

**Countywide Recycling & Disposal Facility  
Ambient Air Monitoring  
Monthly Report #9  
February 20, 2008**

**To Fulfill the Requirements Set Forth in Order 5.A. of the Ohio EPA  
Director's Findings and Orders Dated March 28, 2007**

**Republic Services of Ohio II, LLC  
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**Countywide Recycling & Disposal Facility**  
**Ambient Air Monitoring**  
**Monthly Report #9**  
**February 20, 2008**  
**Monitoring Events #37 through 41**

**1.0 INTRODUCTION**

Beginning on Monday May 21, 2007 ambient air sampling is being conducted every six days as mandated by Order 5.A. of the Ohio EPA Director's Findings and Orders dated March 28, 2007. This report covers the analytical results from the following Monitoring Events.

- Event #37: Wednesday December 26 to Thursday December 27.
- Event #38: Friday January 4 to Saturday January 5.
- Event #39: Thursday January 10 to Friday January 11.
- Event #40: Wednesday January 16 to Thursday January 17.
- Event #41: Tuesday January 22 to Wednesday January 23.

Air samples were collected over a 24-hour period at four locations: Bolivar Elementary School; the cell tower on the Countywide facility; near the top of the hill at the KOA campground to the northeast of the landfill; and near the small bridge along the road that borders the wetland area immediately to the east of the landfill (Figure 1). The road is the specified route for the trucks entering Countywide facility. The wetland is consistently in the area of maximum impact predicted by the air model. Since there are no people working or residing in the wetland, it is being considered a temporary location until such time as the Agency specifies a fourth permanent monitoring location. The campground is also frequently in the area of impact predicted by the air model.

As specified by the Ohio EPA in Bryan Zima's March 28, 2007 letter to Jason Perdion of Baker & Hostetler, air samples were analyzed for the following groups of compounds:

- Volatile Organic Compounds (VOCs): EPA Method TO-15 modified with Tentatively Identified Compounds (TICs)
- Sulfur Compounds: EPA Method TO-15 modified
- Aldehydes and Ketones: EPA Method TO-11A
- Hydrogen Fluoride and Hydrogen Chloride: NIOSH Method 7903

All analyses were performed by Integrated Analytical Laboratory (IAL), Randolph, NJ. Certification numbers: ELAP-11402; NJDEP-14751; AIHA-100201.

As a conservative first evaluation, the concentrations of chemicals detected in the air samples were compared to the corresponding USEPA Region 9 Preliminary Remediation Goals (PRGs). The USEPA Region 9 PRG is the concentration of a chemical in the

ambient air that is estimated to be without significant risk to a person who would breathe that level of chemical continuously over many decades. The Region 9 PRGs are derived using conservative mathematical formulas and do not represent the level of a chemical in the air (or other environmental media) where health effects are likely to occur. Region 9 PRGs are generally accepted as conservative screening values, such that if the concentration of a chemical in the air is less than the corresponding PRG, most public health officials and regulators are confident that there is no risk to human health. On the other hand, an analytical result that exceeds the corresponding PRG does not mean that there is an unacceptable risk to public health. The chemical that were detected in these Monitoring Events are commonly found at low levels in ambient air. For some compounds such as benzene, the mathematically-derived Region 9 PRG of 0.25 ug/m<sup>3</sup> is lower than the average background concentration of 1.96 ug/m<sup>3</sup> in ambient air in Ohio (Ohio EPA, *Portsmouth Ohio Air Quality Study 2003*). Consequently, finding certain chemicals in ambient air at levels above PRGs that are very close to analytical detection limits is not uncommon and may simply reflect fluctuations in background sources. It should be noted that not all of the compounds found in the air samples have corresponding PRGs.

Ambient environmental/climate conditions are discussed in Section 2.0. Results of the monitoring are discussed in Section 3.0 and summarized in Section 4.0 of this report. Analytical results from the laboratory are provided in the Appendices.

## **2.0 AMBIENT CONDITIONS**

The descriptions of ambient conditions are taken from the Daily Odor Monitoring Summary compiled by Countywide's consultant, Diversified Engineering. For those days when a Daily Odor Monitoring Summary was not available, ambient meteorological conditions were obtained from the "WeatherUnderground" website at <http://www.wunderground.com>.

### Event #37, Wednesday/Thursday December 26/27, 2007:

Average temperature in degrees F: 36, Max. 48, Min. 25

Winds were calm at 0 mph with max gusts were 5 mph from variable directions

Average relative humidity 73% with no precipitation recorded.

Complaints: One complaint from a resident occurred at 12:30 pm at 12102 Sherman Church Avenue in Bolivar. Another complaint from a resident occurred at 12:42 pm at 9863 Sherman Church Avenue in Bolivar. Pump maintenance and pipe maintenance around stem were potentially odor-causing activities noted on the Daily Odor Monitoring Summary.

