Environmental Compliance and Remediation

Babb & Associates, P.A.

July 9, 2014

Mr. Ervin Lane, Hydrogeologist
Field Operations Branch
NC Solid Waste Section
Mail Service Center 1646
Raleigh, North Carolina 27699-1646

Re: 2014 First Semi-Annual Water Quality Monitoring Results
Westside C&D Facility – Permit No. 98-09
Wilson, North Carolina

Dear Ervin:

Babb & Associates, P.A. has completed the 2014 first semi-annual sampling event at the Westside C&D facility in Wilson County, North Carolina. On May 14-15, 2014, four groundwater monitoring wells were sampled and analyzed for volatile organics by EPA Method 8260 and inorganic compounds by EPA Method 6010B. A site map that identifies sample locations and provides the potentiometric surface of the shallow groundwater is attached as Figure 1.

No volatile organic compounds were detected above the laboratory method detection limits, Solid Waste Section Limits (SWSLs), or 2L Groundwater Standards during this monitoring event. Inorganic compounds were also detected in three of the four groundwater monitoring wells, including the background monitoring well, above the laboratory method detection limits and SWSLs. None of the detected inorganic compounds exceeded the established 2L Groundwater Standards.

No other Appendix I parameters were detected at concentrations equaling or exceeding the SWSLs or the 2L Groundwater Standards in the four groundwater samples collected. The groundwater laboratory analytical results and field parameters are summarized on Table 1. The laboratory analytical report, in both pdf and Excel EDD format, and site map (Figure 1) are provided with this report.

P.O. Box 37697
Raleigh, NC 27627
(919) 325-0696

If there are any questions regarding the attached information, please contact the undersigned at (919) 325-0696.

Respectfully,

Babb & Associates, P.A.

Gary D. Babb, P.G.
President

Attachments

cc: Mr. Andy Davis, Director
Wilson County Solid Waste

DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Babb & Associates, P.A.

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Gary D. Babb Phone: (919) 325-0696

E-mail: gdbabb@gmail.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Westside C&D Facility	4537 Landfill Road Wilson, NC	98-09	.0500	May 14-15, 2014

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☒ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☐ Groundwater monitoring data from private water supply wells
☐ Leachate monitoring data
☐ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify) _____
☐ Other(specify) _____

Notification attached?

☒ No. No groundwater or surface water standards were exceeded.
☐ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Gary D. Babb, P.G. Licensed Geologist (919) 325-0696

Facility Representative Name (Print) Title (Area Code) Telephone Number

Signature July 9, 2014 Date

Affix NC Licensed/Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 488 GEOLOGIST GARY D. BABB

Babb & Associates, P.A., PO Box 37697, Raleigh, NC 27627

Facility Representative Address

NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009

Babb & Associates, P.A.

TITLE:	FIGURE NO:	SCALE:	PROJECT NO:
SITE MAP Westside C&D Landfill Wilson County Wilson, North Carolina	Figure 1		
	CHECKED BY:	DRAWN BY:	DATE:
		G. Babb	5/15/14

TABLE 1

May 2014 Groundwater Analytical Results
Westside CDLF Facility
Wilson County, North Carolina
Permit No. 98-09

Parameter	GMW-1	GMW-2	GMW-3	GMW-4	2L Standard
pH	7.0	5.0	4.4	4.9	6.5 - 8.5
Conductivity	252	317	61	54	
Temperature	22.1	19.4	19.7	19.2	
Inorganics (ug/l)					
Barium	72.6 J	**124**	94.9 J	61.4 J	700
Beryllium	0.562 J	0.256 J	0.815 J	BQL	NE
Chromium	5.02 J	BQL	BQL	BQL	10
Cobalt	**11.9**	**55.0**	6.77 J	1.63 J	NE
Copper	**26.0**	BQL	BQL	BQL	1000
Lead	2.86 J	BQL	BQL	BQL	15
Nickel	9.64 J	12.5 J	6.73 J	BQL	100
Vanadium	8.83 J	BQL	BQL	BQL	NE
Zinc	**73.3**	**12.6**	**25.5**	8.66 J	1000
8260 volatiles (ug/l)	BQL	BQL	BQL	BQL	

Notes:
Samples collected on May 15, 2014
BQL - Below laboratory quantitation limits
J - Between MDL and RL
NE - Not established
Shaded values exceed established standards

Environmental Conservation Laboratories, Inc.
102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515
www.encolabs.com

Monday, June 2, 2014

Babb & Associates (BA024)

Attn: Gary Babb

3605 Country Cove Lane

Raleigh, NC 27606

RE: Laboratory Results for
Project Number: [none], Project Name/Desc: Wilson C&D Landfill
ENCO Workorder(s): C405666

Dear Gary Babb,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, May 16, 2014.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Bill Scott

Bill Scott

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 24.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: 9809-GMW1 Lab ID: C405666-01 Sampled: 05/15/14 07:50 Received: 05/16/14 09:20

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	11/11/14	05/21/14 09:48	5/23/2014 12:47
EPA 8260B	05/29/14	05/24/14 15:12	5/25/2014 13:25

Client ID: 9809-GMW1 Lab ID: C405666-01RE1 Sampled: 05/15/14 07:50 Received: 05/16/14 09:20

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6020A	11/11/14	05/21/14 10:50	5/29/2014 13:05

Client ID: 9809-GMW2 Lab ID: C405666-02 Sampled: 05/15/14 08:03 Received: 05/16/14 09:20

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	11/11/14	05/21/14 09:48	5/23/2014 12:50
EPA 6020A	11/11/14	05/21/14 10:50	5/29/2014 11:01
EPA 8260B	05/29/14	05/24/14 15:12	5/25/2014 13:54

Client ID: 9809-GMW3 Lab ID: C405666-03 Sampled: 05/15/14 08:09 Received: 05/16/14 09:20

