



**Global Presence  
Personal Attention**

**Submitted via Electronic Mail**

Ms. Jaclynne Drummond  
North Carolina Department of Environment and Natural Resources  
Division of Waste Management - Solid Waste Section  
1646 Mail Service Center  
Raleigh, North Carolina 27699-1646

May 21, 2014

Dear Ms. Drummond:

**Notification of Appendix II Detections  
Charlotte Motor Speedway, Landfill V, Permit 13-04**

On behalf of the Charlotte Motor Speedway, Landfill V, Herst & Associates, Inc. is submitting notification of Appendix II constituents detected in site groundwater monitoring wells during the First Semi-Annual 2014 sampling event. This notification is in accordance with NCDENR Requirements for Municipal Solid Waste Landfill Facilities Section .1634(d), which states the following:

*“After obtaining the results from the initial or subsequent sampling events required in Paragraph (b) of this Rule, the owner or operator shall: (1) Within 14 days, submit a report to the Division and place a notice in the operating record identifying the Appendix II constituents that have been detected;”*

Groundwater sampling was completed by Analytical Services, Inc. (ASI) in April 2014. Analytical testing was performed by ASI for the assessment monitoring wells (MW-17, MW-18A, MW-19, MW-19A, MW-20B, and MW-25). Results were received by Herst & Associates, Inc. on May 8, 2014. The attached Table 1 summarizes the Appendix II constituents that were detected above the solid waste section limits (SWSLs) in assessment monitoring wells during the First Semi-Annual 2014 event. The inorganic and organic constituents on Table 1 are also on the Appendix I Detection Monitoring list, with the exception of total mercury at MW-25 (0.206 ug/L). The SWSL for mercury is 0.2 ug/L. Total mercury was also detected in the Laboratory Method Blank (0.064 J ug/L). Therefore, mercury at MW-25 appears to be above the SWSL due to laboratory artifacts. The parameters detected above the SWSLs appear to be consistent with past events.

The attached Table 2 summarizes the Appendix II constituents that were reported at estimated values between the method detection limit (MDL) and the SWSL. The constituents on Table 2 are also on the Appendix I Detection Monitoring list, with the exception of estimated values of total mercury and total tin, which are consistent with past events. Well MW-25 exhibited a first time estimated result for 2,4-D (also known as 2,4-dichlorophenoxyacetic acid) at an estimated value of 1.5 ug/L (J flagged). The first time estimated result for 2,4-D is suspected to be a false positive.

Any analyte detected at a concentration greater than the MDL but less than the SWSL is believed to be present, but the uncertainty in the value is high (i.e. laboratory interferences). As a result, the actual concentration is estimated. The full groundwater report and statistical evaluation will be submitted per Sections .1632 and .1633.

Should you have any questions or concerns, please contact the undersigned at your convenience.

Sincerely,

HERST & ASSOCIATES, INC.



for

Ward E. Herst  
Managing Partner



Steve Jett  
Senior Hydrogeologist

*Attachments: Table 1 - Appendix II Detections Above the SWSL  
Table 2 - Appendix II Estimated Results Below the SWSL*

*cc: Mike Gurley, Republic Services, Inc. (via electronic mail)*

<b>Table 1 - Appendix II Detections Above the SWSL First Semi-Annual 2014 Sampling Event Charlotte Motor Speedway, Landfill V</b>					
<b>Well</b>	<b>Constituent</b>	<b>Results</b>	<b>SWSL</b>	<b>MDL</b>	<b>Units</b>
MW-17	1,2-Dichloroethane	2.7	1	0.4	ug/L
	Benzene	4.1	1	0.2	ug/L
	cis-1,2-Dichloroethene	18	5	0.2	ug/L
	Total Barium	164	100	0.1	ug/L
	Trichloroethene	1.3	1	0.4	ug/L
	Vinyl Chloride	2.2	1	0.3	ug/L
MW-18A	1,4-Dichlorobenzene	2	1	0.3	ug/L
	Benzene	2.8	1	0.2	ug/L
	Total Barium	667	100	0.1	ug/L
	Total Cobalt	49.4	10	0.26	ug/L
	Total Zinc	54.7	10	0.64	ug/L
MW-19	1,4-Dichlorobenzene	6.3	1	0.3	ug/L
	Benzene	2.4	1	0.2	ug/L
	Total Barium	641	100	0.1	ug/L
	Total Cobalt	15.7	10	0.26	ug/L
	Total Nickel	155	50	0.22	ug/L
MW-19A	Benzene	2.7	1	0.2	ug/L
	Chlorobenzene	3.2	3	0.2	ug/L
	Total Barium	705	100	0.1	ug/L
	Total Cobalt	26.2	10	0.26	ug/L
	Total Nickel	107	50	0.22	ug/L
	Total Zinc	444	10	0.64	ug/L
MW-20B	1,4-Dichlorobenzene	1.4	1	0.3	ug/L
	Total Barium	900	100	0.1	ug/L
	Total Cadmium	2.1	1	0.05	ug/L
	Total Zinc	50.7	10	0.64	ug/L
MW-25	1,4-Dichlorobenzene	12	1	0.3	ug/L
	Total Barium	109	100	0.1	ug/L
	Total Mercury	0.206 B	0.2	0.064	ug/L

*SWSL: Solid Waste Section Limit.*

*MDL: Laboratory Method Detection Limit.*

*B: Denotes detected in a field blank or laboratory method blank.*

**Table 2 - Appendix II Estimated Results Below the SWSL  
First Semi-Annual 2014 Sampling Event  
Charlotte Motor Speedway, Landfill V**

