Environmental Compliance and Remediation

Babb & Associates, P.A.

October 30, 2015

Mr. Ervin Lane, Hydrogeologist
NC Division of Waste Management
Solid Waste Section
Mail Service Center 1646
Raleigh, NC 27699-1646

Re: 2015 Second Semi-Annual Water Quality Monitoring Results
Westside C&D Facility
Wilson, North Carolina
Permit #98-09

Dear Ervin:

Babb & Associates, P.A. has completed the 2015 second semi-annual sampling event at the Westside C&D facility in Wilson, NC. On October 8, 2015, four groundwater monitoring wells were sampled and analyzed for volatile organic compounds (VOCs) by EPA Method 8260 and Appendix I inorganic compounds.

A site map is provided with this report which shows the groundwater sample locations and shallow potentiometric surface. Additional attachments to this report include tables summarizing the groundwater analytical results and field parameters (Table 1), well construction information (Table 2), and groundwater flow rates (Table 3). The laboratory analytical report, in pdf and EDD formats, is included as Appendix A.

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

Gary D. Babb, P.G.
President

Enclosures

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

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

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	.1600	October 7-8, 2015

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 — Licensed Geologist — (919) 325-0696

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

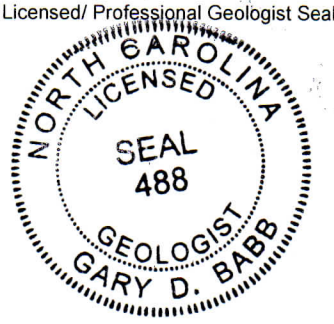
Gary D. Babb — October 29, 2015 — Affix NC Licensed/ Professional Geologist Seal

Signature — Date

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

Water Quality Monitoring Report

Westside Construction and Demolition Landfill
4537 Landfill Road
Wilson, North Carolina
Permit No. 98-09

Prepared for:

Wilson County Solid Waste
P.O. Box 1728
Wilson, North Carolina 27894

Prepared by:

Babb & Associates, P.A.
P.O. Box 37697
Raleigh, North Carolina 27627

October 2015

Gary D. Babb

Gary D. Babb, Licensed Geologist

NORTH CAROLINA LICENSED SEAL 488 GEOLOGIST GARY D. BABB

Babb & Associates, P.A.

Table of Contents

I. Introduction

1.1 Site Information

The Westside Construction and Demolition (C&D) facility is located approximately 3.5 miles east of downtown Wilson, NC at the intersection of NC 42 and Tucker Court. The Westside C&D facility is located on property that was previously used as a borrow site for the closed landfill site which is located approximately 350 feet from the Westside C&D eastern property boundary. The western boundary of the site is established by the center-line run of Buck Branch. The adjoining properties on the west and east are owned by Wilson County. To the west, Wilson County has purchased the 76 acre property identified as the Mohesky Farm which provides additional off-site borrow resources for Wilson County landfill projects. The closed landfill site is located due east of the Westside C&D site. Property further south of the Westside C&D facility is wooded and contains wetlands associated with the Toisnot Swamp. Prior to construction of the Westside C&D facility, agriculture was the primary land use in this area of Wilson County.

Surrounding properties within 1,500 feet of the site are currently being used for farming, residential, or solid waste management purposes. Land south of the site is mostly wooded land with wetlands associated with the Toisnot Swamp. Land immediately west of the site is owned by Wilson County and used for recycling/reclaimation and other solid waste management activities. Land north of the Site is mostly used for farmland with wooded areas. Land east of the Site is occupied by the closed Wilson County Landfill.

1.2 Site Geology

The Westside C&D facility is located in the western portion of the Carolina Coastal Plain near the Fall Line. The Fall Line is the province boundary between the Piedmont and the Coastal Plain provinces. It represents a significant change in lithology, which in turn reflects a change in stream gradients. Lithology of the Piedmont province is primarily igneous and metamorphic while the Coast Plain province is primarily sedimentary. In general, rivers and streams in the Piedmont Province have higher flow rates with well defined channels while Coastal Plain rivers and streams are meandering with lesser defined channels resulting in swamps and bays. These streams, swamps, and bays are the major discharge point of the uppermost aquifer.

The Carolina Coastal Plain is underlain by flat-lying to very gently eastward dipping sedimentary strata which overlay a foundation of crystalline rocks. These sediments were deposited during repeated marine transgressive and regressive cycles due to fluctuations in sea level caused by expansion and recession of glacial ice caps during the Pliocene and early Pleistocene epochs (approximately 2 to 5 million years ago).

Sediments in the area of the Westside C&D facility are classified as being in the Yorktown Formation. Information gathered from the 1985 edition of the Geologic Map of North Carolina and The Geology of the Carolina, published in 1991, cites that sediments of the Yorktown Formation are fossiliferous clay with varying amounts of fine-grained sand, silty sand, sandy silt, silty clay, and bluish gray shell material. These types of deposits are found mainly north of the Neuse River and are commonly concentrated in lenses and vary in vertical and horizontal dimensions. The topography of the Coastal Plain is characterized by flat to gently undulating relief.

1.3 Site Hydrogeology

The subsurface conditions observed at the site conforms to the regional Coastal Plain characteristics. The depositional environment is influenced by Buck Branch and Toisnot Swamp, where fluvial sediments are mixed with marine sediments in an estuarine setting. Where these streams once flowed into the Atlantic Ocean, a much broader river was likely present. Swift currents during flood conditions may have deposited lenticular beds of sand and other sediments. Incoming tidal currents rework the stream sediments, creating alternating layers of fluvial and marine sediments.

The local stratigraphy is characterized by relatively thin layers of fluvial and marine silt, sand, and clay in varying textures and colors. Typically, the color of fluvial sediments are tan, brown, light grey or orange. With the unconformities expected in the depositional environment, the typical profile includes a lean clay overlying poorly graded sands, interbedded with thin clay and clayey sand lenses. The water bearing zone is present in coarse and well graded sand layers, typically beneath surficial clay. Below the fluvial sediments, a marine clay layer is consistently encountered. This marine clay unit is typically dark grey, fat, and laminated with microlenses of fine sand. Below the marine clay, a dark greenish grey silty clayey sand overlies the residual, fully weathered bedrock. The bedrock was encountered approximately 30-35 feet below the disturbed land surface, at an elevation of 60 to 64 feet mean sea level.

Aquifer testing was conducted on six wells at the Westside C&D Landfill site. The aquifer testing was performed on February 12-13, 2003 and consisted of rising and falling head tests (slug tests) on wells P-103, P-104, P-105, P-106, P-108, and P-109. The purpose of the tests were to assess the values of horizontal hydraulic conductivity (K) at various locations within the water table aquifer. The results of the aquifer tests are provided below:

Well Number	Test Type	K (centimeters/second)
P-103 (GMW-3)	Falling	5.54 x 10-4
P-104	Falling	7.02 x 10-2
P-104	Rising	1.05 x 10-1
P-105	Falling	1.03 x 10-2
P-105	Rising	1.50 x 10-2
P-106	Falling	3.23 x 10-4
P-108	Falling	2.25 x 10-3
P-108	Rising	1.84 x 10-3
P-109	Falling	4.01 x 10-4

The aquifer testing performed for the site indicates that the upper water table aquifer provides hydraulic conductivity values which are directly related to presence of low permeability clays. The average hydraulic conductivity value for wells completed in primarily sandy material (P-104, P-105, P-108) is $4.09 \times 10^{-2.}$ The average hydraulic conductivity for wells completed in primarily clayey material (P-103, P-106, P-109) is 3.29×10^{-4}. Based on the heterogeneity of the subsurface materials encountered during installation of the wells, the hydraulic conductivity is expected to vary based on the presence/absence of clayey soil.