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	11/11/14	05/21/14 09:48	5/23/2014 12:52
EPA 6020A	11/11/14	05/21/14 10:50	5/29/2014 11:29
EPA 8260B	05/29/14	05/24/14 15:12	5/25/2014 14:24

Client ID: 9809-GMW4 Lab ID: C405666-04 Sampled: 05/15/14 08:14 Received: 05/16/14 09:20

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	11/11/14	05/21/14 09:48	5/23/2014 12:55
EPA 6020A	11/11/14	05/21/14 10:50	5/29/2014 11:33
EPA 8260B	05/29/14	05/24/14 15:12	5/25/2014 14:53

Client ID: 9809-tripblank Lab ID: C405666-05 Sampled: 05/15/14 07:50 Received: 05/16/14 09:20

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	05/29/14	05/24/14 15:12	5/25/2014 15:23

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: 9809-GMW1 **Lab ID: C405666-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	72.6	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.562	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	5.02	J	1	1.40	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	11.9		1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	26.0		1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	2.86	J	1	2.10	10.0	10	ug/L	EPA 6010C	
Nickel - Total	9.64	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	8.83	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	73.3		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 9809-GMW2 **Lab ID: C405666-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	124		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.256	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Cobalt - Total	55.0		1	1.10	10.0	10	ug/L	EPA 6010C	
Nickel - Total	12.5	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Zinc - Total	26.6		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 9809-GMW3 **Lab ID: C405666-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	94.9	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.815	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Cobalt - Total	6.77	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Nickel - Total	6.73	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Zinc - Total	25.5		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 9809-GMW4 **Lab ID: C405666-04**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	61.4	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cobalt - Total	1.63	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Zinc - Total	8.66	J	1	3.80	10.0	10	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: 9809-GMW1 **Lab Sample ID:** C405666-01 **Received:** 05/16/14 09:20

Matrix: Water **Sampled:** 05/15/14 07:50 **Work Order:** C405666

Project: Wilson C&D Landfill **Sampled By:** Jason Jomp

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.85	UD	ug/L	5	0.85	5.0	5	EPA 8260B	05/25/14 13:25	MSZ	R-04
1,1,1-Trichloroethane [71-55-6] ^	0.60	UD	ug/L	5	0.60	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
1,1,2,2-Tetrachloroethane [79-34-5] ^	1.4	UD	ug/L	5	1.4	5.0	3	EPA 8260B	05/25/14 13:25	MSZ	R-04
1,1,2-Trichloroethane [79-00-5] ^	0.70	UD	ug/L	5	0.70	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
1,1-Dichloroethane [75-34-3] ^	0.65	UD	ug/L	5	0.65	5.0	5	EPA 8260B	05/25/14 13:25	MSZ	R-04
1,1-Dichloroethene [75-35-4] ^	1.0	UD	ug/L	5	1.0	5.0	5	EPA 8260B	05/25/14 13:25	MSZ	R-04
1,2,3-Trichloropropane [96-18-4] ^	1.2	UD	ug/L	5	1.2	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
1,2-Dibromo-3-chloropropane [96-12-8] ^	2.4	UD	ug/L	5	2.4	5.0	13	EPA 8260B	05/25/14 13:25	MSZ	R-04
1,2-Dibromoethane [106-93-4] ^	3.3	UD	ug/L	5	3.3	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
1,2-Dichlorobenzene [95-50-1] ^	0.95	UD	ug/L	5	0.95	5.0	5	EPA 8260B	05/25/14 13:25	MSZ	R-04
1,2-Dichloroethane [107-06-2] ^	1.0	UD	ug/L	5	1.0	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
1,2-Dichloropropane [78-87-5] ^	0.50	UD	ug/L	5	0.50	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
1,4-Dichlorobenzene [106-46-7] ^	0.95	UD	ug/L	5	0.95	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
2-Butanone [78-93-3] ^	6.5	UD	ug/L	5	6.5	25	100	EPA 8260B	05/25/14 13:25	MSZ	R-04
2-Hexanone [591-78-6] ^	4.4	UD	ug/L	5	4.4	25	50	EPA 8260B	05/25/14 13:25	MSZ	R-04
4-Methyl-2-pentanone [108-10-1] ^	5.5	UD	ug/L	5	5.5	25	100	EPA 8260B	05/25/14 13:25	MSZ	R-04
Acetone [67-64-1] ^	6.0	UD	ug/L	5	6.0	25	100	EPA 8260B	05/25/14 13:25	MSZ	R-04
Acrylonitrile [107-13-1] ^	18	UD	ug/L	5	18	50	200	EPA 8260B	05/25/14 13:25	MSZ	R-04
Benzene [71-43-2] ^	0.75	UD	ug/L	5	0.75	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
Bromochloromethane [74-97-5] ^	2.4	UD	ug/L	5	2.4	5.0	3	EPA 8260B	05/25/14 13:25	MSZ	R-04
Bromodichloromethane [75-27-4] ^	0.85	UD	ug/L	5	0.85	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
Bromoform [75-25-2] ^	1.1	UD	ug/L	5	1.1	5.0	3	EPA 8260B	05/25/14 13:25	MSZ	R-04
Bromomethane [74-83-9] ^	0.70	UD	ug/L	5	0.70	5.0	10	EPA 8260B	05/25/14 13:25	MSZ	R-04
Carbon disulfide [75-15-0] ^	7.5	UD	ug/L	5	7.5	25	100	EPA 8260B	05/25/14 13:25	MSZ	R-04
Carbon tetrachloride [56-23-5] ^	0.85	UD	ug/L	5	0.85	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
Chlorobenzene [108-90-7] ^	0.85	UD	ug/L	5	0.85	5.0	3	EPA 8260B	05/25/14 13:25	MSZ	R-04
Chloroethane [75-00-3] ^	1.2	UD	ug/L	5	1.2	5.0	10	EPA 8260B	05/25/14 13:25	MSZ	R-04
Chloroform [67-66-3] ^	0.90	UD	ug/L	5	0.90	5.0	5	EPA 8260B	05/25/14 13:25	MSZ	R-04
Chloromethane [74-87-3] ^	0.65	UD	ug/L	5	0.65	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
cis-1,2-Dichloroethene [156-59-2] ^	0.75	UD	ug/L	5	0.75	5.0	5	EPA 8260B	05/25/14 13:25	MSZ	R-04
cis-1,3-Dichloropropene [10061-01-5] ^	1.0	UD	ug/L	5	1.0	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
Dibromochloromethane [124-48-1] ^	0.85	UD	ug/L	5	0.85	5.0	3	EPA 8260B	05/25/14 13:25	MSZ	R-04
Dibromomethane [74-95-3] ^	1.4	UD	ug/L	5	1.4	5.0	10	EPA 8260B	05/25/14 13:25	MSZ	R-04
Ethylbenzene [100-41-4] ^	0.65	UD	ug/L	5	0.65	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
Iodomethane [74-88-4] ^	8.5	UD	ug/L	5	8.5	25	10	EPA 8260B	05/25/14 13:25	MSZ	R-04
m,p-Xylenes [108-38-3/106-42-3] ^	0.85	UD	ug/L	5	0.85	10	NE	EPA 8260B	05/25/14 13:25	MSZ	R-04
Methylene chloride [75-09-2] ^	1.2	UD	ug/L	5	1.2	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
o-Xylene [95-47-6] ^	0.32	UD	ug/L	5	0.32	5.0	NE	EPA 8260B	05/25/14 13:25	MSZ	R-04
Styrene [100-42-5] ^	0.55	UD	ug/L	5	0.55	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
Tetrachloroethene [127-18-4] ^	0.85	UD	ug/L	5	0.85	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
Tetrahydrofuran [109-99-9] ^	4.0	UD	ug/L	5	4.0	5.0		EPA 8260B	05/25/14 13:25	MSZ	R-04
Toluene [108-88-3] ^	0.70	UD	ug/L	5	0.70	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
trans-1,2-Dichloroethene [156-60-5] ^	1.0	UD	ug/L	5	1.0	5.0	5	EPA 8260B	05/25/14 13:25	MSZ	R-04

