sample of the MSW will be analyzed for proximate analysis, ultimate analysis, and heat value as discussed below. Samples were maintained in a refrigerator until transported to an analytical laboratory to prevent decomposition. The proximate analysis of the MSW included the percentage of volatile matter, moisture content, ash content, and fixed carbon by difference. Analysis methods used to determine the proximate analysis of the MSW were performed in accordance with ASTM methods E897, E790, and E830 for volatile matter, moisture content, and ash content, respectively, or equivalent methods. The ultimate analysis of the MSW included the percentage of carbon, hydrogen, nitrogen, sulfur, chlorine, and oxygen by difference. Analysis methods used to determine the ultimate analysis of the MSW were performed in accordance with ASTM methods E777, E778, E775, and E776 for carbon and hydrogen, nitrogen, sulfur, and chlorine, respectively, or equivalent methods. The analysis method used to determine the heat value of the MSW was performed in accordance with ASTM method E955 or equivalent method. Laboratories, as a practical matter, only analyze the **combustible fractions** when they perform the above analysis. Thus, only compositing of the **combustible fractions** is required. The **non-**

combustible fractions are considered to be „ash" for the purposes of this analysis. The non-combustibles are, however, considered in laboratory calculations for the final results. Generally, weighted values are calculated by laboratories by re-combining the combustible and non-combustible fractions. The laboratory was forwarded the results from the fractional analysis and properly combined the results with respect to their weight fraction present in the waste stream. The **combustible fractions** include the following:

1. Paper - Newsprint;
2. Paper - Mail, office and school;
3. Paper - Magazines and catalogs;
4. Paper - Phone books;
5. Paper - Other;
6. Cardboard - Corrugated;
7. Cardboard - Box boards including cereal, medication, office supply, and toiletry boxes;
8. Cardboard - Other;
9. Plastic - HDPE;
10. Plastic - PET;
11. Plastic - Other;
12. Organic material;
13. Electronics - CRT;
14. Electronics - non-CRT; and
15. Household hazardous waste.

The **non-combustible fractions** include the following:

1. Ferrous metals;
2. Non-ferrous metals - Aluminum;
3. Non-ferrous metals - Other;
4. Glass;
5. Inorganic material;
6. Solid wastes which contain mercury (not analyzed in lab due to safety issues from combustion); and
7. Major Appliances.

After each of the samples had been sorted, and the fractions have been identified and weighed, a **grab sample** of the **combustible fractions** from each of the samples was added to a separate composite container labeled with that combustible fraction's classification. (e.g., a container labeled "Paper-Newsprint" will be filled with a grab sample from each sorted sample's Paper-Newsprint fraction for a total of 60 grab samples making up the Paper-Newsprint composite). The six combustible fraction samples sent to the laboratory were collected from the combustible

containers containing the 60 grab samples as follows:

1. Paper: a one gallon grab sample of a weighted composite of all paper samples.

2. Cardboard: a one gallon grab sample of a weighted composite of all cardboard.

3. Plastic: a 20 gallon sample of a weighted composite of all plastic.

4. Organic material: a one gallon grab sample.

5. Electronics: a one gallon grab sample.

6. Household Hazardous waste: a one gallon grab sample.

A single composite was produced from the six combustible fraction composites, based upon the calculated weight percent of each fraction's presence in the waste stream. The single composite was analyzed for proximate analysis, ultimate analysis and heat value. The analytical laboratory compiled the results generating weighted values, taking into account the calculated weight percent of the non-combustible fractions present in the waste stream.