2.0 Water Quality Monitoring Program

The water quality monitoring network at the Westside C&D facility is evaluated on a semi-annual basis. The location of the groundwater samples collected during the semi-annual monitoring events is shown on the attached Figure 1.

2.1 Groundwater Monitoring Network

There are four groundwater monitoring wells located at the facility that comprise the existing groundwater monitoring system (Figure 1). Monitoring well GMW-1 is located on the northeast corner of the landfill area and serves as the upgradient groundwater monitoring well providing background water quality. Monitoring well GMW-2 is located on the southwest side of the landfill and monitors hydraulically downgradient groundwater quality. Monitoring well GMW-3 is located on the western side of the landfill and monitors hydraulically downgradient groundwater quality. Monitoring well GMW-4 is located on the northwest side of the landfill and monitors hydraulically downgradient groundwater quality. Table 2 provides monitoring well construction information including installation date, well depth/screened interval, survey elevations, and lat/long for each well location. Table 3 provides the estimated hydraulic conductivity values for select monitoring wells based on falling/rising head slug tests.

3.0 Water Quality Sample Collection

Samples of groundwater and surface water were collected in accordance with the approved *Westside C&D 2010 Water Quality Monitoring Plan* and the *2008 NC Solid Waste Section Guidelines for Groundwater, Soil, and Surface Water Sampling Guidance Document*. A brief description of the sample collection procedure is provided below.

3.1 Field Sample Procedures

Prior to groundwater sampling, water levels were obtained from each well using an electric water level meter capable of measuring the depth to water to the nearest 0.01 feet. This information was later used to determine the elevation of the water table in each monitoring well relative to surveyed datum (Table 2). The depth to water in each well was also used to determine the volume of standing water in the well casing. This information allowed for the purging of a minimum of three casing volumes from each well prior to sample collection to assure a fresh groundwater sample was collected. New disposable laboratory gloves were worn by sampling personnel and each well was purged and sampled with a new disposable bailer which was discarded after use.

After the monitoring wells had been allowed to recover from purging, samples are collected in the following order:

- Volatile organic compounds
- Inorganic compounds
- Field Parameters (pH, Conductivity, Temperature)

The samples are collected directly in the laboratory-supplied containers which are pre-filled with the appropriate preservative. No filtering of the samples is performed prior to collection. After collection, the samples are placed in a cooler on ice for overnight shipment to the analytical laboratory.

3.2 Field Quality Assurance

One trip blank sample was prepared by the analytical laboratory and accompanied the sample shipment until receipt back at the laboratory. The trip blank sample was analyzed for volatile organic compounds only. Temperature blanks are also provided with the sample shipments to assure the proper temperature is maintained until delivery to the analytical laboratory.

3.3 Sample Delivery/Chain of Custody

All groundwater samples are stored in coolers on ice immediately after collection. Individual sample containers for each well or surface water sample are placed in zip lock plastic bags to reduce the potential for cross contamination. Chain-of-Custody control documents are prepared and shipped with each cooler. Custody seals are also used for each cooler to maintain sample integrity until delivery to the analytical laboratory. The sample coolers are shipped via Federal Express for next morning delivery to the analytical laboratory.

4.0 Laboratory Analysis

The samples were analyzed for parameters specified by the Solid Waste Section for Detection Monitoring at permitted solid waste facilities. The standard Detection Monitoring Program for groundwater and surface water samples consists of the Appendix I parameters. The Appendix I analysis consists of volatile organic compounds by EPA Method 8260B and inorganic compounds by EPA Methods 6010C/6020A. The compound tetrahydrofuran is included with the volatile organic anlaysis.

The laboratory performing the water quality analysis is Environmental Conservation Laboratories, Inc. (ENCO) of Cary, North Carolina, which is a NC Certified Laboratory. Internal quality control samples, including matrix spikes/matrix spike duplicates, are performed by ENCO for each set of samples. The ENCO laboratory report, including internal quality control samples, is provided with this report in Appendix A.

5.0 Hydrogeological Conditions

The depth to groundwater was measured in the four compliance monitoring wells during the October 7-8, 2015 monitoring event. The groundwater elevations were calculated relative to the surveyed measuring point (top of casing) for each monitoring well. The groundwater elevations are summarized on Table 2 and the potentiometric surface of the shallow water table is shown on Figure 1.

The general direction of groundwater flow, based on the water level information collected during this monitoring event, is also shown on Figure 1. Groundwater flow direction is generally to the west-southwest, toward the Toisnot Swamp Canal.

Based on the results of prior hydrologic tests conducted at the site, the groundwater flow rate in the shallow saprolite ranges from 0.916 ft/day to 297.64 ft/day. The average hydraulic conductivity and transmissivity values for the site are provided on Table 3.

6.0 Laboratory Analytical Results

Final laboratory analytical results for the samples collected on October 8, 2015 were received from the analytical laboratory on October 21, 2015. A summary of the analytical results are provided on Table 1 (groundwater), Table 2 (surface water), and Table 3 (field parameters).

6.1 Groundwater Analytical Results

During this monitoring event, two volatile organic compounds (VOCs) were detected at concentrations exceeding the Solid Waste Section Limits (SWSLs). The compound 1,2-dichloropropane was reported in monitoring well GMW-3 at a concentration of 2.2 ug/l. The established 2L Groundwater Standard for 1,2-dichloropropane is 0.6 ug/l. The compound tetrahydrofuran was reported in monitoring well GMW-2 at a concentration of 5.0 ug/l. There is no established 2L Groundwater Standard for tetrahydrofuran. No other VOCs were reported in any of the monitoring wells above the laboratory detection limits, SWSLs, or 2L Groundwater Standards.

Only one inorganic compound was detected at a concentration that exceeded the 2L Groundwater Standards. The concentration of chromium (11.3 ug/l) in monitoring well GMW-1 (upgradient monitoring well) slightly exceeded the 2L Groundwater Standard of 10 ug/l. No other inorganic compounds were detected above the 2L Groundwater Standards in any of the other three groundwater monitoring wells sampled during this monitoring event. The inorganic compound barium was reported above the laboratory detection limit and SWSL in monitoring wells GMW-1, GMW-3, and GMW-4; however, the concentrations did not exceed the established 2L Groundwater Standard. Monitoring wells GMW-1 and GMW-3 reported detectable concentrations of beryllium; however, there is no established 2L Groundwater Standard for this compound. Monitoring wells GMW-1, GMW-2, and GMW-3 reported detectable concentrations of cobalt; however, there is no established 2L Groundwater Standard for this compound. Monitoring wells GMW-1, GMW-2, and GMW-3 reported detectable concentrations of zinc; however, the

reported concentrations were well below the established 2L Groundwater Standard. A summary of the groundwater laboratory analytical results is provided on Table 1.