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Description: 9809-GMW1 | **Lab Sample ID:** C405666-01 | **Received:** 05/16/14 09:20

Matrix: Water | **Sampled:** 05/15/14 07:50 | **Work Order:** C405666

Project: Wilson C&D Landfill | **Sampled By:** Jason Jomp

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
trans-1,3-Dichloropropene [10061-02-6] ^	0.75	UD	ug/L	5	0.75	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
trans-1,4-Dichloro-2-butene [110-57-6] ^	3.5	UD	ug/L	5	3.5	5.0	100	EPA 8260B	05/25/14 13:25	MSZ	R-04
Trichloroethene [79-01-6] ^	0.75	UD	ug/L	5	0.75	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
Trichlorofluoromethane [75-69-4] ^	1.2	UD	ug/L	5	1.2	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
Vinyl acetate [108-05-4] ^	4.8	UD	ug/L	5	4.8	25	50	EPA 8260B	05/25/14 13:25	MSZ	R-04
Vinyl chloride [75-01-4] ^	1.6	UD	ug/L	5	1.6	5.0	1	EPA 8260B	05/25/14 13:25	MSZ	R-04
Xylenes (Total) [1330-20-7] ^	2.2	UD	ug/L	5	2.2	15	5	EPA 8260B	05/25/14 13:25	MSZ	R-04

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*55*	*1*	*50.0*	*111 %*	*51-122*	*4E24002*	*EPA 8260B*	*05/25/14 13:25*	*MSZ*	*R-04*
Dibromofluoromethane	*48*	*1*	*50.0*	*95 %*	*68-117*	*4E24002*	*EPA 8260B*	*05/25/14 13:25*	*MSZ*	*R-04*
Toluene-d8	*55*	*1*	*50.0*	*111 %*	*67-127*	*4E24002*	*EPA 8260B*	*05/25/14 13:25*	*MSZ*	*R-04*

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Description: 9809-GMW1 | **Lab Sample ID:** C405666-01 | **Received:** 05/16/14 09:20

Matrix: Water | **Sampled:** 05/15/14 07:50 | **Work Order:** C405666

Project: Wilson C&D Landfill | **Sampled By:** Jason Jomp

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	2.20	UD	ug/L	10	2.20	20.0	6	EPA 6020A	05/29/14 13:05	VLO	R-05
Arsenic [7440-38-2] ^	5.40	U	ug/L	1	5.40	10.0	10	EPA 6010C	05/23/14 12:47	JDH	
Barium [7440-39-3] ^	**72.6**	J	ug/L	1	1.00	10.0	100	EPA 6010C	05/23/14 12:47	JDH	
Beryllium [7440-41-7] ^	**0.562**	J	ug/L	1	0.100	1.00	1	EPA 6010C	05/23/14 12:47	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/23/14 12:47	JDH	
Chromium [7440-47-3] ^	**5.02**	J	ug/L	1	1.40	10.0	10	EPA 6010C	05/23/14 12:47	JDH	
Cobalt [7440-48-4] ^	**11.9**		ug/L	1	1.10	10.0	10	EPA 6010C	05/23/14 12:47	JDH	
Copper [7440-50-8] ^	**26.0**		ug/L	1	1.60	10.0	10	EPA 6010C	05/23/14 12:47	JDH	
Lead [7439-92-1] ^	**2.86**	J	ug/L	1	2.10	10.0	10	EPA 6010C	05/23/14 12:47	JDH	
Nickel [7440-02-0] ^	**9.64**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/23/14 12:47	JDH	
Selenium [7782-49-2] ^	9.10	UD	ug/L	10	9.10	30.0	10	EPA 6020A	05/29/14 13:05	VLO	R-05
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/23/14 12:47	JDH	
Thallium [7440-28-0] ^	1.10	UD	ug/L	10	1.10	10.0	5.5	EPA 6020A	05/29/14 13:05	VLO	R-05
Vanadium [7440-62-2] ^	**8.83**	J	ug/L	1	1.40	10.0	25	EPA 6010C	05/23/14 12:47	JDH	
Zinc [7440-66-6] ^	**73.3**		ug/L	1	3.80	10.0	10	EPA 6010C	05/23/14 12:47	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: 9809-GMW2 | **Lab Sample ID:** C405666-02 | **Received:** 05/16/14 09:20