3.4 Management of the Study and Personnel

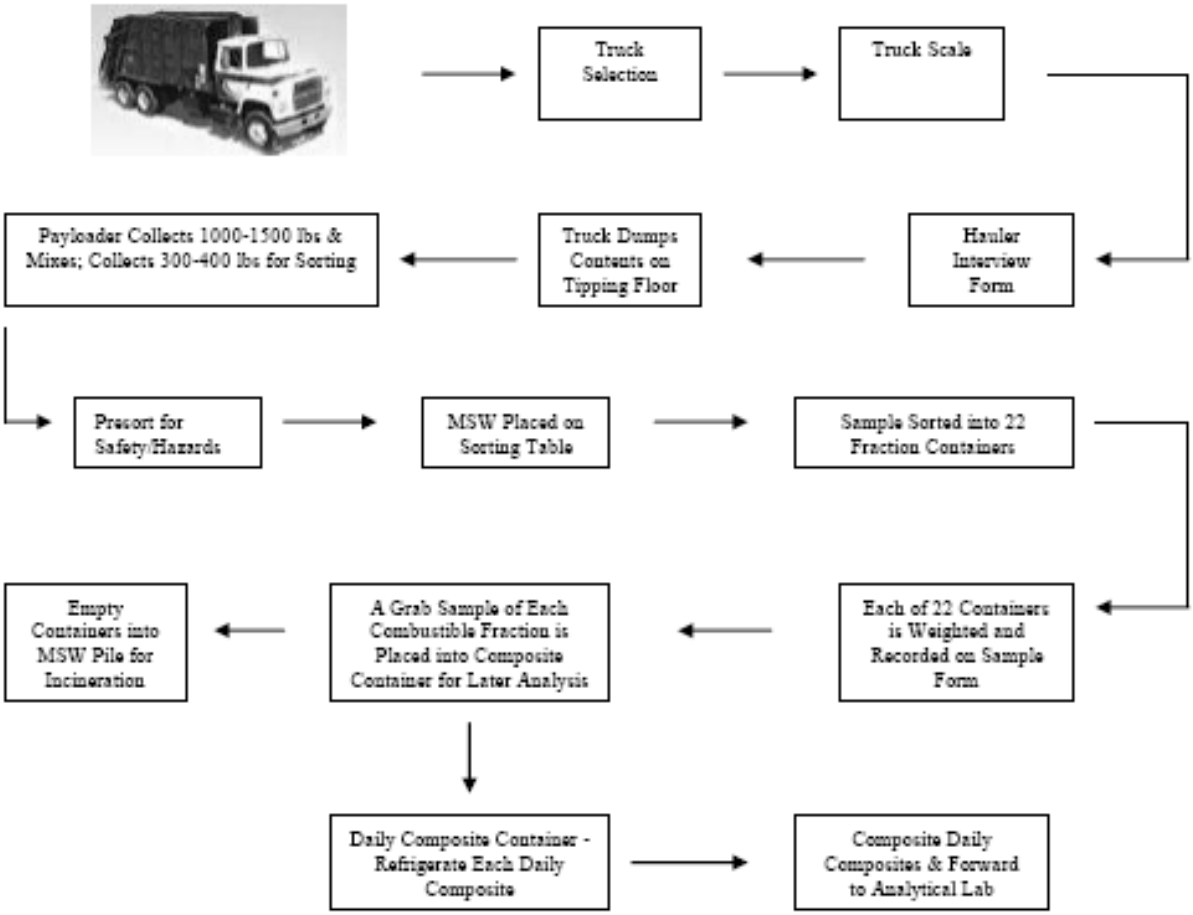
The Study was performed using qualified subcontracted staff of Psihos & Associates, Inc. The Study was managed by Bryant Sears, who acted as the Site Coordinator. The Site Coordinator's responsibilities prior to the sort included selecting Sorters, training Sorters and purchase/rental of required equipment.

Sorters were qualified subcontracted employees of Psihos & Associates, Inc. who are familiar with solid waste and its composition. All Sorters were trained by the Site Coordinator in safety and sorting techniques and procedures. Safety and sorting techniques were adopted from the procedures used in the MPCA Study. Sorters were given a copy of the General Rules of Sorting, a Medical Waiver Form, and received safety training and sorting training **prior** to beginning any sort.

3.5 MSW Load Information Form

GENERAL INFORMATION:	Sample #:			Date:				
	Time:			Person Recording:				
HAULER INFORMATION:	Company Name:			Truck #:				
TYPE OF LOAD:	Residential: ☐	Industrial: ☐		Commercial: ☐		Mixed: ☐		
ORIGINATION OF TRUCK:	County: Origination of Incoming Load:							
OTHER LOAD INFORMATION:								
MSW LOAD WEIGHT:	Incoming Truck Weight (#):			Outgoing Truck Weight (#):				
	Weight of MSW (#):							
WASTE COMP. INFORMATION:	TARE WEIGHT (#)			GROSS WEIGHT (#)			SAMPLE WEIGHT (#)	
1. Paper – Newsprint and inserts								
2. Paper – Mail, office, and school								
3. Paper – Magazines and catalogs								
4. Paper – Phone books								
5. Paper – Other								
6. Cardboard – Corrugated/boxes								
7. Cardboard – Box boards								
8. Cardboard - Other								
9. Plastic – HDPE								
10. Plastic – PET								
11. Plastic – Other								
12. Ferrous Metals								
13. Nonferrous metal – Aluminum								
14. Nonferrous metal - Other								
15. Glass								
16. Organic material								
17. Inorganic material								
18. Solid wastes containing Mercury								
19. Electronics – CRT								
20. Electronics – non-CRT								
21. Major appliances								
22. Household hazardous waste								
Top Fines:								
%-Paper	%-Cardbd	%-Plastic	%-Ferry	%-NonFerr	%-Glass	%-Org	%-Inorg	%-SWCM
Bottom Fines:								
%-Paper	%-Cardbd	%-Plastic	%-Ferr	%-NonFerr	%-Glass	%-Org	%-Inorg	%-SWCM
Non-Separable Item #1:								
%-Paper	%-Cardbd	%-Plastic	%-Ferr	%-NonFerr	%-Glass	%-Org	%-Inorg	%-SWCM
Non-Separable Item #2:								
%-Paper	%-Cardbd	%-Plastic	%-Ferr	%-NonFerr	%-Glass	%-Org	%-Inorg	%-SWCM

3.6 Flow Chart



APPENDIX B

Laboratory Analytical Data

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: 07-M2035

Report Date: 8/15/07

Dan Fish
Covanta Hennepin Energy Resource Co
505 6th Ave N
Minneapolis MN 55405

Work Order #: 81-915

Date Received: 8/ 8/07

Sample Description: MSW #1
Sample Site: CHERC SWCS

*** PROXIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	35.68	wt. %		
Ash	8.22	wt. %	12.78	wt. %
Volatile Matter	50.86	wt. %	79.07	wt. %
Fixed Carbon	5.24	wt. %	8.15	wt. %
BTU/lb	6145	BTU/lb	9554	BTU/lb
Total Sulfur	0.07	wt. %	0.11	wt. %

*** ULTIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	35.68	wt. %		
Ash	8.22	wt. %	12.78	wt. %
Carbon	31.52	wt. %	49.00	wt. %
Hydrogen	8.52	wt. %	7.04	wt. %
Nitrogen	< 0.2	wt. %	< 0.31	wt. %
Total Sulfur	0.07	wt. %	0.11	wt. %
Oxygen by Difference	51.47	wt. %	30.76	wt. %
Chlorine	1010	ug/g	1570	ug/g

*** SULFUR FORMS ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Sulfur	0.07	wt. %	0.11	wt. %

*** ASH FUSION ***

ANALYTE	REDUCING	OXIDIZING

*** MINERAL ANALYSIS OF ASH ***

ANALYTE	DRY BASIS

*** MISCELLANEOUS ***

ANALYTE	AS RECEIVED	DRY BASIS

Approved by: Stacy Zwiefelhofer

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: 07-M2036

Report Date: 8/15/07

Work Order #: 81-915

Dan Fish
Covanta Hennepin Energy Resource Co
505 6th Ave N
Minneapolis MN 55405

Date Received: 8/ 8/07

Sample Description: MSW #2
Sample Site: CHERC SWCS

*** PROXIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	35.43	wt. %		
Ash	6.71	wt. %	10.39	wt. %
Volatile Matter	50.71	wt. %	78.53	wt. %
Fixed Carbon	7.16	wt. %	11.08	wt. %
BTU/lb	5929	BTU/lb	9183	BTU/lb
Total Sulfur	0.04	wt. %	0.06	wt. %

*** ULTIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	35.43	wt. %		
Ash	6.71	wt. %	10.39	wt. %
Carbon	30.90	wt. %	47.86	wt. %
Hydrogen	8.41	wt. %	6.88	wt. %
Nitrogen	0.29	wt. %	0.45	wt. %
Total Sulfur	0.04	wt. %	0.06	wt. %
Oxygen by Difference	53.65	wt. %	34.35	wt. %
Chlorine	1050	ug/g	1630	ug/g

*** SULFUR FORMS ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Sulfur	0.04	wt. %	0.06	wt. %

*** ASH FUSION ***

ANALYTE	REDUCING	OXIDIZING

*** MINERAL ANALYSIS OF ASH ***

ANALYTE	DRY BASIS

*** MISCELLANEOUS ***

ANALYTE	AS RECEIVED	DRY BASIS

Approved by: Mary Zander

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: 07-M2037

Report Date: 8/15/07

Work Order #: 81-915

Dan Fish
Covanta Hennepin Energy Resource Co
505 6th Ave N
Minneapolis MN 55405

Date Received: 8/ 8/07

Sample Description: MSW #3
Sample Site: CHERC SWCS

*** PROXIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	37.00	wt. %		
Ash	4.91	wt. %	7.79	wt. %
Volatile Matter	51.74	wt. %	82.13	wt. %
Fixed Carbon	6.35	wt. %	10.08	wt. %
BTU/lb	6305	BTU/lb	10009	BTU/lb
Total Sulfur	0.03	wt. %	0.05	wt. %

*** ULTIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	37.00	wt. %		
Ash	4.91	wt. %	7.79	wt. %
Carbon	30.23	wt. %	47.98	wt. %
Hydrogen	8.52	wt. %	6.95	wt. %
Nitrogen	< 0.2	wt. %	< 0.32	wt. %
Total Sulfur	0.03	wt. %	0.05	wt. %
Oxygen by Difference	56.11	wt. %	36.91	wt. %
Chlorine	969	ug/g	1540	ug/g

*** SULFUR FORMS ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Sulfur	0.03	wt. %	0.05	wt. %

*** ASH FUSION ***

ANALYTE	REDUCING	OXIDIZING

*** MINERAL ANALYSIS OF ASH ***

ANALYTE	DRY BASIS

*** MISCELLANEOUS ***

ANALYTE	AS RECEIVED	DRY BASIS

Approved by: Stacy Zemke

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: 07-M2038

Report Date: 8/15/07

Dan Fish
Covanta Hennepin Energy Resource Co
505 6th Ave N
Minneapolis MN 55405

Work Order #: 81-915

Date Received: 8/ 8/07

Sample Description: MSW #4
Sample Site: CHERC SWCS

*** PROXIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	36.59	wt. %		
Ash	7.27	wt. %	11.47	wt. %
Volatile Matter	49.27	wt. %	77.70	wt. %
Fixed Carbon	6.87	wt. %	10.83	wt. %
BTU/lb	5935	BTU/lb	9359	BTU/lb
Total Sulfur	0.04	wt. %	0.06	wt. %

*** ULTIMATE ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Moisture	36.59	wt. %		
Ash	7.27	wt. %	11.47	wt. %
Carbon	28.62	wt. %	45.13	wt. %
Hydrogen	8.35	wt. %	6.71	wt. %
Nitrogen	< 0.2	wt. %	< 0.32	wt. %
Total Sulfur	0.04	wt. %	0.06	wt. %
Oxygen by Difference	55.52	wt. %	36.31	wt. %
Chlorine	848	ug/g	1340	ug/g

*** SULFUR FORMS ***

ANALYTE	AS RECEIVED		DRY BASIS	
Total Sulfur	0.04	wt. %	0.06	wt. %

*** ASH FUSION ***

ANALYTE	REDUCING	OXIDIZING

*** MINERAL ANALYSIS OF ASH ***

ANALYTE	DRY BASIS

*** MISCELLANEOUS ***

ANALYTE	AS RECEIVED	DRY BASIS

Approved by: Stacy Zander

APPENDIX C

Data Calculations

Covanta Hennepin Energy Resource Company, L.P.