6.2 Quality Control Sample

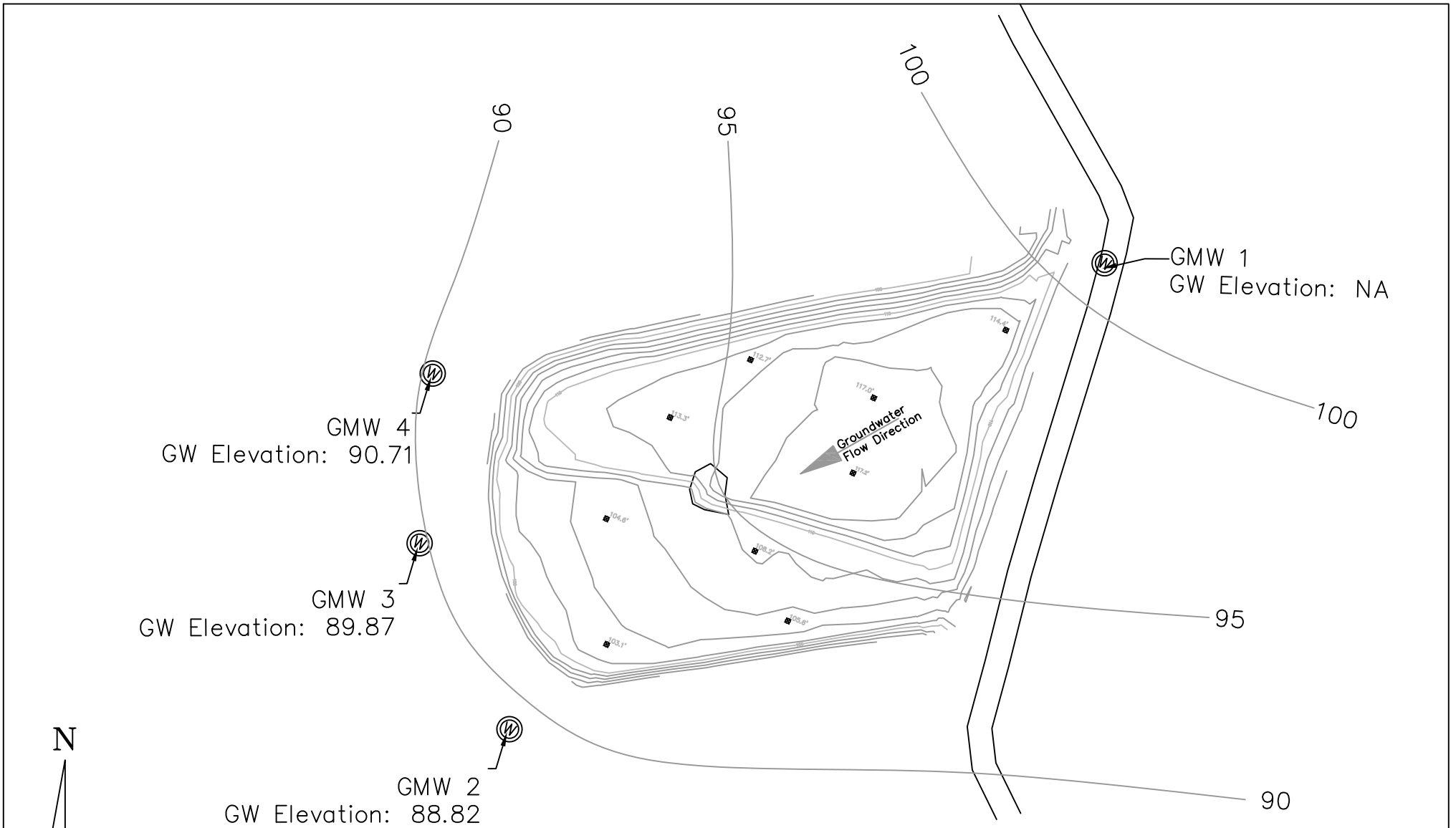
One trip blank was submitted and analyzed for quality assurance purposes. No VOCs were detected at a concentration equaling or exceeding laboratory quantitation limits in the trip blank.

7.0 Conclusions

The results of this monitoring event report only minor variants from the established 2L Groundwater Standards and 2B Surface Water Standards. Based on the results of this water quality monitoring event, the Westside C&D facility will remain in Detection Monitoring in accordance with Title 15A NACA 13B .1600. The 2016 spring semi-annual water quality monitoring event is tentatively scheduled for April/May 2016.

Attachments to this report include tables summarizing the groundwater analytical results and field parameters (Tables 1), well construction information (Table 2), and hydrologic test results (Table 3). A copy of the laboratory analytical report in pdf and EDD formats is also included with this report in Appendix A.

SITE MAP



Babb & Associates, P.A.

TITLE:

SITE MAP

Westside C&D Landfill
Wilson County
Wilson, North Carolina

FIGURE NO:	SCALE:	PROJECT NO:
Figure 1		
CHECKED BY:	DRAWN BY:	DATE:
	G. Babb	10/7/15

TABLES

TABLE 1

October 2015 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	6.3	5.6	4.7	5.4	6.5 - 8.5
Conductivity	10	279	141	57	NE
Temperature	18.2	19.8	20.7	22.3	NE
Inorganics (ug/l)					
Antimony	0.695 J	0.334 J	BQL	BQL	10
Arsenic	9.19 J	BQL	BQL	BQL	NE
Barium	108	60.0 J	144	56.3	700
Beryllium	1.43	0.342 J	2.56	0.165 J	NE
Cadmium	BQL	BQL	0.540 J	BQL	2
Chromium	**11.3**	BQL	BQL	BQL	10
Cobalt	9.42 J	54.6	13.9	1.68 J	NE
Copper	2.38 J	2.38 J	BQL	BQL	1000
Lead	7.36 J	3.29 J	BQL	BQL	10
Nickel	10.1 J	11.2 J	18.7 J	BQL	100
Thallium	0.280 J	0.154 J	BQL	BQL	NE
Vanadium	18.7 J	BQL	BQL	BQL	NE
Zinc	39.1	21.4	65.4	7.09 J	1000
8260 volatiles (ug/l)					
1,2-Dichloropropane	BQL	BQL	**2.2**	BQL	0.6
Tetrahydrofuran	BQL	5.0	BQL	BQL	NE

Notes:
Samples collected on October 8, 2015
BQL - Below laboratory quantitation limits
J - Between MDL and RL
NE - Not established
NS - No sample collected, well damaged by mowing equipment

TABLE 2

Groundwater Monitoring Well Construction
Westside C/D Facility
Wilson, North Caroliina
Permit #98-09

Well ID	Date Drilled	Well Diameter	Total Depth	TOS Depth	Screened Interval	Ground Elevation	TOC Elevation	Groundwater Depth	Groundwater Elevation	Lat/Long	Geology
GMW-1	4/20/15	2"	20.0'	10.0'	10' - 20'	*	*	12.52	*	718530.067 N 2339565.862 E	clayey SAND
GMW-2	9/14/04	2"	17.0'	7.0'	7' - 17'	90.44	93.56	4.74	88.82	717425.644 N 2339004.655 E	clayey SAND
GMW-3	9/14/04	2"	15.0'	5.0'	5' - 15'	91.82	96.45	6.58	89.87	717639.967 N 2338742.369 E	clayey SAND
GMW-4	9/14/04	2"	15.0'	5.0'	5' - 15'	93.51	95.93	5.22	90.71	717900.560 N 2338644.517 E	clayey SAND

TOS - Top of Screen
TOC - Top of Casing
Groundwater depths collected on 10/7/2015
* New well installed on 4/20/15, elevation info not available.

TABLE 3

Groundwater Flow Rates [1]
Westside C/D Landfill
Wilson, North Carolina
Permit #98-09

Test Piezometer	Test Type [2]	Hydraulic Conductivity (centimeters/second)	Hydraulic Conductivity (feet/day)	Geologic Material
P-103	Falling Head	5.54×10^{-4}	1.57	slity CLAY
P-104	Falling Head	7.02×10^{-2}	198.99	silty clayey SAND
P-104	Rising Head	1.05×10^{-1}	297.64	silty clayey SAND
P-105	Falling Head	1.03×10^{-2}	29.2	silty clayey SAND
P-105	Rising Head	1.50×10^{-2}	42.52	silty clayey SAND
P-106	Falling Head	3.23×10^{-4}	0.916	slity CLAY
P-108	Falling Head	2.25×10^{-3}	6.38	silty clayey SAND
P-108	Rising Head	1.84×10^{-3}	5.22	silty clayey SAND
P-109	Falling Head	4.04×10^{-4}	1.14	slity CLAY

1 Data from Westside C&D Landfill 2003 Site Plan Application

2 Aquifer Testing by falling/rising head slug tests, analyzed using Bouwer and Rice method

LAB REPORT

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

www.encolabs.com

Tuesday, October 20, 2015

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): C512295

Dear Gary Babb,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, October 9, 2015.