Matrix: Water | **Sampled:** 05/15/14 08:03 | **Work Order:** C405666

Project: Wilson C&D Landfill | **Sampled By:** Jason Jomp

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/25/14 13:54	MSZ	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/25/14 13:54	MSZ	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/25/14 13:54	MSZ	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/14 13:54	MSZ	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/25/14 13:54	MSZ	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/25/14 13:54	MSZ	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/25/14 13:54	MSZ	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/25/14 13:54	MSZ	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/25/14 13:54	MSZ	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/25/14 13:54	MSZ	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/25/14 13:54	MSZ	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/25/14 13:54	MSZ	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/25/14 13:54	MSZ	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/14 13:54	MSZ	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/25/14 13:54	MSZ	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/14 13:54	MSZ	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/25/14 13:54	MSZ	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/25/14 13:54	MSZ	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/14 13:54	MSZ	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/14 13:54	MSZ	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/25/14 13:54	MSZ	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/25/14 13:54	MSZ	
m,p-Xylenes [108-38-3/106-42-3] ^	0.17	U	ug/L	1	0.17	2.0	NE	EPA 8260B	05/25/14 13:54	MSZ	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
o-Xylene [95-47-6] ^	0.065	U	ug/L	1	0.065	1.0	NE	EPA 8260B	05/25/14 13:54	MSZ	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0		EPA 8260B	05/25/14 13:54	MSZ	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/14 13:54	MSZ	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/25/14 13:54	MSZ	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	

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Description: 9809-GMW2 | **Lab Sample ID:** C405666-02 | **Received:** 05/16/14 09:20

Matrix: Water | **Sampled:** 05/15/14 08:03 | **Work Order:** C405666

Project: Wilson C&D Landfill | **Sampled By:** Jason Jomp

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/25/14 13:54	MSZ	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/25/14 13:54	MSZ	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/25/14 13:54	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*109 %*	*51-122*	*4E24002*	*EPA 8260B*	*05/25/14 13:54*	*MSZ*	
Dibromofluoromethane	*50*	*1*	*50.0*	*100 %*	*68-117*	*4E24002*	*EPA 8260B*	*05/25/14 13:54*	*MSZ*	
Toluene-d8	*55*	*1*	*50.0*	*109 %*	*67-127*	*4E24002*	*EPA 8260B*	*05/25/14 13:54*	*MSZ*	

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Description: 9809-GMW2 | **Lab Sample ID:** C405666-02 | **Received:** 05/16/14 09:20

Matrix: Water | **Sampled:** 05/15/14 08:03 | **Work Order:** C405666

Project: Wilson C&D Landfill | **Sampled By:** Jason Jomp

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/14 11:01	VLO	
Arsenic [7440-38-2] ^	5.40	U	ug/L	1	5.40	10.0	10	EPA 6010C	05/23/14 12:50	JDH	
Barium [7440-39-3] ^	**124**		ug/L	1	1.00	10.0	100	EPA 6010C	05/23/14 12:50	JDH	
Beryllium [7440-41-7] ^	**0.256**	J	ug/L	1	0.100	1.00	1	EPA 6010C	05/23/14 12:50	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/23/14 12:50	JDH	
Chromium [7440-47-3] ^	1.40	U	ug/L	1	1.40	10.0	10	EPA 6010C	05/23/14 12:50	JDH	
Cobalt [7440-48-4] ^	**55.0**		ug/L	1	1.10	10.0	10	EPA 6010C	05/23/14 12:50	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	05/23/14 12:50	JDH	
Lead [7439-92-1] ^	2.10	U	ug/L	1	2.10	10.0	10	EPA 6010C	05/23/14 12:50	JDH	
Nickel [7440-02-0] ^	**12.5**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/23/14 12:50	JDH	
Selenium [7782-49-2] ^	0.910	U	ug/L	1	0.910	3.00	10	EPA 6020A	05/29/14 11:01	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/23/14 12:50	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/14 11:01	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	05/23/14 12:50	JDH	
Zinc [7440-66-6] ^	**26.6**		ug/L	1	3.80	10.0	10	EPA 6010C	05/23/14 12:50	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: 9809-GMW3 | **Lab Sample ID:** C405666-03 | **Received:** 05/16/14 09:20

Matrix: Water | **Sampled:** 05/15/14 08:09 | **Work Order:** C405666

Project: Wilson C&D Landfill | **Sampled By:** Jason Jomp

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/25/14 14:24	MSZ	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/25/14 14:24	MSZ	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/25/14 14:24	MSZ	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/14 14:24	MSZ	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/25/14 14:24	MSZ	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/25/14 14:24	MSZ	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/25/14 14:24	MSZ	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/25/14 14:24	MSZ	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/25/14 14:24	MSZ	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/25/14 14:24	MSZ	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/25/14 14:24	MSZ	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/25/14 14:24	MSZ	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/25/14 14:24	MSZ	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/14 14:24	MSZ	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/25/14 14:24	MSZ	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/14 14:24	MSZ	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/25/14 14:24	MSZ	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/25/14 14:24	MSZ	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/14 14:24	MSZ	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/14 14:24	MSZ	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/25/14 14:24	MSZ	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/25/14 14:24	MSZ	
m,p-Xylenes [108-38-3/106-42-3] ^	0.17	U	ug/L	1	0.17	2.0	NE	EPA 8260B	05/25/14 14:24	MSZ	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
o-Xylene [95-47-6] ^	0.065	U	ug/L	1	0.065	1.0	NE	EPA 8260B	05/25/14 14:24	MSZ	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0		EPA 8260B	05/25/14 14:24	MSZ	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/14 14:24	MSZ	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/25/14 14:24	MSZ	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	