Solid Waste Composition Study Field Sheet Data Analysis

Sample	Units	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Fraction																	
Paper – Newsprint & Inserts	Lbs	9.0	13.8	10.9	13.8	26.2	3.7	7.6	10.9	20.6	22.1	6.7	23.7	17.1	13.6	27.1	11.1
Paper – Mail, Office & School	Lbs	18.0	3.4	26.3	11.6	6.7	8.9	13.1	8.6	3.7	13.2	8.9	13.9	9.3	10.1	13.0	18.6
Paper – Magazines & Catalogs	Lbs	1.8	20.6	33.6		36.2	7.6	15.7	18.6	10.3	12.1	9.3	7.7	12.6	6.3	28.6	18.1
Paper – Phone Books	Lbs		1.8			7.6	7.9	16.3	8.9	8.6	22.1	17.6	3.7	19.1	4.2	17.6	17.6
Paper – Other	Lbs	9.2	30.6	44.3	17.6	20.1	26.7	28.3	28.1	11.6	11.6	19.9	11.7	26.1	15.6	15.9	16.9
Cardboard – Corrugated / Boxes	Lbs	8.6	10.4	11.9	17.9	17.6	9.7	15.6	11.7	10.4		8.1	21.1	13.6	18.9	18.1	12.1
Cardboard – Box Boards	Lbs	5.4	7.4	22.1	15.6	17.3	15.6	29.7	34.6	15.2	8.9	19.7	19.1	12.7	17.6	20.7	11.6
Cardboard – Other	Lbs		12.6	10.6	19.7	8.6	11.7	3.7	10.9	8.2	12.3	7.9	11.6	13.1	12.3	19.6	16.1
Plastic – HDPE	Lbs	14.8	19.4	17.6	11.6	10.2	17.6	26.3	28.6	22.3	15.6	20.6	14.9	17.9	15.6	15.6	27.1
Plastic – PET	Lbs	9.0	5.6	18.7	15.6	9.6	3.6	7.2	10.9	13.6	18.9	28.3	11.7	9.7	10.4	17.1	15.1
Plastic – Other	Lbs	18.6	27.0	10.6	29.6	17.9	7.6	18.1	33.6	43.2	29.8	43.7	34.7	31.7	41.0	32.6	18.1
Ferrous Metals	Lbs			1.7	6.7	4.3	15.6	6.2	8.7		4.2	11.7	7.9			2.3	
Non-Ferrous Metals – Aluminum	Lbs	4.8	1.6	4.2	8.7	2.6	1.6	3.7	3.7	9.7	7.2	6.2	6.7	5.6	8.6	4.9	16.2
Non-Ferrous Metals – Other	Lbs		3.4		10.6	3.7	1.3		4.6	2.1	3.2			7.1	3.2	5.6	11.6
Glass	Lbs	10.8	4.8	6.0	7.6	7.6	17.6	3.7	8.6	12.6	18.1	22.1	11.6	4.7	15.1	15.9	16.8
Organic Material	Lbs	142.0	157.2	93.6	39.6	123.8	197.0	116.0	130.7	148.0	69.6	188.3	113.4	109.4	118.7	105.1	66.7
Inorganic Material	Lbs		7.0	0.8	27.6	37.6	12.8	109.6	12.7	50.7	32.6	21.7	95.7	47.1	57.6	15.6	79.8
Solid Wastes Containing Mercury	Lbs																
Electronics – CRT	Lbs	36.2							7.6	16.9							
Electronics – non-CRT	Lbs	4.2	6.0	1.7			4.3	4.0				8.7	11.7		7.6	1.6	
Major Appliances	Lbs																
Household Hazardous Waste	Lbs			0.6	0.6								0.7			2.0	

Sample	Units	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Top Fines (#)	**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
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
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
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
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
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
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
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
SWCM	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
Paper	%																
Cardboard	%																
Plastic	%																
Ferrous Metals	%																
Non-Ferrous Metals	%																
Glass	%																
Organic Material	%																
Inorganic Material	%																
SWCM	%																
Total	**%**	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Covanta Henne