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

Project Manager

Enclosure(s)

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

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: 9809-GMW1	Lab ID: C512295-01	Sampled: 10/08/15 08:25	Received: 10/09/15 10:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/05/16	10/13/15 14:28	10/16/2015 11:43
EPA 6020A	04/05/16	10/14/15 13:35	10/16/2015 11:59
EPA 8260B	10/22/15	10/16/15 11:51	10/17/2015 01:45

Client ID: 9809-GMW2	Lab ID: C512295-02	Sampled: 10/08/15 08:53	Received: 10/09/15 10:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/05/16	10/13/15 14:28	10/16/2015 11:46
EPA 6020A	04/05/16	10/14/15 13:35	10/16/2015 12:02
EPA 8260B	10/22/15	10/16/15 11:51	10/17/2015 02:14

Client ID: 9809-GMW3	Lab ID: C512295-03	Sampled: 10/08/15 09:01	Received: 10/09/15 10:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/05/16	10/13/15 14:28	10/16/2015 11:49
EPA 6020A	04/05/16	10/14/15 13:35	10/16/2015 12:20
EPA 8260B	10/22/15	10/16/15 11:51	10/17/2015 02:42

Client ID: 9809-GMW4	Lab ID: C512295-04	Sampled: 10/08/15 09:09	Received: 10/09/15 10:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/05/16	10/13/15 14:28	10/16/2015 12:00
EPA 6020A	04/05/16	10/14/15 13:35	10/16/2015 12:24
EPA 8260B	10/22/15	10/16/15 11:51	10/17/2015 03:11

Client ID: 9809-tripblank	Lab ID: C512295-05	Sampled: 10/08/15 08:25	Received: 10/09/15 10:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	10/22/15	10/16/15 11:51	10/17/2015 03:40

www.encolabs.com

NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: 9809-GMW1 **Lab ID: C512295-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.695	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Arsenic - Total	9.19	J	1	6.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	108		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	1.43		1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	11.3		1	1.40	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	9.42	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	2.38	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	7.36	J	1	3.10	10.0	10	ug/L	EPA 6010C	
Nickel - Total	10.1	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Thallium - Total	0.280	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	
Vanadium - Total	18.7	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	39.1		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 9809-GMW2 **Lab ID: C512295-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.334	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	60.0	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.342	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Cobalt - Total	54.6		1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	2.38	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	3.29	J	1	3.10	10.0	10	ug/L	EPA 6010C	
Nickel - Total	11.2	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Tetrahydrofuran	5.0		1	0.80	1.0	NE	ug/L	EPA 8260B	
Thallium - Total	0.154	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	
Zinc - Total	21.4		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 9809-GMW3 **Lab ID: C512295-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,2-Dichloropropane	2.2		1	0.10	1.0	1	ug/L	EPA 8260B	
Barium - Total	144		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	2.56		1	0.100	1.00	1	ug/L	EPA 6010C	
Cadmium - Total	0.540	J	1	0.360	1.00	1	ug/L	EPA 6010C	
Cobalt - Total	13.9		1	1.10	10.0	10	ug/L	EPA 6010C	
Nickel - Total	18.7	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Zinc - Total	65.4		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 9809-GMW4 **Lab ID: C512295-04**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	56.3	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.165	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Cobalt - Total	1.68	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Zinc - Total	7.09	J	1	3.80	10.0	10	ug/L	EPA 6010C	

ANALYTICAL RESULTS

Description: 9809-GMW1 **Lab Sample ID:** C512295-01 **Received:** 10/09/15 10:00

Matrix: Water **Sampled:** 10/08/15 08:25 **Work Order:** C512295

Project: Wilson C&D Landfill **Sampled By:** ROBERT WELDY

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	10/17/15 01:45	REF	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	10/17/15 01:45	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	10/17/15 01:45	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/17/15 01:45	REF	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	10/17/15 01:45	REF	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/17/15 01:45	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/17/15 01:45	REF	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/17/15 01:45	REF	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/17/15 01:45	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	10/17/15 01:45	REF	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	10/17/15 01:45	REF	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	10/17/15 01:45	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	10/17/15 01:45	REF	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/17/15 01:45	REF	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/17/15 01:45	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/17/15 01:45	REF	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/17/15 01:45	REF	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/17/15 01:45	REF	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/17/15 01:45	REF	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	10/17/15 01:45	REF	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/17/15 01:45	REF	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	10/17/15 01:45	REF	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	10/17/15 01:45	REF	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/17/15 01:45	REF	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/17/15 01:45	REF	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/17/15 01:45	REF	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	10/17/15 01:45	REF	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	10/17/15 01:45	REF	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/17/15 01:45	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	10/17/15 01:45	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/17/15 01:45	REF	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/17/15 01:45	REF	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	10/17/15 01:45	REF	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/17/15 01:45	REF	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/17/15 01:45	REF	
m,p-Xylenes [108-38-3/106-42-3] ^	0.17	U	ug/L	1	0.17	2.0	NE	EPA 8260B	10/17/15 01:45	REF	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/17/15 01:45	REF	
o-Xylene [95-47-6] ^	0.065	U	ug/L	1	0.065	1.0	NE	EPA 8260B	10/17/15 01:45	REF	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	10/17/15 01:45	REF	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/17/15 01:45	REF	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0		EPA 8260B	10/17/15 01:45	REF	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/17/15 01:45	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/17/15 01:45	REF	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/17/15 01:45	REF	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/17/15 01:45	REF	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/17/15 01:45	REF	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	10/17/15 01:45	REF	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/17/15 01:45	REF	

Description: 9809-GMW1 | **Lab Sample ID:** C512295-01 | **Received:** 10/09/15 10:00

Matrix: Water | **Sampled:** 10/08/15 08:25 | **Work Order:** C512295

Project: Wilson C&D Landfill | **Sampled By:** ROBERT WELDY

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
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	10/17/15 01:45	REF	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	10/17/15 01:45	REF	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*48*	*1*	*50.0*	*96 %*	*53-136*	*5J16025*	*EPA 8260B*	*10/17/15 01:45*	*REF*	
Dibromofluoromethane	*61*	*1*	*50.0*	*121 %*	*67-129*	*5J16025*	*EPA 8260B*	*10/17/15 01:45*	*REF*	
Toluene-d8	*51*	*1*	*50.0*	*101 %*	*59-134*	*5J16025*	*EPA 8260B*	*10/17/15 01:45*	*REF*	

Description: 9809-GMW1 **Lab Sample ID:** C512295-01 **Received:** 10/09/15 10:00

Matrix: Water **Sampled:** 10/08/15 08:25 **Work Order:** C512295

Project: Wilson C&D Landfill **Sampled By:** ROBERT WELDY

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] ^	**0.695**	J	ug/L	1	0.220	2.00	6	EPA 6020A	10/16/15 11:59	VLO	
Arsenic [7440-38-2] ^	**9.19**	J	ug/L	1	6.80	10.0	10	EPA 6010C	10/16/15 11:43	JDH	
Barium [7440-39-3] ^	**108**		ug/L	1	1.00	10.0	100	EPA 6010C	10/16/15 11:43	JDH	
Beryllium [7440-41-7] ^	**1.43**		ug/L	1	0.100	1.00	1	EPA 6010C	10/16/15 11:43	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/16/15 11:43	JDH	
Chromium [7440-47-3] ^	**11.3**		ug/L	1	1.40	10.0	10	EPA 6010C	10/16/15 11:43	JDH	
Cobalt [7440-48-4] ^	**9.42**	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/16/15 11:43	JDH	
Copper [7440-50-8] ^	**2.38**	J	ug/L	1	1.60	10.0	10	EPA 6010C	10/16/15 11:43	JDH	
Lead [7439-92-1] ^	**7.36**	J	ug/L	1	3.10	10.0	10	EPA 6010C	10/16/15 11:43	JDH	
Nickel [7440-02-0] ^	**10.1**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/16/15 11:43	JDH	
Selenium [7782-49-2] ^	0.910	U	ug/L	1	0.910	3.00	10	EPA 6020A	10/16/15 11:59	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/16/15 11:43	JDH	
Thallium [7440-28-0] ^	**0.280**	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/16/15 11:59	VLO	
Vanadium [7440-62-2] ^	**18.7**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/16/15 11:43	JDH	
Zinc [7440-66-6] ^	**39.1**		ug/L	1	3.80	10.0	10	EPA 6010C	10/16/15 11:43	JDH	