### Event #38, Friday/Saturday January 04/05, 2008:

Average temperature in degrees F: 26, Max. 36, Min. 15

Winds were calm 6 mph out of the S.

Average relative humidity 52% with no precipitation recorded.

Complaints: There were no odor complaints during this time.

Event #39: Thursday/Friday January 10/11, 2008:

Average temperature in degrees F: 39, Max. 50, Min. 28

Winds were calm at 0 mph with max gusts at 9 mph out of the SE.

Average relative humidity 75% with 0.77 in of precipitation recorded.

Complaints: Three complaints from travelers occurred at 10:30 am, 11:15 am, and 1:05 pm at Interstate 77 North, mile marker #96. A complaint from a resident occurred at 1:02 pm at 3813 Haut Street in East Sparta. A complaint from a resident occurred at 5:29 am at the intersection of Haut Street and Beth Avenue. Pump maintenance, pump installation, and 5CD vacuum installation were potentially odor-causing activities noted on the Daily Odor Monitoring Summary.

Event #40: Wednesday/Thursday January 16/17, 2008:

Average temperature in degrees F: 28, Max. 34, Min. 23

Winds were calm at 2 mph with max gusts at 8 mph out of variable directions.

Average relative humidity was 69% with no precipitation recorded.

Complaints: One complaint from a resident occurred at 8:02 pm at the intersection of Sherman Church Avenue and Haut Street. Another complaint from a resident occurred at 12:10pm then at 8:55 pm at Sherman Church Avenue, between Hudson and Haut Street. Pump maintenance, 5CD maintenance and force main installation, and temporary cap repair/ maintenance were potentially odor-causing activities noted on the Daily Odor Monitoring Summary.

Event #41: Tuesday/Wednesday January 22/23, 2008:

Average temperature in degrees F: 27, Max. 35, Min. 19

Winds were calm at 4 mph with max gusts at 18 mph out of the W/NW.

Average humidity was 66% with no 0.03 in of precipitation recorded.

Complaints: A complaint from resident occurred at 1:15 pm at 3232 Downing Street in East Sparta. Pump maintenance, pump installation, and flare maintenance on #7 were potentially odor-causing activities noted on the Daily Odor Monitoring Summary.

### **3.0 ANALYTICAL RESULTS**

The laboratory analyzed the air samples for a large number of chemicals. Only those results that exceeded Region 9 PRGs will be discussed in the body of the report. Other compounds may have been detected in a sample, but were quantified at concentrations below the respective PRG. All of the analytical results from the laboratory are provided in the Appendices.

#### **3.1 Volatile Organic Compounds**

Compounds detected by Method TO-15 modified are summarized in Tables 1 through 5. Method TO-15 analyzes air samples collected in a summa canister for the presence of an extensive list of volatile organic compounds. In addition to a “standard analyte” list, this method also has the capability to tentatively identify and estimate the concentration of numerous compounds that are not on the “standard” list. These Tentatively Identified

Compounds (TICs) include some compounds for which there are other specific analytical methods. Of particular relevance to interpreting the data from this monitoring effort is the fact that Method TO-15 identifies acetaldehyde, a carbonyl compound that is a specific target for Method TO-11A. All results for acetaldehyde will be discussed in Section 3.3. Data reports from the analytical laboratory are provided in the Appendices. Results that exceeded corresponding Region 9 PRGs and any other relevant findings are discussed below. Chemicals that were detected below PRGs will not be discussed unless those particular results help to explain other findings.

Event #37, December 26/27, 2007:

Analytical results for Method TO-15 for Event #37 are summarized in Table 1 and provided in Appendix A. Three compounds were measured at levels above their respective PRG.

**Event #37: VOCs Detected Above PRGs  
Concentrations in ug/m3**

<b>Compound</b>	<b>PRG</b>	<b>School (Downwind)</b>	<b>Cell Tower (Variable)</b>	<b>Campground (Variable)</b>	<b>Wetland (Variable)</b>
Benzene	<b>0.25</b>	<b>7.9</b>	<b>24</b>	<b>7.1</b>	<b>8</b>
1,2,4-Trimethylbenzene	<b>6.2</b>	5.6	<b>6.8</b>	3.1	3.2
Acetaldehyde (TIC)	<b>0.87</b>	ND	ND	<b>6.1</b>	<b>4.3</b>

Event #38, January 04/05, 2008:

Analytical results for Method TO-15 for Event #38 are summarized in Table 2 and provided in Appendix B. Three compounds were measured at levels above their respective PRG.