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Description: 9809-GMW3 | **Lab Sample ID:** C405666-03 | **Received:** 05/16/14 09:20

Matrix: Water | **Sampled:** 05/15/14 08:09 | **Work Order:** C405666

Project: Wilson C&D Landfill | **Sampled By:** Jason Jomp

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/25/14 14:24	MSZ	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/25/14 14:24	MSZ	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/25/14 14:24	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*104 %*	*51-122*	*4E24002*	*EPA 8260B*	*05/25/14 14:24*	*MSZ*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*4E24002*	*EPA 8260B*	*05/25/14 14:24*	*MSZ*	
Toluene-d8	*55*	*1*	*50.0*	*110 %*	*67-127*	*4E24002*	*EPA 8260B*	*05/25/14 14:24*	*MSZ*	

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Description: 9809-GMW3 | **Lab Sample ID:** C405666-03 | **Received:** 05/16/14 09:20

Matrix: Water | **Sampled:** 05/15/14 08:09 | **Work Order:** C405666

Project: Wilson C&D Landfill | **Sampled By:** Jason Jomp

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/14 11:29	VLO	
Arsenic [7440-38-2] ^	5.40	U	ug/L	1	5.40	10.0	10	EPA 6010C	05/23/14 12:52	JDH	
Barium [7440-39-3] ^	**94.9**	J	ug/L	1	1.00	10.0	100	EPA 6010C	05/23/14 12:52	JDH	
Beryllium [7440-41-7] ^	**0.815**	J	ug/L	1	0.100	1.00	1	EPA 6010C	05/23/14 12:52	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/23/14 12:52	JDH	
Chromium [7440-47-3] ^	1.40	U	ug/L	1	1.40	10.0	10	EPA 6010C	05/23/14 12:52	JDH	
Cobalt [7440-48-4] ^	**6.77**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/23/14 12:52	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	05/23/14 12:52	JDH	
Lead [7439-92-1] ^	2.10	U	ug/L	1	2.10	10.0	10	EPA 6010C	05/23/14 12:52	JDH	
Nickel [7440-02-0] ^	**6.73**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/23/14 12:52	JDH	
Selenium [7782-49-2] ^	0.910	U	ug/L	1	0.910	3.00	10	EPA 6020A	05/29/14 11:29	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/23/14 12:52	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/14 11:29	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	05/23/14 12:52	JDH	
Zinc [7440-66-6] ^	**25.5**		ug/L	1	3.80	10.0	10	EPA 6010C	05/23/14 12:52	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: 9809-GMW4 | **Lab Sample ID:** C405666-04 | **Received:** 05/16/14 09:20

Matrix: Water | **Sampled:** 05/15/14 08:14 | **Work Order:** C405666

Project: Wilson C&D Landfill | **Sampled By:** Jason Jomp

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/25/14 14:53	MSZ	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/25/14 14:53	MSZ	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/25/14 14:53	MSZ	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/14 14:53	MSZ	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/25/14 14:53	MSZ	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/25/14 14:53	MSZ	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/25/14 14:53	MSZ	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/25/14 14:53	MSZ	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/25/14 14:53	MSZ	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/25/14 14:53	MSZ	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/25/14 14:53	MSZ	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/25/14 14:53	MSZ	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/25/14 14:53	MSZ	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/14 14:53	MSZ	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/25/14 14:53	MSZ	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/14 14:53	MSZ	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/25/14 14:53	MSZ	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/25/14 14:53	MSZ	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/14 14:53	MSZ	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/14 14:53	MSZ	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/25/14 14:53	MSZ	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/25/14 14:53	MSZ	
m,p-Xylenes [108-38-3/106-42-3] ^	0.17	U	ug/L	1	0.17	2.0	NE	EPA 8260B	05/25/14 14:53	MSZ	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
o-Xylene [95-47-6] ^	0.065	U	ug/L	1	0.065	1.0	NE	EPA 8260B	05/25/14 14:53	MSZ	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0		EPA 8260B	05/25/14 14:53	MSZ	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/14 14:53	MSZ	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/25/14 14:53	MSZ	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	

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Description: 9809-GMW4 | **Lab Sample ID:** C405666-04 | **Received:** 05/16/14 09:20

Matrix: Water | **Sampled:** 05/15/14 08:14 | **Work Order:** C405666

Project: Wilson C&D Landfill | **Sampled By:** Jason Jomp

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/25/14 14:53	MSZ	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/25/14 14:53	MSZ	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/25/14 14:53	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*104 %*	*51-122*	*4E24002*	*EPA 8260B*	*05/25/14 14:53*	*MSZ*	
Dibromofluoromethane	*47*	*1*	*50.0*	*95 %*	*68-117*	*4E24002*	*EPA 8260B*	*05/25/14 14:53*	*MSZ*	
Toluene-d8	*54*	*1*	*50.0*	*109 %*	*67-127*	*4E24002*	*EPA 8260B*	*05/25/14 14:53*	*MSZ*	

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Description: 9809-GMW4 | **Lab Sample ID:** C405666-04 | **Received:** 05/16/14 09:20