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Description: 9809-GMW2 | **Lab Sample ID:** C512295-02 | **Received:** 10/09/15 10:00

Matrix: Water | **Sampled:** 10/08/15 08:53 | **Work Order:** C512295

Project: Wilson C&D Landfill | **Sampled By:** ROBERT WELDY

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	10/17/15 02:14	REF	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	10/17/15 02:14	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	10/17/15 02:14	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/17/15 02:14	REF	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	10/17/15 02:14	REF	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/17/15 02:14	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/17/15 02:14	REF	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/17/15 02:14	REF	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/17/15 02:14	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	10/17/15 02:14	REF	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	10/17/15 02:14	REF	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	10/17/15 02:14	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	10/17/15 02:14	REF	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/17/15 02:14	REF	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/17/15 02:14	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/17/15 02:14	REF	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/17/15 02:14	REF	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/17/15 02:14	REF	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/17/15 02:14	REF	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	10/17/15 02:14	REF	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/17/15 02:14	REF	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	10/17/15 02:14	REF	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	10/17/15 02:14	REF	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/17/15 02:14	REF	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/17/15 02:14	REF	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/17/15 02:14	REF	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	10/17/15 02:14	REF	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	10/17/15 02:14	REF	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/17/15 02:14	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	10/17/15 02:14	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/17/15 02:14	REF	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/17/15 02:14	REF	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	10/17/15 02:14	REF	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/17/15 02:14	REF	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/17/15 02:14	REF	
m,p-Xylenes [108-38-3/106-42-3] ^	0.17	U	ug/L	1	0.17	2.0	NE	EPA 8260B	10/17/15 02:14	REF	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/17/15 02:14	REF	
o-Xylene [95-47-6] ^	0.065	U	ug/L	1	0.065	1.0	NE	EPA 8260B	10/17/15 02:14	REF	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	10/17/15 02:14	REF	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/17/15 02:14	REF	
Tetrahydrofuran [109-99-9] ^	**5.0**		ug/L	1	0.80	1.0		EPA 8260B	10/17/15 02:14	REF	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/17/15 02:14	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/17/15 02:14	REF	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/17/15 02:14	REF	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/17/15 02:14	REF	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/17/15 02:14	REF	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	10/17/15 02:14	REF	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/17/15 02:14	REF	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	10/17/15 02:14	REF	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	10/17/15 02:14	REF	

Description: 9809-GMW2 | **Lab Sample ID:** C512295-02 | **Received:** 10/09/15 10:00

Matrix: Water | **Sampled:** 10/08/15 08:53 | **Work Order:** C512295

Project: Wilson C&D Landfill | **Sampled By:** ROBERT WELDY

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
Surrogates	***Results***	***DF***	***Spike Lvl***	***% Rec***	***% Rec Limits***		***Batch***	***Method***	***Analyzed***	***By***	**Notes**
4-Bromofluorobenzene	*47*	*1*	*50.0*	*94 %*	*53-136*		*5J16025*	*EPA 8260B*	*10/17/15 02:14*	*REF*	
Dibromofluoromethane	*59*	*1*	*50.0*	*118 %*	*67-129*		*5J16025*	*EPA 8260B*	*10/17/15 02:14*	*REF*	
Toluene-d8	*50*	*1*	*50.0*	*99 %*	*59-134*		*5J16025*	*EPA 8260B*	*10/17/15 02:14*	*REF*	

Description: 9809-GMW2 | **Lab Sample ID:** C512295-02 | **Received:** 10/09/15 10:00

Matrix: Water | **Sampled:** 10/08/15 08:53 | **Work Order:** C512295

Project: Wilson C&D Landfill | **Sampled By:** ROBERT WELDY

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] ^	**0.334**	J	ug/L	1	0.220	2.00	6	EPA 6020A	10/16/15 12:02	VLO	
Arsenic [7440-38-2] ^	6.80	U	ug/L	1	6.80	10.0	10	EPA 6010C	10/16/15 11:46	JDH	
Barium [7440-39-3] ^	**60.0**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/16/15 11:46	JDH	
Beryllium [7440-41-7] ^	**0.342**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/16/15 11:46	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/16/15 11:46	JDH	
Chromium [7440-47-3] ^	1.40	U	ug/L	1	1.40	10.0	10	EPA 6010C	10/16/15 11:46	JDH	
Cobalt [7440-48-4] ^	**54.6**		ug/L	1	1.10	10.0	10	EPA 6010C	10/16/15 11:46	JDH	
Copper [7440-50-8] ^	**2.38**	J	ug/L	1	1.60	10.0	10	EPA 6010C	10/16/15 11:46	JDH	
Lead [7439-92-1] ^	**3.29**	J	ug/L	1	3.10	10.0	10	EPA 6010C	10/16/15 11:46	JDH	
Nickel [7440-02-0] ^	**11.2**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/16/15 11:46	JDH	
Selenium [7782-49-2] ^	0.910	U	ug/L	1	0.910	3.00	10	EPA 6020A	10/16/15 12:02	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/16/15 11:46	JDH	
Thallium [7440-28-0] ^	**0.154**	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/16/15 12:02	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/16/15 11:46	JDH	
Zinc [7440-66-6] ^	**21.4**		ug/L	1	3.80	10.0	10	EPA 6010C	10/16/15 11:46	JDH	

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Description: 9809-GMW3 | **Lab Sample ID:** C512295-03 | **Received:** 10/09/15 10:00

Matrix: Water | **Sampled:** 10/08/15 09:01 | **Work Order:** C512295

Project: Wilson C&D Landfill | **Sampled By:** ROBERT WELDY

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	10/17/15 02:42	REF	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	10/17/15 02:42	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	10/17/15 02:42	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/17/15 02:42	REF	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	10/17/15 02:42	REF	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/17/15 02:42	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/17/15 02:42	REF	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/17/15 02:42	REF	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/17/15 02:42	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	10/17/15 02:42	REF	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	10/17/15 02:42	REF	
1,2-Dichloropropane [78-87-5] ^	**2.2**		ug/L	1	0.10	1.0	1	EPA 8260B	10/17/15 02:42	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	10/17/15 02:42	REF	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/17/15 02:42	REF	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/17/15 02:42	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/17/15 02:42	REF	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/17/15 02:42	REF	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/17/15 02:42	REF	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/17/15 02:42	REF	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	10/17/15 02:42	REF	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/17/15 02:42	REF	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	10/17/15 02:42	REF	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	10/17/15 02:42	REF	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/17/15 02:42	REF	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/17/15 02:42	REF	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/17/15 02:42	REF	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	10/17/15 02:42	REF	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	10/17/15 02:42	REF	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/17/15 02:42	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	10/17/15 02:42	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/17/15 02:42	REF	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/17/15 02:42	REF	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	10/17/15 02:42	REF	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/17/15 02:42	REF	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/17/15 02:42	REF	
m,p-Xylenes [108-38-3/106-42-3] ^	0.17	U	ug/L	1	0.17	2.0	NE	EPA 8260B	10/17/15 02:42	REF	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/17/15 02:42	REF	
o-Xylene [95-47-6] ^	0.065	U	ug/L	1	0.065	1.0	NE	EPA 8260B	10/17/15 02:42	REF	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	10/17/15 02:42	REF	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/17/15 02:42	REF	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0		EPA 8260B	10/17/15 02:42	REF	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/17/15 02:42	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/17/15 02:42	REF	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/17/15 02:42	REF	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/17/15 02:42	REF	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/17/15 02:42	REF	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	10/17/15 02:42	REF	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/17/15 02:42	REF	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	10/17/15 02:42	REF	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	10/17/15 02:42	REF	