Solid Waste Composition

Sample	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Fraction																	
Paper – Newsprint & Inserts	6.9	11.6	1.2	14.0	10.3	13.2	18.6	2.9	8.2	27.1	11.6	7.6	19.6	10.9	1.8	13.6	6.3
Paper – Mail, Office & School	11.6	10.1	3.7	2.9	1.3	19.2	9.2	8.8	6.1	4.9	4.6	6.0	4.6	3.6	2.6	1.7	0.6
Paper – Magazines & Catalogs	9.1	11.6	3.9	13.6	1.2	10.9	2.9	10.9	3.1	6.2	3.2	1.1	7.7	7.1	1.7	2.9	1.1
Paper – Phone Books	11.7	17.1	2.1	10.6	3.4	7.9	16.1	11.9	10.2	43.6	11.9	6.9	21.6	11.7	8.6		8.2
Paper – Other	13.6	12.6	8.6	6.7	3.9	9.2	11.6	6.2	17.1	15.6	11.6	10.4	4.9	7.6	5.6	24.8	5.6
Cardboard – Corrugated / Boxes	13.1	11.9	11.6	10.1	45.7	5.6	26.1	4.9	1.9	15.2	5.1	10.6	11.4	1.9	2.8	9.7	3.7
Cardboard – Box Boards	9.7	11.6	13.1	12.4	2.6	11.6	10.9	6.9	8.9	1.7	2.8	6.8	9.7	15.6	1.0	8.2	7.2
Cardboard – Other	22.7	6.1	7.6	17.0	16.9	10.2	11.6	14.9	6.9	8.9	16.9	6.6	1.8	2.9	8.2	24.0	10.9
Plastic – HDPE	21.7	11.1	12.1	13.0	8.6	17.6	10.1	16.2	4.0	17.6	11.7	8.6	40.7	34.6	8.6	13.6	14.6
Plastic – PET	11.6	14.6	23.6	7.6	6.6	7.2	16.1	7.6	6.2	1.9	12.6	13.9	5.6	11.6	4.6	13.1	18.4
Plastic – Other	20.1	24.6	32.7	24.6	32.2	33.6	8.4	18.6	14.0	17.1	15.7	18.6	13.9	39.6	31.8	23.7	13.9
Ferrous Metals	3.7	8.6	17.6	3.6	1.7	18.9	2.4	15.6	11.2	2.6	11.6	2.6	3.6	1.6	13.7	2.6	1.2
Non-Ferrous Metals – Aluminum	6.1	6.1	11.6	12.1	3.6	8.6	11.6	1.9	4.7	4.6	3.2	2.2	2.6	2.5	1.7	3.2	12.1
Non-Ferrous Metals – Other	6.7	3.7	23.7	11.6	4.1	10.1	17.8	1.7	36.0	6.2	11.6	10.4	2.7	7.6		6.9	11.6
Glass	7.8	17.0	9.7	22.6	8.1	16.9	14.0	28.6	18.2	12.1	6.2	12.4	10.2	5.7	13.6	15.4	17.1
Organic Material	134.8	122.8	52.7	65.2	122.8	134.4	65.3	69.8	120.3	82.0	104.8	153.0	63.7	76.3	198.1	47.2	108.1
Inorganic Material	45.8	21.6	57.1	61.2	27.1	23.3	72.7	77.7	89.1	66.1	61.2	61.1	107.5	27.1	158.1	91.8	48.4
Solid Wastes Containing Mercury																	
Electronics – CRT				7.6													
Electronics – non-CRT	3.6	10.1	8.0		1.2	4.2	6.2		2.1	1.2		1.0	2.1	1.0	19.2	3.2	6.0
Major Appliances																	
Household Hazardous Waste	3.1				1.1						2.2			10.0		0.2	

Sample	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Top Fines (#)																	
Paper	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SWCM	0.0	0.0	0.0	0.0	0.0	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																	
Ferrous Metals																	
Non-Ferrous Metals																	
Glass																	
Organic Material																	
Inorganic Material																	
SWCM																	
Total	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Covanta Henne

