

April 24, 2014

Ms. Jackie 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

**RE: Notification of NC Appendix II Detections and GPS Exceedances
First Semiannual Sampling Event of 2014
Granville County – Closed Butner Landfill Permit No. 39-02
JOYCE Project No. 00660.1302.12, Task 04**

Dear Ms. Drummond:

On behalf of Granville County, Joyce Engineering (JOYCE) is submitting this notification of Appendix II constituent detections and GPS exceedances at the Butner Landfill, Permit No. 39-02, in accordance with Title 15A, Chapter 13, Subchapter 13B, Section .1634 of the North Carolina Solid Waste Management Regulations. The first semiannual sampling event of 2014 at the Butner Landfill took place on February 24, 2014. Samples were sent to Pace Analytical Services, Inc. of Huntersville, North Carolina. The attached table summarizes all Appendix I and Appendix II constituents detected in groundwater and surface water samples during this event.

Antimony was detected above the SWS GWPS in MW-1R; however MW-1R serves as the site's upgradient background well; therefore, the detection of antimony is not above background, so it is not a Groundwater Protection Standard (GPS) exceedance. Cobalt in MW-2R was detected above the GWPS. Preliminary statistical analysis does not indicate statistical increase above the calculated background value for cobalt.

Due to a suspect detection of beta-BHC in MW-2R verification sampling was completed on April 15, 2014. The verification sampling results did not confirm the initial detection of beta-BHC in MW-2R.

Benzene in MW-2R was the only NC Appendix II constituent detected above its GPS. The benzene exceedance was addressed in the Assessment of Corrective Measures report submitted by JOYCE on May 17, 2013. In general, the results are consistent with historical data.

A complete Semiannual Water Quality Monitoring Report will be submitted as soon as the final data review, final statistical analyses, and hydrologic analysis are complete. If you have any questions or need additional information, please feel free to contact me or Alex Everhart at (336) 323-0092.

Sincerely,
JOYCE ENGINEERING, INC.



Van Burbach, Ph.D., P.G.
Technical Consultant

Attachment: Tables of Detected Constituents

Copy: Jason Falls, Granville County

WELL ID	PARAMETER	RESULT	UNITS	QUALIFIER	MRL
3902-MW1R	Antimony	8.8	ug/L		6
3902-MW1R	Methylene Chloride	1	ug/L		1
3902-MW1R	bis(2-Ethylhexyl)phthalate	2.6	ug/L	J	15
3902-MW2R	Arsenic	6.4	ug/L	J	10
3902-MW2R	Barium	93.8	ug/L	J	100
3902-MW2R	Cobalt	18.4	ug/L		10
3902-MW2R	Nickel	83.1	ug/L		50
3902-MW2R	Tin	26.7	ug/L	J	100
3902-MW2R	beta-BHC	0.052 (ND)	ug/L		0.05
3902-MW2R	1,2-Dichlorobenzene	1.4	ug/L	J	5
3902-MW2R	1,4-Dichlorobenzene	2.2	ug/L		1
3902-MW2R	Benzene	1.4	ug/L		1
3902-MW2R	Chlorobenzene	16.3	ug/L		3
3902-MW2R	Chloroethane	1.1	ug/L	J	10
3902-MW2R	Naphthalene	5.8	ug/L	J	10
3902-MW3R	Barium	44.8	ug/L	J	100
3902-MW3R	Copper	12.2	ug/L		10
3902-MW3R	Nickel	16.7	ug/L	J	50
3902-MW3R	Tin	11.7	ug/L	J	100
3902-MW3R	1,2-Dichlorobenzene	0.64	ug/L	J	5
3902-MW3R	1,4-Dichlorobenzene	1.8	ug/L		1
3902-MW3R	Chlorobenzene	2.5	ug/L	J	3
3902-MW3R	Chloroethane	0.82	ug/L	J	10
3902-MW4	Nickel	10.4	ug/L	J	50
3902-MW4	Tin	9.8	ug/L	J	100
3902-MW4	Vanadium	12.9	ug/L	J	25
3902-MW4	1,1-Dichloroethane	0.5	ug/L	J	5
3902-MW4	Chlorobenzene	1.4	ug/L	J	3
3902-MW4	N-Nitroso-di-n-butylamine	8.6	ug/L	J	10
3902-MW5	Barium	139	ug/L		100
3902-MW5	Cobalt	9.6	ug/L	J	10
3902-MW5	Copper	5.1	ug/L	J	10

Highlighted values are above the GPS

Value in () is from the April 15, 2014 verification sampling event.