**Event #38: VOCs Detected Above PRGs  
Concentrations in ug/m3**

<b>Compound</b>	<b>PRG</b>	<b>School (Upwind)</b>	<b>Cell Tower (Crosswind)</b>	<b>Campground (Downwind)</b>	<b>Wetland (Crosswind)</b>
Benzene	<b>0.25</b>	<b>13</b>	<b>5.7</b>	<b>23</b>	ND
1,2,4-Trimethylbenzene	<b>6.2</b>	5.3	<b>12</b>	5.4	ND
Acetaldehyde (TIC)	<b>0.87</b>	ND	<b>5.0</b>	ND	ND

Event #39, January 10/11, 2008:

Analytical results for Method TO-15 for Event #39 are summarized in Table 3 and provided in Appendix C. Three compounds were measured at levels above their respective PRG.

**Event #39: VOCs Detected Above PRGs  
Concentrations in ug/m3**

<b>Compound</b>	<b>PRG</b>	<b>School (Crosswind)</b>	<b>Cell Tower (Downwind)</b>	<b>Campground (Crosswind)</b>	<b>Wetland (Crosswind)</b>
Benzene	<b>0.25</b>	<b>2.9</b>	<b>3.6</b>	<b>4.7</b>	<b>17</b>
Methylene Chloride	<b>4.1</b>	<b>670</b>	ND	ND	ND
Acetaldehyde (TIC)	<b>0.87</b>	ND	<b>29</b>	<b>20</b>	<b>4.7</b>

Event #40, January 16/17, 2008:

Analytical results for Method TO-15 for Event #40 are summarized in Table 4 and provided in Appendix D. Two compounds were measured at levels above their respective PRG. During this time period, the wind direction is described as variable, but at some point was coming from the southeast towards the northwest as evidenced by odor complaints from the vicinity of Sherman Church and Haut Roads.

**Event #40: VOCs Detected Above PRGs  
Concentrations in ug/m3**

<b>Compound</b>	<b>PRG</b>	<b>School (Variable)</b>	<b>Cell Tower (Downwind)</b>	<b>Campground (Variable)</b>	<b>Wetland (Variable)</b>
Benzene	<b>0.25</b>	<b>2.5</b>	<b>4.0</b>	<b>4.2</b>	<b>10</b>
Acetaldehyde (TIC)	<b>0.87</b>	<b>4.9</b>	<b>13</b>	<b>10</b>	<b>2.9</b>

Event #41, January 22/23, 2008:

Analytical results for Method TO-15 for Event #41 are summarized in Table 5 and provided in Appendix E. Three compounds were measured at levels above their respective PRG.

**Event #41: VOCs Detected Above PRGs  
Concentrations in ug/m3**

<b>Compound</b>	<b>PRG</b>	<b>School (Crosswind)</b>	<b>Cell Tower (Upwind)</b>	<b>Campground (Crosswind)</b>	<b>Wetland (Downwind)</b>
Benzene	<b>0.25</b>	<b>6.5</b>	<b>3.9</b>	<b>7.8</b>	<b>12</b>
Methylene Chloride	<b>4.1</b>	2.1	ND	<b>6.3</b>	ND
Acetaldehyde (TIC)	<b>0.87</b>	<b>8.6</b>	<b>16</b>	<b>1.6</b>	<b>7.3</b>

### 3.2 Sulfur Compounds

No sulfur compounds were detected in any of these sampling events using ASTM D5504. Carbonyl Sulfide was detected as a TIC at the campground in events #39 (January 10/11, 2008) and #40 (January 16/17, 2008) by Method TO-15.

### 3.3 Aldehydes and Ketones

In order to obtain a continuous 24 hours of data, three separate gel collection tubes were sequentially exposed to ambient air for a period of approximately 8-hours each. Consequently there are three separate sample results for each location for each monitoring event.

Event #37, December 26/27, 2007:

Analytical results for aldehydes are summarized below. Formaldehyde was detected in one of the three samples from the school, campground, and wetland; and in two of the three samples from the cell tower at levels above the Region 9 PRG. Acetaldehyde was found by Method TO-11A in one sample from the wetland and one sample from the cell tower at levels above the Region 9 PRG. Acetaldehyde was estimated at levels above the PRG by Method TO-15 in the samples from the campground and wetland. Analytical results are in Appendix A.

**Event #37: Aldehydes  
Concentrations in ug/m3**

Aldehyde	PRG	School (Downwind)			Cell Tower (Variable)			Campground (Variable)			Wetland (Variable)		
		1	2	3	1	2	3	1	2	3	1	2	3
Formaldehyde	<b>0.15</b>	ND	ND	<b>0.29</b>	ND	<b>0.35</b>	<b>4.0</b>	ND	ND	<b>0.33</b>	ND	ND	<b>2.7</b>
Acetaldehyde TO-11A	<b>0.87</b>	ND	ND	ND	ND	ND	<b>1.5</b>	ND	ND	ND	ND	ND	<b>1.0</b>
Acetaldehyde TO-15 (TIC)	<b>0.87</b>	ND			ND			<b>6.1</b>			<b>4.3</b>		

Event #38, January 04/05, 2008:

Analytical results for aldehydes are summarized below. Formaldehyde was detected above its PRG for three samples campground and three samples from the wetland. Although acetaldehyde was not detected at the cell tower by Method TO-11A, it was quantified at this location by Method TO-15 at a concentration exceeding the PRG. Although acetaldehyde was detected at levels below its PRG by Method TO-11A at the campground and wetland, it was not quantified at these locations by Method TO-15. Analytical results are in Appendix B.