Solid Waste Composition

Sample	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Fraction																	
Paper – Newsprint & Inserts	5.6	11.6	9.1	15.6	24.6	2.1	12.6	14.6	3.6	12.9	12.4	31.4	20.4	10.8	18.0	11.6	8.6
Paper – Mail, Office & School	7.6	2.4	20.7	12.6	3.7	24.4	2.1	11.7	2.6	3.7	15.1	19.4	2.4	12.0	11.2	10.7	6.2
Paper – Magazines & Catalogs	4.9	8.2	12.6	27.1	3.6	11.7	3.7	12.6	12.4	7.6	13.1	11.6	4.6	19.6	4.6	14.6	11.2
Paper – Phone Books	11.9	26.9	11.9	8.6	10.7	4.8	14.9	1.2	35.6	11.7	24.7	50.3	3.1	14.6	16.8	13.6	16.2
Paper – Other	14.1	5.3	10.7	50.1	27.7	6.9	17.6	13.6	13.6	9.1	18.9	17.1	11.0	4.6	18.2	12.7	13.1
Cardboard – Corrugated / Boxes	19.6	10.1	6.9	9.2	15.6	7.0	12.0	8.7	17.5	8.9	21.8	11.6	8.2	10.6	14.6	8.4	10.6
Cardboard – Box Boards	12.6	11.6	15.6	6.6	11.7	3.3	9.6	8.6	29.6	4.2	11.8	10.1		3.7	1.3	4.7	6.2
Cardboard – Other	11.1	14.2	10.6	1.3	13.6	6.7	10.6	7.1	14.6		9.7	4.7	7.4	11.1	4.6	11.6	13.2
Plastic – HDPE	13.9	5.6	14.2	16.1	11.6	11.6	21.1	1.2	5.0	14.6	5.7	5.0	4.8	11.6	11.7	17.4	8.6
Plastic – PET	8.9	3.7	7.6	4.9	6.6	3.6	4.8	13.6	14.6	8.7	10.7	22.6	3.6	8.7	8.0	8.0	12.6
Plastic – Other	14.9	10.8	8.6	10.9	17.1	7.0	21.7	4.7	10.7	18.9	17.6	14.1	10.0	11.1	22.3	11.6	25.6
Ferrous Metals	2.6	14.6	1.6	10.1	1.7	12.1	3.6	1.8	11.1		13.4	0.4		6.2	1.6	3.6	3.6
Non-Ferrous Metals – Aluminum	13.2	2.7	2.6	7.6	10.1	2.2	12.1	3.6	2.7	3.6	4.2	8.9	2.3	16.1	4.7	2.6	6.1
Non-Ferrous Metals – Other	11.6	1.3	1.7	1.6	11.6	1.7	11.6	14.6	12.1	1.7	13.4	1.6	3.0	18.6	3.7	1.7	14.2
Glass	19.2	9.1	7.3	11.9	5.6	10.1	14.2	10.1	13.6	16.4	17.6	19.8	17.6	19.8	17.2	13.6	16.2
Organic Material	102.4	81.3	96.4	60.8	61.3	54.0	74.6	139.9	53.3	99.2	81.7	45.3	79.7	54.8	61.5	101.2	45.8
Inorganic Material	53.3	50.1	70.6	71.3	61.8	21.2	76.8	39.3	52.2	105.2	79.5	48.2	34.6	25.2	19.6	85.0	17.8
Solid Wastes Containing Mercury																	
Electronics – CRT																	
Electronics – non-CRT	1.7	3.2		7.6	37.6	6.8			6.7		8.6		14.1	22.0	9.2		
Major Appliances																	
Household Hazardous Waste		1.7													1.0		3.6

Sample	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Top Fines (#)																	
Paper	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SWCM	0.0	0.0	0.0	0.0	0.0	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																	
Ferrous Metals																	
Non-Ferrous Metals																	
Glass																	
Organic Material																	
Inorganic Material																	
SWCM																	
Total	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Covanta Henne

Solid Waste Composition

Sample	51	52	53	54	55	56	57	58	59	60	Item Subtotal	Wt % of Category		
Fraction														
Paper – Newsprint & Inserts	10.4	14.6	6.7	11.6	65.1	7.9	11.6	14.8	16.2	10.5	**818.2**	**22.7%**		
Paper – Mail, Office & School	8.6	4.8	4.4	5.2	3.7	2.7	17.6	15.7	3.6	3.7	**527.3**	**14.6%**		
Paper – Magazines & Catalogs	3.6	14.4	3.6	10.2	2.4	26.3	11.6	12.9	4.1	7.8	**617.9**	**17.2%**		
Paper – Phone Books	11.7	13.4	12.2	9.8	4.7	6.0	17.9	18.2	9.1	9.8	**746.8**	**20.7%**		
Paper – Other	5.8	6.0	7.0	10.8	13.6	14.6	18.4	13.6	18.0	9.7	**891.6**	**24.8%**	Paper	3601.8
Cardboard – Corrugated / Boxes	18.3	5.4	8.8	17.8	11.6	1.7	9.7	23.6	13.6	15.6	**724.4**	**35.9%**		
Cardboard – Box Boards	6.2	15.6	10.6	6.9	5.7	12.8	3.7	19.6	6.2	8.7	**661.1**	**32.8%**		
Cardboard – Other	11.8	4.7	7.6	13.6	17.6	11.6	13.6	6.9	5.6	14.6	**632.7**	**31.3%**	Cardboard	2018.2
Plastic – HDPE	11.0	8.1	13.6	11.7	7.6	12.4	11.7	12.7	9.6	5.4	**843.6**	**30.4%**		
Plastic – PET	7.4	12.6	6.2	13.7	11.6	8.6	6.9	6.7	13.5	6.8	**633.0**	**22.8%**		
Plastic – Other	26.3	5.8	8.2	8.9	21.6	27.2	47.6	16.8	27.6	47.6	**1296.1**	**46.7%**	Plastic	2772.7
Ferrous Metals	1.7	2.4	2.9	3.6	1.0	1.1	1.6	3.8	11.6	2.3	**312.1**	**100.0%**	Ferrous	312.1
Non-Ferrous Metals – Aluminum	1.0	5.2	3.9	3.7	3.7	3.7	3.7	8.6	6.2	6.8	**346.2**	**43.6%**		
Non-Ferrous Metals – Other	8.6	1.1	2.7	2.8	4.7	23.6	7.9	26.3	11.6	3.9	**447.7**	**56.4%**	Non-Ferrous	793.9
Glass	9.7	10.4	18.1	13.2	15.6	17.6	14.0	11.4	36.2	21.8	**826.5**	**100.0%**	Glass	826.5
Organic Material	71.3	97.8	71.2	70.7	66.9	48.2	60.3	59.3	84.7	47.3	**5611.3**	**100.0%**	Organic	5611.3
Inorganic Material	38.4	46.4	43.2	75.1	83.2	81.2	17.9	48.6	19.6	41.5	**3112.6**	**100.0%**	Inorganic	3112.6
Solid Wastes Containing Mercury											**0.0**	**#DIV/0!**	SWCM	0.0
Electronics – CRT											**68.3**	**18.9%**		
Electronics – non-CRT			40.4	7.4		4.7			5.0		**293.9**	**81.1%**	Electronics	362.2
Major Appliances											**0.0**	**#DIV/0!**	Appliances	0.0
Household Hazardous Waste			1.3			0.4		6.8	1.7		**37.0**	**100.0%**	HHW	37.0