Description: 9809-GMW3 | **Lab Sample ID:** C512295-03 | **Received:** 10/09/15 10:00

Matrix: Water | **Sampled:** 10/08/15 09:01 | **Work Order:** C512295

Project: Wilson C&D Landfill | **Sampled By:** ROBERT WELDY

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
Surrogates	***Results***	***DF***	***Spike Lvl***	***% Rec***	***% Rec Limits***		***Batch***	***Method***	***Analyzed***	***By***	**Notes**
4-Bromofluorobenzene	*47*	*1*	*50.0*	*95 %*	*53-136*		*5J16025*	*EPA 8260B*	*10/17/15 02:42*	*REF*	
Dibromofluoromethane	*60*	*1*	*50.0*	*120 %*	*67-129*		*5J16025*	*EPA 8260B*	*10/17/15 02:42*	*REF*	
Toluene-d8	*51*	*1*	*50.0*	*103 %*	*59-134*		*5J16025*	*EPA 8260B*	*10/17/15 02:42*	*REF*	

Description: 9809-GMW3 | **Lab Sample ID:** C512295-03 | **Received:** 10/09/15 10:00

Matrix: Water | **Sampled:** 10/08/15 09:01 | **Work Order:** C512295

Project: Wilson C&D Landfill | **Sampled By:** ROBERT WELDY

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	10/16/15 12:20	VLO	
Arsenic [7440-38-2] ^	6.80	U	ug/L	1	6.80	10.0	10	EPA 6010C	10/16/15 11:49	JDH	
Barium [7440-39-3] ^	**144**		ug/L	1	1.00	10.0	100	EPA 6010C	10/16/15 11:49	JDH	
Beryllium [7440-41-7] ^	**2.56**		ug/L	1	0.100	1.00	1	EPA 6010C	10/16/15 11:49	JDH	
Cadmium [7440-43-9] ^	**0.540**	J	ug/L	1	0.360	1.00	1	EPA 6010C	10/16/15 11:49	JDH	
Chromium [7440-47-3] ^	1.40	U	ug/L	1	1.40	10.0	10	EPA 6010C	10/16/15 11:49	JDH	
Cobalt [7440-48-4] ^	**13.9**		ug/L	1	1.10	10.0	10	EPA 6010C	10/16/15 11:49	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/16/15 11:49	JDH	
Lead [7439-92-1] ^	3.10	U	ug/L	1	3.10	10.0	10	EPA 6010C	10/16/15 11:49	JDH	
Nickel [7440-02-0] ^	**18.7**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/16/15 11:49	JDH	
Selenium [7782-49-2] ^	0.910	U	ug/L	1	0.910	3.00	10	EPA 6020A	10/16/15 12:20	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/16/15 11:49	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/16/15 12:20	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/16/15 11:49	JDH	
Zinc [7440-66-6] ^	**65.4**		ug/L	1	3.80	10.0	10	EPA 6010C	10/16/15 11:49	JDH	

Description: 9809-GMW4 **Lab Sample ID:** C512295-04 **Received:** 10/09/15 10:00

Matrix: Water **Sampled:** 10/08/15 09:09 **Work Order:** C512295

Project: Wilson C&D Landfill **Sampled By:** ROBERT WELDY

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	10/17/15 03:11	REF	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	10/17/15 03:11	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	10/17/15 03:11	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/17/15 03:11	REF	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	10/17/15 03:11	REF	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/17/15 03:11	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/17/15 03:11	REF	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/17/15 03:11	REF	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/17/15 03:11	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	10/17/15 03:11	REF	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	10/17/15 03:11	REF	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	10/17/15 03:11	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	10/17/15 03:11	REF	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/17/15 03:11	REF	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/17/15 03:11	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/17/15 03:11	REF	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/17/15 03:11	REF	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/17/15 03:11	REF	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/17/15 03:11	REF	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	10/17/15 03:11	REF	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/17/15 03:11	REF	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	10/17/15 03:11	REF	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	10/17/15 03:11	REF	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/17/15 03:11	REF	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/17/15 03:11	REF	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/17/15 03:11	REF	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	10/17/15 03:11	REF	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	10/17/15 03:11	REF	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/17/15 03:11	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	10/17/15 03:11	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/17/15 03:11	REF	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/17/15 03:11	REF	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	10/17/15 03:11	REF	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/17/15 03:11	REF	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/17/15 03:11	REF	
m,p-Xylenes [108-38-3/106-42-3] ^	0.17	U	ug/L	1	0.17	2.0	NE	EPA 8260B	10/17/15 03:11	REF	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/17/15 03:11	REF	
o-Xylene [95-47-6] ^	0.065	U	ug/L	1	0.065	1.0	NE	EPA 8260B	10/17/15 03:11	REF	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	10/17/15 03:11	REF	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/17/15 03:11	REF	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0		EPA 8260B	10/17/15 03:11	REF	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/17/15 03:11	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/17/15 03:11	REF	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/17/15 03:11	REF	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/17/15 03:11	REF	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/17/15 03:11	REF	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	10/17/15 03:11	REF	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/17/15 03:11	REF	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	10/17/15 03:11	REF	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	10/17/15 03:11	REF	

Description: 9809-GMW4 | **Lab Sample ID:** C512295-04 | **Received:** 10/09/15 10:00

Matrix: Water | **Sampled:** 10/08/15 09:09 | **Work Order:** C512295

Project: Wilson C&D Landfill | **Sampled By:** ROBERT WELDY

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
Surrogates	***Results***	***DF***	***Spike Lvl***	***% Rec***	***% Rec Limits***		***Batch***	***Method***	***Analyzed***	***By***	**Notes**
4-Bromofluorobenzene	*47*	*1*	*50.0*	*94 %*	*53-136*		*5J16025*	*EPA 8260B*	*10/17/15 03:11*	*REF*	
Dibromofluoromethane	*60*	*1*	*50.0*	*119 %*	*67-129*		*5J16025*	*EPA 8260B*	*10/17/15 03:11*	*REF*	
Toluene-d8	*49*	*1*	*50.0*	*98 %*	*59-134*		*5J16025*	*EPA 8260B*	*10/17/15 03:11*	*REF*	

Description: 9809-GMW4 | **Lab Sample ID:** C512295-04 | **Received:** 10/09/15 10:00

Matrix: Water | **Sampled:** 10/08/15 09:09 | **Work Order:** C512295

Project: Wilson C&D Landfill | **Sampled By:** ROBERT WELDY

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	10/16/15 12:24	VLO	
Arsenic [7440-38-2] ^	6.80	U	ug/L	1	6.80	10.0	10	EPA 6010C	10/16/15 12:00	JDH	
Barium [7440-39-3] ^	**56.3**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/16/15 12:00	JDH	
Beryllium [7440-41-7] ^	**0.165**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/16/15 12:00	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/16/15 12:00	JDH	
Chromium [7440-47-3] ^	1.40	U	ug/L	1	1.40	10.0	10	EPA 6010C	10/16/15 12:00	JDH	
Cobalt [7440-48-4] ^	**1.68**	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/16/15 12:00	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/16/15 12:00	JDH	
Lead [7439-92-1] ^	3.10	U	ug/L	1	3.10	10.0	10	EPA 6010C	10/16/15 12:00	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/16/15 12:00	JDH	
Selenium [7782-49-2] ^	0.910	U	ug/L	1	0.910	3.00	10	EPA 6020A	10/16/15 12:24	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/16/15 12:00	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/16/15 12:24	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/16/15 12:00	JDH	
Zinc [7440-66-6] ^	**7.09**	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/16/15 12:00	JDH	