Well	Constituent	Flag	Results	SWSL	MDL	Units	Well	Constituent	Flag	Results	SWSL	MDL	Units
MW-17	1,1-Dichloroethane	J	1.6	5	0.2	ug/L	MW-19A	Total Arsenic	J	2.97	10	1.13	ug/L
	1,4-Dichlorobenzene	J	0.3	1	0.3	ug/L		Total Cadmium	J	0.16	1	0.05	ug/L
	Chloroethane	J	0.7	10	0.3	ug/L		Total Copper	J	7.59	10	0.22	ug/L
	Methylene Chloride	J	0.7	1	0.6	ug/L		Total Lead	J	0.08	10	0.05	ug/L
	Tetrachloroethene	J	0.7	1	0.4	ug/L		Total Thallium	J	0.14	5.5	0.09	ug/L
	Total Chromium	B J	3.09	10	0.73	ug/L		Total Tin	J	1.29	100	0.39	ug/L
	Total Cobalt	J	1.77	10	0.26	ug/L	MW-20B	1,1-Dichloroethane	J	4.5	5	0.2	ug/L
	Total Copper	J	0.73	10	0.22	ug/L		Chlorobenzene	J	0.3	3	0.2	ug/L
	Total Nickel	J	1.8	50	0.22	ug/L		Chloroethane	J	0.5	10	0.3	ug/L
	Total Zinc	B J	2.32	10	0.64	ug/L		cis-1,2-Dichloroethene	J	2.8	5	0.2	ug/L
	trans-1,2-Dichloroethene	J	0.4	5	0.2	ug/L		Total Antimony	J	1.51	6	1.05	ug/L
Chlorobenzene	J	1.1	3	0.2	ug/L	Total Cobalt		J	6.62	10	0.26	ug/L	
cis-1,2-Dichloroethene	J	0.5	5	0.2	ug/L	Total Copper		J	3.4	10	0.22	ug/L	
Total Cadmium	J	0.63	1	0.05	ug/L	Total Lead		J	0.33	10	0.05	ug/L	
Total Chromium	B J	4.66	10	0.73	ug/L	Total Nickel		J	47	50	0.22	ug/L	
Total Copper	J	2.81	10	0.22	ug/L	Total Selenium		J	2.98	10	1.01	ug/L	
MW-18A	Total Mercury	B J	0.082	0.2	0.064	ug/L	Total Thallium	J	0.17	5.5	0.09	ug/L	
	Total Nickel	J	9.9	50	0.22	ug/L	1,1-Dichloroethane	J	0.7	5	0.2	ug/L	
	Total Tin	J	0.85	100	0.39	ug/L	2,4-D	J	1.5	2	0.98	ug/L	
	Xylenes, total	J	0.8	5	0.5	ug/L	Benzene	J	0.4	1	0.2	ug/L	
	1,1-Dichloroethane	J	0.4	5	0.2	ug/L	Chlorobenzene	J	1.5	3	0.2	ug/L	
	Chlorobenzene	J	2.9	3	0.2	ug/L	cis-1,2-Dichloroethene	J	2.6	5	0.2	ug/L	
	cis-1,2-Dichloroethene	J	0.5	5	0.2	ug/L	MW-25	Total Cadmium	J	0.14	1	0.05	ug/L
Total Cadmium	J	0.29	1	0.05	ug/L	Total Cobalt		J	7.73	10	0.26	ug/L	
Total Copper	J	7.15	10	0.22	ug/L	Total Copper		J	1.28	10	0.22	ug/L	
Total Lead	J	0.09	10	0.05	ug/L	Total Mercury		B	0.206	0.2	0.064	ug/L	
Total Selenium	J	9.82	10	1.01	ug/L	Total Nickel		J	25.6	50	0.22	ug/L	
Total Thallium	J	0.1	5.5	0.09	ug/L	Total Selenium		J	1.54	10	1.01	ug/L	
Total Tin	J	0.86	100	0.39	ug/L	Total Zinc		B J	3.03	10	0.64	ug/L	
Total Zinc	B J	3.11	10	0.64	ug/L	Vinyl Chloride		J	1	1	0.3	ug/L	
MW-19	1,1-Dichloroethane	J	0.4	5	0.2	ug/L		Total Barium	B J	0.62	100	0.1	ug/L
	Chlorobenzene	J	2.9	3	0.2	ug/L		Total Chromium	B J	3.39	10	0.73	ug/L
	cis-1,2-Dichloroethene	J	0.5	5	0.2	ug/L		Total Chromium	B J	3.93	10	0.73	ug/L
	Total Cadmium	J	0.29	1	0.05	ug/L		Total Zinc	B J	1.29	10	0.64	ug/L
	Total Copper	J	7.15	10	0.22	ug/L		Total Mercury	B J	0.064	0.2	0.064	ug/L
	Total Lead	J	0.09	10	0.05	ug/L	1,3,5-Trinitrobenzene	B J	6.5	9.4	5	ug/L	
	Total Selenium	J	9.82	10	1.01	ug/L							
	Total Thallium	J	0.1	5.5	0.09	ug/L							
	Total Tin	J	0.86	100	0.39	ug/L							
	Total Zinc	B J	3.11	10	0.64	ug/L							
Field Blank													
Laboratory Blank													

SWSL: Solid Waste Section Limit.

MDL: Laboratory Method Detection Limit.

B: Denotes detected in a field blank or laboratory method blank.

J: Denotes sample result above the MDL but below the SWSL; estimated value; value may not be accurate.