Matrix: Water | **Sampled:** 05/15/14 08:14 | **Work Order:** C405666

Project: Wilson C&D Landfill | **Sampled By:** Jason Jomp

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/14 11:33	VLO	
Arsenic [7440-38-2] ^	5.40	U	ug/L	1	5.40	10.0	10	EPA 6010C	05/23/14 12:55	JDH	
Barium [7440-39-3] ^	**61.4**	J	ug/L	1	1.00	10.0	100	EPA 6010C	05/23/14 12:55	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	05/23/14 12:55	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/23/14 12:55	JDH	
Chromium [7440-47-3] ^	1.40	U	ug/L	1	1.40	10.0	10	EPA 6010C	05/23/14 12:55	JDH	
Cobalt [7440-48-4] ^	**1.63**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/23/14 12:55	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	05/23/14 12:55	JDH	
Lead [7439-92-1] ^	2.10	U	ug/L	1	2.10	10.0	10	EPA 6010C	05/23/14 12:55	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	05/23/14 12:55	JDH	
Selenium [7782-49-2] ^	0.910	U	ug/L	1	0.910	3.00	10	EPA 6020A	05/29/14 11:33	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/23/14 12:55	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/14 11:33	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	05/23/14 12:55	JDH	
Zinc [7440-66-6] ^	**8.66**	J	ug/L	1	3.80	10.0	10	EPA 6010C	05/23/14 12:55	JDH	

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Description: 9809-tripblank
Matrix: Water
Project: Wilson C&D Landfill

Lab Sample ID: C405666-05
Sampled: 05/15/14 07:50
Sampled By: ENCO

Received: 05/16/14 09:20
Work Order: C405666

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/25/14 15:23	MSZ	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/25/14 15:23	MSZ	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/25/14 15:23	MSZ	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/14 15:23	MSZ	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/25/14 15:23	MSZ	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/25/14 15:23	MSZ	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/25/14 15:23	MSZ	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/25/14 15:23	MSZ	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/25/14 15:23	MSZ	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/25/14 15:23	MSZ	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/25/14 15:23	MSZ	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/25/14 15:23	MSZ	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/25/14 15:23	MSZ	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/14 15:23	MSZ	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/25/14 15:23	MSZ	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/14 15:23	MSZ	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/25/14 15:23	MSZ	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/25/14 15:23	MSZ	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/14 15:23	MSZ	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/14 15:23	MSZ	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/25/14 15:23	MSZ	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/25/14 15:23	MSZ	
m,p-Xylenes [108-38-3/106-42-3] ^	0.17	U	ug/L	1	0.17	2.0	NE	EPA 8260B	05/25/14 15:23	MSZ	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
o-Xylene [95-47-6] ^	0.065	U	ug/L	1	0.065	1.0	NE	EPA 8260B	05/25/14 15:23	MSZ	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0		EPA 8260B	05/25/14 15:23	MSZ	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/14 15:23	MSZ	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/25/14 15:23	MSZ	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	

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Description:	9809-tripblank	**Lab Sample ID:**	C405666-05	**Received:**	05/16/14 09:20
Matrix:	Water	**Sampled:**	05/15/14 07:50	**Work Order:**	C405666
Project:	Wilson C&D Landfill	**Sampled By:**	ENCO		

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/25/14 15:23	MSZ	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/25/14 15:23	MSZ	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/25/14 15:23	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*55*	*1*	*50.0*	*111 %*	*51-122*	*4E24002*	*EPA 8260B*	*05/25/14 15:23*	*MSZ*	
Dibromofluoromethane	*47*	*1*	*50.0*	*93 %*	*68-117*	*4E24002*	*EPA 8260B*	*05/25/14 15:23*	*MSZ*	
Toluene-d8	*55*	*1*	*50.0*	*110 %*	*67-127*	*4E24002*	*EPA 8260B*	*05/25/14 15:23*	*MSZ*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 4E24002 - EPA 5030B_MS

Blank (4E24002-BLK1) Prepared: 05/24/2014 15:12 Analyzed: 05/25/2014 05:00

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L							
1,1,1-Trichloroethane	0.12	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L							
1,1,2-Trichloroethane	0.14	U	1.0	ug/L							
1,1-Dichloroethane	0.13	U	1.0	ug/L							
1,1-Dichloroethene	0.21	U	1.0	ug/L							
1,2,3-Trichloropropane	0.23	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.19	U	1.0	ug/L							
1,2-Dichloroethane	0.21	U	1.0	ug/L							
1,2-Dichloropropane	0.10	U	1.0	ug/L							
1,4-Dichlorobenzene	0.19	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.15	U	1.0	ug/L							
Bromochloromethane	0.48	U	1.0	ug/L							
Bromodichloromethane	0.17	U	1.0	ug/L							
Bromoform	0.22	U	1.0	ug/L							
Bromomethane	0.14	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.17	U	1.0	ug/L							
Chlorobenzene	0.17	U	1.0	ug/L							
Chloroethane	0.23	U	1.0	ug/L							
Chloroform	0.18	U	1.0	ug/L							
Chloromethane	0.13	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L							
Dibromochloromethane	0.17	U	1.0	ug/L							
Dibromomethane	0.27	U	1.0	ug/L							
Ethylbenzene	0.13	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
m,p-Xylenes	0.17	U	2.0	ug/L							
Methylene chloride	0.23	U	1.0	ug/L							
o-Xylene	0.065	U	1.0	ug/L							
Styrene	0.11	U	1.0	ug/L							
Tetrachloroethene	0.17	U	1.0	ug/L							
Tetrahydrofuran	0.80	U	1.0	ug/L							
Toluene	0.14	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.15	U	1.0	ug/L							
Trichlorofluoromethane	0.24	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.32	U	1.0	ug/L							

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QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 4E24002 - EPA 5030B_MS

Blank (4E24002-BLK1) Continued Prepared: 05/24/2014 15:12 Analyzed: 05/25/2014 05:00