Description: 9809-tripblank | **Lab Sample ID:** C512295-05 | **Received:** 10/09/15 10:00

Matrix: Water | **Sampled:** 10/08/15 08:25 | **Work Order:** C512295

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
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	10/17/15 03:40	REF	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	10/17/15 03:40	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	10/17/15 03:40	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/17/15 03:40	REF	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	10/17/15 03:40	REF	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/17/15 03:40	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/17/15 03:40	REF	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/17/15 03:40	REF	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/17/15 03:40	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	10/17/15 03:40	REF	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	10/17/15 03:40	REF	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	10/17/15 03:40	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	10/17/15 03:40	REF	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/17/15 03:40	REF	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/17/15 03:40	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/17/15 03:40	REF	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/17/15 03:40	REF	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/17/15 03:40	REF	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/17/15 03:40	REF	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	10/17/15 03:40	REF	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/17/15 03:40	REF	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	10/17/15 03:40	REF	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	10/17/15 03:40	REF	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/17/15 03:40	REF	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/17/15 03:40	REF	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/17/15 03:40	REF	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	10/17/15 03:40	REF	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	10/17/15 03:40	REF	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/17/15 03:40	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	10/17/15 03:40	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/17/15 03:40	REF	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/17/15 03:40	REF	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	10/17/15 03:40	REF	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/17/15 03:40	REF	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/17/15 03:40	REF	
m,p-Xylenes [108-38-3/106-42-3] ^	0.17	U	ug/L	1	0.17	2.0	NE	EPA 8260B	10/17/15 03:40	REF	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/17/15 03:40	REF	
o-Xylene [95-47-6] ^	0.065	U	ug/L	1	0.065	1.0	NE	EPA 8260B	10/17/15 03:40	REF	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	10/17/15 03:40	REF	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/17/15 03:40	REF	
Tetrahydrofuran [109-99-9] ^	0.80	U	ug/L	1	0.80	1.0		EPA 8260B	10/17/15 03:40	REF	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/17/15 03:40	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/17/15 03:40	REF	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/17/15 03:40	REF	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/17/15 03:40	REF	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/17/15 03:40	REF	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	10/17/15 03:40	REF	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/17/15 03:40	REF	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	10/17/15 03:40	REF	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	10/17/15 03:40	REF	

Description: 9809-tripblank | **Lab Sample ID:** C512295-05 | **Received:** 10/09/15 10:00

Matrix: Water | **Sampled:** 10/08/15 08:25 | **Work Order:** C512295

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
Surrogates	***Results***	***DF***	***Spike Lvl***	***% Rec***	***% Rec Limits***		***Batch***	***Method***	***Analyzed***	***By***	**Notes**
4-Bromofluorobenzene	*47*	*1*	*50.0*	*94 %*	*53-136*		*5J16025*	*EPA 8260B*	*10/17/15 03:40*	*REF*	
Dibromofluoromethane	*60*	*1*	*50.0*	*120 %*	*67-129*		*5J16025*	*EPA 8260B*	*10/17/15 03:40*	*REF*	
Toluene-d8	*50*	*1*	*50.0*	*101 %*	*59-134*		*5J16025*	*EPA 8260B*	*10/17/15 03:40*	*REF*	

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 5J16025 - EPA 5030B_MS

Blank (5J16025-BLK1) Prepared: 10/16/2015 11:50 Analyzed: 10/16/2015 22:53

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							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 5J16025 - EPA 5030B_MS

Blank (5J16025-BLK1) Continued Prepared: 10/16/2015 11:50 Analyzed: 10/16/2015 22:53

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	*48*			*ug/L*	*50.0*		*96*	*53-136*			
Surrogate: Dibromofluoromethane	*60*			*ug/L*	*50.0*		*120*	*67-129*			
Surrogate: Toluene-d8	*51*			*ug/L*	*50.0*		*101*	*59-134*			

LCS (5J16025-BS1) Prepared: 10/16/2015 11:50 Analyzed: 10/16/2015 23:22

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	21		1.0	ug/L	20.0		107	75-133			
Benzene	21		1.0	ug/L	20.0		104	81-134			
Chlorobenzene	18		1.0	ug/L	20.0		89	83-117			
Tetrahydrofuran	29		1.0	ug/L	20.0		145	0-200			
Toluene	19		1.0	ug/L	20.0		97	71-118			
Trichloroethene	18		1.0	ug/L	20.0		91	74-119			
Surrogate: 4-Bromofluorobenzene	*47*			*ug/L*	*50.0*		*94*	*53-136*			
Surrogate: Dibromofluoromethane	*56*			*ug/L*	*50.0*		*112*	*67-129*			
Surrogate: Toluene-d8	*49*			*ug/L*	*50.0*		*99*	*59-134*			

Matrix Spike (5J16025-MS1) Prepared: 10/16/2015 11:50 Analyzed: 10/16/2015 23:51

Source: C513339-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	22		1.0	ug/L	20.0	0.21 U	108	75-133			
Benzene	20		1.0	ug/L	20.0	0.15 U	101	81-134			
Chlorobenzene	19		1.0	ug/L	20.0	0.17 U	94	83-117			
Tetrahydrofuran	32		1.0	ug/L	20.0	0.80 U	161	0-200			
Toluene	20		1.0	ug/L	20.0	0.14 U	100	71-118			
Trichloroethene	18		1.0	ug/L	20.0	0.15 U	92	74-119			
Surrogate: 4-Bromofluorobenzene	*49*			*ug/L*	*50.0*		*97*	*53-136*			
Surrogate: Dibromofluoromethane	*56*			*ug/L*	*50.0*		*112*	*67-129*			
Surrogate: Toluene-d8	*48*			*ug/L*	*50.0*		*97*	*59-134*			

Matrix Spike Dup (5J16025-MSD1) Prepared: 10/16/2015 11:50 Analyzed: 10/17/2015 00:20

Source: C513339-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	21		1.0	ug/L	20.0	0.21 U	106	75-133	2	20	
Benzene	20		1.0	ug/L	20.0	0.15 U	101	81-134	0.3	17	
Chlorobenzene	18		1.0	ug/L	20.0	0.17 U	91	83-117	3	16	
Tetrahydrofuran	31		1.0	ug/L	20.0	0.80 U	157	0-200	2	50	
Toluene	20		1.0	ug/L	20.0	0.14 U	100	71-118	0.05	17	
Trichloroethene	18		1.0	ug/L	20.0	0.15 U	88	74-119	5	22	
Surrogate: 4-Bromofluorobenzene	*48*			*ug/L*	*50.0*		*96*	*53-136*			
Surrogate: Dibromofluoromethane	*53*			*ug/L*	*50.0*		*106*	*67-129*			
Surrogate: Toluene-d8	*48*			*ug/L*	*50.0*		*96*	*59-134*			

QUALITY CONTROL

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

Batch 5J13025 - EPA 3005A

Blank (5J13025-BLK1) Prepared: 10/13/2015 14:28 Analyzed: 10/16/2015 11:22

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	6.80	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	3.10	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 (5J13025-BS1) Prepared: 10/13/2015 14:28 Analyzed: 10/16/2015 11:26

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	193		10.0	ug/L	200		97	80-120			
Barium	208		10.0	ug/L	200		104	80-120			
Beryllium	19.7		1.00	ug/L	20.0		99	80-120			
Cadmium	20.2		1.00	ug/L	20.0		101	80-120			
Chromium	196		10.0	ug/L	200		98	80-120			
Cobalt	198		10.0	ug/L	200		99	80-120			
Copper	191		10.0	ug/L	200		96	80-120			
Lead	202		10.0	ug/L	200		101	80-120			
Nickel	199		10.0	ug/L	200		100	80-120			
Silver	196		10.0	ug/L	200		98	80-120			
Vanadium	191		10.0	ug/L	200		96	80-120			
Zinc	196		10.0	ug/L	200		98	80-120			