Sample	51	52	53	54	55	56	57	58	59	60	Item Subtotal
Top Fines (#)											**0**
Paper	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cardboard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plastic	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ferrous Metals	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Organic Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Inorganic Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SWCM	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											
Ferrous Metals											
Non-Ferrous Metals											
Glass											
Organic Material											
Inorganic Material											
SWCM											
Total	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

Note: All Top Fines Sorted

Covanta Hennepin Energy Resource Company, L.P.

Solid Waste Composition Study Field Sheet Data Analysis

Sample	Units	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Bottom Fines (#)	**Lbs**	9.4	9.0	4.6	17.9	28.7	17.8	13.7	28.6	9.2	5.6	11.6	8.7	7.3	4.2	5.2	2.1
Paper	Lbs	0.9	0.9	0.5	1.8	2.9	1.8	1.4	2.9	0.9	0.6	1.2	0.9	0.7	0.4	0.5	0.2
Cardboard	Lbs	0.5	0.5	0.2	0.9	1.4	0.9	0.7	1.4	0.5	0.3	0.6	0.4	0.4	0.2	0.3	0.1
Plastic	Lbs	0.5	0.5	0.2	0.9	1.4	0.9	0.7	1.4	0.5	0.3	0.6	0.4	0.4	0.2	0.3	0.1
Ferrous Metals	Lbs	0.5	0.5	0.2	0.9	1.4	0.9	0.7	1.4	0.5	0.3	0.6	0.4	0.4	0.2	0.3	0.1
Non-Ferrous Metals	Lbs	0.5	0.5	0.2	0.9	1.4	0.9	0.7	1.4	0.5	0.3	0.6	0.4	0.4	0.2	0.3	0.1
Glass	Lbs	0.9	0.9	0.5	1.8	2.9	1.8	1.4	2.9	0.9	0.6	1.2	0.9	0.7	0.4	0.5	0.2
Organic Material	Lbs	0.5	0.5	0.2	0.9	1.4	0.9	0.7	1.4	0.5	0.3	0.6	0.4	0.4	0.2	0.3	0.1
Inorganic Material	Lbs	5.2	5.0	2.5	9.8	15.8	9.8	7.5	15.7	5.1	3.1	6.4	4.8	4.0	2.3	2.9	1.2
SWCM	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
Paper	%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Cardboard	%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Plastic	%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Ferrous Metals	%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Non-Ferrous Metals	%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Glass	%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Organic Material	%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Inorganic Material	%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%
SWCM	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total	**%**	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Sample	Units	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Non-separable #1 (#)	**Lbs**				14.6												
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
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
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
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
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
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
Organic Material	Lbs	0.0	0.0	0.0	14.6	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
SWCM	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
Paper	%																
Cardboard	%																
Plastic	%																
Ferrous Metals	%																
Non-Ferrous Metals	%																
Glass	%																
Organic Material	%				100%												
Inorganic Material	%																
SWCM	%																
Total	**%**	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Sample	Units	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Non-separable #2 (#)	**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
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

Covanta Henne

Solid Waste Composition

Sample	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Bottom Fines (#)	6.0	2.1	2.1	5.1	3.9	3.1	3.7	5.1	7.2	3.6	2.8	3.7	11.6		3.6	5.7	2.7
Paper	0.6	0.2	0.2	0.5	0.4	0.3	0.4	0.5	0.7	0.4	0.3	0.4	1.2	0.0	0.4	0.6	0.3
Cardboard	0.3	0.1	0.1	0.3	0.2	0.2	0.2	0.3	0.4	0.2	0.1	0.2	0.6	0.0	0.2	0.3	0.1
Plastic	0.3	0.1	0.1	0.3	0.2	0.2	0.2	0.3	0.4	0.2	0.1	0.2	0.6	0.0	0.2	0.3	0.1
Ferrous Metals	0.3	0.1	0.1	0.3	0.2	0.2	0.2	0.3	0.4	0.2	0.1	0.2	0.6	0.0	0.2	0.3	0.1
Non-Ferrous Metals	0.3	0.1	0.1	0.3	0.2	0.2	0.2	0.3	0.4	0.2	0.1	0.2	0.6	0.0	0.2	0.3	0.1
Glass	0.6	0.2	0.2	0.5	0.4	0.3	0.4	0.5	0.7	0.4	0.3	0.4	1.2	0.0	0.4	0.6	0.3
Organic Material	0.3	0.1	0.1	0.3	0.2	0.2	0.2	0.3	0.4	0.2	0.1	0.2	0.6	0.0	0.2	0.3	0.1
Inorganic Material	3.3	1.2	1.2	2.8	2.1	1.7	2.0	2.8	4.0	2.0	1.5	2.0	6.4	0.0	2.0	3.1	1.5
SWCM	0.0	0.0	0.0	0.0	0.0	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%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Cardboard	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Plastic	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Ferrous Metals	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Non-Ferrous Metals	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Glass	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Organic Material	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Inorganic Material	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%
SWCM	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Sample	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Non-separable #1 (#)																	
Paper	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SWCM	0.0	0.0	0.0	0.0	0.0	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																	
Ferrous Metals																	
Non-Ferrous Metals																	
Glass																	
Organic Material																	
Inorganic Material																	
SWCM																	
Total	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Sample	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Non-separable #2 (#)																	
Paper	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Covanta Henne