**Event #38: Aldehydes  
Concentrations in ug/m3**

Aldehyde	PRG	School (Upwind)			Cell Tower (Crosswind)			Campground (Downwind)			Wetland (Crosswind)		
		1	2	3	1	2	3	1	2	3	1	2	3
Formaldehyde	<b>0.15</b>	ND	ND	ND	ND	ND	ND	<b>1.4</b>	<b>1.2</b>	<b>1.3</b>	<b>1.3</b>	<b>0.83</b>	<b>1.1</b>
Acetaldehyde TO-11A	<b>0.87</b>	ND	ND	ND	ND	ND	ND	0.58	0.63	0.63	0.63	0.46	0.58
Acetaldehyde TO-15 (TIC)	<b>0.87</b>	ND			<b>5.0</b>			ND			ND		

Event #39, January 10/11, 2008:

Analytical results for aldehydes are on the following page. Formaldehyde was detected above its PRG in one sample from the campground and one sample from the wetland. Although acetaldehyde was detected at levels above its PRG at the cell tower by Method TO-15, it was not quantified at this location by Method TO-11A. Although acetaldehyde was detected at levels above its PRG at the campground and wetlands by Method TO-15, it was quantified at a concentration below the PRG by Method TO-11A at these locations. Analytical results are in Appendix C.

**Event #39: Aldehydes  
Concentrations in ug/m3**

Aldehyde	PRG	School (Crosswind)			Cell Tower (Downwind)			Campground (Crosswind)			Wetland (Crosswind)		
		1	2	3	1	2	3	1	2	3	1	2	3
Formaldehyde	<b>0.15</b>	ND	ND	ND	ND	ND	ND	ND	ND	<b>1.4</b>	ND	ND	<b>2.0</b>
Acetaldehyde TO-11A	<b>0.87</b>	ND	ND	ND	ND	ND	ND	ND	ND	0.46	ND	ND	0.63
Acetaldehyde TO-15 (TIC)	<b>0.87</b>	ND			<b>29</b>			<b>20</b>			<b>4.7</b>		

Event #40, January 16/17, 2008:

Analytical results for aldehydes are summarized below. Although acetaldehyde was detected at levels above its PRG at the school, the cell tower, the campground, and the wetland by Method TO-15, it was not quantified at these locations by Method TO-11A. Analytical results are in Appendix D.

**Event #40: Aldehydes  
Concentrations in ug/m3**

Aldehyde	PRG	School (Variable)			Cell Tower (Downwind)			Campground (Variable)			Wetland (Variable)		
		1	2	3	1	2	3	1	2	3	1	2	3
Acetaldehyde TO-11A	<b>0.87</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetaldehyde TO-15 (TIC)	<b>0.87</b>	<b>4.9</b>			<b>13</b>			<b>10</b>			<b>2.9</b>		

Event #41, January 22/23, 2008:

Analytical results for aldehydes are summarized below. Although acetaldehyde was detected at levels above its PRG at the school, the cell tower, the campground, and the wetland by Method TO-15, it was not quantified at these locations by Method TO-11A. Analytical results are in Appendix E.

**Event #41: Aldehydes  
Concentrations in ug/m3**

Aldehyde	PRG	School (Crosswind)			Cell Tower (Upwind)			Campground (Crosswind)			Wetland (Downwind)		
		1	2	3	1	2	3	1	2	3	1	2	3
Acetaldehyde TO-11A	<b>0.87</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetaldehyde TO-15 (TIC)	<b>0.87</b>	<b>8.6</b>			<b>16</b>			<b>1.6</b>			<b>2.3</b>		

### 3.4 Hydrogen Chloride and Hydrogen Fluoride

As with the aldehyde and ketone samples, three separate gel collection tubes were sequentially exposed to ambient air for a period of approximately 8-hours each. Consequently there are three separate sample results for each location for each monitoring event. The concentrations of HF and HCl in the air are quantified based on the mass of fluoride and chloride ion captured on the gel inside the tubes and the volume of air that was passed through the tube.

Analytical results for sampling events #37 through #41 are summarized below. All detected concentrations were very low, and were orders of magnitude below the PRG for HCl.

Event #37, December 26/27, 2007:

Neither hydrogen fluoride nor hydrogen chloride was detected in any of the samples from the school and the campground. HF was detected in one sample from the wetland and two of the three samples from the cell tower. HCl was detected in one of the three samples from the wetland and one of the three samples from the cell tower. Analytical results are in Appendix A.

**Event #37: Hydrogen Fluoride and Hydrogen Chloride  
Concentrations in ug/m3**

Compound	PRG	School (Downwind)			Cell Tower (Variable)			Campground (Variable)			Wetland (Variable)		
		1	2	3	1*	2	3	1	2	3	1	2	3
HF	NA	ND	ND	ND	1.8	1.9	ND	ND	ND	ND	ND	ND	5.9
HCl	210	ND	ND	ND	1.9	ND	ND	ND	ND	ND	0.83	ND	ND

\* Denotes breakthrough from the front to the back of the sorbent tube for both HF and HCl.

Event #38, January 04/05, 2008:

Neither hydrogen fluoride nor hydrogen chloride was detected during this monitoring event. Analytical results are in Appendix B.

Event #39, January 10/11, 2008:  
Analytical results are in Appendix C.

**Event #39: Hydrogen Fluoride and Hydrogen Chloride  
Concentrations in ug/m3**

Compound	PRG	School (Crosswind)			Cell Tower (Downwind)			Campground (Crosswind)			Wetland (Crosswind)		
		1	2	3	1	2	3	1	2	3	1	2	3
HF	NA	ND	ND	ND	1.5	2.0	1.6	ND	ND	3.1	ND	ND	2.5
HCl	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Event #40, January 16/17, 2008:  
Neither hydrogen fluoride nor hydrogen chloride was detected during this monitoring event. Analytical results are in Appendix D.

Event #41, January 22/23, 2008:  
Analytical results are in Appendix E.

**Event #41: Hydrogen Fluoride and Hydrogen Chloride  
Concentrations in ug/m3**

Compound	PRG	School (Crosswind)			Cell Tower (Upwind)			Campground (Crosswind)			Wetland (Downwind)		
		1	2	3	1	2	3	1	2	3	1	2	3
HF	NA	3.2	ND	ND	ND	ND	4.2	ND	ND	8.3	ND	ND	1.5
HCl	210	ND	ND	5.9*	ND	ND	ND	ND	69	ND	ND	ND	ND

\*Denotes breakthrough from front to back of tube.

**4.0 SUMMARY**

The results for monitoring events #37 through #41 are consistent with previous results in that low levels of various VOCs, aldehydes, hydrogen fluoride and hydrogen chloride were detected from all four sample locations. Benzene was detected at concentrations exceeding the conservative Region 9 PRG at all locations (except for the wetland during event #48). During two of the five sampling events, the highest concentrations of benzene were in the (presumed) prevailing downwind direction relative to the landfill. During three of the events the highest concentrations of benzene were not in the presumed downwind direction. On three of the five occasions, the highest concentration of benzene was detected at the monitor in the wetland.

The origin of the benzene concentrations is not known and no clear pattern has emerged. The February 7, 2008 DFFO mandates that a second set of summa canisters be co-located with the summa canisters collected during two of the regularly scheduled monitoring events and submitted to the Ohio EPA laboratory for Method TO-15 modified analysis to help determine if the benzene is an artifact of the sampling and analysis process. The two

co-located sampling events specified by the DFFO will be completed prior to the end of February.

The sporadic detections of benzene that have been reported may be anomalies related to sampling and/or analysis. Thus far the ambient air monitoring conducted pursuant to the DFFO has not provided any useful information about potential sources of benzene or the dispersion of this compound in the community surrounding Countywide. The findings of almost nine months of sampling do not indicate consistent, ongoing exposures to high levels of benzene. Consequently, it is our opinion that the ambient air quality (as represented by our ongoing monitoring) does not present an unacceptable risk to members of the communities surrounding the landfill.

<b>Countywide Recycling &amp; Disposal Facility</b>					
<b>EPA Method TO-15 Modified: Volatile Organic Compounds</b>					
<b>Table 5: Event #41 January 22/23, 2008</b>					
<b>Analyte</b>	<b>PRG</b>	<b>Monitoring Location</b>			
		<b>School</b> (Crosswind)	<b>Cell Tower</b> (Upwind)	<b>Campground</b> (Crosswind)	<b>Wetland</b> (Downwind)
All results in ug/m3					
<b>Method TO-15 Modified</b>					
Acetone	3300	ND	35	7.0	9.2
Benzene	<b>0.25</b>	<b>6.5</b>	<b>3.9</b>	<b>7.8</b>	<b>12</b>
tert-Butyl alcohol	NA	8.1	54	ND	2.1
Chloromethane	95	2.1	2.0	1.2	1.9
Cyclohexane	6200	1.7	ND	ND	ND
Dichlorodifluoromethane	210	4.6	4.5	2.8	4.9
Ethylbenzene	210	2.4	ND	ND	ND
Heptane	NA	5.6	4.7	ND	ND
Hexane	210	9.6	ND	ND	ND
Methyl ethyl ketone	5100	7.6	8.3	1.7	3.0
Methylene chloride	<b>4.1</b>	2.1	ND	<b>6.3</b>	ND
Toluene	400	18	14	4.6	7.2
1,2,4-Trimethylbenzene	6.2	ND	2.7	ND	ND
2,2,4-Trimethylpentane	NA	5.0	ND	ND	ND
m/p-Xylene	110	8.7	7.7	3.5	5.0
o-Xylene	110	2.7	2.4	ND	ND
<b>Tentatively Identified Compounds</b>					
Acetaldehyde	<b>0.87</b>	<b>8.6</b>	<b>16</b>	<b>1.6</b>	<b>2.3</b>
Acetonitrile	62	4.0	5.7	5.2	7.7
1-ethyl-2-methyl-Benzene	NA	ND	ND	5.4	27
Butanal	NA	ND	12	ND	ND
Butane	NA	5.5	ND	2.0	2.8
2-methyl-Butane	NA	41	ND	ND	ND
hexamethyl-Cyclotrisiloxane	NA	ND	ND	4.6	ND
3,4-Dimethyl-1-methyl	NA	ND	ND	12	12
1-Heptene	NA	ND	10	ND	ND
3-methylene-Heptane	NA	ND	21	ND	ND
Hexanal	NA	ND	ND	2.9	ND
3-methyl-Hexane	NA	8.2	ND	ND	ND
Pentane	NA	17	ND	ND	ND
2-methyl-Pentane	NA	15	ND	ND	ND
3-methyl-Pentane	NA	11	ND	ND	ND
1-Pentene	NA	ND	7.7	ND	ND
1R .alpha. -Piene	NA	ND	22	8.9	15
.beta.-Piene	NA	ND	ND	ND	5.9
2,2-dimethyl-Propanal	NA	ND	8.1	ND	ND
Propane	NA	ND	ND	1.8	2.9
Propene	NA	7.0	12	ND	ND
2-methyl-1-Propene	NA	16	31	2.1	3.3
ND = Not Detected					

NA = Not Available					
Shading indicates result exceeds PRG					

Countywide Recycling & Disposal Facility					
EPA Method TO-15 Modified: Volatile Organic Compounds					
Table 1: Event #37 December 26/27, 2007					
Analyte	PRG	Monitoring Location			
		School (Downwind)	Cell Tower (Variable)	Campground (Variable)	Wetland (Variable)
All results in ug/m3					
<b>Method TO-15 Modified</b>					
Acetone	3300	ND	ND	44	ND
Benzene	<b>0.25</b>	<b>7.9</b>	<b>24</b>	<b>7.1</b>	<b>8</b>
tert-Butyl alcohol	NA	ND	8.7	93	87
Chloromethane	95	2.3	ND	1.9	1.8
Cyclohexane	6200	2.5	ND	ND	ND
Dichlorodifluoromethane	210	6.9	4.1	6.2	6.7
Ethylbenzene	1100	3.9	2.9	ND	ND
4-Ethyltouene	NA	ND	ND	ND	ND
Heptane	NA	4.7	2.5	4.7	3.4
Hexane	210	14	3.6	4.0	4
Methyl ethyl ketone	5100	2.5	5.6	10	7.2
Methylene chloride	4.1	ND	ND	2.1	ND
Toluene	400	34	13	13	8.9
Trichlorofluoromethane	730	2.9	ND	ND	ND
1,2,4-Trimethylbenzene	<b>6.2</b>	5.6	<b>6.8</b>	3.1	3.2
2,2,4-Trimethylpentane	NA	7.7	ND	ND	ND
m/p-Xylene	110	14.0	12	6.8	4.8
o-Xylene	110	4.9	5	ND	ND
<b>Tentatively Identified Compounds</b>					
Acetaldehyde	<b>0.87</b>	ND	ND	<b>6.1</b>	<b>4.3</b>
Acetonitrile	62	2	ND	29	22
Butanal	NA	ND	ND	18	7.7
1R -alpha -Pinene	NA	ND	17	ND	ND
Butane	NA	8.8	ND	14	14
Ethanol	NA	ND	ND	3.2	ND
2-methyl-Butane	NA	32	ND	ND	ND
Pentane	NA	14	ND	11	8.2
Butane 2,3, dimethyl	NA	5.6	ND	ND	ND
Pentane,2-methyl	NA	18	ND	ND	38
Pentane 3-methyl	NA	11	ND	ND	ND
cyclopentane methyl	NA	9.3	ND	ND	ND
Hexane, 2-methyl	NA	9.4	ND	ND	ND
Pentane, 2,3-dimethyl	NA	4.9	ND	ND	ND
Hexane 3-methyl	NA	7.8	ND	ND	ND
isobutane	NA	ND	ND	4.7	5
1-propene-2 methyl	NA	ND	ND	20	14
1 pentene	NA	ND	ND	13	9.4
Propanedioic, acid, oxo, bis(2-M	NA	ND	ND	30	ND
Heptane, 3-methylene	NA	ND	ND	11	ND
1-Propyne	NA	ND	872	ND	ND
Diazene, bis(1-1-dimethylethyl)	NA	ND	ND	ND	14

Analyte	Monitoring Location				
	PRG	School (Downwind)	Cell Tower (Variable)	Campground (Variable)	Wetland (Variable)
All results in ug/m3					
Naphthalene, 1,2,3,4, Tetrahydro	NA	ND	ND	ND	15
ND = Not Detected					
NA = Not Availabe					
Shading indicates result exceeds PRG					

Countywide Recycling & Disposal Facility					
EPA Method TO-15 Modified: Volatile Organic Compounds					
Table 2: Event #38 January 04/05, 2008					
Analyte	PRG	Monitoring Location			
		School (Upwind)	Cell Tower (Crosswind)	Campground (Downwind)	Wetland (Crosswind)
All results in ug/m3					
<b>Method TO-15 Modified</b>					
Acetone	3300	ND	31	ND	ND
Benzene	<b>0.25</b>	<b>13</b>	<b>5.7</b>	<b>23</b>	ND
tert-Butyl alcohol	NA	ND	67	ND	ND
Chloromethane	95	2.0	2.3	1.3	2.3
Cyclohexane	6200	4.1	ND	ND	ND
Dichlorodifluoromethane	210	5.9	6.6	ND	7.0
Ethylbenzene	1100	3.2	6.7	2.8	ND
Heptane	NA	8.4	3.5	2.6	ND
Hexane	210	23	1.9	2.0	ND
Methyl ethyl ketone	5100	6.4	6.2	5.5	ND
Methyl isobutyl ketone	3100	2.2	ND	2.1	ND
Methylene chloride	4.1	ND	2.5	26	2.4
Toluene	400	24	21	18	ND
Trichlorofluoromethane	730	ND	ND	ND	3.3
1,2,4-Trimethylbenzene	<b>6.2</b>	5.3	<b>12</b>	5.4	ND
1,3,5-Trimethylbenzene	6.2	ND	3.5	ND	ND
2,2,4-Trimethylpentane	NA	13	ND	ND	ND
m/p-Xylene	110	12	30	11	ND
o-Xylene	110	2.9	15	3.9	ND
<b>Tentatively Identified Compounds</b>					
Acetaldehyde	<b>0.87</b>	ND	<b>5.0</b>	ND	ND
Acetonitrile	62	4.5	11	ND	ND
Benzoic acid	15000	ND	ND	18	ND
Butanal	NA	ND	8.0	ND	ND
Butane	NA	11	11	ND	3.0
2-methyl-Butane	NA	44	ND	ND	ND
methyl-Cyclopentane	NA	13	ND	ND	ND
1,2,4-trimethyl-Cyclopentane	NA	ND	11	ND	ND
hexamethyl-Cyclotrisiloxane	NA	ND	36	ND	ND
2-methyl-Hexane	NA	17	ND	ND	ND
3-methyl-Hexane	NA	15	ND	ND	ND
Pentane	NA	18	9.4	ND	ND
1-Pentene	NA	ND	7.4	ND	ND
2-methyl-Pentane	NA	26	ND	ND	ND
3-methyl-Pentane	NA	19	ND	ND	ND
1R .alpha. -Piene	NA	54	25	14	ND
2,2-dimethyl-Propanal	NA	ND	8.8	ND	ND
2-methyl-1-Propene	NA	6.9	21	ND	ND
1-Propyne	NA	ND	ND	558	ND
ND = Not Detected					

NA = Not Available					
Shading indicates result exceeds PRG					

Countywide Recycling & Disposal Facility					
EPA Method TO-15 Modified: Volatile Organic Compounds					
Table 3: Event #39 January 10/11, 2008					
Analyte	Monitoring Location				
	PRG	School (Crosswind)	Cell Tower (Downwind)	Campground (Crosswind)	Wetland (Crosswind)
All results in ug/m3					
<b>Method TO-15 Modified</b>					
Acetone	3300	220	52	49	34
Benzene	<b>0.25</b>	<b>2.9</b>	<b>3.6</b>	<b>4.7</b>	<b>17</b>
tert-Butyl alcohol	NA	ND	61	56	5.2
Carbon disulfide	730	2.7	ND	ND	ND
Chloromethane	95	ND	2.9	2.9	2.3
Dichlorodifluoromethane	210	ND	5.3	6.0	5.0
Heptane	NA	ND	3.7	4.3	2.2
Hexane	210	2.8	2.8	3.8	2.3
Isopropyl alcohol	NA	28	ND	ND	ND
Methyl ethyl ketone	5100	ND	7.1	6.3	6.6
Methylene chloride	<b>4.1</b>	<b>670</b>	ND	ND	ND
Toluene	400	14	6.7	7.9	11
Trichlorofluoromethane	730	13	ND	ND	ND
1,2,4-Trimethylbenzene	6.2	2.6	3.0	3.2	3.1
m/p-Xylene	110	ND	4.8	5.6	7.3
o-Xylene	110	ND	ND	ND	2.6
<b>Tentatively Identified Compounds</b>					
Acetaldehyde	<b>0.87</b>	ND	<b>29</b>	<b>20</b>	<b>4.7</b>
Acetonitrile	62	35	4.2	6.7	ND
Benzoic acid	15000	ND	38	ND	ND
Butanal	NA	ND	13	13	ND
Butane	NA	4.5	6.9	6.9	6.2
1-Butene	NA	ND	ND	ND	7.3
Carbonyl sulfide	NA	ND	ND	21	ND
Ethanol	NA	7.3	ND	ND	ND
Heptadecane	NA	37	ND	ND	ND
5-ethyl-2,2,3-trimethyl-Heptane	NA	19	ND	ND	ND
Hexanal	NA	ND	ND	ND	6.5
2-methyl-4-methylene-Hexane	NA	ND	7.8	ND	ND
2,2,5-trimethyl-Hexane	NA	12	ND	ND	ND
Isobutane	NA	ND	ND	ND	5.0
Limonene	NA	ND	61	ND	ND
chlorodifluoro-Methane	NA	13.7	ND	ND	ND
Pentanal	NA	ND	ND	ND	6.3
Pentane	NA	6.2	8.0	8.2	6.2
2-Pentanone	NA	17	ND	ND	ND
1-Pentene	NA	ND	10	8.9	ND
1R .alpha. -Piene	NA	ND	ND	10	13
1S .alpha. -Piene	NA	14	ND	ND	ND
2,2 dimethyl-Propanal	NA	ND	8.8	8.4	ND
Propane	NA	ND	12	ND	11

2-methyl-1-Propene	NA	6.6	69	59	ND
1-Propyne	NA	ND	ND	ND	191
ND = Not Detected					
NA = Not Available					
Shading indicates result exceeds PRG					

Countywide Recycling & Disposal Facility					
EPA Method TO-15 Modified: Volatile Organic Compounds					
Table 4: Event #40 January 16/17, 2008					
Analyte	Monitoring Location				
	PRG	School (Variable)	Cell Tower (Downwind)*	Campground (Variable)	Wetland (Variable)
All results in ug/m3					
<b>Method TO-15 Modified</b>					
Acetone	3300	27	38	35	14
Benzene	<b>0.25</b>	<b>2.5</b>	<b>4.0</b>	<b>4.2</b>	<b>10</b>
tert-Butyl alcohol	NA	5.3	56	35	2.8
Chloromethane	95	2.0	1.9	1.9	1.9
Dichlorodifluoromethane	210	4.6	4.3	4.5	4.6
Heptane	NA	ND	3.6	2.3	ND
Hexane	210	2.0	ND	ND	ND
Isopropyl alcohol	NA	ND	2.1	ND	ND
Methyl ethyl ketone	5100	3.2	8.6	6.0	3.9
Toluene	400	6.2	14	10	9.6
m/p-Xylene	110	3.7	6.9	4.6	5.6
<b>Tentatively Identified Compounds</b>					
Acetaldehyde	<b>0.87</b>	<b>4.9</b>	<b>13</b>	<b>10</b>	<b>2.9</b>
Acetonitrile	62	ND	7.7	4.4	32
1-ethyl-3-methyl-Benzene	NA	ND	ND	ND	6.4
Butanal	NA	ND	12	8.2	ND
3-methyl-Butanal	NA	ND	8.7	ND	ND
Butane	NA	3.3	ND	ND	ND
Carbonyl sulfide	NA	ND	ND	9.3	ND
hexamethyl-Cyclotrisiloxane	NA	5.8	ND	7.9	ND
3-methylene-Heptane	NA	ND	15	6	ND
Hexanal	NA	4.9	7.4	ND	4.5
Isobutane	NA	2.4	ND	ND	ND
2,2,3-trimethyl-Oxetane	NA	5.6	ND	ND	ND
Pentanal	NA	ND	ND	ND	3.9
Pentane	NA	4.1	ND	4.1	17
1-Pentene	NA	ND	ND	4.6	ND
1R .alpha. -Piene	NA	12	16	ND	8.9
2,2-dimethyl-Propanal	NA	ND	7.4	5.3	ND
Propane	NA	ND	6.5	ND	3.4
Propene	NA	8.8	ND	ND	ND
2-methyl-1-Propene	NA	16	28	19	4.5
ND = Not Detected					
NA = Not Available		*Downwind based on odor complaints from location			
Shading indicates result exceeds PRG		NW of landfill.			