Matrix Spike (5J13025-MS1) Prepared: 10/13/2015 14:28 Analyzed: 10/16/2015 11:32

Source: C512539-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	191		10.0	ug/L	200	6.80 U	95	75-125			
Barium	219		10.0	ug/L	200	25.2	97	75-125			
Beryllium	19.4		1.00	ug/L	20.0	0.100 U	97	75-125			
Cadmium	19.9		1.00	ug/L	20.0	0.360 U	99	75-125			
Chromium	193		10.0	ug/L	200	1.40 U	96	75-125			
Cobalt	196		10.0	ug/L	200	1.10 U	98	75-125			
Copper	189		10.0	ug/L	200	1.60 U	94	75-125			
Lead	199		10.0	ug/L	200	3.10 U	99	75-125			
Nickel	196		10.0	ug/L	200	1.80 U	98	75-125			
Silver	192		10.0	ug/L	200	1.90 U	96	75-125			
Vanadium	188		10.0	ug/L	200	1.40 U	94	75-125			
Zinc	193		10.0	ug/L	200	3.80 U	97	75-125			

Matrix Spike Dup (5J13025-MSD1) Prepared: 10/13/2015 14:28 Analyzed: 10/16/2015 11:35

Source: C512539-03

QUALITY CONTROL

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

Batch 5J13025 - EPA 3005A

Matrix Spike Dup (5J13025-MSD1) Continued Prepared: 10/13/2015 14:28 Analyzed: 10/16/2015 11:35

Source: C512539-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	185		10.0	ug/L	200	6.80 U	93	75-125	3	20	
Barium	220		10.0	ug/L	200	25.2	98	75-125	0.3	20	
Beryllium	19.4		1.00	ug/L	20.0	0.100 U	97	75-125	0.4	20	
Cadmium	19.4		1.00	ug/L	20.0	0.360 U	97	75-125	2	20	
Chromium	193		10.0	ug/L	200	1.40 U	97	75-125	0.3	20	
Cobalt	190		10.0	ug/L	200	1.10 U	95	75-125	3	20	
Copper	189		10.0	ug/L	200	1.60 U	95	75-125	0.3	20	
Lead	194		10.0	ug/L	200	3.10 U	97	75-125	2	20	
Nickel	196		10.0	ug/L	200	1.80 U	98	75-125	0.1	20	
Silver	192		10.0	ug/L	200	1.90 U	96	75-125	0.2	20	
Vanadium	188		10.0	ug/L	200	1.40 U	94	75-125	0.2	20	
Zinc	199		10.0	ug/L	200	3.80 U	100	75-125	3	20	

Post Spike (5J13025-PS1) Prepared: 10/13/2015 14:28 Analyzed: 10/16/2015 11:38

Source: C512539-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.184		0.0100	mg/L	0.200	0.000579	92	80-120			
Barium	0.221		0.0100	mg/L	0.200	0.0252	98	80-120			
Beryllium	0.0195		0.00100	mg/L	0.0200	5.14E-5	97	80-120			
Cadmium	0.0190		0.00100	mg/L	0.0200	0.000169	94	80-120			
Chromium	0.194		0.0100	mg/L	0.200	0.000102	97	80-120			
Cobalt	0.187		0.0100	mg/L	0.200	0.000455	93	80-120			
Copper	0.188		0.0100	mg/L	0.200	-0.000742	94	80-120			
Lead	0.188		0.0100	mg/L	0.200	0.000647	94	80-120			
Nickel	0.196		0.0100	mg/L	0.200	9.27E-5	98	80-120			
Silver	0.180		0.0100	mg/L	0.200	-6.60E-5	90	80-120			
Vanadium	0.189		0.0100	mg/L	0.200	0.000648	94	80-120			
Zinc	0.198		0.0100	mg/L	0.200	-0.00102	99	80-120			

Batch 5J14031 - EPA 3005A

Blank (5J14031-BLK1) Prepared: 10/14/2015 13:35 Analyzed: 10/16/2015 11:33

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 (5J14031-BS1) Prepared: 10/14/2015 13:35 Analyzed: 10/16/2015 11:37

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	211		3.00	ug/L	200		106	80-120			
Thallium	194		1.00	ug/L	200		97	80-120			

QUALITY CONTROL

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

Batch 5J14031 - EPA 3005A

Matrix Spike (5J14031-MS1) Prepared: 10/14/2015 13:35 Analyzed: 10/16/2015 11:44

Source: C512296-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	205		2.00	ug/L	200	2.31	101	75-125			
Selenium	215		3.00	ug/L	200	0.910 U	108	75-125			
Thallium	179		1.00	ug/L	200	0.155	90	75-125			

Matrix Spike Dup (5J14031-MSD1) Prepared: 10/14/2015 13:35 Analyzed: 10/16/2015 11:48

Source: C512296-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	207		2.00	ug/L	200	2.31	102	75-125	0.8	20	
Selenium	213		3.00	ug/L	200	0.910 U	107	75-125	0.9	20	
Thallium	180		1.00	ug/L	200	0.155	90	75-125	0.1	20	

Post Spike (5J14031-PS1) Prepared: 10/14/2015 13:35 Analyzed: 10/16/2015 11:51

Source: C512296-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	205		2.00	ug/L	200	2.31	101	80-120			
Selenium	219		3.00	ug/L	200	0.568	109	80-120			
Thallium	185		1.00	ug/L	200	0.155	93	80-120			

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.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

Page ___ of ___

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

Requested Analyses

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								
							Preservation (See Codes) (Combine as necessary)									
	9809-GMW1	10-8-15	825	Grab	WA	4	X	X								
	9809-GMW2	↓	853	↓	WA	4	X	X								
	9809-GMW3		901		WA	4	X	X								
	9809-GMW4		909		WA	4	X	X								
	9809-tripblank				WA	2	X									
							<-- Total # of Containers									

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

X Standard

___ Expedited

Due ___/___/___

Lab Workorder

C512295

Sample Comments

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
		R. Weldy	10/8/15 1443		10/9/15 100
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: 3.0°C		Condition Upon Receipt: X Acceptable ___ Unacceptab	

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 ND-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

Sample Preservation Verification

ENCO Cary

Work Order:	C512295	Project:	Wilson C&D Landfill
Client:	Babb & Associates (BA024)	Project #:	[none]
Logged In:	09-Oct-15 10:24	Logged By:	Andrew S Coons

C512295-01

Cont	Type	Pres (pH) Requirement	pH Checked / In Control	pH Adjusted	Date/Time Adjusted	Reagent Used/Comments
A	250mLP+HNO3	<2	(Y) N / NA	Y (N) / NA		

C512295-02

Cont	Type	Pres (pH) Requirement	pH Checked / In Control	pH Adjusted	Date/Time Adjusted	Reagent Used/Comments
A	250mLP+HNO3	<2	(Y) N / NA	Y / (N) NA		

C512295-03

Cont	Type	Pres (pH) Requirement	pH Checked / In Control	pH Adjusted	Date/Time Adjusted	Reagent Used/Comments
A	250mLP+HNO3	<2	(Y) N / NA	Y / (N) NA		

C512295-04

Cont	Type	Pres (pH) Requirement	pH Checked / In Control	pH Adjusted	Date/Time Adjusted	Reagent Used/Comments
A	250mLP+HNO3	<2	(Y) N / NA	Y / (N) NA		

	Reagent Name	ID
1		
2		

	Reagent Name	ID
3		
4		

	Reagent Name	ID
5		
6		