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Xylenes (Total)	0.45	U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*54*			*ug/L*	*50.0*		*107*	*51-122*			
Surrogate: Dibromofluoromethane	*52*			*ug/L*	*50.0*		*103*	*68-117*			
Surrogate: Toluene-d8	*55*			*ug/L*	*50.0*		*110*	*67-127*			

LCS (4E24002-BS1) Prepared: 05/24/2014 15:12 Analyzed: 05/25/2014 05:30

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	24		1.0	ug/L	20.0		119	75-133			
Benzene	19		1.0	ug/L	20.0		94	81-134			
Chlorobenzene	21		1.0	ug/L	20.0		106	83-117			
Tetrahydrofuran	17		1.0	ug/L	20.0		85	0-200			
Toluene	18		1.0	ug/L	20.0		92	71-118			
Trichloroethene	21		1.0	ug/L	20.0		103	74-119			
Surrogate: 4-Bromofluorobenzene	*59*			*ug/L*	*50.0*		*118*	*51-122*			
Surrogate: Dibromofluoromethane	*51*			*ug/L*	*50.0*		*102*	*68-117*			
Surrogate: Toluene-d8	*56*			*ug/L*	*50.0*		*112*	*67-127*			

Matrix Spike (4E24002-MS1) Prepared: 05/24/2014 15:12 Analyzed: 05/25/2014 06:00

Source: C406454-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	24		1.0	ug/L	20.0	0.21 U	118	75-133			
Benzene	19		1.0	ug/L	20.0	0.15 U	95	81-134			
Chlorobenzene	22		1.0	ug/L	20.0	0.17 U	108	83-117			
Tetrahydrofuran	18		1.0	ug/L	20.0	0.80 U	88	0-200			
Toluene	19		1.0	ug/L	20.0	0.14 U	94	71-118			
Trichloroethene	21		1.0	ug/L	20.0	0.15 U	104	74-119			
Surrogate: 4-Bromofluorobenzene	*60*			*ug/L*	*50.0*		*120*	*51-122*			
Surrogate: Dibromofluoromethane	*49*			*ug/L*	*50.0*		*99*	*68-117*			
Surrogate: Toluene-d8	*57*			*ug/L*	*50.0*		*115*	*67-127*			

Matrix Spike Dup (4E24002-MSD1) Prepared: 05/24/2014 15:12 Analyzed: 05/25/2014 06:30

Source: C406454-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	23		1.0	ug/L	20.0	0.21 U	113	75-133	5	20	
Benzene	19		1.0	ug/L	20.0	0.15 U	94	81-134	1	17	
Chlorobenzene	21		1.0	ug/L	20.0	0.17 U	105	83-117	2	16	
Tetrahydrofuran	19		1.0	ug/L	20.0	0.80 U	93	0-200	5	50	
Toluene	18		1.0	ug/L	20.0	0.14 U	91	71-118	4	17	
Trichloroethene	21		1.0	ug/L	20.0	0.15 U	104	74-119	0.4	22	
Surrogate: 4-Bromofluorobenzene	*59*			*ug/L*	*50.0*		*119*	*51-122*			
Surrogate: Dibromofluoromethane	*50*			*ug/L*	*50.0*		*101*	*68-117*			
Surrogate: Toluene-d8	*55*			*ug/L*	*50.0*		*109*	*67-127*			

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QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 4E21018 - EPA 3005A

Blank (4E21018-BLK1) Prepared: 05/21/2014 09:48 Analyzed: 05/23/2014 12:21

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	5.40	U	10.0	ug/L							
Barium	1.00	U	10.0	ug/L							
Beryllium	0.100	U	1.00	ug/L							
Cadmium	0.360	U	1.00	ug/L							
Chromium	1.40	U	10.0	ug/L							
Cobalt	1.10	U	10.0	ug/L							
Copper	1.60	U	10.0	ug/L							
Lead	2.10	U	10.0	ug/L							
Nickel	1.80	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (4E21018-BS1) Prepared: 05/21/2014 09:48 Analyzed: 05/23/2014 12:24

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	223		10.0	ug/L	200		111	80-120			
Barium	208		10.0	ug/L	200		104	80-120			
Beryllium	21.4		1.00	ug/L	20.0		107	80-120			
Cadmium	21.0		1.00	ug/L	20.0		105	80-120			
Chromium	208		10.0	ug/L	200		104	80-120			
Cobalt	218		10.0	ug/L	200		109	80-120			
Copper	206		10.0	ug/L	200		103	80-120			
Lead	214		10.0	ug/L	200		107	80-120			
Nickel	210		10.0	ug/L	200		105	80-120			
Silver	215		10.0	ug/L	200		108	80-120			
Vanadium	213		10.0	ug/L	200		107	80-120			
Zinc	212		10.0	ug/L	200		106	80-120			

Matrix Spike (4E21018-MS1) Prepared: 05/21/2014 09:48 Analyzed: 05/23/2014 12:37

Source: C405667-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	210		10.0	ug/L	200	5.40 U	105	75-125			
Barium	391		10.0	ug/L	200	171	110	75-125			
Beryllium	21.5		1.00	ug/L	20.0	0.100 U	108	75-125			
Cadmium	21.1		1.00	ug/L	20.0	0.360 U	105	75-125			
Chromium	207		10.0	ug/L	200	1.40 U	103	75-125			
Cobalt	212		10.0	ug/L	200	2.31	105	75-125			
Copper	210		10.0	ug/L	200	1.60 U	105	75-125			
Lead	209		10.0	ug/L	200	2.10 U	105	75-125			
Nickel	212		10.0	ug/L	200	1.80 U	106	75-125			
Silver	215		10.0	ug/L	200	1.90 U	108	75-125			
Vanadium	216		10.0	ug/L	200	1.40 U	108	75-125			
Zinc	217		10.0	ug/L	200	3.80 U	108	75-125			