Solid Waste Composition

Sample	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Bottom Fines (#)	7.6	11.6			6.2	3.6	3.7	2.7	2.8	8.9	2.6	4.3		6.9	6.9	3.9	3.6
Paper	0.8	1.2	0.0	0.0	0.6	0.4	0.4	0.3	0.3	0.9	0.3	0.4	0.0	0.7	0.7	0.4	0.4
Cardboard	0.4	0.6	0.0	0.0	0.3	0.2	0.2	0.1	0.1	0.4	0.1	0.2	0.0	0.3	0.3	0.2	0.2
Plastic	0.4	0.6	0.0	0.0	0.3	0.2	0.2	0.1	0.1	0.4	0.1	0.2	0.0	0.3	0.3	0.2	0.2
Ferrous Metals	0.4	0.6	0.0	0.0	0.3	0.2	0.2	0.1	0.1	0.4	0.1	0.2	0.0	0.3	0.3	0.2	0.2
Non-Ferrous Metals	0.4	0.6	0.0	0.0	0.3	0.2	0.2	0.1	0.1	0.4	0.1	0.2	0.0	0.3	0.3	0.2	0.2
Glass	0.8	1.2	0.0	0.0	0.6	0.4	0.4	0.3	0.3	0.9	0.3	0.4	0.0	0.7	0.7	0.4	0.4
Organic Material	0.4	0.6	0.0	0.0	0.3	0.2	0.2	0.1	0.1	0.4	0.1	0.2	0.0	0.3	0.3	0.2	0.2
Inorganic Material	4.2	6.4	0.0	0.0	3.4	2.0	2.0	1.5	1.5	4.9	1.4	2.4	0.0	3.8	3.8	2.1	2.0
SWCM	0.0	0.0	0.0	0.0	0.0	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%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Cardboard	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Plastic	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Ferrous Metals	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Non-Ferrous Metals	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Glass	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Organic Material	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Inorganic Material	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%
SWCM	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Sample	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Non-separable #1 (#)																	
Paper	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SWCM	0.0	0.0	0.0	0.0	0.0	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																	
Ferrous Metals																	
Non-Ferrous Metals																	
Glass																	
Organic Material																	
Inorganic Material																	
SWCM																	
Total	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Sample	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Non-separable #2 (#)																	
Paper	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Covanta Henne

Solid Waste Composition

Sample	51	52	53	54	55	56	57	58	59	60	Item Subtotal
Bottom Fines (#)	7.9	6.9	3.6	8.6	7.9		15.6	7.9	7.6	13.9	410.8
Paper	0.8	0.7	0.4	0.9	0.8	0.0	1.6	0.8	0.8	1.4	41.1
Cardboard	0.4	0.3	0.2	0.4	0.4	0.0	0.8	0.4	0.4	0.7	20.5
Plastic	0.4	0.3	0.2	0.4	0.4	0.0	0.8	0.4	0.4	0.7	20.5
Ferrous Metals	0.4	0.3	0.2	0.4	0.4	0.0	0.8	0.4	0.4	0.7	20.5
Non-Ferrous Metals	0.4	0.3	0.2	0.4	0.4	0.0	0.8	0.4	0.4	0.7	20.5
Glass	0.8	0.7	0.4	0.9	0.8	0.0	1.6	0.8	0.8	1.4	41.1
Organic Material	0.4	0.3	0.2	0.4	0.4	0.0	0.8	0.4	0.4	0.7	20.5
Inorganic Material	4.3	3.8	2.0	4.7	4.3	0.0	8.6	4.3	4.2	7.6	225.9
SWCM	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%	10%	10%	10%	10%	10%	10%	10%	10%	
Cardboard	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	
Plastic	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	
Ferrous Metals	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	
Non-Ferrous Metals	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	
Glass	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	
Organic Material	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	
Inorganic Material	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	
SWCM	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Average: **7.5**

Sample	51	52	53	54	55	56	57	58	59	60	Item Subtotal
Non-separable #1 (#)											14.6
Paper	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cardboard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plastic	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ferrous Metals	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Organic Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.6
Inorganic Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SWCM	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											
Ferrous Metals											
Non-Ferrous Metals											
Glass											
Organic Material											
Inorganic Material											
SWCM											
Total	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

Sample	51	52	53	54	55	56	57	58	59	60	Item Subtotal
Non-separable #2 (#)											0
Paper	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cardboard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0