Matrix Spike Dup (4E21018-MSD1) Prepared: 05/21/2014 09:48 Analyzed: 05/23/2014 12:40

Source: C405667-01

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QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 4E21018 - EPA 3005A

Matrix Spike Dup (4E21018-MSD1) Continued Prepared: 05/21/2014 09:48 Analyzed: 05/23/2014 12:40

Source: C405667-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	211		10.0	ug/L	200	5.40 U	106	75-125	0.5	20	
Barium	393		10.0	ug/L	200	171	111	75-125	0.4	20	
Beryllium	21.2		1.00	ug/L	20.0	0.100 U	106	75-125	1	20	
Cadmium	21.3		1.00	ug/L	20.0	0.360 U	106	75-125	0.9	20	
Chromium	206		10.0	ug/L	200	1.40 U	103	75-125	0.3	20	
Cobalt	214		10.0	ug/L	200	2.31	106	75-125	0.7	20	
Copper	209		10.0	ug/L	200	1.60 U	104	75-125	0.7	20	
Lead	209		10.0	ug/L	200	2.10 U	105	75-125	0.03	20	
Nickel	215		10.0	ug/L	200	1.80 U	107	75-125	1	20	
Silver	213		10.0	ug/L	200	1.90 U	106	75-125	1	20	
Vanadium	214		10.0	ug/L	200	1.40 U	107	75-125	0.9	20	
Zinc	218		10.0	ug/L	200	3.80 U	109	75-125	0.8	20	

Post Spike (4E21018-PS1) Prepared: 05/21/2014 09:48 Analyzed: 05/23/2014 12:42

Source: C405667-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.197		0.0100	mg/L	0.200	-0.00900	103	80-120			
Barium	0.379		0.0100	mg/L	0.200	0.171	104	80-120			
Beryllium	0.0200		0.00100	mg/L	0.0200	-1.78E-5	100	80-120			
Cadmium	0.0202		0.00100	mg/L	0.0200	6.35E-5	101	80-120			
Chromium	0.196		0.0100	mg/L	0.200	0.000309	98	80-120			
Cobalt	0.202		0.0100	mg/L	0.200	0.00231	100	80-120			
Copper	0.198		0.0100	mg/L	0.200	0.000767	98	80-120			
Lead	0.198		0.0100	mg/L	0.200	0.000945	99	80-120			
Nickel	0.202		0.0100	mg/L	0.200	0.00178	100	80-120			
Silver	0.201		0.0100	mg/L	0.200	-0.00220	101	80-120			
Vanadium	0.203		0.0100	mg/L	0.200	0.000712	101	80-120			
Zinc	0.206		0.0100	mg/L	0.200	0.00368	101	80-120			

Batch 4E21025 - EPA 3005A

Blank (4E21025-BLK1) Prepared: 05/21/2014 10:50 Analyzed: 05/29/2014 10:57

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.220	U	2.00	ug/L							
Selenium	0.910	U	3.00	ug/L							
Thallium	0.110	U	1.00	ug/L							

LCS (4E21025-BS1) Prepared: 05/21/2014 10:50 Analyzed: 05/29/2014 11:05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	196		2.00	ug/L	200		98	80-120			
Selenium	209		3.00	ug/L	200		104	80-120			
Thallium	197		1.00	ug/L	200		99	80-120			

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QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 4E21025 - EPA 3005A

Matrix Spike (4E21025-MS1) Prepared: 05/21/2014 10:50 Analyzed: 05/29/2014 11:09

Source: C405666-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	199		2.00	ug/L	200	0.220 U	99	75-125			
Selenium	212		3.00	ug/L	200	0.910 U	106	75-125			
Thallium	181		1.00	ug/L	200	0.110 U	91	75-125			

Matrix Spike Dup (4E21025-MSD1) Prepared: 05/21/2014 10:50 Analyzed: 05/29/2014 11:13

Source: C405666-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	200		2.00	ug/L	200	0.220 U	100	75-125	0.9	20	
Selenium	212		3.00	ug/L	200	0.910 U	106	75-125	0.2	20	
Thallium	182		1.00	ug/L	200	0.110 U	91	75-125	0.5	20	

Post Spike (4E21025-PS1) Prepared: 05/21/2014 10:50 Analyzed: 05/29/2014 11:17

Source: C405666-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	203		2.00	ug/L	200	0.0178	101	80-120			
Selenium	214		3.00	ug/L	200	-0.347	107	80-120			
Thallium	184		1.00	ug/L	200	0.108	92	80-120			

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FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
R-04	The Reporting Limits for this analysis are elevated due to sample foaming.
R-05	The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.

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ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

www.encolabs.com

Client Name: Babb & Associates (BA024)	Project Number: [none]
Address: 3605 Country Cove Lane	Project Name/Desc: Wilson C&D Landfill
City/ST/Zip: Raleigh, NC 27606	PO # / Billing Info:
Tel: (919) 325-0696 Fax:	Reporting Contact: Gary Babb
Sampler(s) Name, Affiliation (Print): Jason Jones	Billing Contact: Gary Babb
Sampler(s) Signature:	Site Location / Time Zone: Wilson

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

X Standard

___ Expedited

Due ___/___/___

Lab Workorder: C405666

Requested Analyses

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8260B Appendix 1,8260B Extended	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn	Sample Comments
	9809-GMW1	5/15/14	750	Grab	WA	4	X	X	
	9809-GMW2	↓	803	↓	WA	4	X	X	
	9809-GMW3	↓	809	↓	WA	4	X	X	
	9809-GMW4	↓	814	↓	WA	4	X	X	
	9809-tripblank				WA	2	X		

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
RAY	5/7		5/15/14 1846		5-16-14 9:20
Comments/Special Reporting Requirements		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time

Cooler #'s & Temps on Receipt: 9544 1.7c

Condition Upon Receipt: ✓ Acceptable ___ Unacceptable

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments) Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist