BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

REPORT OF GROUNDWATER QUALITY RESULTS & STATISTICAL ANALYSIS

SECOND SEMI-ANNUAL SAMPLING EVENT OF 2014

WHITE OAK LANDFILL
PERMIT NUMBER: 44-07
HAYWOOD COUNTY, NORTH CAROLINA

Prepared For:

HAYWOOD COUNTY SOLID WASTE MANAGEMENT
278 Recycle Road
Clyde, North Carolina 28721

Prepared By:

BUNNELL-LAMMONS ENGINEERING, INC.
6004 Ponders Court
Greenville, South Carolina 29615

March 6, 2015

BLE Project Number J14-1957-41

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

March 6, 2015

Haywood County Solid Waste Management
278 Recycle Road
Clyde, North Carolina 28721

Attention: Mr. Stephen King
Solid Waste Director

Subject: **Report of Groundwater Quality Results & Statistical Analysis**
Second Semi-Annual Sampling Event of 2014
White Oak Landfill
Permit Number: 44-07
Haywood County, North Carolina
BLE Project Number J14-1957-41

Dear Mr. King:

As authorized, Bunnell-Lammons Engineering, Inc. (BLE) has performed the statistical analysis of groundwater quality data obtained during the second semi-annual sampling event of 2014 for the White Oak Municipal Solid Waste (MSW) and Construction and Demolition (C&D) Landfills. The enclosed report describes the work performed and presents the results obtained with our conclusions. The purpose of this work was to statistically compare the laboratory analytical results of groundwater samples from the background monitoring wells to the downgradient monitoring wells at the subject landfill in accordance with Title 15A NCAC 13B .1632 (g), (h), and (i). This report of the sampling and statistical analysis has been prepared for submittal to the North Carolina Division of Waste Management (NCDWM) in accordance with Rule 15A NCAC 13B .1632 (j).

We appreciate the opportunity to serve as your geological consultant on this project and look forward to working with you on future projects. If you have any questions, please contact us at (864) 288-1265.

Sincerely,
BUNNELL-LAMMONS ENGINEERING, INC.

Trevor J. Benton, L.G.
Project Geologist
Licensed, North Carolina No. 2025

Mark S. Preddy, L.G.
Senior Geologist
Licensed, North Carolina No. 1043

cc: Mr. Ervin Lane – NC DENR Solid Waste Section, 401 Oberlin Road, Suite 150, Raleigh, North Carolina 27605

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PROJECT INFORMATION

The White Oak Landfill site is located in Haywood County, North Carolina, approximately twelve miles north of the city of Waynesville on White Oak Road at Exit 15 off Interstate 40 (**Figure 1**). The Subtitle D lined MSW landfill has eleven groundwater monitoring wells consisting of two upgradient (MW-11S and MW-11D) and nine downgradient wells (MW-1A, MW-2, MW-2D, MW-3r, MW-3Dr, MW-4A, MW-8, MW-16, and MW-17). Monitoring wells MW-5A, MW-5D, MW-12, MW-13S, and MW-13D were abandoned in 2009 and monitoring wells MW-16 and MW-17 were installed in 2010 as related to the construction of Phase No. 3 at the facility. Additionally, there are four surface water sampling points (SW-1, SW-2, SW-3, and SW-5), and a leachate lagoon sampling point (LSP). The C&D landfill, which is located on the same property, is monitored by one upgradient (MW-14), one downgradient well (MW-15), and two locations for surface water monitoring (SW-6 and SW-7).

BLE was retained by Santek Waste Services, Inc. to prepare the semi-annual sampling reports for 2014. Historical data from multiple sources and in multiple formats had to be gathered from multiple sources and formats, and synthesized into this report. Water quality data available to BLE extends back to April 1993, however, many of the currently existing wells were not present during the earlier sampling events. As a result, the statistical database in this report uses data from sampling events ranging from April 2000 to the current sampling event (October 2014).

This report presents data from the second semi-annual sampling event in 2014 for the site. The water samples were collected and analyzed as required in North Carolina's regulations for operation of MSW and C&D landfills.

FIELD ACTIVITIES, SAMPLING, AND ANALYSIS

Groundwater and surface water samples were collected by personnel from Pace Analytical Services, Inc. (Pace) of Asheville, North Carolina on October 27 - 28, 2014. Sampling was performed in general accordance with the *Operations Plan* for the White Oak Landfill. Summary tables of historic and current analytical results are attached in **Appendix A** (groundwater) and **Appendix B** (surface water).

Water samples were collected from the monitoring wells, surface water points, and the LSP. The collected samples were analyzed in the laboratory for North Carolina's *Appendix I* list of constituents that include total metals and volatile organic compounds (VOCs) and in the field for pH, specific conductance, turbidity, and temperature. A copy of the Pace laboratory and field data is included in **Appendix C**.

GROUNDWATER FLOW

The water level data collected during the groundwater sampling is presented in **Table 1**. A water table surface elevation contour map is presented as **Figure 2** along with generalized groundwater

flow directions. Flow velocity calculations are provided on **Table 2**. Please note, hydraulic conductivity and effective porosity values for the existing wells were obtained from prior reports prepared by other consultants.

SUMMARY OF LABORATORY RESULTS

Groundwater

Concentrations of total barium (thirteen wells), total cobalt (one well), and total nickel (five wells) were detected in the groundwater monitoring wells during the current sampling event. Total barium (MW-2 and MW-2D) was detected at concentrations above the North Carolina maximum contaminant level[1] (MCL). Additionally, no VOCs were detected.

Surface Water

Concentrations of total metals were detected in each of the six surface water samples, and the LSP sample during the current sampling event. The detections included total antimony (LSP), total barium (six surface waters and the LSP), total chromium (LSP), total cobalt (one surface water and the LSP), total nickel (LSP), total vanadium (LSP), and total zinc (one surface water). No VOCs were detected in the samples from the surface water locations. However, 1,4-dichlorobenzene, ethylbenzene, o-xylenes, methyl-tert-butyl-ether, naphthalene, phosphorus, nitrate, nitrite, nitrate/nitrite, sulfate, BOD, COD, and cyanide were detected in the LSP sample. Only the concentrations of total zinc in SW-2 and total nickel in the LSP sample were detected above North Carolina's established surface water MCL[2]; the other detections were either below the MCL or a MCL has not been established for the detected constituents.

STATISTICAL METHODS PERFORMED

The purpose of performing statistical analysis of groundwater quality data is to determine if a release of leachate has occurred from the landfill cells to the groundwater at the site. The US EPA has prepared a guidance document for evaluating groundwater quality data titled *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance* (March 2009). The procedures and methodology used for data analysis of this project are consistent with this US EPA guidance document, and meet or exceed the performance criteria specified in the North Carolina solid waste management rules Title 15A NCAC 13B .1632(g-i). Four methods of statistical analysis were performed depending on the number of detected concentrations and the distribution of the data for a specific compound, as follows:

1. If 15% to 90% of the data were not detected, the one-way non-parametric analysis of variance (ANOVA) Kruskal-Wallis rank-sum test was performed;

[1] North Carolina Department of Environment and Natural Resources (NCDENR), Classifications of Water Quality Standards, Section 15A NCAC 2L.202, December 1, 2005.

[2] North Carolina Department of Environment and Natural Resources, "Redbook", Surface Waters and Wetlands Standards, Section 15A NCAC 02B.0100, .0200, and .0300, May 1, 2007.

2. If less than 15% of the data were not detected, and if the data was normally distributed and homogeneous, then one-way parametric ANOVA was performed. If the data were not normally distributed and homogeneous, then a non-parametric type test was used (Kruskal-Wallis);

3. Alternatively, if greater than 50% of the data were not detected, Poisson Prediction Limits may be performed, or if less than 50% of the data were not detected, Normal Prediction Limits may be performed. Wilcoxon rank-sum tests were performed for those compounds that failed the initial Poisson Prediction Limits test; and

4. Intrawell comparisons were performed, if necessary, using Shewhart-CUSUM control charts or the Kendall-Mann Non-Parametric Trend Test.

It is important to note that the nature of the statistical procedures applied to the data frequently leads to false positives, which result in statistically significant increases (SSI). These false positives are inherent to the statistical procedures themselves and are a result of the insufficiency of the mathematical equations to represent the multiple factors affecting the groundwater quality variability at a given site. Furthermore, a clear distinction should be made between the terms "calculated SSI" and "validated SSI." A calculated SSI is the result of the application of mathematical equations to evaluate variability of water quality data over time by mathematical means. A validated SSI is determined when, based on a review of the data set as a whole, it can be concluded that the calculated statistical significance might be a function of a release of leachate to groundwater, and not a function of natural variability and/or other conditions.

SUMMARY OF STATISTICAL RESULTS

The statistical analysis was performed on constituents that have been historically detected and that were detected during the current sampling event. The statistical results summarized on **Table 3** and included in **Appendix D** indicate that:

1. The Poisson Prediction Limit tests performed for total antimony, total arsenic, total selenium, total silver, total thallium, acetone, carbon disulfide, 2-butanone, chloroethane, and dichloromethane did not calculate SSIs; and

2. The Kruskal-Wallis tests and Shewhart-CUSUM control charts did not calculate SSIs for total beryllium, total cadmium, total chromium, total cobalt, total copper, total lead, total nickel, total vanadium, and total zinc; however, the tests calculated SSIs for total barium in wells MW-2 and MW-2D.

CONCLUSION

Concentrations of various total metals were detected in the groundwater monitoring wells and surface water sampling points during the current sampling event. Only the concentrations of total barium (MW-2 and MW-2D) and total zinc (SW-2), and total nickel (LSP) were detected at concentrations exceeding North Carolina MCLs. The remaining detected concentrations were either below North Carolina's promulgated MCLs, or MCLs have not been established for a particular constituent. Additionally, only total barium in wells MW-2 and MW-2D were calculated to be statistically significant.

In summary, the detected concentrations of total metals in the groundwater and surface water samples are most likely naturally occurring and related to sample turbidity. Metal cations typically adsorb to the surface of platy particles (clay and silt). Therefore, turbidity of the groundwater and surface water samples will relate to detected concentrations of the metal cations. Consequently, the metal concentrations detected should be considered natural background concentrations.

We recommend that sampling continue on a semi-annual basis for the *Appendix I* list of VOCs and total metals constituents.

TABLES

TABLE 1

GROUNDWATER MONITORING WELL CONSTRUCTION AND GROUNDWATER ELEVATION DATA
White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

October 27, 2014														
Well	**Northing (feet)**	**Easting (feet)**	**Meas. Pt. Elevation**	**Gnd. Surface Elevation**	***Depth to Water (bgs)**	**Depth to Water (bmp)**	**Water Elevation**	**Total Borehole Depth (bgs)**	**Screen Depth (bgs)**	**Screen Elevation**	**Well Type**	**Well Monitors**	**Top of Rock Depth (bgs)**	**Top of Rock Elev.**
MW-1A	721,096.30	812,481.47	2,520.02	2,517.97	17.45	19.50	2,500.52	UK	10.4 - 25.4	2,507.6 - 2,492.6	UK	Deep Residuum	UK	UK
MW-2	721,460.76	812,309.44	2,496.71	2,494.43	28.42	30.70	2,466.01	UK	19.9 - 34.9	2,474.5 - 2,459.5	UK	Deep Residuum/PWR	UK	UK
MW-2D	721,456.01	812,311.87	2,496.89	2,494.69	28.50	30.70	2,466.19	UK	44.6 - 54.6	2,450.1 - 2,440.1	UK	Bedrock	36.9	2,457.8
MW-3r	721,943.38	812,063.70	2,462.61	2,459.53	29.62	32.70	2,429.91	41.5	26.3 - 41.3	2,433.2 - 2,418.2	II	Deep Residuum	NE	NE
MW-3Dr	721,940.67	812,082.82	2,461.89	2,458.42	33.42	36.89	2,425.00	65.0	49.8 - 64.8	2,408.6 - 2,393.6	IIIs	Bedrock	44.0	2,414.4
MW-4A	721,693.04	811,976.64	2,493.85	2,491.60	42.27	44.52	2,449.33	UK	80.6 - 95.6	2,411.0 - 2,396.0	UK	Bedrock	23.3	2,468.3
MW-8	721,704.50	812,155.03	2,477.33	2,474.84	28.35	30.84	2,446.49	UK	31.0 - 41.0	2,443.8 - 2,433.8	UK	Deep Residuum	UK	UK
MW-11S	719,905.88	811,642.89	2,674.58	UK	UK	77.91	2,596.67	UK	UK - UK	UK - UK	UK	UK	UK	UK
MW-11D	719,909.34	811,651.55	2,674.89	2,672.01	76.06	78.94	2,595.95	UK	118.0 - 127.6	2,554.0 - 2,544.4	UK	Bedrock	97.0	2,575.0
MW-14	UK	UK	2,711.69	UK	UK	97.91	2,613.78	UK	UK - UK	UK - UK	UK	UK	UK	UK
MW-15	UK	UK	2,547.41	UK	UK	9.48	2,537.93	UK	UK - UK	UK - UK	UK	UK	UK	UK
MW-16	721,821.98	811,660.70	2,519.35	2,516.07	31.91	35.19	2,484.16	41.0	25.8 - 40.8	2,490.3 - 2,475.3	II	Fill / Residuum	40.0	2,476.1
MW-17	721,783.47	811,219.93	2,542.55	2,539.13	53.47	56.89	2,485.66	63.0	43.0 - 58.0	2,496.1 - 2,481.1	II	Bedrock	40.0	2,499.1

Notes:
All survey data provided by McGill Associates, all units in feet. Data for MW-14 & MW-15 sourced from historical Municipal Engineering reports.
*DTW from bgs values have been calculated from survey data provided by McGill Associates.
All values shown to the nearest 0.1-ft have been rounded.
Water levels were measured on 4/24/14 by Pace Analytical.
MW-4A was lowered 4.59 feet by Haywood County. All bgs referenced depths for MW-4A have been adjusted accordingly on this table.

Measuring Point Elevation is top of casing.
II = Type II well
IIIs = Type III screened well
NE = Not encountered
UK = Unknown, information is not available

Prepared by:IAI
Checked by:RAD

TABLE 2

GROUNDWATER FLOW DATA
White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Monitoring Well	Hydraulic Conductivity			Local Hydraulic Gradient (ft/ft)	Effective Porosity	Flow Velocity (ft/day)	Flow Velocity (ft/yr)
	cm/sec	ft/min	ft/day				
MW-1A	1.50E-04	2.95E-04	4.25E-01	0.0783	0.114	0.29	106.60
MW-2	1.50E-04	2.95E-04	4.31E+00	0.0783	0.114	2.96	1,079.34
MW-4A	1.49E-04	2.93E-04	4.28E+00	0.1000	0.05	8.55	3,121.78
MW-8	1.50E-04	2.95E-04	4.31E+00	0.0783	0.114	2.96	1,079.34
MW-11S	2.40E-06	4.72E-06	6.89E-02	0.0917	0.114	0.06	20.22
MW-14	1.38E-05	2.72E-05	3.96E-01	0.0683	0.17	0.16	58.09
MW-15	2.10E-05	4.13E-05	6.03E-01	0.0683	0.17	0.24	88.40

Notes:

1. Hydraulic conductivity and effective porosity values are from prior site hydrogeologic studies performed by others.
2. Hydraulic gradients and flow velocities calculated from measurements taken during the October 27, 2014 sampling event.
3. Groundwater flow velocities calculated using the equation $V = Ki/n_e$ where
4. V = velocity
5. K = hydraulic conductivity
6. i = hydraulic gradient
7. n_e = effective porosity
8. NA = information not available

Prepared by:IAI
Checked by:TJB

TABLE 3

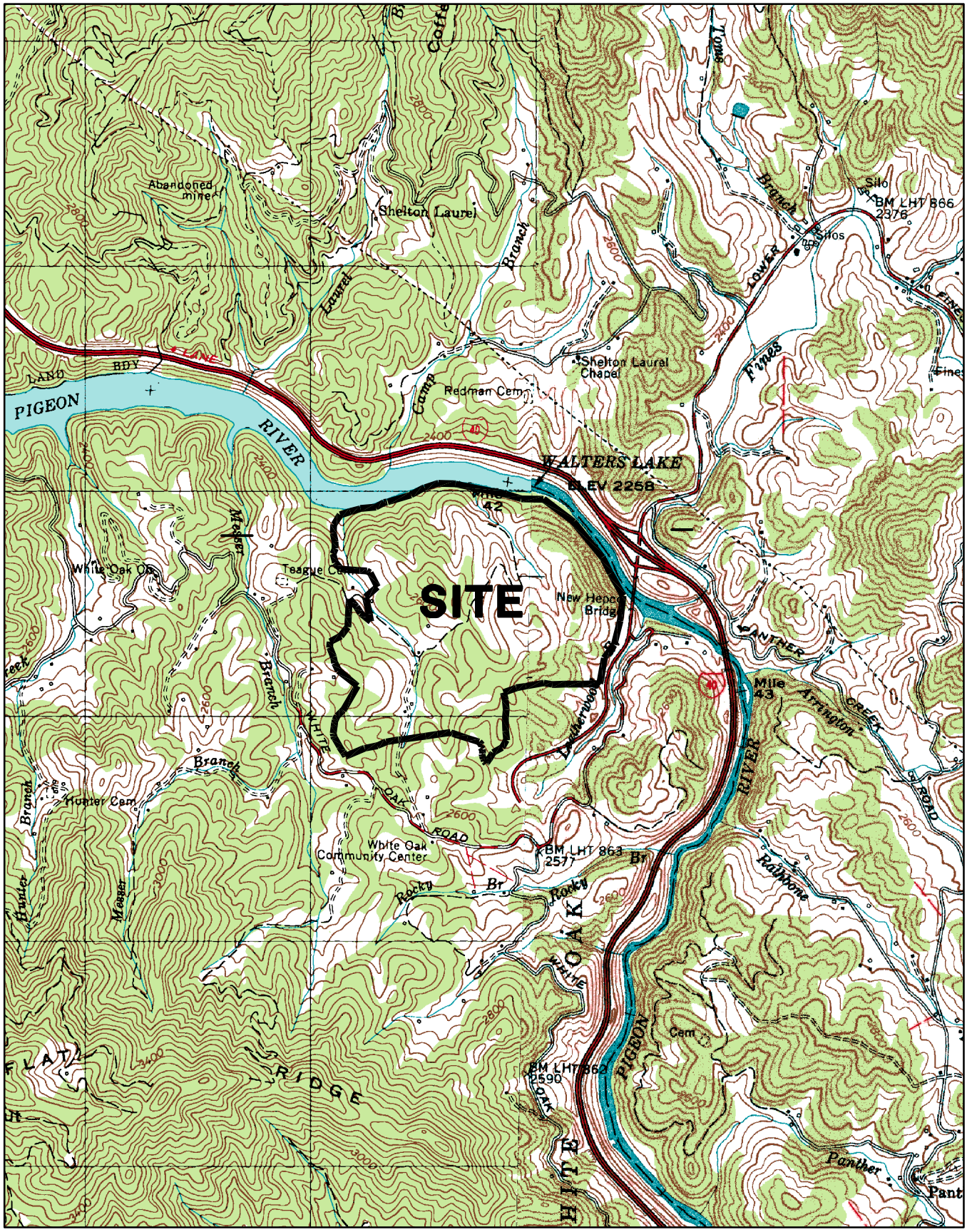
SUMMARY OF STATISTICAL ANALYSIS RESULTS
White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Chemical/ Compound	Percent ND	Primary Statistical Test	Primary Pass/Fail	Secondary Statistical Test	Secondary Pass/Fail	SSI Calculated	SSI Validated as Leachate	SSI Concentration Above MCL During Current Event
Total Antimony	98%	Poisson Prediction Limits	Pass	-	-	-	-	-
Total Arsenic	91%	Poisson Prediction Limits	Pass	-	-	-	-	-
Total Barium (3)	5%	Kruskal-Wallis	Fail	Shewhart-CUSUM	Fail	MW-2, MW-2D (4)	No (4)	Yes (MW-2, MW-2D)
Total Beryllium	86%	Kruskal-Wallis	Fail	Shewhart-CUSUM	Pass	-	-	-
Total Cadmium	87%	Kruskal-Wallis	Pass	-	-	-	-	-
Total Chromium	56%	Kruskal-Wallis	Pass	-	-	-	-	-
Total Cobalt	64%	Kruskal-Wallis	Fail	Shewhart-CUSUM	Pass	-	-	-
Total Copper	62%	Kruskal-Wallis	Pass	-	-	-	-	-
Total Lead	76%	Kruskal-Wallis	Fail	Shewhart-CUSUM	Pass	-	-	-
Total Nickel	47%	Kruskal-Wallis	Fail	Shewhart-CUSUM	Pass	-	-	-
Total Selenium	99%	Poisson Prediction Limits	Pass	-	-	-	-	-
Total Silver	99%	Poisson Prediction Limits	Pass	-	-	-	-	-
Total Thallium	94%	Poisson Prediction Limits	Pass	-	-	-	-	-
Total Vanadium	58%	Kruskal-Wallis	Pass	-	-	-	-	-
Total Zinc	35%	Kruskal-Wallis	Fail	Shewhart-CUSUM	Pass	-	-	-
Acetone	100%	Poisson Prediction Limits	Pass	-	-	-	-	-
Carbon Disulfide	99%	Poisson Prediction Limits	Pass	-	-	-	-	-
Chloroethane	100%	Poisson Prediction Limits	Pass	-	-	-	-	-
Dichloromethane	99%	Poisson Prediction Limits	Pass	-	-	-	-	-
2-Butanone	100%	Poisson Prediction Limits	Pass	-	-	-	-	-

Notes:
1. MCL = *Maximum Contaminant Level*
2. SSI = *Statistically Significant Increase*
3. The dataset for total barium was not homogeneous and normally distributed. Therefore, a non-parametric ANOVA testing procedure was used (Kruskal-Wallis) rather than parametric ANOVA.
4. Total barium is a naturally occuring metal throughout much of North Carolina and is likely related to sample turbidity.

Prepared by:IAI
Checked by:RAD/MSP

FIGURES



2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES,
COVE CREEK GAP AND FINES CREEK, N.C. QUADRANGLES, 1967.

DRAWN: ACE	DATE: 06-19-14	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP WHITE OAK LANDFILL HAYWOOD COUNTY, NORTH CAROLINA	FIGURE
CHECKED: TJB	CAD: HCWOLF40-SLM			1
APPROVED:	JOB NO: J14-1957-40			

NOTE:
WATER LEVELS WERE MEASURED ON OCTOBER 27, 2014 BY PACE ANALYTICAL.

LEGEND

	EXISTING GROUNDWATER MONITORING WELL
	EXISTING LANDFILL GAS MONITORING WELL
	SURFACE WATER SAMPLING LOCATION
	PROPOSED SURFACE WATER SAMPLING LOCATION FOR PHASE 4
	PROPOSED GROUNDWATER MONITORING WELL LOCATION FOR PHASE 4
2467.53	GROUNDWATER ELEVATION (IN FEET)
2560	GROUNDWATER ELEVATION CONTOUR CONTOUR INTERVAL = 20 FEET
	GROUNDWATER FLOW DIRECTION
	FENCE
	SURFACE WATER
	PHASE BOUNDARY OR WASTE UNITS
	PROPERTY LINE

REFERENCES:
DRAWING TITLED "ENVIRONMENTAL MONITORING PLAN AS-BUILT INFORMATION" (OCTOBER 2010) PROVIDED BY McGILL ASSOCIATES.
LOCATION OF AND SURVEY DATA FOR MW-14 AND MW-15 SOURCED FROM HISTORICAL REPORTS BY MUNICIPAL ENGINEERING.

REVISIONS		
No.	DESCRIPTION	BY

DRAWN:	ACE
CHECKED:	IAI
APPROVED:	TJB

DATE:	11-18-14
CAD FILE:	HCWOLF40-WTM102714
JOB NO:	J14-1957-40

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.
8004 POINDEXTER COURT
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GROUNDWATER ELEVATION CONTOUR MAP – OCTOBER 27, 2014
WHITE OAK LANDFILL
HAYWOOD COUNTY, NORTH CAROLINA

FIGURE NO.
2

APPENDICES

APPENDIX A

SUMMARY TABLES OF GROUNDWATER ANALYTICAL RESULTS

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-24-2000)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2A	MW-2D	MW-3A	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.9**	NS	NS	**6.1**	**5.1**	**5.1**	**6.2**	**5.9**	**5.4**	**5.2**	NS	NP	NP	NS
Specific Conductance	µmhos/cm (on-site)	1	NE	**72**	NS	NS	**69**	**55**	**51**	**89**	**85**	**89**	**100**	NS	NP	NP	NS
Temperature	°C (on-site)	-	NE	**12**	NS	NS	**13**	**14**	**14**	**12**	**12**	**13**	**13**	NS	NP	NP	NS
Turbidity	NTU (on-site)	NT	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Total Antimony (Sb)	µg/l	10	NE	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	NS
Total Arsenic (As)	µg/l	10	50	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	NS
Total Barium (Ba)	µg/l	5	1000	**250**	NS	NS	**240**	**420**	**200**	**63**	**300**	**93**	**230**	NS	NP	NP	NS
Total Beryllium (Be)	µg/l	2	NE	**4.4**	NS	NS	ND	**2**	ND	**2.2**	ND	ND	ND	NS	NP	NP	NS
Total Cadmium (Cd)	µg/l	1	5	**2**	NS	NS	ND	**1.3**	**1.2**	**1.3**	**2.1**	ND	**5.4**	NS	NP	NP	NS
Total Chromium (Cr)	µg/l	5	50	**15**	NS	NS	**18**	**17**	**11**	ND	**26**	**5.4**	**50**	NS	NP	NP	NS
Total Cobalt (Co)	µg/l	5	NE	ND	NS	NS	ND	**8.2**	**5.4**	ND	**14**	ND	**16**	NS	NP	NP	NS
Total Copper (Cu)	µg/l	5	1000	**12**	NS	NS	ND	ND	**13**	ND	**27**	ND	**22**	NS	NP	NP	NS
Total Lead (Pb)	µg/l	10	15	**35**	NS	NS	ND	ND	ND	ND	**11**	ND	ND	NS	NP	NP	NS
Total Nickel (Ni)	µg/l	5	100	**15**	NS	NS	**17**	**12**	**8.3**	ND	**24**	**6.7**	**22**	NS	NP	NP	NS
Total Selenium (Se)	µg/l	20	50	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	NS
Total Silver (Ag)	µg/l	2	18	**3.7**	NS	NS	ND	ND	ND	**6.9**	ND	ND	ND	NS	NP	NP	NS
Total Thallium (Tl)	µg/l	2	NE	**2**	NS	NS	ND	**3**	**2**	**4**	ND	**2**	**5**	NS	NP	NP	NS
Total Vanadium (V)	µg/l	5	NE	**17**	NS	NS	**19**	**32**	**21**	ND	**29**	**8.9**	**78**	NS	NP	NP	NS
Total Zinc (Zn)	µg/l	10	2100	**150**	NS	NS	**35**	**48**	**36**	**12**	**43**	**28**	**68**	NS	NP	NP	NS
Acetone	µg/l	100	700	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Acrylonitrile	µg/l	200	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Benzene	µg/l	5	1	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Bromochloromethane	µg/l	5	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Bromodichloromethane	µg/l	5	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Bromoform	µg/l	5	0.19	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Carbon Disulfide	µg/l	100	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Carbon tetrachloride	µg/l	10	0.3	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Chlorobenzene (mono)	µg/l	5	50	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Chloroethane	µg/l	10	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Chloroform	µg/l	5	0.19	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Dibromochloromethane	µg/l	5	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Dibromomethane	µg/l	10	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,2-Dichlorobenzene	µg/l	5	620	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,4-Dichlorobenzene	µg/l	5	75	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,1-Dichloroethane	µg/l	5	700	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,2-Dichloroethane	µg/l	5	0.38	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,2-Dichloropropane	µg/l	5	0.56	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Ethylbenzene	µg/l	5	29	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
2-Hexanone	µg/l	50	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Iodomethane	µg/l	10	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Dichloromethane (Methylene chloride)	µg/l	10	5	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Styrene	µg/l	10	100	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Toluene	µg/l	5	1000	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,1,1-Trichloroethane	µg/l	5	200	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,1,2-Trichloroethane	µg/l	5	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Trichloroethene (-ethylene)	µg/l	5	2.8	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Trichlorofluoromethane	µg/l	5	2100	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,2,3-Trichloropropane	µg/l	15	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Vinyl acetate	µg/l	50	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Vinyl chloride	µg/l	10	0.015	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Xylene	µg/l	5	530	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (6-26-2000)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**5.9**	**6.8**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**29**	**60**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	**14**	**14**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**300**	**67**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	**1.6**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**22**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**10**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**17**	**6**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	ND	**10**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**15**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**40**	**6.3**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**37**	**12**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Acetone	µg/l	100	700	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Benzene	µg/l	5	1	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Styrene	µg/l	10	100	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Toluene	µg/l	5	1000	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Xylene	µg/l	5	530	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT

Notes:

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White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (7-26-2000)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**330**	**30**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	**1.1**	**3.2**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**29**	**20**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**9.9**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**12**	**6.1**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**16**	**9.7**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**45**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**65**	**66**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Acetone	µg/l	100	700	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Benzene	µg/l	5	1	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Styrene	µg/l	10	100	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Toluene	µg/l	5	1000	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Xylene	µg/l	5	530	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (9-18-2000)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	30	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Barium (Ba)	µg/l	500	1000	NS	NS	NS	**330**	**92**	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	10	50	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Copper (Cu)	µg/l	200	1000	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	NS	NS	NS	NT	NT	NS	NS	NS	ND	NS	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	50	100	NS	NS	NS	**8.8**	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Silver (Ag)	µg/l	10	18	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	20	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Vanadium (V)	µg/l	40	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	50	2100	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Acetone	µg/l	100	700	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Benzene	µg/l	5	1	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Styrene	µg/l	10	100	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Toluene	µg/l	5	1000	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Xylene	µg/l	5	530	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT

Notes:

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MRL = Laboratory Method Reporting Limit

ND = Not Detected at the method detection limit

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NP = Not Present during sampling event

Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-9-2001)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**5.9**	**7.3**	NS	**6.4**	**6**	**6.3**	**6**	**6.1**	**8.2**	**5.8**	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**20**	**60**	NS	**75**	**75**	**68**	**130**	**90**	**110**	**125**	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	**15**	**15**	NS	**13**	**15**	**15**	**14**	**15**	**15**	**15**	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**1300**	**380**	NS	**180**	**330**	**120**	**80**	**290**	**360**	**970**	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	**2.3**	**7**	NS	ND	ND	ND	ND	ND	**2.4**	**4.8**	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	**130**	**2**	NS	ND	ND	ND	**1.7**	**1.8**	**2.7**	**19**	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**130**	ND	NS	**11**	**8.4**	ND	ND	**20**	**27**	**160**	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**54**	ND	NS	ND	ND	ND	**13**	**12**	**13**	**59**	NS	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**77**	**8.4**	NS	ND	ND	**5.4**	ND	**26**	**38**	**110**	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	ND	**59**	NS	ND	ND	ND	ND	ND	**18**	**2.5**	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**76**	**7.2**	NS	**9.6**	**5.3**	ND	ND	**18**	**28**	**6.1**	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	**40**	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**250**	**1.4**	NS	**13**	**19**	**9.3**	ND	**24**	**41**	**230**	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**230**	**130**	NS	**12**	**24**	**18**	**17**	**33**	**75**	**200**	NS	NP	NP	**24**
Acetone	µg/l	100	700	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Benzene	µg/l	5	1	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Styrene	µg/l	10	100	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Toluene	µg/l	5	1000	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Xylene	µg/l	5	530	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT

Notes:

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White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (9-18-2001)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Acetone	µg/l	100	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Benzene	µg/l	5	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Styrene	µg/l	10	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Toluene	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Xylene	µg/l	5	530	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-29-2001)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**3.1**
Total Vanadium (V)	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Acetone	µg/l	100	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Benzene	µg/l	5	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Styrene	µg/l	10	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Toluene	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Xylene	µg/l	5	530	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT

Notes:

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NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (1-30-2002)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Acetone	µg/l	100	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Benzene	µg/l	5	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Styrene	µg/l	10	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Toluene	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Xylene	µg/l	5	530	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (2-28-2002)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	30	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Barium (Ba)	µg/l	500	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	10	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Copper (Cu)	µg/l	200	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	50	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Silver (Ag)	µg/l	10	18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	20	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Vanadium (V)	µg/l	40	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	50	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Acetone	µg/l	100	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Benzene	µg/l	5	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Styrene	µg/l	10	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Toluene	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Xylene	µg/l	5	530	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT

Notes:

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NP = Not Present during sampling event
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White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-15-2002)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.01**	**6.42**	NS	**6.46**	**5.89**	**5.25**	**5.75**	**5.68**	**6.88**	**6.01**	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**21**	**42**	NS	**75**	**82**	**84**	**101**	**93**	**94**	**125**	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	**15.9**	**17.4**	NS	**15.3**	**15.7**	**16.8**	**16.2**	**13.2**	**16.3**	**17.3**	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	**15.0**	ND	NS	ND	ND	ND	NT	ND	ND	**11**	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	ND	ND	NS	ND	ND	ND	NT	ND	ND	ND	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**1300**	**41**	NS	ND	ND	**160**	**23**	**190**	**460**	**1400**	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	**2.1**	ND	NS	ND	ND	ND	ND	ND	**2.5**	**4.5**	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	10	5	**13**	ND	NS	ND	ND	ND	**4**	ND	**5.5**	**19**	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**170**	ND	NS	ND	ND	**5.7**	**7**	**10**	**56**	**180**	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**58**	ND	NS	ND	ND	ND	**18**	**8.2**	**21**	**82**	NS	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**69**	ND	NS	ND	ND	ND	ND	**13**	**68**	**120**	NS	NP	NP	**150**
Total Lead (Pb)	µg/l	10	15	**13**	ND	NS	ND	ND	ND	ND	ND	**13**	**29**	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**74**	ND	NS	ND	ND	ND	**6.2**	**9.2**	**44**	**68**	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	**40**	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**240**	ND	NS	ND	ND	**11**	**21**	**14**	**69**	**260**	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**230**	**16**	NS	ND	ND	**13**	**33**	**38**	**120**	**230**	NS	NP	NP	**15**
Acetone	µg/l	100	700	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Benzene	µg/l	5	1	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Styrene	µg/l	10	100	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Toluene	µg/l	5	1000	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Xylene	µg/l	5	530	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

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NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (9-26-2002)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.5**	**7.3**	**7.09**	**6.14**	**6.17**	**6.18**	**5.96**	**5.96**	**7.22**	**6.37**	**6.65**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**22**	**59**	**52**	**71**	**85**	**82**	**117**	**101**	**92**	**130**	**97**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**15.1**	**13.5**	**13.7**	**13.5**	**13.9**	**14**	**15.8**	**14.6**	**15.1**	**17.7**	**16.6**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	ND	ND	ND	**12**	ND	ND	ND	ND	ND	ND	**98**	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	**5.7**	ND	ND	ND	ND	ND	ND	**27**	ND	**68**	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**330**	**500**	**750**	**4200**	**120**	**230**	**93**	**410**	**910**	**1400**	**11000**	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	ND	**7**	**2.1**	**5.1**	ND	ND	ND	ND	**8.5**	**4.7**	**95**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	ND	ND	**4.2**	**21**	ND	**10**	ND	**2.3**	**4.2**	**19**	**180**	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**33**	**5.4**	**33**	**510**	ND	**5.2**	ND	**37**	**36**	**230**	**770**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**13**	**5.4**	**16**	**100**	ND	**16**	**7.4**	**21**	**19**	**85**	**560**	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**20**	**10**	**31**	**220**	ND	ND	**2.6**	**42**	**88**	**150**	**450**	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	ND	**76**	**29**	ND	ND	ND	ND	ND	**150**	**20**	**740**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**16**	**6.8**	**31**	**400**	ND	ND	ND	**27**	**40**	**78**	**430**	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**65**	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**58**	**16**	**44**	**640**	ND	ND	ND	**42**	**50**	**310**	**1000**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**57**	**120**	**110**	**580**	ND	**20**	ND	**56**	**250**	**280**	**4800**	NP	NP	**2000**
Acetone	µg/l	100	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Benzene	µg/l	5	1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromoform	µg/l	5	0.19	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chloroethane	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chloroform	µg/l	5	0.19	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Dibromomethane	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Ethylbenzene	µg/l	5	29	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
2-Hexanone	µg/l	50	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Iodomethane	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Styrene	µg/l	10	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Toluene	µg/l	5	1000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Xylene	µg/l	5	530	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-28-2003)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**8.3**	**7.15**	**6.89**	**6.37**	**6.21**	**6.17**	**6.4**	**6.16**	**8.15**	**5.85**	**6.75**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**29**	**43**	**55**	**91**	**110**	**99**	**150**	**114**	**100**	**138**	**125**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**16.7**	**15.9**	**15.6**	**15.6**	**16.3**	**15.3**	**13.5**	**14.2**	**17.7**	**14.9**	**18.4**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**24**	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**600**	**66**	**220**	**1800**	**160**	**140**	**110**	**92**	**360**	**800**	**2800**	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	**2**	**2.2**	**20**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	**3.6**	ND	ND	**6**	ND	ND	ND	ND	**2.9**	**16**	**20**	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	**89**	ND	ND	ND	ND	ND	**110**	**27**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**21**	ND	ND	**37**	ND	ND	**6.9**	ND	**17**	**50**	**81**	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**24**	ND	**2.6**	**40**	ND	ND	ND	ND	**28**	**94**	**71**	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	ND	ND	ND	ND	ND	ND	ND	ND	**25**	ND	**300**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	ND	ND	ND	**90**	ND	ND	ND	ND	ND	**26**	**70**	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	1	NE	ND	ND	ND	**1.6**	ND	ND	ND	ND	**1.4**	ND	**15**	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**89**	ND	**9.6**	**170**	**6.8**	**6.8**	ND	ND	**37**	**230**	**130**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**86**	**14**	**31**	**160**	**16**	ND	ND	ND	**81**	**190**	**800**	NP	NP	ND
Acetone	µg/l	100	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Benzene	µg/l	5	1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromoform	µg/l	5	0.19	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chloroethane	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chloroform	µg/l	5	0.19	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Dibromomethane	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Ethylbenzene	µg/l	5	29	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
2-Hexanone	µg/l	50	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Iodomethane	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Styrene	µg/l	10	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Toluene	µg/l	5	1000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Xylene	µg/l	5	530	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT

Notes:

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NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-30-2003)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.58**	**6.9**	**6.73**	**6.57**	**6.26**	**6.44**	**6.33**	**6.27**	**7.7**	**6.18**	**6.46**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**29**	**39**	**58**	**82**	**119**	**110**	**140**	**115**	**105**	**149**	**120**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**15**	**15.1**	**14.9**	**15.8**	**15.9**	**16.7**	**15**	**14**	**17.5**	**16.3**	**16**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	NT	ND	ND	ND	ND	ND	ND	**5.3**	**81**	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**320**	**100**	NT	**210**	**310**	**130**	**95**	**110**	**1200**	**270**	**4900**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	NT	ND	ND	ND	ND	ND	**2.4**	ND	**33**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	2	50	**30**	ND	NT	ND	**6.2**	ND	ND	ND	**31**	**4.6**	**140**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**9**	ND	NT	ND	ND	ND	**5.7**	ND	**52**	**8.8**	**110**	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**18**	ND	NT	ND	**2.3**	**2.6**	ND	**3**	**85**	**4.4**	**150**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	**8.7**	**12**	NT	ND	ND	ND	ND	ND	**39**	**7.4**	**640**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**19**	ND	NT	**6.9**	**6.9**	ND	ND	ND	**48**	ND	**190**	NP	NP	ND
Total Selenium (Se)	µg/l	5	50	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**54**	ND	NT	**6.6**	**16**	ND	ND	ND	**92**	**14**	**200**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**55**	**22**	NT	**17**	**26**	**10**	ND	ND	**140**	**26**	**1800**	NP	NP	ND
Acetone	µg/l	10	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	5	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	5	620	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	5	75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	5	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	5	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	10	170	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	5	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-20-2004)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.71**	**6.81**	**6.78**	**5.57**	**5.4**	**5.47**	**5.47**	**5.41**	**7.36**	**5.17**	**6.83**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**25**	**31**	**40**	**67**	**135**	**120**	**115**	**100**	**100**	**115**	**70**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**15.8**	**15.6**	**15.5**	**13.5**	**14.6**	**14.4**	**13.5**	**14.1**	**15.3**	**14.9**	**13.8**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	**7.4**	**30**	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**320**	**56**	**120**	**410**	**460**	**170**	**140**	**210**	**62**	**940**	**2000**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**21**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	**8.8**	**8.9**	NP	NP	ND
Total Chromium (Cr)	µg/l	2	50	**33**	ND	**2.1**	**45**	**13**	ND	ND	**11**	**3.5**	**190**	**68**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**9.5**	ND	ND	**7.7**	**5.2**	ND	**13**	**6.4**	ND	**43**	**50**	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**18**	ND	**2.8**	**12**	**5.3**	**2.3**	**4.3**	**13**	**7.4**	**100**	**89**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	**7.2**	**7**	**5.2**	**6.4**	**5.4**	ND	ND	ND	**12**	**39**	**250**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**20**	ND	ND	**30**	**7.3**	ND	ND	**12**	**5.3**	**49**	**110**	NP	NP	ND
Total Selenium (Se)	µg/l	5	50	ND	ND	ND	ND	ND	**5**	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**55**	ND	ND	**45**	**25**	ND	ND	**13**	**5.1**	**240**	**88**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**55**	**10**	ND	**44**	**30**	**11**	**14**	**19**	**23**	**220**	**770**	NP	NP	**11**
Acetone	µg/l	10	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Carbon Disulfide	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Carbon tetrachloride	µg/l	5	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Chloroform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Ethylbenzene	µg/l	5	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	10	170	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,2,3-Trichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT

Notes:

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White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-21-2004)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.83**	**6.55**	**6.76**	**6.9**	**5.92**	**6.39**	**5.75**	**6.03**	**7.84**	**5.57**	**7.12**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**29**	**49**	**62**	**96**	**290**	**302**	**196**	**148**	**111**	**198**	**134**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**14.3**	**16.7**	**14**	**13**	**14.7**	**14.3**	**15**	**14.5**	**14.2**	**14.6**	**17**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**59**	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**320**	**40**	**200**	**300**	**310**	**140**	**140**	**130**	**12**	**900**	**4900**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.4**	**28**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	2	50	**21**	ND	**2.8**	**16**	**2**	ND	ND	ND	ND	**120**	**140**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**6.2**	ND	ND	ND	ND	ND	ND	ND	ND	**31**	**120**	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**11**	ND	ND	**2**	ND	ND	ND	ND	ND	**63**	**140**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	**7.2**	**5.6**	**5.7**	ND	ND	ND	ND	ND	ND	**24**	**430**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**12**	ND	ND	**13**	ND	ND	ND	ND	ND	**35**	**160**	NP	NP	ND
Total Selenium (Se)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**41**	ND	ND	**18**	ND	ND	ND	ND	ND	**160**	**210**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**29**	ND	ND	**17**	ND	**14**	ND	**12**	**15**	**70**	**1200**	NP	NP	ND
Acetone	µg/l	10	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	10	NE	ND	**24**	ND	ND	ND	ND	ND	ND	**15**	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	5	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	5	620	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	5	75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	5	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	5	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	10	170	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	5	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-18-2005)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.95**	**7.44**	**6.15**	**6.2**	**5.58**	**6.04**	**6.02**	**6.18**	**7.46**	**5.6**	**6.85**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**25**	**40**	**42**	**78**	**330**	**161**	**171**	**139**	**95**	**149**	**138**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**14.2**	**15.6**	**15**	**13.5**	**15**	**17.7**	**13**	**13.5**	**16.2**	**14.1**	**16.4**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**12**	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	**10**	ND	ND	ND	ND	ND	**5.2**	**65**	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**480**	**55**	**160**	**7200**	**610**	**180**	**160**	**140**	**12**	**1000**	**3700**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	**7.2**	ND	ND	ND	ND	ND	**3.8**	**26**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	2	50	**49**	**12**	**8.3**	**680**	**2.9**	ND	ND	**3.2**	ND	**210**	**100**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**12**	ND	ND	**110**	ND	ND	ND	ND	ND	**36**	**70**	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**29**	ND	ND	**240**	ND	ND	ND	**3.8**	ND	**120**	**130**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	**13**	**8**	**5.2**	**73**	ND	ND	ND	ND	ND	**39**	**380**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**29**	**9.6**	**17**	**460**	ND	ND	**5.5**	**5.4**	ND	**59**	**170**	NP	NP	ND
Total Selenium (Se)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**85**	ND	ND	**680**	**5.4**	ND	ND	ND	ND	**240**	**110**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**83**	ND	ND	**780**	ND	**30**	**13**	**10**	ND	**240**	**1200**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	5	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	5	620	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	5	75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	5	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	5	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	10	170	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	5	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

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ND = Not Detected at the method detection limit
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NT = Not Tested
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NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-13-2005)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**7.21**	**7.38**	**7.79**	**6.36**	**6.07**	**6.25**	**6.08**	**6.6**	**7.73**	**6.08**	**6.72**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**21**	**35**	**40**	**85**	**580**	**201**	**185**	**160**	**102**	**180**	**52**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.2**	**14**	**13.3**	**13.3**	**14.9**	**14.3**	**16.5**	**15.5**	**15.3**	**16.5**	**16.8**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**44**	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**770**	**37**	**160**	**1700**	**870**	**250**	**160**	**140**	**27**	**810**	**2700**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	**3**	ND	ND	ND	ND	ND	**3.4**	**21**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	2	50	**52**	ND	**3.7**	**230**	**4.7**	ND	ND	ND	ND	**150**	**88**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**21**	ND	ND	**32**	ND	ND	**5.1**	ND	ND	**29**	**56**	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**31**	**2.6**	**3.5**	**70**	ND	ND	ND	ND	**3**	**82**	**96**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	**14**	**6.9**	ND	**20**	ND	ND	ND	ND	ND	**29**	**290**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**29**	ND	ND	**160**	**6.8**	ND	ND	**6.1**	ND	**46**	**100**	NP	NP	ND
Total Selenium (Se)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	**2.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	10	NE	**22**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**82**	ND	ND	**210**	**8.9**	ND	ND	ND	ND	**170**	**82**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**92**	**13**	**12**	**230**	**19**	**25**	ND	ND	**14**	**170**	**800**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	5	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	5	620	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	5	75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	5	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	5	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	10	170	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	5	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

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ND = Not Detected at the method detection limit
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NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-25-2006)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.33**	**7.06**	**6.61**	**6.07**	**5.45**	**6.16**	**5.63**	**5.62**	**7.7**	**5.56**	**5.83**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**53**	**48**	**52**	**106**	**105**	**383**	**301**	**236**	**136**	**251**	**70**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**18.1**	**19.2**	**16.1**	**13.7**	**19.5**	**20.6**	**12.4**	**13.8**	**14.6**	**14.8**	**12.9**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**42**	NP	NP	ND
Total Barium (Ba)	µg/l	500	2000	**650**	ND	ND	ND	**1100**	ND	ND	ND	ND	**750**	**2700**	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	**2.1**	ND	**17**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	10	50	**65**	ND	**16**	ND	ND	ND	ND	ND	**16**	**100**	**93**	NP	NP	ND
Total Cobalt (Co)	µg/l	10	NE	**16**	ND	ND	ND	ND	ND	ND	ND	ND	**25**	**57**	NP	NP	ND
Total Copper (Cu)	µg/l	200	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	**15**	ND	ND	ND	ND	ND	ND	ND	**53**	**19**	**300**	NP	NP	ND
Total Nickel (Ni)	µg/l	50	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**88**	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	10	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	40	NE	**110**	ND	ND	ND	ND	ND	ND	ND	ND	**120**	**85**	NP	NP	ND
Total Zinc (Zn)	µg/l	50	1050	**130**	ND	**88**	ND	ND	ND	ND	ND	**110**	**120**	**780**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	10	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	5	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	10	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	5	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	5	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	5	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	5	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	5	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	5	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	10	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	5	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	5	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-20-2006)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.47**	**6.81**	**6.51**	**6.74**	**5.56**	**6.14**	**5.87**	**5.74**	**8.2**	**5.61**	**5.97**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**229**	**48**	**53**	**108**	**876**	**564**	**149**	**200**	**12.8**	**330**	**33**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**12.2**	**11.9**	**12.8**	**12.5**	**12.7**	**12.9**	**14.9**	**13.7**	**13.5**	**13.3**	**14.9**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**13**	NP	NP	ND
Total Barium (Ba)	µg/l	5	2000	**410**	**22**	**180**	**470**	**1100**	ND	ND	ND	**160**	ND	**650**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.7**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	**3.8**	ND	ND	ND	ND	ND	ND	ND	**1.5**	ND	**5.2**	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**50**	ND	**11**	**24**	ND	ND	ND	ND	**17**	ND	**27**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**26**	ND	ND	**9.6**	ND	ND	ND	ND	**20**	ND	**25**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	**20**	ND	ND	ND	ND	ND	ND	ND	**32**	ND	**89**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**22**	ND	**8.3**	**25**	ND	ND	ND	ND	**13**	ND	**24**	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**79**	ND	ND	**28**	ND	ND	ND	ND	**23**	ND	**30**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**74**	ND	**20**	**37**	ND	ND	ND	ND	**55**	ND	**200**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	10	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	5	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	10	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	5	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	5	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	5	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	5	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	5	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	5	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	10	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	10	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	5	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

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Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-25-2007)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.04**	**7.08**	**6.27**	**6.25**	**5.36**	**5.83**	**5.7**	**5.73**	**8.02**	**5.54**	**9.08**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**31**	**50**	**54**	**105**	**1540**	**757**	**391**	**312**	**134**	**336**	**46**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.4**	**14.2**	**14**	**13**	**14**	**14.6**	**14**	**13**	**15.7**	**15.4**	**12.5**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	6	NE	ND	ND	ND	ND	ND	**20**	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	**280**	ND	ND	ND	ND	**12**	NP	NP	ND
Total Barium (Ba)	µg/l	100	2000	**290**	ND	**200**	**240**	**1300**	**1500**	**130**	**180**	ND	ND	**600**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	**14**	ND	ND	ND	ND	**4.9**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	**2.2**	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	10	50	**20**	ND	ND	**16**	ND	**410**	ND	ND	ND	ND	**17**	NP	NP	ND
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	ND	ND	**260**	ND	ND	ND	ND	ND	NP	NP	ND
Total Copper (Cu)	µg/l	10	1000	**15**	ND	ND	ND	ND	**330**	ND	ND	ND	ND	**26**	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	ND	ND	ND	ND	ND	**96**	ND	ND	ND	ND	**69**	NP	NP	ND
Total Nickel (Ni)	µg/l	50	100	ND	ND	ND	ND	ND	**330**	ND	ND	ND	ND	ND	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	**12**	ND	ND	ND	ND	**460**	ND	ND	ND	ND	**18**	NP	NP	ND
Total Silver (Ag)	µg/l	10	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	5.5	NE	ND	ND	ND	ND	ND	**35**	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	25	NE	**43**	ND	ND	ND	ND	**300**	ND	ND	ND	ND	**26**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**55**	**21**	**30**	**30**	**22**	**830**	**22**	**15**	**10**	**12**	**200**	NP	NP	**12**
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	10	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	5	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	10	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	5	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	5	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	5	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	5	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	5	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	5	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	10	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	10	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	5	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-31-2007)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.6**	**6.8**	**6.3**	**6.22**	**5.9**	**6**	**5.5**	**5.9**	**7.99**	**5.5**	**5.9**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**28**	**61**	**45**	**94**	**1475**	**911**	**346**	**300**	**132**	**543**	**36**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.8**	**16**	**16.1**	**14.8**	**17.5**	**17.6**	**17.5**	**17.2**	**14.8**	**15.6**	**17.2**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**21.4**	NP	NP	ND
Total Barium (Ba)	µg/l	5	2000	**501**	**31.5**	**223**	**198**	**1350**	**591**	**184**	**208**	**62.4**	**516**	**872**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**40.9**	ND	**11.9**	**10.9**	**7.8**	ND	ND	ND	**5.1**	**75.5**	**33.7**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**16.8**	ND	ND	ND	**10.6**	ND	ND	ND	ND	ND	**17.6**	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**29.2**	ND	ND	ND	ND	ND	ND	ND	**6.3**	**40.3**	**47.4**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	**17.5**	**8.1**	ND	ND	ND	ND	ND	ND	ND	**12.3**	**123**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**24**	ND	**8**	**8.4**	**13.8**	ND	**5.8**	**9.8**	ND	**20.2**	**36.2**	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	5.5	NE	**11.6**	ND	ND	ND	ND	ND	ND	ND	ND	**9.5**	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**89**	ND	**8.8**	**14.7**	**20**	ND	ND	ND	**8.6**	**103**	**48.2**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**86**	ND	**66.2**	**14**	**37.4**	**33.3**	**12**	ND	**11.6**	**91.1**	**336**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	1	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	1	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	1	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	1	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	1	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	1	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	1	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	1	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	1	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	2	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	1	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	1	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	1	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	1	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylenes	µg/l	2	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

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Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (04-23-2008)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.59**	**7.22**	**6.58**	**6.33**	**5.71**	**6.05**	**5.66**	**5.65**	**8.13**	**5.56**	**6.69**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**25**	**49**	**49**	**102**	**1546**	**946**	**411**	**318**	**124**	**481**	**33**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.9**	**14.2**	**14.2**	**13.2**	**14.6**	**14.4**	**13.4**	**14.7**	**17.4**	**14.8**	**14.1**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10.2**	NP	NP	ND
Total Barium (Ba)	µg/l	5	2000	**194**	**30.8**	**253**	**168**	**1230**	**661**	**216**	**202**	**61.8**	**151**	**361**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.6**	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**10.7**	ND	**16.8**	**7.8**	ND	ND	ND	ND	**7.6**	**7.3**	**14.9**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**22.3**	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**7.2**	ND	ND	ND	ND	ND	ND	ND	**7.2**	ND	**17**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	**8.4**	ND	ND	ND	ND	ND	**5.8**	ND	**50.2**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**7.3**	ND	**12.9**	**6.3**	**10.8**	**5.7**	ND	**11.3**	**5.3**	ND	**19**	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	5.5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**26.1**	ND	**11.4**	**9.7**	**10.1**	ND	ND	**5.1**	**9.7**	**10**	**23.1**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**27.3**	ND	**50.3**	**12.2**	**24.4**	**36.9**	ND	**10.3**	**17.5**	**38.8**	**138**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	1	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	1	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	1	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	1	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	1	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	1	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	1	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	1	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	1	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	2	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	1	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	1	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	1	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	1	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylenes	µg/l	2	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-20-2008)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**5.7**	**6.7**	**6.2**	**6.1**	**5.9**	**6.0**	**5.9**	**5.8**	**7.9**	**5.6**	**5.5**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**28.0**	**54.0**	**44.0**	**104**	**1420**	**1111**	**320**	**350.0**	**129.0**	**621.0**	**41.0**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.8**	**14.2**	**12.0**	**13.2**	**14.3**	**15.4**	**14.9**	**14.6**	**15.2**	**14.5**	**16.5**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.6**	NP	NP	ND
Total Barium (Ba)	µg/l	5	2000	**474**	**66.0**	**313**	**224**	**1210**	**894**	**164**	**216**	**41.1**	**182**	**245**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	**1.2**	ND	ND	ND	ND	ND	ND	ND	ND	**1.9**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**38.6**	ND	**29.4**	**12.7**	ND	ND	ND	ND	ND	ND	**6.8**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**27.0**	**10.4**	**19.5**	**9.4**	**7.7**	ND	**12.6**	**5.3**	**7.1**	ND	**18.4**	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**26.5**	ND	**8.3**	ND	ND	ND	ND	ND	ND	ND	**9.7**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	ND	**13.5**	**7.6**	ND	ND	ND	ND	ND	ND	ND	**25.9**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**23.0**	ND	**21.0**	**11.1**	**10.7**	**7.5**	ND	**14.0**	ND	ND	**8.5**	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	5.4	NE	**7.2**	ND	ND	ND	ND	ND	ND	**6.1**	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**79.0**	ND	**15.1**	**15.8**	ND	ND	ND	ND	**5.4**	ND	**14.8**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**66.5**	**19.9**	**59.2**	**15.3**	**10.6**	**29.1**	ND	**12.4**	ND	**17.4**	**71.5**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**140**	NP	NP	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	1	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	1	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	1	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	1	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	1	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	1	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	1	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	1	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	1	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	2	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**54.4**	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	1	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	1	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	1	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	1	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylenes	µg/l	2	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

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MRL = Laboratory Method Reporting Limit
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NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-22-2009)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**5.64**	**6.89**	**6.32**	**5.83**	**5.74**	**5.92**	**5.75**	**5.72**	**7.56**	**5.47**	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**28.0**	**53.0**	**12.0**	**131**	**1427**	**1109**	**398**	**358**	**131**	**536.0**	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.3**	**13.1**	**47**	**13.4**	**12.8**	**13.1**	**11.7**	**12.1**	**14.4**	**15.1**	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	**5.4**	ND	ND	**5.6**	ND	ND	ND	ND	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	2000	**126**	**47.2**	**591**	**309**	**1300**	**817**	**230**	**216**	**77.0**	**163**	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	**1.5**	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**12.3**	ND	**28.9**	**19.7**	**5.1**	ND	ND	ND	**7.3**	ND	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**5.0**	**6.3**	**17.1**	**8.5**	**5.7**	ND	**7.0**	ND	**6.4**	ND	NS	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**5.1**	ND	**22.6**	**6.0**	ND	ND	ND	ND	**8.8**	ND	NS	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	ND	**8.7**	**24.4**	ND	ND	ND	ND	ND	**9.8**	ND	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**5.6**	**7.2**	**19.7**	**16.7**	**10.9**	**6.0**	**5.1**	**14.0**	**6.0**	ND	NS	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**16.0**	ND	**32.7**	**19.8**	**7.7**	ND	ND	ND	**13.3**	ND	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**23.1**	**43.5**	**99.9**	**25.3**	**17.9**	**17.6**	**10.5**	ND	**35.2**	ND	NS	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Bromodichloromethane	µg/l	1	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Bromoform	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	**4.5**	ND	NS	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Carbon tetrachloride	µg/l	1	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Chloroethane	µg/l	1	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	1	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,2-Dichlorobenzene	µg/l	1	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,4-Dichlorobenzene	µg/l	1	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,1-Dichloroethane	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,2-Dichloroethane	µg/l	1	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,2-Dichloropropane	µg/l	1	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Ethylbenzene	µg/l	1	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	2	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Styrene	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Toluene	µg/l	1	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	1	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Trichlorofluoromethane	µg/l	1	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Vinyl chloride	µg/l	1	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Xylenes	µg/l	2	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-26-2009)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**5.88**	**6.35**	**6.0**	**5.76**	**5.78**	**5.95**	NS	NS	NS	**5.32**	**5.30**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**29**	**50**	**37.0**	**127**	**1532**	**1120**	NS	NS	NS	**637**	**39**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.4**	**13.2**	**14.4**	**14.6**	**14.7**	**15.9**	NS	NS	NS	**14.5**	**15.3**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NS	NS	NS	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	**6.0**	ND	NS	NS	NS	ND	ND	NP	NP	ND
Total Barium (Ba)	µg/l	5	2000	**131**	**16.8**	**144**	**188**	**1720**	**987**	NS	NS	NS	**209**	**178**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	**1.7**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**10.0**	ND	**8.1**	ND	**18.7**	ND	NS	NS	NS	**10.9**	**8.1**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	**6.0**	ND	NS	NS	NS	ND	**6.0**	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**5.8**	ND	ND	ND	**6.4**	ND	NS	NS	NS	ND	**7.1**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	**24.7**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**6.7**	ND	**5.2**	**6.0**	**18.0**	**7.5**	NS	NS	NS	**6.0**	**8.4**	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**17.9**	ND	ND	**5.3**	**33.6**	ND	NS	NS	NS	**12.2**	**11.9**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**19.6**	ND	**14.8**	ND	**37.8**	ND	NS	NS	NS	ND	**63.8**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	1	0.56	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Bromoform	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	1	0.269	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Chloroethane	µg/l	1	2800	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	1	2.6	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	0.025	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.00047	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	1	24	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	1	1.4	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	1	70	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	1	0.38	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	1	0.51	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	1	550	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	2	4.6	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4200	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Styrene	µg/l	1	100	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Toluene	µg/l	1	1000	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	1	2.8	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	1	2100	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	1	0.015	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Xylenes	µg/l	2	530	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
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NT = Not Tested
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NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-22-2010)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.05**	**6.54**	**6.33**	**6.06**	**5.90**	**5.94**	NS	NS	**7.04**	**5.50**	**5.69**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**65**	**96**	**8.2**	**161**	**1987**	**1812**	NS	NS	**1727**	**659**	**83**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.5**	**13.8**	**13.9**	**13.5**	**13.3**	**13.4**	NS	NS	**14.9**	**14.6**	**12.7**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NS	NS	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	**7.4**	**9.8**	NS	NS	ND	ND	ND	NP	NP	ND
Total Barium (Ba)	µg/l	5	2000	**208**	**43.5**	**153**	**157**	**1920**	**1380**	NS	NS	**20.9**	**150**	**74.8**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**14.3**	**10.9**	**13.1**	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**5.6**	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**9.9**	ND	ND	ND	ND	**5.9**	NS	NS	ND	ND	ND	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	ND	**10.5**	ND	ND	ND	ND	NS	NS	ND	ND	**9.2**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**8.6**	**9.6**	**7.6**	ND	**6.2**	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**27.9**	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**22.2**	**14.2**	ND	ND	ND	ND	NS	NS	ND	ND	**24.6**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	1	0.56	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	1	0.269	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	1	2800	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	1	2.6	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	0.025	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.00047	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	1	24	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	1	1.4	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	1	70	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	1	0.38	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	1	0.51	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	1	550	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	2	4.6	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4200	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Styrene	µg/l	1	100	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Toluene	µg/l	1	1000	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	1	2.8	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	1	2100	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	1	0.015	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Xylenes	µg/l	2	530	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND

Notes:

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MRL = Laboratory Method Reporting Limit
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White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-27-2010)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**5.33**	**6.38**	**6.06**	**5.69**	**5.72**	**5.96**	**5.43**	**5.65**	**7.36**	**5.29**	**5.44**	**5.65**	**5.82**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**35**	**52**	**54**	**113**	**189**	**177**	**418**	**317**	**140**	**772**	**46**	**221**	**90**	NT
Temperature	°C (on-site)	-	NE	**13.7**	**14.1**	**14.1**	**13.9**	**13.9**	**14.7**	**15.2**	**15.0**	**15.7**	**14.7**	**16.5**	**15.9**	**15.0**	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	**5.4**	**5.9**	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	2000	**147**	**15.8**	**162**	**178**	**1760**	**1550**	**531**	**234**	**20.0**	**190**	**111**	**191**	**84.4**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	**10.1**	ND	**6.6**	**7.1**	ND	ND	**12.0**	**9.2**	ND	ND	**5.2**	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**17.3**	**5.6**	ND	ND	**7.8**	**29.6**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**6.7**	ND	ND	ND	ND	ND	ND	**12.4**	ND	ND	**53.9**	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**16.0**	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**7.0**	ND	ND	ND	**7.4**	ND	**21.5**	**19.0**	ND	ND	**7.5**	**10.8**	ND	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**17.4**	ND	ND	**6.9**	ND	ND	**14.2**	**7.1**	ND	ND	**5.9**	ND	ND	ND
Total Zinc (Zn)	µg/l	10	1050	**19.1**	ND	**12.3**	**15.0**	ND	ND	**32.4**	**16.3**	ND	ND	**60.7**	ND	ND	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-29-2011)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.00**	**6.50**	**6.50**	**6.10**	**5.80**	**6.00**	**5.60**	**5.60**	**6.20**	**5.40**	**5.70**	**5.60**	**5.60**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**29**	**50**	**53**	**127**	**1770**	**1593**	**491**	**290**	**135**	**762**	**90**	**197**	**125**	NT
Temperature	°C (on-site)	-	NE	**14.3**	**14.6**	**13.7**	**13.2**	**14.5**	**14.7**	**15.3**	**14.5**	**14.8**	**14.4**	**13.2**	**15.2**	**14.8**	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**191**	**16.3**	**188**	**182**	**1620**	**1390**	**428**	**173**	**13.6**	**196**	**125**	**201**	**133.0**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.1**	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	10	**8.0**	ND	**8.6**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	**6.9**	ND	**8.9**	ND	ND	ND	ND	**26.3**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**6.4**	ND	ND	ND	**6.7**	**6.1**	ND	ND	ND	ND	**5.2**	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**11.0**	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	ND	ND	ND	ND	**10.5**	**8.6**	**19.5**	**15.2**	ND	ND	ND	**10.3**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**15.8**	ND	**5.1**	ND	ND	ND	ND	ND	ND	ND	**5.5**	**7.3**	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**25.7**	ND	**21.9**	ND	**11.8**	**23.9**	**13.7**	ND	ND	ND	**42.9**	**20.5**	**21.5**	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-25-2011)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.50**	**6.20**	**6.40**	**6.10**	**5.60**	**5.40**	**5.40**	**5.30**	**7.00**	**5.20**	**5.60**	**5.60**	**5.80**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**32**	**47**	**46**	**108**	**1275**	**1450**	**395**	**297**	**137**	**802**	**52**	**245**	**145**	NT
Temperature	°C (on-site)	-	NE	**14.2**	**13.5**	**15.3**	**12.4**	**13.2**	**13.7**	**15.8**	**15.1**	**15.7**	**16.2**	**16.9**	**16.3**	**15.6**	NT
Turbidity	NTU (on-site)	NT	NE	**96.5**	**8.09**	**17.7**	**9.06**	**9.22**	**1.78**	**8.72**	**5.24**	**1.91**	**80.5**	**154.0**	**4.62**	**1.77**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**185**	**19.7**	**120**	**332**	**1200**	**1300**	**945**	**205**	**8.2**	**238**	**123**	**161**	**154**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.6**	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	10	**15.0**	ND	ND	**21.1**	ND	ND	**8.1**	ND	ND	**9.2**	**5.1**	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	**5.3**	ND	ND	**6.4**	**6.3**	ND	**21.0**	ND	ND	ND	ND	**42.4**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**9.6**	ND	ND	**9.4**	**6.8**	**11.2**	**7.6**	ND	ND	**5.1**	**6.9**	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	**6.3**	ND	ND	ND	**14.6**	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**6.9**	ND	ND	**14.7**	**8.8**	**7.5**	**20.8**	**19.9**	ND	ND	ND	**8.0**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**25.6**	ND	ND	**23.0**	ND	ND	**15.1**	ND	ND	**9.7**	**6.3**	ND	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**34.5**	ND	**11.6**	**23.7**	**12.8**	**10.1**	**32.5**	ND	ND	**17.7**	**49.9**	**15.1**	ND	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-20-2012)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.4**	**6.9**	**6.6**	**6.3**	**6.2**	**6.1**	**5.7**	**5.8**	**8.3**	**5.5**	**5.8**	**6.0**	**6.0**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**29.1**	**48.1**	**45.5**	**112.2**	**1339**	**1397**	**508**	**341**	**140**	**845**	**61.4**	**284.3**	**165.9**	NT
Temperature	°C (on-site)	-	NE	**13.5**	**13.9**	**13.6**	**14.0**	**14.9**	**14.7**	**15.9**	**14.2**	**15.1**	**15.2**	**14.0**	**15.9**	**14.9**	NT
Turbidity	NTU (on-site)	NT	NE	**90**	**48.1**	**11.5**	**4.28**	**3.53**	**2.50**	**14.70**	**3.63**	**4.36**	**2.21**	**70.0**	**21.10**	**1.75**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**304**	**17.5**	**129**	**153**	**1020**	**1140**	**442**	**215**	**9.5**	**232**	**64.8**	**249**	**169**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**4.8**	ND	ND
Total Chromium (Cr)	µg/l	5	10	**24.5**	ND	ND	**5.1**	ND	ND	**7.9**	ND	ND	ND	ND	**12.3**	ND	ND
Total Cobalt (Co)	µg/l	5	NE	**6.9**	ND	ND	ND	ND	ND	**6.4**	ND	ND	ND	ND	**134.0**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**15.6**	ND	ND	ND	**5.8**	**5.2**	ND	ND	ND	ND	ND	**6.5**	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.4**	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**12.2**	ND	ND	ND	**9.4**	**9.4**	**23.8**	**24.6**	ND	ND	ND	**19.3**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**44.3**	ND	ND	ND	ND	ND	**10.0**	ND	ND	ND	ND	**15.0**	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**47.6**	ND	**12.5**	ND	**11.6**	**10.1**	**21.1**	ND	ND	**11.1**	**30.7**	**50.8**	ND	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-24-2012)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.3**	**6.8**	**6.3**	**6.3**	**6.1**	**6.0**	**5.6**	**5.7**	**8.1**	**5.3**	**5.6**	**5.9**	**5.8**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**28.0**	**49.0**	**49.0**	**122.0**	**1200**	**1332**	**540**	**395**	**140**	**867**	**50.0**	**260.0**	**171.0**	NT
Temperature	°C (on-site)	-	NE	**14.4**	**13.3**	**12.5**	**16.5**	**15.3**	**15.2**	**15.6**	**15.2**	**15.3**	**15.4**	**16.1**	**15.9**	**15.7**	NT
Turbidity	NTU (on-site)	NT	NE	**921**	**3.2**	**9.2**	**8.64**	**5.54**	**2.67**	**6.39**	**4.52**	**10.31**	**2.50**	**56.0**	**2.82**	**2.23**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**389**	**19.0**	**124**	**167**	**889**	**1030**	**393**	**229**	**26.1**	**235**	**43.2**	**177**	**181**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.0**	ND	ND
Total Chromium (Cr)	µg/l	5	10	**30.4**	**6.0**	ND	**6.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	**15.7**	ND	ND	ND	**5.6**	ND	**6.5**	ND	ND	ND	ND	**48.5**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**22.7**	ND	ND	ND	**6.0**	ND	ND	ND	**5.1**	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	**5.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**18.5**	ND	ND	ND	**10.1**	**8.9**	**20.0**	**25.3**	ND	ND	ND	**9.6**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**59.0**	ND	ND	**5.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**93.4**	**10.4**	**11.3**	**22.4**	**23.8**	ND	**10.3**	**16.1**	**14.9**	**12.2**	**15.7**	**15.8**	ND	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	**4.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-24-2013)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.5**	**6.8**	**6.3**	**6.2**	**6.3**	**6.2**	**5.7**	**5.7**	**8.1**	**5.6**	**5.9**	**6.0**	**5.8**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**22.0**	**46.0**	**44.0**	**121.0**	**1205**	**1328**	**516**	**387**	**144**	**887**	**72.0**	**247**	**190**	NT
Temperature	°C (on-site)	-	NE	**15.2**	**13.9**	**13.7**	**13.2**	**14.3**	**14.4**	**14.3**	**14.1**	**15.6**	**16.0**	**13.6**	**15.7**	**14.3**	NT
Turbidity	NTU (on-site)	NT	NE	**100**	**1.21**	**6.28**	**282**	**4.84**	**0.30**	**1.76**	**1.61**	**0.55**	**1.57**	**60.0**	**1.01**	**0.11**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**241**	**16.8**	**100**	**164**	**842**	**964**	**344**	**226**	**9.3**	**218**	**96.5**	**116**	**190**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.2**	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	10	**19.0**	ND	ND	**8.8**	**6.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	**16.5**	ND	ND	ND	**10.8**	ND	**5.6**	ND	ND	ND	**8.9**	**115**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**13.4**	ND	ND	ND	**9.3**	**6.0**	ND	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10.4**	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**10.0**	ND	ND	ND	**12.0**	**8.6**	**21.8**	**32.8**	ND	ND	ND	**9.2**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**33.5**	ND	ND	**7.7**	**9.6**	ND	ND	ND	ND	ND	**5.4**	ND	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**56.3**	ND	ND	ND	**18.6**	**14.9**	ND	ND	ND	ND	**33.2**	ND	ND	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-24-2013)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.6**	**6.9**	**11.9**	**6.5**	**6.5**	**6.4**	**5.9**	**6.0**	**8.0**	**5.8**	**6.1**	**6.2**	**6.1**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**31.0**	**47.0**	**67.0**	**117.0**	**1191**	**1390**	**536**	**402**	**142**	**897**	**53.0**	**301**	**212**	NT
Temperature	°C (on-site)	-	NE	**12.5**	**12.5**	**11.9**	**12.5**	**13.7**	**13.6**	**13.1**	**13.9**	**13.4**	**13.7**	**13.9**	**13.6**	**13.0**	NT
Turbidity	NTU (on-site)	NT	NE	**55**	**2.23**	**9.29**	**3.02**	**3.17**	**0.61**	**3.01**	**2.27**	**0.36**	**0.55**	**100.0**	**0.53**	**0.66**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**255**	**18.1**	**156**	**166**	**839**	**1160**	**510**	**256**	**9.1**	**250**	**55.2**	**171**	**218**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	10	**14.5**	ND	**12.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	**11.8**	ND	ND	ND	**8.0**	ND	**7.5**	ND	ND	ND	ND	**84.5**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**12.6**	ND	ND	ND	**7.5**	**5.8**	ND	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**7.9**	ND	**8.3**	ND	**7.5**	**7.0**	**30.2**	**29.9**	ND	ND	ND	**12.1**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**30.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**30.6**	ND	ND	ND	ND	ND	**28.1**	ND	ND	**28.8**	**39.6**	**14.9**	ND	**12**
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-24-2014)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.8**	**7.0**	**6.6**	**6.3**	**6.5**	**6.4**	**5.8**	**5.8**	**8.3**	**5.6**	**5.8**	**6.1**	**5.8**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**30.0**	**48.0**	**50.0**	**126.0**	**1364**	**1652**	**517**	**418**	**147**	**919**	**57.0**	**240**	**187**	NT
Temperature	°C (on-site)	-	NE	**12.9**	**13.8**	**14.9**	**14.5**	**15.5**	**15.3**	**15.8**	**14.2**	**16.0**	**15.6**	**12.8**	**16.5**	**16.5**	NT
Turbidity	NTU (on-site)	NT	NE	**39**	**1.43**	**4.85**	**1.82**	**1.49**	**2.86**	**2.25**	**1.24**	**1.51**	**2.38**	**9.39**	**1.95**	**2.24**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.1**	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**174**	**17.7**	**127**	**148**	**941**	**1290**	**378**	**248**	**8.3**	**238**	**27.5**	**148**	**189**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.2**	ND	ND
Total Chromium (Cr)	µg/l	5	10	**12.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.1**	ND	ND
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	**5.7**	ND	ND	ND	ND	ND	ND	**65.1**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**7.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**7.0**	ND	ND	ND	**9.3**	**10.1**	**23.6**	**33.9**	ND	ND	ND	**12.5**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.6**	ND	ND
Total Vanadium (V)	µg/l	5	NE	**22.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**25.8**	ND	ND	ND	ND	ND	**18.9**	ND	ND	ND	ND	**14.9**	**10.1**	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	**2**	ND	ND	ND	**2.2**	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-27-2014)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.55**	**8.52**	**6.50**	**6.27**	**6.18**	**6.13**	**5.71**	**5.25**	**7.70**	**5.81**	**6.50**	**5.92**	**5.89**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**21.7**	**108.1**	**32.4**	**115.1**	**1468.0**	**1646.0**	**466.3**	**353.0**	**163.1**	**698.0**	**50.9**	**223.7**	**172.0**	NT
Temperature	°C (on-site)	-	NE	**14.8**	**13.7**	**17.1**	**16.7**	**16.6**	**14.9**	**18.3**	**20.7**	**16.1**	**16.7**	**15.6**	**17.2**	**15.4**	NT
Turbidity	NTU (on-site)	NT	NE	**>50**	**>50**	**30.00**	**2.68**	**3.09**	**2.99**	**30.00**	**3.92**	**30.00**	**6.01**	**4.35**	**3.17**	**1.44**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**117**	**16.1**	**102**	**136**	**1280**	**1410**	**363**	**224**	**8.6**	**228**	**23.2**	**156**	**180**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**24.2**	ND	ND
Total Copper (Cu)	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	ND	ND	ND	ND	**10.7**	**10.1**	**29.5**	**31.4**	ND	ND	ND	**9.1**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Zinc (Zn)	µg/l	10	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	2	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
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Shaded cells indicate exceedance of MCLs.

APPENDIX B

SUMMARY TABLES OF SURFACE WATER ANALYTICAL RESULTS

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-24-2000)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.4**	**6.3**	**6.7**	**6.4**	NS	NS	NS	**7.8**
Specific Conductance	µmhos/cm (on-site)	1	NE	**65**	**65**	**59**	**65**	NS	NS	NS	**2600**
Temperature	°C (on-site)	-	29	**11**	**11**	**14**	**11**	NS	NS	NS	**11**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NS	NS	NS	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NS	NS	NS	NT
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NS	NS	NS	**300**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NS	NS	NS	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NS	NS	NS	**95**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NS	NS	NS	**95**
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NS	NS	NS	NT
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NS	NS	NS	**190**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NS	NS	NS	**670**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NS	NS	NS	**2700**
Cyanide	µg/l	2	5	NT	NT	NT	NT	NS	NS	NS	**13**
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	**25**	NS	NS	NS	NT
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	NS	NS	NS	NT
Total Barium (Ba)	µg/l	500	NE	**91**	**70**	**29**	**62**	NS	NS	NS	NT
Total Beryllium (Be)	µg/l	2	6.5	ND	**2**	ND	ND	NS	NS	NS	NT
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	NS	NS	NS	NT
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	ND	NS	NS	NS	**13**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	**16**	NS	NS	NS	NT
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	ND	NS	NS	NS	NT
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	ND	NS	NS	NS	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	ND	NS	NS	NS	NT
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	ND	NS	NS	NS	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	**3.8**	NS	NS	NS	NT
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	NS	NS	NS	**2**
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	ND	NS	NS	NS	NT
Total Zinc (Zn)	µg/l	50	50	**13**	**26**	**14**	ND	NS	NS	NS	NT
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NS	NS	NS	**0.3**
Acetone	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NS	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NT	NT	NS	NS	NS	NT
Benzene	µg/l	5	51	NT	NT	NT	NT	NS	NS	NS	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
Bromoform	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NS	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
Carbon tetrachloride	µg/l	10	1.6	NT	NT	NT	NT	NS	NS	NS	NT
Chlorobenzene (mono)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
Chloroethane	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
Chloroform	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
Dibromomethane	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,2-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,4-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
trans-1,4-Dichloro-2butene	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,1-Dichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,2-Dichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,2-Dichloropropane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
Ethylbenzene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
2-Hexanone	µg/l	50	NE	NT	NT	NT	NT	NS	NS	NS	NT
Iodomethane	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
Dichloromethane (Methylene chloride)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NS	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NS	NT
Styrene	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,1,2,2-Tetrachloroethane	µg/l	5	4	NT	NT	NT	NT	NS	NS	NS	NT
Tetrachloroethene (-ethylene)	µg/l	5	3.3	NT	NT	NT	NT	NS	NS	NS	NT
Toluene	µg/l	5	0.36	NT	NT	NT	NT	NS	NS	NS	NT
1,1,1-Trichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
Trichloroethene (-ethylene)	µg/l	5	30	NT	NT	NT	NT	NS	NS	NS	NT
Trichlorofluoromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NT	NT	NS	NS	NS	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NT	NT	NS	NS	NS	NT
Vinyl chloride	µg/l	10	2.4	NT	NT	NT	NT	NS	NS	NS	NT
Xylene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT

Notes:

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NS = Not Sampled

NT = Not Tested

NE = Not Established; North Carolina has not established a MCL

NP = Not Present during sampling event

Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-9-2001)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7**	**7.1**	**7.1**	NS	NS	NS	**8.1**
Specific Conductance	µmhos/cm (on-site)	1	NE	**73**	**80**	**75**	NS	NS	NS	**3600**
Temperature	°C (on-site)	-	29	**11**	**13**	**18**	NS	NS	NS	**15**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NS	NS	NS	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NS	NS	NS	NT
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NS	NS	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NS	NS	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NS	NS	NS	**120**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NS	NS	NS	**120**
Sulfate	mg/l	500	NE	NT	NT	NT	NS	NS	NS	NT
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NS	NS	NS	**240**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NS	NS	NS	**430**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NS	NS	NS	**5000**
Cyanide	µg/l	2	5	NT	NT	NT	NS	NS	NS	ND
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	NS	NS	NS	NT
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	NS	NS	NS	NT
Total Barium (Ba)	µg/l	500	NE	**99**	**81**	**55**	NS	NS	NS	NT
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	NS	NS	NS	NT
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	NS	NS	NS	NT
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	NS	NS	NS	**10**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	NS	NS	NS	NT
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	NS	NS	NS	NT
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	NS	NS	NS	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	NS	NS	NS	NT
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	NS	NS	NS	**210**
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	NS	NS	NS	NT
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	NS	NS	NS	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	NS	NS	NS	NT
Total Zinc (Zn)	µg/l	50	50	**15**	**31**	**20**	NS	NS	NS	NT
Mercury	µg/l	0.2	0.012	NT	NT	NT	NS	NS	NS	ND
Acetone	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NT	NS	NS	NS	NT
Benzene	µg/l	5	51	NT	NT	NT	NS	NS	NS	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Bromoform	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Carbon tetrachloride	µg/l	10	1.6	NT	NT	NT	NS	NS	NS	NT
Chlorobenzene (mono)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Chloroethane	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Chloroform	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Dibromomethane	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,4-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
trans-1,4-Dichloro-2butene	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
1,1-Dichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dichloropropane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Ethylbenzene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
2-Hexanone	µg/l	50	NE	NT	NT	NT	NS	NS	NS	NT
Iodomethane	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Dichloromethane (Methylene chloride)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
Styrene	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,1,2,2-Tetrachloroethane	µg/l	5	4	NT	NT	NT	NS	NS	NS	NT
Tetrachloroethene (-ethylene)	µg/l	5	3.3	NT	NT	NT	NS	NS	NS	NT
Toluene	µg/l	5	0.36	NT	NT	NT	NS	NS	NS	NT
1,1,1-Trichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Trichloroethene (-ethylene)	µg/l	5	30	NT	NT	NT	NS	NS	NS	NT
Trichlorofluoromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NT	NS	NS	NS	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NT	NS	NS	NS	NT
Vinyl chloride	µg/l	10	2.4	NT	NT	NT	NS	NS	NS	NT
Xylene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT

Notes:

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Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (9-18-2001)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	NS	NS	NS	**7.48**	NS	NS	NS
Specific Conductance	µmhos/cm (on-site)	1	NE	NS	NS	NS	**160**	NS	NS	NS
Temperature	°C (on-site)	-	29	NS	NS	NS	**20**	NS	NS	NS
Turbidity	NTU (on-site)	NT	50	NS	NS	NS	NT	NS	NS	NS
Nitrate as N	mg/l	0.1	NE	NS	NS	NS	NT	NS	NS	NS
Nitrate/Nitrite as N	mg/l	0.1	NE	NS	NS	NS	NT	NS	NS	NS
Nitrite as N	mg/l	0.1	NE	NS	NS	NS	NT	NS	NS	NS
Nitrogen	mg/l	0.2	NE	NS	NS	NS	NT	NS	NS	NS
Total Nitrogen, Kjeldahl	mg/l	100	NE	NS	NS	NS	NT	NS	NS	NS
Sulfate	mg/l	500	NE	NS	NS	NS	NT	NS	NS	NS
Biochemical Oxygen Demand	mg/l	2	NE	NS	NS	NS	NT	NS	NS	NS
Chemical Oxygen Demand	mg/l	25	NE	NS	NS	NS	NT	NS	NS	NS
Total Dissolved Solids	mg/l	20	NE	NS	NS	NS	NT	NS	NS	NS
Cyanide	µg/l	2	5	NS	NS	NS	NT	NS	NS	NS
Total Antimony (Sb)	µg/l	30	NE	NS	NS	NS	ND	NS	NS	NS
Total Arsenic (As)	µg/l	10	10	NS	NS	NS	ND	NS	NS	NS
Total Barium (Ba)	µg/l	500	NE	NS	NS	NS	**71**	NS	NS	NS
Total Beryllium (Be)	µg/l	2	6.5	NS	NS	NS	ND	NS	NS	NS
Total Cadmium (Cd)	µg/l	1	0.4	NS	NS	NS	ND	NS	NS	NS
Total Chromium (Cr)	µg/l	10	50	NS	NS	NS	ND	NS	NS	NS
Total Cobalt (Co)	µg/l	10	NE	NS	NS	NS	**7.2**	NS	NS	NS
Total Copper (Cu)	µg/l	200	7	NS	NS	NS	ND	NS	NS	NS
Total Lead (Pb)	µg/l	10	25	NS	NS	NS	ND	NS	NS	NS
Total Nickel (Ni)	µg/l	50	88	NS	NS	NS	**9.4**	NS	NS	NS
Total Selenium (Se)	µg/l	20	5	NS	NS	NS	ND	NS	NS	NS
Total Silver (Ag)	µg/l	10	0.06	NS	NS	NS	ND	NS	NS	NS
Total Thallium (Tl)	µg/l	10	NE	NS	NS	NS	ND	NS	NS	NS
Total Vanadium (V)	µg/l	40	NE	NS	NS	NS	ND	NS	NS	NS
Total Zinc (Zn)	µg/l	50	50	NS	NS	NS	**11**	NS	NS	NS
Mercury	µg/l	0.2	0.012	NS	NS	NS	NT	NS	NS	NS
Acetone	µg/l	100	NE	NS	NS	NS	NT	NS	NS	NS
Acrylonitrile	µg/l	200	NE	NS	NS	NS	NT	NS	NS	NS
Benzene	µg/l	5	51	NS	NS	NS	NT	NS	NS	NS
Bromochloromethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
Bromodichloromethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
Bromoform	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
Carbon Disulfide	µg/l	100	NE	NS	NS	NS	NT	NS	NS	NS
Bromomethane (Methylbromide)	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
Carbon tetrachloride	µg/l	10	1.6	NS	NS	NS	NT	NS	NS	NS
Chlorobenzene (mono)	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
Chloroethane	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
Chloroform	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
Chloromethane (Methylchloride)	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
Dibromochloromethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	NS	NS	NS	NT	NS	NS	NS
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
Dibromomethane	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
1,2-Dichlorobenzene	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,4-Dichlorobenzene	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
trans-1,4-Dichloro-2butene	µg/l	100	NE	NS	NS	NS	NT	NS	NS	NS
1,1-Dichloroethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,2-Dichloroethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,2-Dichloropropane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
Ethylbenzene	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
2-Hexanone	µg/l	50	NE	NS	NS	NS	NT	NS	NS	NS
Iodomethane	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
Dichloromethane (Methylene chloride)	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	NS	NS	NS	NT	NS	NS	NS
4-Methyl-2-Pentanone	µg/l	100	NE	NS	NS	NS	NT	NS	NS	NS
Styrene	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,1,2,2-Tetrachloroethane	µg/l	5	4	NS	NS	NS	NT	NS	NS	NS
Tetrachloroethene (-ethylene)	µg/l	5	3.3	NS	NS	NS	NT	NS	NS	NS
Toluene	µg/l	5	0.36	NS	NS	NS	NT	NS	NS	NS
1,1,1-Trichloroethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,1,2-Trichloroethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
Trichloroethene (-ethylene)	µg/l	5	30	NS	NS	NS	NT	NS	NS	NS
Trichlorofluoromethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,2,3-Trichloropropane	µg/l	15	NE	NS	NS	NS	NT	NS	NS	NS
Vinyl acetate	µg/l	50	NE	NS	NS	NS	NT	NS	NS	NS
Vinyl chloride	µg/l	10	2.4	NS	NS	NS	NT	NS	NS	NS
Xylene	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-15-2002)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.67**	**6.08**	**6.46**	**7**	NS	NS	**6.71**
Specific Conductance	µmhos/cm (on-site)	1	NE	**78**	**78**	**80**	**170**	NS	NS	**265**
Temperature	°C (on-site)	-	29	**17.8**	**13.3**	**19.4**	**20**	NS	NS	**20.1**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NS	NS	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NS	NS	NT
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NS	NS	**0.3**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NS	NS	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NS	NS	**96**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NS	NS	**96**
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NS	NS	NT
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NS	NS	**740**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NS	NS	**1400**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NS	NS	**2300**
Cyanide	µg/l	2	5	NT	NT	NT	NT	NS	NS	**0.006**
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	ND	NS	NS	NT
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	NS	NS	NT
Total Barium (Ba)	µg/l	500	NE	**92**	**91**	**40**	**140**	NS	NS	NT
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	ND	NS	NS	NT
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	NS	NS	NT
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	ND	NS	NS	**34**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	**7.7**	NS	NS	NT
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	ND	NS	NS	NT
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	ND	NS	NS	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	**9**	NS	NS	NT
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	ND	NS	NS	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	ND	NS	NS	NT
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	NS	NS	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	**6.5**	NS	NS	NT
Total Zinc (Zn)	µg/l	50	50	ND	**37**	**32**	**60**	NS	NS	NT
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NS	NS	ND
Acetone	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NT	NT	NS	NS	NT
Benzene	µg/l	5	51	NT	NT	NT	NT	NS	NS	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
Bromoform	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
Carbon tetrachloride	µg/l	10	1.6	NT	NT	NT	NT	NS	NS	NT
Chlorobenzene (mono)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
Chloroethane	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
Chloroform	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	NT	NT	NT	NT	NS	NS	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
Dibromomethane	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
1,2-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,4-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
trans-1,4-Dichloro-2butene	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NT
1,1-Dichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,2-Dichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,2-Dichloropropane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
Ethylbenzene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
2-Hexanone	µg/l	50	NE	NT	NT	NT	NT	NS	NS	NT
Iodomethane	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
Dichloromethane (Methylene chloride)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NT
Styrene	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,1,2,2-Tetrachloroethane	µg/l	5	4	NT	NT	NT	NT	NS	NS	NT
Tetrachloroethene (-ethylene)	µg/l	5	3.3	NT	NT	NT	NT	NS	NS	NT
Toluene	µg/l	5	0.36	NT	NT	NT	NT	NS	NS	NT
1,1,1-Trichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
Trichloroethene (-ethylene)	µg/l	5	30	NT	NT	NT	NT	NS	NS	NT
Trichlorofluoromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NT	NT	NS	NS	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NT	NT	NS	NS	NT
Vinyl chloride	µg/l	10	2.4	NT	NT	NT	NT	NS	NS	NT
Xylene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, "Redbook" Surface Waters and Wetlands Standards Section 15A NCAC 02B.0100, .0200, and .0300.

ND = Not Detected at the Method Reporting Limit

NS = Not Sampled

NT = Not Tested

NE = Not Established; North Carolina has not established a MCL

NP = Not Present during sampling event

Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (9-26-2002)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.9**	**6.88**	**7.01**	NS	NS	NS	**7.48**
Specific Conductance	µmhos/cm (on-site)	1	NE	**102**	**151**	**115**	NS	NS	NS	**3700**
Temperature	°C (on-site)	-	29	**16.5**	**17.2**	**17.5**	NS	NS	NS	**18.4**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NS	NS	NS	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NS	NS	NS	NT
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NS	NS	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NS	NS	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NS	NS	NS	ND
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NS	NS	NS	**130**
Sulfate	mg/l	500	NE	NT	NT	NT	NS	NS	NS	NT
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NS	NS	NS	**210**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NS	NS	NS	**1300**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NS	NS	NS	**3000**
Cyanide	µg/l	2	5	NT	NT	NT	NS	NS	NS	**2.5**
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	NS	NS	NS	NT
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	NS	NS	NS	NT
Total Barium (Ba)	µg/l	500	NE	**150**	**160**	**80**	NS	NS	NS	NT
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	NS	NS	NS	NT
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	NS	NS	NS	NT
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	NS	NS	NS	**34**
Total Cobalt (Co)	µg/l	10	NE	**7.2**	ND	ND	NS	NS	NS	NT
Total Copper (Cu)	µg/l	200	7	ND	**4.5**	**2.7**	NS	NS	NS	NT
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	NS	NS	NS	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	NS	NS	NS	NT
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	NS	NS	NS	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	NS	NS	NS	NT
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	NS	NS	NS	ND
Total Vanadium (V)	µg/l	40	NE	ND	**6.4**	ND	NS	NS	NS	NT
Total Zinc (Zn)	µg/l	50	50	**19**	**100**	**41**	NS	NS	NS	NT
Mercury	µg/l	0.2	0.012	NT	NT	NT	NS	NS	NS	ND
Acetone	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NT	NS	NS	NS	NT
Benzene	µg/l	5	51	NT	NT	NT	NS	NS	NS	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Bromoform	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Carbon tetrachloride	µg/l	10	1.6	NT	NT	NT	NS	NS	NS	NT
Chlorobenzene (mono)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Chloroethane	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Chloroform	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Dibromomethane	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,4-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
trans-1,4-Dichloro-2butene	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
1,1-Dichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dichloropropane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Ethylbenzene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
2-Hexanone	µg/l	50	NE	NT	NT	NT	NS	NS	NS	NT
Iodomethane	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Dichloromethane (Methylene chloride)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
Styrene	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,1,2,2-Tetrachloroethane	µg/l	5	4	NT	NT	NT	NS	NS	NS	NT
Tetrachloroethene (-ethylene)	µg/l	5	3.3	NT	NT	NT	NS	NS	NS	NT
Toluene	µg/l	5	0.36	NT	NT	NT	NS	NS	NS	NT
1,1,1-Trichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Trichloroethene (-ethylene)	µg/l	5	30	NT	NT	NT	NS	NS	NS	NT
Trichlorofluoromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NT	NS	NS	NS	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NT	NS	NS	NS	NT
Vinyl chloride	µg/l	10	2.4	NT	NT	NT	NS	NS	NS	NT
Xylene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT

Notes:

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-29-2003)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.91**	**6.42**	**7.17**	NS	**6.41**	**6.71**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**77**	**75**	**101**	NS	**19**	**29**	NT
Temperature	°C (on-site)	-	29	**11.8**	**13**	**16**	NS	**15.6**	**14.9**	NT
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NS	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NS	NT	NT	NT
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NT	NT	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NT	NT	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NS	NT	NT	**220**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NS	NT	NT	**220**
Sulfate	mg/l	500	NE	NT	NT	NT	NS	NT	NT	NT
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NS	NT	NT	**2500**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NS	NT	NT	**1100**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NS	NT	NT	**120**
Cyanide	µg/l	2	5	NT	NT	NT	NS	NT	NT	**110**
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	NS	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	NS	ND	ND	**15**
Total Barium (Ba)	µg/l	500	NE	**90**	**82**	**64**	NS	**27**	**27**	**270**
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	NS	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	NS	ND	ND	**2.5**
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	NS	ND	ND	ND
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	**16**
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	NS	ND	ND	ND
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	NS	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	NS	ND	ND	ND
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	NS	ND	ND	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	NS	ND	ND	**2.4**
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	NS	ND	ND	**19**
Total Zinc (Zn)	µg/l	50	50	ND	**45**	**20**	NS	ND	ND	**1000**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NS	NT	NT	NT
Acetone	µg/l	100	NE	NT	NT	NT	NS	NT	NT	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NT	NS	NT	NT	NT
Benzene	µg/l	5	51	NT	NT	NT	NS	NT	NT	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
Bromoform	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NT	NS	NT	NT	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
Carbon tetrachloride	µg/l	10	1.6	NT	NT	NT	NS	NT	NT	NT
Chlorobenzene (mono)	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
Chloroethane	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
Chloroform	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	NT	NT	NT	NS	NT	NT	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
Dibromomethane	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
1,2-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,4-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
trans-1,4-Dichloro-2butene	µg/l	100	NE	NT	NT	NT	NS	NT	NT	NT
1,1-Dichloroethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,2-Dichloroethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,2-Dichloropropane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
Ethylbenzene	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
2-Hexanone	µg/l	50	NE	NT	NT	NT	NS	NT	NT	NT
Iodomethane	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
Dichloromethane (Methylene chloride)	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	NT	NT	NT	NS	NT	NT	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NT	NS	NT	NT	NT
Styrene	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,1,2,2-Tetrachloroethane	µg/l	5	4	NT	NT	NT	NS	NT	NT	NT
Tetrachloroethene (-ethylene)	µg/l	5	3.3	NT	NT	NT	NS	NT	NT	NT
Toluene	µg/l	5	0.36	NT	NT	NT	NS	NT	NT	NT
1,1,1-Trichloroethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
Trichloroethene (-ethylene)	µg/l	5	30	NT	NT	NT	NS	NT	NT	NT
Trichlorofluoromethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NT	NS	NT	NT	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NT	NS	NT	NT	NT
Vinyl chloride	µg/l	10	2.4	NT	NT	NT	NS	NT	NT	NT
Xylene	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT

Notes:

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-30-2003)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.41**	**7.38**	**7.42**	NS	**5.87**	**7.14**	**8.37**
Specific Conductance	µmhos/cm (on-site)	1	NE	**80**	**80**	**80**	NS	**19**	**29**	**3500**
Temperature	°C (on-site)	-	29	**12**	**12**	**12**	NS	**14.2**	**15.1**	**19.3**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NS	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NS	NT	NT	**3.4**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NT	NT	**3.4**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NT	NT	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NS	NT	NT	**72**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NS	NT	NT	**69**
Sulfate	mg/l	500	NE	NT	NT	NT	NS	NT	NT	NT
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NS	NT	NT	ND
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NS	NT	NT	**250**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NS	NT	NT	**2500**
Cyanide	µg/l	2	5	NT	NT	NT	NS	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	NS	ND	ND	NT
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	NS	**5.5**	ND	NT
Total Barium (Ba)	µg/l	500	NE	**110**	**130**	**84**	NS	**24**	**27**	NT
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	NS	ND	ND	NT
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	NS	ND	ND	NT
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	NS	ND	ND	**10**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
Total Copper (Cu)	µg/l	200	7	ND	**2.7**	**2.2**	NS	**2.2**	ND	NT
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	NS	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	NS	ND	ND	NT
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	NS	ND	ND	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	NS	ND	ND	NT
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	**5.3**	ND	NS	ND	ND	NT
Total Zinc (Zn)	µg/l	50	50	ND	**80**	**40**	NS	**14**	ND	NT
Mercury	µg/l	0.2	0.012	NT	NT	NT	NS	NT	NT	ND
Acetone	µg/l	100	NE	ND	ND	ND	NS	ND	ND	NT
Acrylonitrile	µg/l	200	NE	ND	ND	ND	NS	ND	ND	NT
Benzene	µg/l	5	51	ND	ND	ND	NS	ND	ND	NT
Bromochloromethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
Bromoform	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
Carbon Disulfide	µg/l	100	NE	ND	ND	ND	NS	ND	**11**	NT
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
Carbon tetrachloride	µg/l	10	1.6	ND	ND	ND	NS	ND	ND	NT
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
Chloroethane	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
Chloroform	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	ND	NS	ND	ND	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
Dibromomethane	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	ND	NS	ND	ND	NT
1,1-Dichloroethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,2-Dichloroethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,2-Dichloropropane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
Ethylbenzene	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
2-Hexanone	µg/l	50	NE	ND	ND	ND	NS	ND	ND	NT
Iodomethane	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	ND	NS	ND	ND	NT
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	ND	NS	ND	ND	NT
Styrene	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	ND	NS	ND	ND	NT
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	ND	NS	ND	ND	NT
Toluene	µg/l	5	0.36	ND	ND	ND	NS	ND	ND	NT
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	ND	NS	ND	ND	NT
Trichlorofluoromethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	ND	NS	ND	ND	NT
Vinyl acetate	µg/l	50	NE	ND	ND	ND	NS	ND	ND	NT
Vinyl chloride	µg/l	10	2.4	ND	ND	ND	NS	ND	ND	NT
Xylene	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT

Notes:

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ND = Not Detected at the Method Reporting Limit

NS = Not Sampled

NT = Not Tested

NE = Not Established; North Carolina has not established a MCL

NP = Not Present during sampling event

Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-20-2004)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.8**	**7.05**	**7.19**	**8.05**	**6.19**	**6.35**	**8.37**
Specific Conductance	µmhos/cm (on-site)	1	NE	**74**	**73**	**142**	**1790**	**19**	**29**	**4050**
Temperature	°C (on-site)	-	29	**13**	**13**	**15**	**17**	**17**	**16**	**28.4**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.11**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.11**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**640**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**470**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**1100**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	**16**
Total Barium (Ba)	µg/l	500	NE	**120**	**95**	**83**	**260**	**18**	**26**	**140**
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	ND	ND	ND	**28**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	**26**	ND	ND	**17**
Total Copper (Cu)	µg/l	200	7	ND	ND	**3.1**	ND	ND	ND	ND
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	**12**	ND	ND	**45**
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	**6**	ND	ND	**8**
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	ND	ND	ND	**12**
Total Zinc (Zn)	µg/l	50	50	ND	**48**	**31**	**310**	**15**	ND	**62**
Mercury	µg/l	0.2	0.012	NT	NT	NT	ND	NT	NT	ND
Acetone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**490**
Acrylonitrile	µg/l	200	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	5	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**14**
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	10	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**300**
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	5	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	10	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND

Notes:

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NS = Not Sampled

NT = Not Tested

NE = Not Established; North Carolina has not established a MCL

NP = Not Present during sampling event

Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-21-2004)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.06**	**6.62**	NS	**7.16**	**7.42**	**6.41**	**7.89**
Specific Conductance	µmhos/cm (on-site)	1	NE	**103**	**103**	NS	**129**	**26**	**38**	**3270**
Temperature	°C (on-site)	-	29	**14**	**14.5**	NS	**15**	**15**	**16**	**23.4**
Turbidity	NTU (on-site)	NT	50	NT	NT	NS	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NS	NT	NT	NT	ND
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NS	NT	NT	NT	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NS	NT	NT	NT	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NS	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NS	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NS	NT	NT	NT	**34**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NS	NT	NT	NT	**640**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NS	NT	NT	NT	**1300**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NS	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NS	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	NS	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	NS	ND	ND	ND	**10**
Total Barium (Ba)	µg/l	500	NE	**100**	**100**	NS	**87**	**24**	**31**	**160**
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	NS	ND	**2.6**	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	NS	ND	**2.1**	ND	ND
Total Chromium (Cr)	µg/l	10	50	ND	ND	NS	ND	**3.7**	**2.3**	**26**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	NS	**6.5**	ND	ND	ND
Total Copper (Cu)	µg/l	200	7	ND	ND	NS	ND	ND	ND	ND
Total Lead (Pb)	µg/l	10	25	ND	ND	NS	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	NS	ND	ND	ND	**24**
Total Selenium (Se)	µg/l	20	5	ND	ND	NS	ND	ND	ND	**6.2**
Total Silver (Ag)	µg/l	10	0.06	ND	ND	NS	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	NS	ND	ND	ND	**8.2**
Total Zinc (Zn)	µg/l	50	50	ND	**44**	NS	**17**	**12**	**13**	**43**
Mercury	µg/l	0.2	0.012	NT	NT	NS	NT	NT	NT	NT
Acetone	µg/l	100	NE	ND	ND	NS	ND	ND	ND	**290**
Acrylonitrile	µg/l	200	NE	ND	ND	NS	ND	ND	ND	ND
Benzene	µg/l	5	51	ND	ND	NS	ND	ND	ND	ND
Bromochloromethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
Bromoform	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
Carbon Disulfide	µg/l	100	NE	ND	ND	NS	ND	**39**	**32**	ND
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
Carbon tetrachloride	µg/l	10	1.6	ND	ND	NS	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
Chloroethane	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
Chloroform	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	NS	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
Dibromomethane	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	NS	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
Ethylbenzene	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
2-Hexanone	µg/l	50	NE	ND	ND	NS	ND	ND	ND	ND
Iodomethane	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	NS	ND	ND	ND	**260**
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	NS	ND	ND	ND	ND
Styrene	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	NS	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	NS	ND	ND	ND	ND
Toluene	µg/l	5	0.36	ND	ND	NS	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	NS	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	NS	ND	ND	ND	ND
Vinyl acetate	µg/l	50	NE	ND	ND	NS	ND	ND	ND	ND
Vinyl chloride	µg/l	10	2.4	ND	ND	NS	ND	ND	ND	ND
Xylene	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND

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NS = Not Sampled

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-18-2005)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.49**	**5.99**	**6.21**	**7.05**	**7.08**	**7.27**	**7.28**
Specific Conductance	µmhos/cm (on-site)	1	NE	**79**	**88**	**151**	**120**	**21**	**28**	**6500**
Temperature	°C (on-site)	-	29	**13**	**123**	**13.5**	**16**	**14.1**	**13**	**19**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**1300**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**300**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**760**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	**22**
Total Barium (Ba)	µg/l	500	NE	**100**	**120**	**98**	**79**	**24**	**28**	**390**
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	ND	ND	ND	**31**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	**14**
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	ND	ND	ND	**50**
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	ND	ND	ND	**7.4**
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	ND	ND	ND	**17**
Total Zinc (Zn)	µg/l	50	50	ND	**50**	**22**	**34**	ND	ND	**150**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**240**
Acrylonitrile	µg/l	200	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	5	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	10	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**11**
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**11**
2-Hexanone	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**410**
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**40**
Styrene	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	5	0.36	ND	ND	ND	ND	ND	ND	**63**
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	10	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**43**

Notes:

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NS = Not Sampled

NT = Not Tested

NE = Not Established; North Carolina has not established a MCL

NP = Not Present during sampling event

Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-13-2005)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.11**	**6.72**	**7.18**	**6.28**	**6.76**	**8.13**	**8.01**
Specific Conductance	µmhos/cm (on-site)	1	NE	**89**	**90**	**240**	**340**	**91**	**31**	**6500**
Temperature	°C (on-site)	-	29	**15.7**	**16.9**	**16.9**	**18.9**	**18.7**	**15.2**	**21.1**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**1300**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**720**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**920**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	NT	NT	NT	ND	NT	NT	NT
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	**16**
Total Barium (Ba)	µg/l	500	NE	**120**	**96**	**140**	**90**	**86**	**36**	**430**
Total Beryllium (Be)	µg/l	2	6.5	NT	NT	NT	ND	NT	NT	NT
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	**4.2**	ND	ND	**50**
Total Cobalt (Co)	µg/l	10	NE	NT	NT	NT	**6.8**	NT	NT	NT
Total Copper (Cu)	µg/l	200	7	NT	NT	NT	**2.4**	NT	NT	NT
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	NT	NT	NT	ND	NT	NT	NT
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	ND	ND	ND	**9.2**
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	10	NE	NT	NT	NT	ND	NT	NT	NT
Total Vanadium (V)	µg/l	40	NE	NT	NT	NT	ND	NT	NT	NT
Total Zinc (Zn)	µg/l	50	50	NT	NT	NT	**33**	NT	NT	NT
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	ND
Acetone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	200	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	5	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	10	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	5	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	10	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND

Notes:

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NP = Not Present during sampling event

Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-25-2006)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.07**	**7.11**	**7.18**	**6.73**	**6.45**	**6.28**	**7.55**
Specific Conductance	µmhos/cm (on-site)	1	NE	**107**	**138**	**340**	**201**	**45**	**53**	**8660**
Temperature	°C (on-site)	-	29	**14.1**	**13.8**	**15.6**	**18.6**	**14.8**	**14.3**	**17.1**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**2.4**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**2.4**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**2400**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**51**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**700**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	**18**
Total Barium (Ba)	µg/l	500	NE	ND	ND	ND	ND	ND	ND	**580**
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	ND	ND	ND	**40**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	**15**
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	**11**	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	ND	ND	ND	**56**
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	ND	ND	ND	ND
Total Zinc (Zn)	µg/l	50	50	ND	ND	ND	ND	ND	ND	**130**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	200	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	5	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	10	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**6.2**
2-Hexanone	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**24**
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**15**
Styrene	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	5	0.36	ND	ND	ND	ND	ND	ND	**12**
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	10	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**16.1**

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NS = Not Sampled

NT = Not Tested

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-16-2006)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.53**	**7.1**	NT	**7.14**	**6.64**	**7.13**	**8.11**
Specific Conductance	µmhos/cm (on-site)	1	NE	**123**	**139**	NT	**200**	**46**	**40**	**9800**
Temperature	°C (on-site)	-	29	**11.9**	**10.9**	NT	**11.9**	**13.4**	**11.3**	**19.6**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.58**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**2100**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**61**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**780**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	**18**
Total Barium (Ba)	µg/l	500	NE	**120**	**140**	**120**	**240**	**54**	**33**	**430**
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	**5.8**	ND	ND	ND
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	**21**	ND	ND	**54**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	ND	**7.4**	ND	**14**
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	**23**	ND	ND	ND
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	**18**	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	**8.4**	ND	ND	**68**
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	**62**	ND	ND	**18**
Total Zinc (Zn)	µg/l	50	50	ND	**39**	**22**	**130**	ND	ND	**63**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	200	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	5	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	10	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	5	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	10	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, "Redbook" Surface Waters and Wetlands Standards Section 15A NCAC 02B.0100, .0200, and .0300.

ND = Not Detected at the Method Reporting Limit

NS = Not Sampled

NT = Not Tested

NE = Not Established; North Carolina has not established a MCL

NP = Not Present during sampling event

Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-23-2007)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	NT	NT	NT	NT	NT	NT	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	NT	NT	NT	NT	NT	NT	NT
Temperature	°C (on-site)	-	29	NT	NT	NT	NT	NT	NT	NT
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.38**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**2400**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**89**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**1000**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	**16**
Total Barium (Ba)	µg/l	500	NE	**100**	**120**	**250**	ND	ND	ND	**380**
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	ND	ND	ND	**46**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	**38**	ND	ND	ND
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	ND	ND	ND	**50**
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	ND	ND	ND	ND
Total Zinc (Zn)	µg/l	50	50	**13**	**37**	**130**	**91**	**15**	**11**	**80**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	200	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	5	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	10	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**10**
2-Hexanone	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	5	0.36	ND	ND	ND	ND	ND	ND	**46**
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	10	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**31.3**

Notes:

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ND = Not Detected at the Method Reporting Limit

NS = Not Sampled

NT = Not Tested

NE = Not Established; North Carolina has not established a MCL

NP = Not Present during sampling event

Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-31-07)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.04**	**7.11**	**6.8**	**7.5**	**6.35**	**6.74**	**8.03**
Specific Conductance	µmhos/cm (on-site)	1	NE	**156**	**150**	**266**	**320**	**61**	**40**	**1282**
Temperature	°C (on-site)	-	29	**16.5**	**13.4**	**12.7**	**17.2**	**11.5**	**9**	**14.3**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.53**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**3010**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**221**
Chemical Oxygen Demand	mg/l	100	NE	NT	NT	NT	NT	NT	NT	**968**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**24.6**
Total Barium (Ba)	µg/l	5	NE	**583**	**154**	**162**	**85**	**111**	**30.3**	**436**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	**25.7**	ND	ND	ND	ND	ND	**74.1**
Total Cobalt (Co)	µg/l	5	NE	**10.5**	ND	ND	ND	ND	ND	**12**
Total Copper (Cu)	µg/l	5	7	**18.4**	ND	ND	ND	**8.3**	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	**18.1**	ND	ND	ND	ND	ND	**81.2**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.5	NE	**6.3**	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**56.2**	ND	ND	**6.8**	**11.4**	ND	**23.9**
Total Zinc (Zn)	µg/l	10	50	**135**	**71.9**	**60**	**41.3**	**20.4**	ND	**76.7**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND

Notes:

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NS = Not Sampled

NT = Not Tested

NE = Not Established; North Carolina has not established a MCL

NP = Not Present during sampling event

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (04-23-08)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.8**	**7.32**	**7.06**	**7.2**	**7.56**	**7**	**8.56**
Specific Conductance	µmhos/cm (on-site)	1	NE	**124**	**162**	**234**	**426**	**48**	**42**	**8140**
Temperature	°C (on-site)	-	29	**13.1**	**14.5**	**14.3**	**16.9**	**15.2**	**15.6**	**21.4**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**1940**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**741**
Chemical Oxygen Demand	mg/l	100	NE	NT	NT	NT	NT	NT	NT	**1620**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**9.5**
Total Barium (Ba)	µg/l	5	NE	**111**	**145**	**133**	**184**	**34.4**	**24.9**	**247**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	**1.5**	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	**6.5**	ND	ND	**28.9**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	**11.2**	ND	ND	**9**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	**7.6**	ND	ND	**51.3**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.5	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	**14.4**	ND	ND	**9.1**
Total Zinc (Zn)	µg/l	10	50	ND	**52.3**	**50.1**	**124**	ND	ND	**52.3**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	**34.1**
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, "Redbook" Surface Waters and Wetlands Standards Section 15A NCAC 02B.0100, .0200, and .0300.

ND = Not Detected at the Method Reporting Limit

NS = Not Sampled

NT = Not Tested

NE = Not Established; North Carolina has not established a MCL

NP = Not Present during sampling event

Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-21-08)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.51**	**6.75**	**6.84**	**6.54**	**6.08**	**6.45**	**8.63**
Specific Conductance	µmhos/cm (on-site)	1	NE	**202**	**171**	**296**	**205.6**	**56.1**	**41**	**10780**
Temperature	°C (on-site)	-	29	**11.3**	**10.2**	**7.9**	**12.5**	**10.8**	**9.6**	**22.2**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.14**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.14**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**58.3**
Biochemical Oxygen Dema	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**198**
Chemical Oxygen Dema	mg/l	100	NE	NT	NT	NT	NT	NT	NT	**1190**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	**6**	**6.7**	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**11.4**
Total Barium (Ba)	µg/l	5	NE	**285**	**126**	**137**	**289**	**145**	**25.2**	**317**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	**17.9**	ND	ND	**34.5**
Total Cobalt (Co)	µg/l	5	NE	**7.9**	**5**	**6.4**	**34.4**	**21.1**	ND	**14.4**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	**15.8**	**10.1**	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	**5.4**	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	**12.1**	**6**	ND	**57.6**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	**14**	**13.2**	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	**7.2**	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**9.9**	ND	ND	**43.5**	**17.5**	ND	**12**
Total Zinc (Zn)	µg/l	10	50	**19**	**75.4**	**39.4**	**116**	**29.5**	**16.7**	**27.6**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	**37.2**
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND

Notes:

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-22-09)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.29**	**6.47**	**6.79**	**6.75**	**5.83**	**5.97**	**8.24**
Specific Conductance	µmhos/cm (on-site)	1	NE	**139**	**208**	**319**	**366**	**40**	**52**	**7620**
Temperature	°C (on-site)	-	29	**11.1**	**10.8**	**9.8**	**12.2**	**11.9**	**12.6**	**19.6**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.16**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.29**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.12**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**1570**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**55.8**
Chemical Oxygen Demand	mg/l	100	NE	NT	NT	NT	NT	NT	NT	**694**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**11.3**
Total Barium (Ba)	µg/l	5	NE	**108**	**167**	**133**	**70.1**	**35.9**	**41.1**	**181**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**16.7**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	**14.9**	**6.5**	**6.6**	**9.8**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	**5.6**	ND	ND	**48.2**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	**8.1**	ND	ND	**11.2**
Total Zinc (Zn)	µg/l	10	50	ND	**50**	**36.6**	**80**	ND	ND	**10.9**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	**38.4**
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	**5.2**
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**13.7**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**11.3**
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	**7.3**
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**65.1**
Methyl-tert-butyl-ether (MTBE)	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**9.0**
Naphthalene	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**6.7**
Phosphorus	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.75**

Notes:

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NS = Not Sampled

NT = Not Tested

NE = Not Established; North Carolina has not established a MCL

NP = Not Present during sampling event

Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-26-09)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.41**	Dry	**6.49**	Dry	**6.07**	**6.26**	**7.8**
Specific Conductance	µmhos/cm (on-site)	1	NE	**192**	Dry	**291**	Dry	**60**	**58**	NT
Temperature	°C (on-site)	-	29	**11.5**	Dry	**11.0**	Dry	**13.6**	**12.4**	NT
Turbidity	NTU (on-site)	NT	50	NT	Dry	NT	Dry	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	Dry	NT	Dry	NT	NT	NT
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	Dry	NT	Dry	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	Dry	NT	Dry	NT	NT	NT
Nitrogen	mg/l	0.1	NE	NT	Dry	NT	Dry	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	Dry	NT	Dry	NT	NT	NT
Sulfate	mg/l	500	NE	NT	Dry	NT	Dry	NT	NT	NT
Biochemical Oxygen Demand	mg/l	2	NE	NT	Dry	NT	Dry	NT	NT	**4.8**
Chemical Oxygen Demand	mg/l	100	NE	NT	Dry	NT	Dry	NT	NT	**212**
Total Dissolved Solids	mg/l	20	NE	NT	Dry	NT	Dry	NT	NT	NT
Cyanide	µg/l	2	5	NT	Dry	NT	Dry	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	Dry	ND	Dry	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	Dry	ND	Dry	ND	ND	ND
Total Barium (Ba)	µg/l	5	NE	**228**	Dry	**285**	Dry	**48.4**	**30.9**	**305**
Total Beryllium (Be)	µg/l	1	6.5	ND	Dry	ND	Dry	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	Dry	ND	Dry	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	Dry	**8.9**	Dry	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	ND	Dry	**5.7**	Dry	**6.5**	ND	**12.5**
Total Copper (Cu)	µg/l	5	7	ND	Dry	**5.5**	Dry	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	Dry	ND	Dry	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	Dry	**10.1**	Dry	ND	ND	**20.4**
Total Selenium (Se)	µg/l	10	5	ND	Dry	ND	Dry	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	Dry	ND	Dry	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	Dry	ND	Dry	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	Dry	**16.0**	Dry	ND	ND	**8.5**
Total Zinc (Zn)	µg/l	10	50	ND	Dry	**151**	Dry	ND	ND	**48.1**
Mercury	µg/l	0.2	0.012	NT	Dry	NT	Dry	NT	NT	NT
Acetone	µg/l	25	NE	ND	Dry	ND	Dry	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	Dry	ND	Dry	ND	ND	ND
Benzene	µg/l	1	51	ND	Dry	ND	Dry	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Bromoform	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	Dry	ND	Dry	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	Dry	ND	Dry	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	Dry	ND	Dry	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Chloroform	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	NE	ND	Dry	ND	Dry	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	Dry	ND	Dry	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	Dry	ND	Dry	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	Dry	ND	Dry	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	Dry	ND	Dry	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	Dry	ND	Dry	ND	ND	ND
Styrene	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	Dry	ND	Dry	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	Dry	ND	Dry	ND	ND	ND
Toluene	µg/l	1	0.36	ND	Dry	ND	Dry	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	Dry	ND	Dry	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	Dry	ND	Dry	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	Dry	ND	Dry	ND	ND	ND
Xylenes	µg/l	2	NE	ND	Dry	ND	Dry	ND	ND	ND
Methyl-tert-butyl-ether (MTBE)	µg/l	5	NE	NT	Dry	NT	Dry	NT	NT	ND
Naphthalene	µg/l	5	NE	NT	Dry	NT	Dry	NT	NT	ND
Phosphorus	mg/l	0.1	NE	NT	Dry	NT	Dry	NT	NT	NT

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-21-10)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.72**	**7.29**	**7.14**	NP	**6.06**	**6.04**	**7.69**
Specific Conductance	µmhos/cm (on-site)	1	NE	**189**	**213**	**273**	NP	**94**	**106**	**310**
Temperature	°C (on-site)	-	29	**13.9**	**12.3**	**15.9**	NP	**15.7**	**14**	**13.3**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NP	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NP	NT	NT	ND
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NP	NT	NT	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NP	NT	NT	ND
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NP	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NP	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NP	NT	NT	**477**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NP	NT	NT	**54**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NP	NT	NT	**203**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NP	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NP	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	NP	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	NP	ND	ND	**8.6**
Total Barium (Ba)	µg/l	5	NE	**123**	**178**	**172**	NP	**34.3**	**41.4**	**124**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	NP	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	NP	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	NP	ND	ND	**8**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	NP	ND	ND	**11.7**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	NP	ND	ND	**6.8**
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	NP	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	NP	ND	ND	**35.3**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	NP	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	NP	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	NP	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	NP	ND	ND	**6.8**
Total Zinc (Zn)	µg/l	10	50	ND	**49.8**	**32.9**	NP	ND	ND	**12.1**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NP	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	NP	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	NP	ND	ND	NT
Benzene	µg/l	1	51	ND	ND	ND	NP	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	NP	ND	ND	NT
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	NP	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	NP	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	NE	ND	ND	ND	NP	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	NP	ND	ND	NT
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	NP	ND	ND	**2**
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	NP	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	NP	ND	ND	NT
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	NP	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	NP	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	NP	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	NP	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	NP	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	NP	ND	ND	**1.1**
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	NP	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	NP	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	NP	ND	ND	ND
Xylenes	µg/l	2	NE	ND	ND	ND	NP	ND	ND	NT
Methyl-tert-butyl-ether (MTBE)	µg/l	1	NE	NT	NT	NT	NP	NT	NT	ND
Naphthalene	µg/l	1	NE	NT	NT	NT	NP	NT	NT	ND
Phosphorus	mg/l	0.1	NE	NT	NT	NT	NP	NT	NT	**0.26**

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-26-10)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.31**	**6.14**	**7.15**	**6.11**	**5.7**	**6.39**	**7.31**
Specific Conductance	µmhos/cm (on-site)	1	NE	**203**	**250**	**287**	**158**	**50**	**53**	**20400**
Temperature	°C (on-site)	-	29	**15.8**	**15.2**	**16.6**	**17.5**	**14.7**	**13.4**	**18.2**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**5.5**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**6**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.51**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**7670**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**40**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**96**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**13.9**
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**29.4**
Total Barium (Ba)	µg/l	5	NE	**209**	**180**	**350**	**126**	**40.1**	**32.9**	**172**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	**1.3**
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	**13.2**	ND	ND	ND	**10.7**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	**17.7**	**48.8**	ND	ND	ND
Total Copper (Cu)	µg/l	5	7	ND	ND	**9**	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	**9**	**5**	ND	ND	**44.4**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	**29.6**
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	**27.9**	ND	ND	ND	**21**
Total Zinc (Zn)	µg/l	10	50	ND	**31.2**	**60.6**	ND	ND	ND	ND
Mercury	µg/l	0.2	0.012	NT	NT	NT	ND	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	NT
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	**1**
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**3.4**
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NT
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.2**
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**6.8**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NT
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	**8.4**
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**10.9**
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**5.7**
Methyl-tert-butyl-ether (MTBE)	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**2.9**
Naphthalene	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**6.5**
p-isopropyltoluene	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**2.9**
Phosphorus	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**1.40**

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NS = Not Sampled

NT = Not Tested

NE = Not Established; North Carolina has not established a MCL

Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-28-11)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.3**	**6.2**	**6.8**	**6**	**5.8**	**6.1**	**7.4**
Specific Conductance	µmhos/cm (on-site)	1	NE	**174**	**225**	**304**	**212**	**45**	**65**	**14,320**
Temperature	°C (on-site)	-	29	**15.9**	**14.9**	**18.5**	**13.5**	**15.1**	**13.3**	**18.3**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**8.5**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**9.6**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**1.1**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**4360**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**55.2**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**762**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**13.5**
Total Barium (Ba)	µg/l	5	NE	**238**	**204**	**130**	**156**	**38.7**	**43.6**	**243**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	**5.2**	ND	ND	ND	ND	ND	**27.1**
Total Cobalt (Co)	µg/l	5	NE	ND	**5.4**	ND	**22.6**	ND	ND	**32.6**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**159**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**11**	ND	ND	ND	ND	ND	**9.4**
Total Zinc (Zn)	µg/l	10	50	**15.8**	**46.1**	**61.7**	ND	ND	ND	**32.1**
Mercury	µg/l	0.2	0.012	NT	NT	NT	ND	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	**40.6**
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	NT
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2.7**
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NT
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**6**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NT
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.2**
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	**4.5**
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	*ND*
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**3.5**
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**3.8**
Methyl-tert-butyl-ether (MTBE)	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**1.6**
Naphthalene	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**5.3**
p-isopropyltoluene	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**1.8**
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**0.85**

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-25-11)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.2**	**6.7**	**7.2**	**6**	**5.7**	**6.2**	**6.9**
Specific Conductance	µmhos/cm (on-site)	1	NE	**207**	**208**	**275**	**241**	**42**	**17**	**272**
Temperature	°C (on-site)	-	29	**10.4**	**11.9**	**11.7**	**17.2**	**15.8**	**13**	**11.7**
Turbidity	NTU (on-site)	NT	50	**7.92**	**19.0**	**8.08**	**15.5**	**5.52**	**6.19**	**6.35**
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.85**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.17**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**1**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**5170**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**63.9**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**908**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**7.2**
Total Barium (Ba)	µg/l	5	NE	**170**	**168**	**126**	**140**	**32.7**	**30.7**	**261**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**35.4**
Total Cobalt (Co)	µg/l	5	NE	ND	**5**	**5**	**28.8**	ND	ND	**19.7**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**170**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**14.0**
Total Zinc (Zn)	µg/l	10	50	ND	**33.6**	**56.1**	ND	ND	ND	**18.0**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	**43.9**
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	NT
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NT
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.0**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NT
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	**1.5**
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	*ND*
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**3.5**
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2.3**
Methyl-tert-butyl-ether (MTBE)	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**1.5**
Naphthalene	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**1.6**
p-isopropyltoluene	µg/l	1	NE	NT	NT	NT	NT	NT	NT	ND
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**1.20**

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-20-12)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.0**	**6.8**	**7.8**	**6.3**	**6.4**	**7.0**	**7.6**
Specific Conductance	µmhos/cm (on-site)	1	NE	**146**	**218.4**	**261.2**	**111**	**41.3**	**65.8**	**260.4**
Temperature	°C (on-site)	-	29	**15.1**	**14.2**	**16.8**	**15.3**	**14.9**	**13.5**	**16.5**
Turbidity	NTU (on-site)	NT	50	**12.5**	**6.1**	**15.9**	**4.84**	**4.06**	**6.43**	**5.71**
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**8.6**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.52**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**8.6**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**299**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**20.5**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**154**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	NE	**103**	**177**	**90.8**	**121**	**35.2**	**40.5**	**85.2**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**6**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	**14.4**	ND	ND	**7.6**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	**7.7**
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**33.3**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Zinc (Zn)	µg/l	10	50	ND	**37.6**	**15**	ND	ND	ND	**21.5**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	NT
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NT
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NT
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	*ND*
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl-ether (MTBE)	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Naphthalene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
p-isopropyltoluene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**0.28**

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-24-12)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.1**	**6.9**	**7.9**	**6.2**	**6.1**	**7.2**	**7.5**
Specific Conductance	µmhos/cm (on-site)	1	NE	**217**	**272**	**329**	**227**	**39**	**54**	**16,940.0**
Temperature	°C (on-site)	-	29	**13.6**	**14.5**	**13.9**	**17.5**	**13.1**	**11.9**	**19.9**
Turbidity	NTU (on-site)	NT	50	**7.38**	**3.6**	**6.16**	**30.5**	**1.97**	**3.39**	**19.6**
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.18**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.075**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.26**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**5100**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**53.3**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**860**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**14**
Total Barium (Ba)	µg/l	5	NE	**172**	**175**	**124**	**164**	**38.7**	**31.2**	**390**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**32.6**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	**20.2**	ND	ND	**19**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**166**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**16.0**
Total Zinc (Zn)	µg/l	10	50	ND	**28.5**	**10.7**	ND	ND	ND	ND
Mercury	µg/l	0.2	0.012	ND	ND	ND	ND	ND	ND	ND
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.8**
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**3.1**
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
o-Xylenes	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**1.4**
Methyl-tert-butyl-ether (MTBE)	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Naphthalene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
p-isopropyltoluene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**0.87**

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-24-13)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.1**	**7.5**	**7.4**	**6.3**	**6.5**	**6.8**	**7.6**
Specific Conductance	µmhos/cm (on-site)	1	NE	**180**	**183**	**274**	**249**	**42**	**63**	**15,320**
Temperature	°C (on-site)	-	29	**13.6**	**13**	**14.1**	**15.4**	**15.2**	**13.2**	**15.1**
Turbidity	NTU (on-site)	NT	50	**7.06**	**6.9**	**4.23**	**5.06**	**0.37**	**2.11**	**15**
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.098**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.15**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.056**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**3830**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**107**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**866**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	NE	**159**	**146**	**148**	**114**	**34.8**	**33**	**436**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**27.3**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	**5.8**	**29.3**	ND	ND	**17.8**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**130**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**13.0**
Total Zinc (Zn)	µg/l	10	50	ND	**46.2**	**19**	ND	ND	ND	ND
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	**150**
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2.5**
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2.0**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**157**
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**5**
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**3**
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2**
Methyl-tert-butyl-ether (MTBE)	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Naphthalene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
p-isopropyltoluene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**1.1**

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-24-13)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.4**	**6.9**	**7.5**	**6.3**	**6.3**	**6.8**	**7.6**
Specific Conductance	µmhos/cm (on-site)	1	NE	**238**	**280.6**	**329.7**	**281.7**	**38**	**67**	**14,800**
Temperature	°C (on-site)	-	29	**11.2**	**11.7**	**10.8**	**16.7**	**11.1**	**9.6**	**15**
Turbidity	NTU (on-site)	NT	50	**25.2**	**2.05**	**2.96**	**3.28**	**1.19**	**2.24**	**200**
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.2**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.25**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.044**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**4.1**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**52.8**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**920**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	NE	**205**	**209**	**161**	**138**	**36.7**	**31**	**438**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**32.4**
Total Cobalt (Co)	µg/l	5	NE	**5.1**	**7.9**	ND	**37.8**	ND	ND	**27.8**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	**5.7**	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**140**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**7.3**	ND	ND	ND	ND	ND	**12.8**
Total Zinc (Zn)	µg/l	10	50	ND	**33.2**	**13.3**	ND	ND	ND	ND
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.9**
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.1**
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2.6**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**5.7**
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**3.5**
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2.2**
Methyl-tert-butyl-ether (MTBE)	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Naphthalene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
p-isopropyltoluene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**1.4**

Notes:

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ND = Not Detected at the Method Reporting Limit

NS = Not Sampled

NT = Not Tested

NE = Not Established; North Carolina has not established a MCL

Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-24-14)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.3**	**6.4**	**7.7**	**6.2**	**6.6**	**6.8**	**7.3**
Specific Conductance	µmhos/cm (on-site)	1	NE	**183**	**285**	**294**	**262**	**42**	**6.6**	**9,040**
Temperature	°C (on-site)	-	29	**14.6**	**14.1**	**17.9**	**15.9**	**13.8**	**12.1**	**16.9**
Turbidity	NTU (on-site)	NT	50	**3.64**	**2.67**	**5.1**	**4.46**	**3.74**	**3.07**	**36.3**
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.84**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**1.3**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.43**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**4450**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**53.3**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**964**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	**14.3**
Total Barium (Ba)	µg/l	5	NE	**142**	**187**	**133**	**125**	**38.5**	**35.5**	**376**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	**1.8**
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**14.6**
Total Cobalt (Co)	µg/l	5	NE	ND	**6.4**	ND	**9.7**	ND	ND	**24.8**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	**5.5**	ND	ND	ND	ND	**157**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**15.9**
Total Zinc (Zn)	µg/l	10	50	ND	**23.8**	**10.8**	ND	ND	ND	ND
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	**2**
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**3.1**
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**5.9**
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**3.6**
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**15.6**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**34.8**
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	**2.6**
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**41.4**
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**29.7**
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**11.7**
Methyl-tert-butyl-ether (MTBE)	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Naphthalene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
p-isopropyltoluene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**1.7**

Notes:

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-28-14)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.3**	**7.7**	**7.8**	**6.0**	**6.8**	**6.9**	**7.5**
Specific Conductance	µmhos/cm (on-site)	1	NE	**236**	**232**	**356**	**206**	**43**	**57**	**15,110**
Temperature	°C (on-site)	-	29	**12.9**	**12.5**	**12.1**	**18.2**	**12.4**	**11.3**	**19.4**
Turbidity	NTU (on-site)	NT	50	**4.43**	**3.73**	**5.52**	**11.3**	**4.3**	**1.45**	**4.71**
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.12**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.2**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.08**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**3070**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**48.9**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**1010**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	**0.0075**
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**56.7**
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	NE	**181**	**155**	**132**	**147**	**31.4**	**28**	**360**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**27.1**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	**9.7**	ND	ND	**14.5**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**135**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**24.0**
Total Zinc (Zn)	µg/l	10	50	ND	**75.8**	ND	ND	ND	ND	ND
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2.8**
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.1**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.2**
Methyl-tert-butyl-ether (MTBE)	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	**1.7**
Naphthalene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	**2.1**
p-isopropyltoluene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**1.7**

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, "Redbook" Surface Waters and Wetlands Standards Section 15A NCAC 02B.0100, .0200, a .0300.

ND = Not Detected at the Method Reporting Limit

NS = Not Sampled

NT = Not Tested

NE = Not Established; North Carolina has not established a MCL

Shaded cells indicate exceedances of MCLs.

APPENDIX C

LABORATORY ANALYTICAL RESULTS

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December 18, 2014

Mr. Stephen King
Haywood Co. Solid Waste
278 Recycle Rd.
Clyde, NC 28721

RE: Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Dear Mr. King:
Enclosed are the analytical results for sample(s) received by the laboratory on October 28, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

Revised Report: Report revised to include 1,2 dibromo-3-chloropropane on compound list

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Chris Derouen
christopher.derouen@pacelabs.com
Project Manager

Enclosures

cc: Andy Alexander, BLE

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CERTIFICATIONS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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SAMPLE ANALYTE COUNT

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92223181001	MW-1A	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181002	MW-2	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181003	MW-2D	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181004	MW-3R	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181005	MW-3DR	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181006	MW-4A	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181007	MW-8	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181008	MW-15	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181009	MW-16	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181010	MW-17	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181011	MW-11s	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181012	MW-11D	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181013	MW-14	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181014	TVL BLANK	EPA 8260	CAH	52	PASI-C
92223181015	Equipment Blank	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181016	SW-1	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181017	SW-2	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181018	SW-3	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181019	SW-5	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C

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SAMPLE ANALYTE COUNT

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92223181020	**SW-6**	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181021	**SW-7**	EPA 6010	JMW	15	PASI-A
		EPA 8260	CAH	52	PASI-C
92223181022	**Leachate**	EPA 6010	JMW, SH1	28	PASI-A
		EPA 8260	CAH	63	PASI-C
		SM 5210B	AC1	1	PASI-A
		EPA 300.0	AES2	1	PASI-A
		EPA 353.2	DMN	3	PASI-A
		EPA 365.1	JDA	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
		SM 5220D	JTJ	1	PASI-A

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-1A **Lab ID: 92223181001** Collected: 10/28/14 11:00 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/05/14 17:29		
Collected Date	**10/28/14**			1		11/05/14 17:29		
Collected Time	**11:00**			1		11/05/14 17:29		
Field pH	**6.2**	Std. Units	0.10	1		11/05/14 17:29		
Field Temperature	**13.9**	deg C	0.50	1		11/05/14 17:29		
Elevation Water Level	**19.5**	feet		1		11/05/14 17:29		
Field Specific Conductance	**123**	umhos/cm	1.0	1		11/05/14 17:29		
Turbidity	**7.93**	NTU	1.0	1		11/05/14 17:29		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:20	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:20	7440-38-2	
Barium	**136**	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:20	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:20	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:20	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:20	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:20	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:20	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:20	7439-92-1	
Nickel	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:20	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:20	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:20	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 21:20	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:20	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:20	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 04:40	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 04:40	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 04:40	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 04:40	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 04:40	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 04:40	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 04:40	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 04:40	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 04:40	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 04:40	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 04:40	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 04:40	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 04:40	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 04:40	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 04:40	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 04:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 04:40	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 04:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 04:40	95-50-1	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-1A **Lab ID: 92223181001** Collected: 10/28/14 11:00 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 04:40	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 04:40	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 04:40	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 04:40	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 04:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 04:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 04:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 04:40	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 04:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 04:40	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 04:40	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 04:40	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 04:40	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 04:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 04:40	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 04:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 04:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 04:40	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 04:40	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 04:40	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 04:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 04:40	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 04:40	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 04:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 04:40	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 04:40	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 04:40	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 04:40	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 04:40	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 04:40	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		11/08/14 04:40	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		11/08/14 04:40	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		11/08/14 04:40	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-2 **Lab ID: 92223181002** Collected: 10/28/14 11:10 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/05/14 17:31		
Collected Date	**10/28/14**			1		11/05/14 17:31		
Collected Time	**11:10**			1		11/05/14 17:31		
Field pH	**6.1**	Std. Units	0.10	1		11/05/14 17:31		
Field Temperature	**14.5**	deg C	0.50	1		11/05/14 17:31		
Elevation Water Level	**30.7**	feet		1		11/05/14 17:31		
Field Specific Conductance	**1585**	umhos/cm	1.0	1		11/05/14 17:31		
Turbidity	**3.00**	NTU	1.0	1		11/05/14 17:31		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:38	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:38	7440-38-2	
Barium	**1280**	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:38	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:38	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:38	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:38	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:38	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:38	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:38	7439-92-1	
Nickel	**10.7**	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:38	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:38	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:38	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 21:38	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:38	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:38	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 04:57	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 04:57	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 04:57	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 04:57	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 04:57	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 04:57	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 04:57	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 04:57	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 04:57	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 04:57	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 04:57	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 04:57	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 04:57	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 04:57	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 04:57	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 04:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 04:57	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 04:57	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 04:57	95-50-1	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-2 **Lab ID: 92223181002** Collected: 10/28/14 11:10 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 04:57	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 04:57	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 04:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 04:57	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 04:57	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 04:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 04:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 04:57	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 04:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 04:57	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 04:57	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 04:57	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 04:57	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 04:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 04:57	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 04:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 04:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 04:57	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 04:57	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 04:57	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 04:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 04:57	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 04:57	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 04:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 04:57	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 04:57	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 04:57	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 04:57	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 04:57	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 04:57	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		11/08/14 04:57	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130	1		11/08/14 04:57	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 04:57	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-2D **Lab ID: 92223181003** Collected: 10/28/14 11:20 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/05/14 17:32		
Collected Date	**10/28/14**			1		11/05/14 17:32		
Collected Time	**11:20**			1		11/05/14 17:32		
Field pH	**6.1**	Std. Units	0.10	1		11/05/14 17:32		
Field Temperature	**14.8**	deg C	0.50	1		11/05/14 17:32		
Elevation Water Level	**30.7**	feet		1		11/05/14 17:32		
Field Specific Conductance	**1604**	umhos/cm	1.0	1		11/05/14 17:32		
Turbidity	**2.73**	NTU	1.0	1		11/05/14 17:32		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:41	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:41	7440-38-2	
Barium	**1410**	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:41	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:41	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:41	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:41	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:41	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:41	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:41	7439-92-1	
Nickel	**10.1**	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:41	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:41	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:41	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 21:41	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:41	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:41	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 05:14	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 05:14	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 05:14	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 05:14	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 05:14	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 05:14	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 05:14	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 05:14	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 05:14	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 05:14	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 05:14	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 05:14	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 05:14	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 05:14	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 05:14	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 05:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 05:14	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 05:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 05:14	95-50-1	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-2D **Lab ID: 92223181003** Collected: 10/28/14 11:20 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 05:14	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 05:14	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 05:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 05:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 05:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 05:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 05:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 05:14	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 05:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 05:14	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 05:14	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 05:14	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 05:14	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 05:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 05:14	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 05:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 05:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 05:14	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 05:14	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 05:14	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 05:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 05:14	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 05:14	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 05:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 05:14	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 05:14	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 05:14	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 05:14	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 05:14	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 05:14	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/08/14 05:14	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		11/08/14 05:14	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		11/08/14 05:14	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-3R **Lab ID: 92223181004** Collected: 10/28/14 14:25 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/05/14 17:34		
Collected Date	**10/28/14**			1		11/05/14 17:34		
Collected Time	**14:25**			1		11/05/14 17:34		
Field pH	**5.8**	Std. Units	0.10	1		11/05/14 17:34		
Field Temperature	**16.6**	deg C	0.50	1		11/05/14 17:34		
Elevation Water Level	**32.70**	feet		1		11/05/14 17:34		
Field Specific Conductance	**492**	umhos/cm	1.0	1		11/05/14 17:34		
Turbidity	**2.30**	NTU	1.0	1		11/05/14 17:34		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:44	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:44	7440-38-2	
Barium	**363**	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:44	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:44	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:44	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:44	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:44	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:44	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:44	7439-92-1	
Nickel	**29.5**	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:44	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:44	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:44	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 21:44	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:44	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:44	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 05:31	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 05:31	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 05:31	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 05:31	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 05:31	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 05:31	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 05:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 05:31	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 05:31	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 05:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 05:31	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 05:31	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 05:31	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 05:31	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 05:31	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 05:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 05:31	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 05:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 05:31	95-50-1	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-3R **Lab ID: 92223181004** Collected: 10/28/14 14:25 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 05:31	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 05:31	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 05:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 05:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 05:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 05:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 05:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 05:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 05:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 05:31	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 05:31	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 05:31	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 05:31	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 05:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 05:31	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 05:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 05:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 05:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 05:31	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 05:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 05:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 05:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 05:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 05:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 05:31	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 05:31	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 05:31	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 05:31	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 05:31	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 05:31	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		11/08/14 05:31	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		11/08/14 05:31	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 05:31	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-3DR **Lab ID: 92223181005** Collected: 10/28/14 14:35 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/05/14 17:35		
Collected Date	**10/28/14**			1		11/05/14 17:35		
Collected Time	**14:35**			1		11/05/14 17:35		
Field pH	**5.7**	Std. Units	0.10	1		11/05/14 17:35		
Field Temperature	**16.4**	deg C	0.50	1		11/05/14 17:35		
Elevation Water Level	**36.89**	feet		1		11/05/14 17:35		
Field Specific Conductance	**366**	umhos/cm	1.0	1		11/05/14 17:35		
Turbidity	**3.04**	NTU	1.0	1		11/05/14 17:35		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:47	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:47	7440-38-2	
Barium	**224**	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:47	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:47	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:47	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:47	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:47	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:47	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:47	7439-92-1	
Nickel	**31.4**	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:47	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:47	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:47	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 21:47	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:47	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:47	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 05:48	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 05:48	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 05:48	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 05:48	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 05:48	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 05:48	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 05:48	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 05:48	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 05:48	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 05:48	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 05:48	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 05:48	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 05:48	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 05:48	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 05:48	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 05:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 05:48	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 05:48	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 05:48	95-50-1	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-3DR **Lab ID: 92223181005** Collected: 10/28/14 14:35 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 05:48	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 05:48	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 05:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 05:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 05:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 05:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 05:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 05:48	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 05:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 05:48	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 05:48	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 05:48	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 05:48	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 05:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 05:48	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 05:48	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 05:48	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 05:48	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 05:48	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 05:48	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 05:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 05:48	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 05:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 05:48	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 05:48	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 05:48	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 05:48	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 05:48	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 05:48	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 05:48	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/08/14 05:48	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130	1		11/08/14 05:48	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 05:48	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-4A **Lab ID: 92223181006** Collected: 10/28/14 13:10 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/05/14 17:36		
Collected Date	**10/28/14**			1		11/05/14 17:36		
Collected Time	**13:10**			1		11/05/14 17:36		
Field pH	**8.3**	Std. Units	0.10	1		11/05/14 17:36		
Field Temperature	**16.5**	deg C	0.50	1		11/05/14 17:36		
Elevation Water Level	**44.54**	feet		1		11/05/14 17:36		
Field Specific Conductance	**146**	umhos/cm	1.0	1		11/05/14 17:36		
Turbidity	**2.11**	NTU	1.0	1		11/05/14 17:36		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:51	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:51	7440-38-2	
Barium	**8.6**	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:51	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:51	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:51	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:51	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:51	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:51	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:51	7439-92-1	
Nickel	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:51	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:51	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:51	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 21:51	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:51	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:51	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 06:05	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 06:05	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 06:05	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 06:05	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 06:05	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 06:05	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 06:05	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 06:05	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 06:05	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 06:05	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 06:05	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 06:05	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 06:05	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 06:05	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 06:05	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 06:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 06:05	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 06:05	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 06:05	95-50-1	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-4A **Lab ID: 92223181006** Collected: 10/28/14 13:10 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 06:05	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 06:05	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 06:05	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 06:05	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 06:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 06:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 06:05	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 06:05	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 06:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 06:05	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 06:05	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 06:05	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 06:05	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 06:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 06:05	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 06:05	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 06:05	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 06:05	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 06:05	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 06:05	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 06:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 06:05	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 06:05	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 06:05	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 06:05	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 06:05	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 06:05	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 06:05	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 06:05	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 06:05	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/08/14 06:05	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		11/08/14 06:05	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		11/08/14 06:05	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-8 **Lab ID: 92223181007** Collected: 10/28/14 14:10 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/05/14 17:38		
Collected Date	**10/28/14**			1		11/05/14 17:38		
Collected Time	**14:10**			1		11/05/14 17:38		
Field pH	**5.5**	Std. Units	0.10	1		11/05/14 17:38		
Field Temperature	**16.6**	deg C	0.50	1		11/05/14 17:38		
Elevation Water Level	**30.84**	feet		1		11/05/14 17:38		
Field Specific Conductance	**813**	umhos/cm	1.0	1		11/05/14 17:38		
Turbidity	**3.24**	NTU	1.0	1		11/05/14 17:38		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:54	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:54	7440-38-2	
Barium	**228**	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:54	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:54	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:54	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:54	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:54	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:54	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:54	7439-92-1	
Nickel	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:54	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:54	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:54	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 21:54	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:54	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:54	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 06:21	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 06:21	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 06:21	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 06:21	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 06:21	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 06:21	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 06:21	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 06:21	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 06:21	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 06:21	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 06:21	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 06:21	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 06:21	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 06:21	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 06:21	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 06:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 06:21	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 06:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 06:21	95-50-1	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-8 **Lab ID: 92223181007** Collected: 10/28/14 14:10 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 06:21	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 06:21	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 06:21	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 06:21	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 06:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 06:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 06:21	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 06:21	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 06:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 06:21	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 06:21	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 06:21	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 06:21	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 06:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 06:21	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 06:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 06:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 06:21	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 06:21	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 06:21	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 06:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 06:21	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 06:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 06:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 06:21	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 06:21	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 06:21	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 06:21	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 06:21	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 06:21	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		11/08/14 06:21	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130	1		11/08/14 06:21	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 06:21	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-15 **Lab ID: 92223181008** Collected: 10/28/14 10:00 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/05/14 17:39		
Collected Date	**10/28/14**			1		11/05/14 17:39		
Collected Time	**10:10**			1		11/05/14 17:39		
Field pH	**5.9**	Std. Units	0.10	1		11/05/14 17:39		
Field Temperature	**14.4**	deg C	0.50	1		11/05/14 17:39		
Elevation Water Level	**9.48**	feet		1		11/05/14 17:39		
Field Specific Conductance	**52**	umhos/cm	1.0	1		11/05/14 17:39		
Turbidity	**8.50**	NTU	1.0	1		11/05/14 17:39		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:57	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:57	7440-38-2	
Barium	**23.2**	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:57	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:57	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 21:57	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:57	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:57	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:57	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:57	7439-92-1	
Nickel	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:57	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:57	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:57	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 21:57	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 21:57	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 21:57	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 06:38	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 06:38	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 06:38	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 06:38	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 06:38	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 06:38	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 06:38	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 06:38	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 06:38	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 06:38	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 06:38	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 06:38	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 06:38	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 06:38	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 06:38	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 06:38	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 06:38	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 06:38	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 06:38	95-50-1	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-15 **Lab ID: 92223181008** Collected: 10/28/14 10:00 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 06:38	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 06:38	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 06:38	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 06:38	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 06:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 06:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 06:38	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 06:38	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 06:38	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 06:38	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 06:38	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 06:38	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 06:38	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 06:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 06:38	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 06:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 06:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 06:38	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 06:38	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 06:38	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 06:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 06:38	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 06:38	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 06:38	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 06:38	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 06:38	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 06:38	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 06:38	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 06:38	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 06:38	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/08/14 06:38	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		11/08/14 06:38	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 06:38	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-16 **Lab ID: 92223181009** Collected: 10/28/14 13:40 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/05/14 17:40		
Collected Date	**10/28/14**			1		11/05/14 17:40		
Collected Time	**13:40**			1		11/05/14 17:40		
Field pH	**6.1**	Std. Units	0.10	1		11/05/14 17:40		
Field Temperature	**16.5**	deg C	0.50	1		11/05/14 17:40		
Elevation Water Level	**35.19**	feet		1		11/05/14 17:40		
Field Specific Conductance	**232**	umhos/cm	1.0	1		11/05/14 17:40		
Turbidity	**2.28**	NTU	1.0	1		11/05/14 17:40		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:00	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:00	7440-38-2	
Barium	**156**	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:00	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:00	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:00	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:00	7440-47-3	
Cobalt	**24.2**	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:00	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:00	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:00	7439-92-1	
Nickel	**9.1**	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:00	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:00	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:00	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 22:00	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:00	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:00	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 06:55	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 06:55	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 06:55	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 06:55	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 06:55	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 06:55	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 06:55	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 06:55	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 06:55	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 06:55	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 06:55	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 06:55	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 06:55	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 06:55	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 06:55	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 06:55	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 06:55	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 06:55	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 06:55	95-50-1	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-16 **Lab ID: 92223181009** Collected: 10/28/14 13:40 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 06:55	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 06:55	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 06:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 06:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 06:55	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 06:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 06:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 06:55	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 06:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 06:55	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 06:55	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 06:55	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 06:55	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 06:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 06:55	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 06:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 06:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 06:55	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 06:55	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 06:55	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 06:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 06:55	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 06:55	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 06:55	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 06:55	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 06:55	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 06:55	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 06:55	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 06:55	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 06:55	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/08/14 06:55	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130	1		11/08/14 06:55	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 06:55	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-17 **Lab ID: 92223181010** Collected: 10/28/14 13:55 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/05/14 17:41		
Collected Date	**10/28/14**			1		11/05/14 17:41		
Collected Time	**13:55**			1		11/05/14 17:41		
Field pH	**5.9**	Std. Units	0.10	1		11/05/14 17:41		
Field Temperature	**15.8**	deg C	0.50	1		11/05/14 17:41		
Elevation Water Level	**56.85**	feet		1		11/05/14 17:41		
Field Specific Conductance	**164**	umhos/cm	1.0	1		11/05/14 17:41		
Turbidity	**3.00**	NTU	1.0	1		11/05/14 17:41		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:03	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:03	7440-38-2	
Barium	**180**	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:03	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:03	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:03	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:03	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:03	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:03	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:03	7439-92-1	
Nickel	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:03	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:03	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:03	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 22:03	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:03	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:03	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 07:12	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 07:12	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 07:12	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 07:12	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 07:12	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 07:12	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 07:12	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 07:12	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 07:12	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 07:12	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 07:12	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 07:12	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 07:12	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 07:12	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 07:12	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 07:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 07:12	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 07:12	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 07:12	95-50-1	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-17 **Lab ID: 92223181010** Collected: 10/28/14 13:55 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 07:12	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 07:12	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 07:12	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 07:12	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 07:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 07:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 07:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 07:12	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 07:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 07:12	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 07:12	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 07:12	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 07:12	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 07:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 07:12	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 07:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 07:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 07:12	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 07:12	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 07:12	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 07:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 07:12	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 07:12	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 07:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 07:12	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 07:12	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 07:12	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 07:12	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 07:12	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 07:12	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		11/08/14 07:12	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		11/08/14 07:12	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		11/08/14 07:12	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-11s **Lab ID: 92223181011** Collected: 10/28/14 10:20 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/05/14 17:42		
Collected Date	**10/28/14**			1		11/05/14 17:42		
Collected Time	**10:20**			1		11/05/14 17:42		
Field pH	**6.4**	Std. Units	0.10	1		11/05/14 17:42		
Field Temperature	**13.7**	deg C	0.50	1		11/05/14 17:42		
Elevation Water Level	**77.91**	feet		1		11/05/14 17:42		
Field Specific Conductance	**20**	umhos/cm	1.0	1		11/05/14 17:42		
Turbidity	**GT50**	NTU	1.0	1		11/05/14 17:42		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:16	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:16	7440-38-2	
Barium	**117**	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:16	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:16	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:16	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:16	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:16	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:16	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:16	7439-92-1	
Nickel	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:16	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:16	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:16	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 22:16	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:16	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:16	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 07:29	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 07:29	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 07:29	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 07:29	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 07:29	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 07:29	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 07:29	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 07:29	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 07:29	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 07:29	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 07:29	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 07:29	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 07:29	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 07:29	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 07:29	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 07:29	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 07:29	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 07:29	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 07:29	95-50-1	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-11s **Lab ID: 92223181011** Collected: 10/28/14 10:20 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 07:29	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 07:29	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 07:29	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 07:29	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 07:29	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 07:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 07:29	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 07:29	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 07:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 07:29	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 07:29	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 07:29	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 07:29	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 07:29	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 07:29	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 07:29	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 07:29	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 07:29	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 07:29	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 07:29	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 07:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 07:29	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 07:29	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 07:29	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 07:29	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 07:29	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 07:29	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 07:29	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 07:29	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 07:29	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/08/14 07:29	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		11/08/14 07:29	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 07:29	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-11D **Lab ID: 92223181012** Collected: 10/28/14 10:30 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/05/14 17:44		
Collected Date	**10/28/14**			1		11/05/14 17:44		
Collected Time	**10:30**			1		11/05/14 17:44		
Field pH	**6.5**	Std. Units	0.10	1		11/05/14 17:44		
Field Temperature	**13.7**	deg C	0.50	1		11/05/14 17:44		
Elevation Water Level	**78.94**	feet		1		11/05/14 17:44		
Field Specific Conductance	**42**	umhos/cm	1.0	1		11/05/14 17:44		
Turbidity	**4.91**	NTU	1.0	1		11/05/14 17:44		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:19	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:19	7440-38-2	
Barium	**16.1**	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:19	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:19	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:19	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:19	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:19	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:19	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:19	7439-92-1	
Nickel	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:19	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:19	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:19	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 22:19	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:19	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:19	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 07:46	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 07:46	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 07:46	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 07:46	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 07:46	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 07:46	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 07:46	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 07:46	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 07:46	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 07:46	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 07:46	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 07:46	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 07:46	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 07:46	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 07:46	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 07:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 07:46	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 07:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 07:46	95-50-1	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-11D **Lab ID: 92223181012** Collected: 10/28/14 10:30 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 07:46	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 07:46	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 07:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 07:46	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 07:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 07:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 07:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 07:46	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 07:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 07:46	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 07:46	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 07:46	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 07:46	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 07:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 07:46	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 07:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 07:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 07:46	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 07:46	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 07:46	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 07:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 07:46	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 07:46	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 07:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 07:46	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 07:46	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 07:46	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 07:46	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 07:46	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 07:46	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		11/08/14 07:46	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130	1		11/08/14 07:46	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 07:46	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-14 **Lab ID: 92223181013** Collected: 10/28/14 14:55 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/05/14 17:45		
Collected Date	**10/28/14**			1		11/05/14 17:45		
Collected Time	**14:55**			1		11/05/14 17:45		
Field pH	**6.8**	Std. Units	0.10	1		11/05/14 17:45		
Field Temperature	**14.9**	deg C	0.50	1		11/05/14 17:45		
Elevation Water Level	**97.91**	feet		1		11/05/14 17:45		
Field Specific Conductance	**42**	umhos/cm	1.0	1		11/05/14 17:45		
Turbidity	**6.27**	NTU	1.0	1		11/05/14 17:45		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:22	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:22	7440-38-2	
Barium	**102**	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:22	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:22	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:22	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:22	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:22	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:22	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:22	7439-92-1	
Nickel	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:22	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:22	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:22	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 22:22	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:22	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:22	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 08:02	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 08:02	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 08:02	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 08:02	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 08:02	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 08:02	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 08:02	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 08:02	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 08:02	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 08:02	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 08:02	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 08:02	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 08:02	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 08:02	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 08:02	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 08:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 08:02	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 08:02	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 08:02	95-50-1	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: MW-14 **Lab ID: 92223181013** Collected: 10/28/14 14:55 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 08:02	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 08:02	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 08:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 08:02	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 08:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 08:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 08:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 08:02	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 08:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 08:02	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 08:02	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 08:02	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 08:02	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 08:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 08:02	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 08:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 08:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 08:02	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 08:02	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 08:02	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 08:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 08:02	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 08:02	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 08:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 08:02	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 08:02	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 08:02	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 08:02	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 08:02	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 08:02	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		11/08/14 08:02	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		11/08/14 08:02	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 08:02	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: TVL BLANK **Lab ID: 92223181014** Collected: 10/28/14 08:30 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 08:19	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 08:19	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 08:19	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 08:19	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 08:19	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 08:19	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 08:19	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 08:19	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 08:19	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 08:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 08:19	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 08:19	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 08:19	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 08:19	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 08:19	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 08:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 08:19	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 08:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 08:19	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 08:19	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 08:19	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 08:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 08:19	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 08:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 08:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 08:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 08:19	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 08:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 08:19	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 08:19	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 08:19	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 08:19	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 08:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 08:19	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 08:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 08:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 08:19	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 08:19	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 08:19	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 08:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 08:19	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 08:19	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 08:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 08:19	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 08:19	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 08:19	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 08:19	1330-20-7	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: TVL BLANK **Lab ID: 92223181014** Collected: 10/28/14 08:30 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 08:19	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 08:19	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/08/14 08:19	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		11/08/14 08:19	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 08:19	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: Equipment Blank **Lab ID: 92223181015** Collected: 10/28/14 08:30 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:25	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:25	7440-38-2	
Barium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:25	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:25	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:25	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:25	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:25	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:25	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:25	7439-92-1	
Nickel	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:25	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:25	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:25	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 22:25	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:25	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:25	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 08:36	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 08:36	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 08:36	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 08:36	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 08:36	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 08:36	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 08:36	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 08:36	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 08:36	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 08:36	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 08:36	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 08:36	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 08:36	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 08:36	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 08:36	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 08:36	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 08:36	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 08:36	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 08:36	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 08:36	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 08:36	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 08:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 08:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 08:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 08:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 08:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 08:36	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 08:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 08:36	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 08:36	100-41-4	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: Equipment Blank **Lab ID: 92223181015** Collected: 10/28/14 08:30 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
2-Hexanone	ND	ug/L	5.0	1		11/08/14 08:36	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 08:36	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 08:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 08:36	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 08:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 08:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 08:36	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 08:36	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 08:36	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 08:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 08:36	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 08:36	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 08:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 08:36	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 08:36	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 08:36	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 08:36	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 08:36	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 08:36	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		11/08/14 08:36	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		11/08/14 08:36	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 08:36	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: SW-1 **Lab ID: 92223181016** Collected: 10/28/14 11:40 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/12/14 17:32		
Collected Date	**10/28/14**			1		11/12/14 17:32		
Collected Time	**11:40**			1		11/12/14 17:32		
Field pH	**7.3**	Std. Units	0.10	1		11/12/14 17:32		
Field Temperature	**12.9**	deg C	0.50	1		11/12/14 17:32		
Field Specific Conductance	**236**	umhos/cm	1.0	1		11/12/14 17:32		
Turbidity	**4.43**	NTU	1.0	1		11/12/14 17:32		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:28	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:28	7440-38-2	
Barium	**181**	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:28	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:28	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:28	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:28	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:28	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:28	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:28	7439-92-1	
Nickel	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:28	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:28	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:28	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 22:28	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:28	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:28	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 08:53	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 08:53	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 08:53	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 08:53	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 08:53	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 08:53	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 08:53	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 08:53	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 08:53	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 08:53	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 08:53	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 08:53	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 08:53	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 08:53	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 08:53	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 08:53	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 08:53	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 08:53	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 08:53	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 08:53	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: SW-1 **Lab ID: 92223181016** Collected: 10/28/14 11:40 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 08:53	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 08:53	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 08:53	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 08:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 08:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 08:53	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 08:53	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 08:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 08:53	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 08:53	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 08:53	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 08:53	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 08:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 08:53	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 08:53	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 08:53	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 08:53	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 08:53	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 08:53	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 08:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 08:53	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 08:53	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 08:53	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 08:53	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 08:53	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 08:53	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 08:53	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 08:53	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 08:53	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		11/08/14 08:53	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		11/08/14 08:53	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 08:53	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: SW-2 **Lab ID: 92223181017** Collected: 10/28/14 11:55 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/12/14 17:33		
Collected Date	**10/28/14**			1		11/12/14 17:33		
Collected Time	**11:55**			1		11/12/14 17:33		
Field pH	**7.7**	Std. Units	0.10	1		11/12/14 17:33		
Field Temperature	**12.5**	deg C	0.50	1		11/12/14 17:33		
Field Specific Conductance	**232**	umhos/cm	1.0	1		11/12/14 17:33		
Turbidity	**3.73**	NTU	1.0	1		11/12/14 17:33		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:32	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:32	7440-38-2	
Barium	**155**	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:32	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:32	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:32	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:32	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:32	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:32	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:32	7439-92-1	
Nickel	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:32	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:32	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:32	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 22:32	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:32	7440-62-2	
Zinc	**75.8**	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:32	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 09:10	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 09:10	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 09:10	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 09:10	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 09:10	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 09:10	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 09:10	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 09:10	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 09:10	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 09:10	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 09:10	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 09:10	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 09:10	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 09:10	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 09:10	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 09:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 09:10	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 09:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 09:10	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 09:10	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: SW-2 **Lab ID: 92223181017** Collected: 10/28/14 11:55 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 09:10	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 09:10	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 09:10	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 09:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 09:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 09:10	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 09:10	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 09:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 09:10	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 09:10	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 09:10	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 09:10	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 09:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 09:10	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 09:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 09:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 09:10	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 09:10	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 09:10	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 09:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 09:10	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 09:10	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 09:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 09:10	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 09:10	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 09:10	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 09:10	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 09:10	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 09:10	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		11/08/14 09:10	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		11/08/14 09:10	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 09:10	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: SW-3 **Lab ID: 92223181018** Collected: 10/28/14 12:15 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/12/14 17:34		
Collected Date	**10/28/14**			1		11/12/14 17:34		
Collected Time	**12:15**			1		11/12/14 17:34		
Field pH	**7.8**	Std. Units	0.10	1		11/12/14 17:34		
Field Temperature	**12.1**	deg C	0.50	1		11/12/14 17:34		
Field Specific Conductance	**356**	umhos/cm	1.0	1		11/12/14 17:34		
Alkalinity, Total as CaCO3	**5.52**	mg/L	1.0	1		11/12/14 17:34		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:35	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:35	7440-38-2	
Barium	**132**	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:35	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:35	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:35	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:35	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:35	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:35	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:35	7439-92-1	
Nickel	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:35	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:35	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:35	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 22:35	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:35	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:35	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 09:27	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 09:27	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 09:27	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 09:27	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 09:27	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 09:27	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 09:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 09:27	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 09:27	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 09:27	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 09:27	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 09:27	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 09:27	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 09:27	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 09:27	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 09:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 09:27	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 09:27	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 09:27	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 09:27	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: SW-3 **Lab ID: 92223181018** Collected: 10/28/14 12:15 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 09:27	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 09:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 09:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 09:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 09:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 09:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 09:27	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 09:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 09:27	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 09:27	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 09:27	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 09:27	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 09:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 09:27	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 09:27	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 09:27	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 09:27	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 09:27	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 09:27	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 09:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 09:27	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 09:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 09:27	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 09:27	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 09:27	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 09:27	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 09:27	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 09:27	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 09:27	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		11/08/14 09:27	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		11/08/14 09:27	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 09:27	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: SW-5 **Lab ID: 92223181019** Collected: 10/28/14 12:30 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/12/14 17:35		
Collected Date	**10/28/14**			1		11/12/14 17:35		
Collected Time	**12:30**			1		11/12/14 17:35		
Field pH	**6.0**	Std. Units	0.10	1		11/12/14 17:35		
Field Temperature	**18.2**	deg C	0.50	1		11/12/14 17:35		
Field Specific Conductance	**206**	umhos/cm	1.0	1		11/12/14 17:35		
Turbidity	**11.3**	NTU	1.0	1		11/12/14 17:35		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:38	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:38	7440-38-2	
Barium	**147**	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:38	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:38	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:38	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:38	7440-47-3	
Cobalt	**9.7**	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:38	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:38	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:38	7439-92-1	
Nickel	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:38	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:38	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:38	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 22:38	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:38	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:38	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 15:02	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 15:02	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 15:02	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 15:02	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 15:02	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 15:02	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 15:02	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 15:02	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 15:02	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 15:02	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 15:02	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 15:02	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 15:02	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 15:02	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 15:02	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 15:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 15:02	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 15:02	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 15:02	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 15:02	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: SW-5 **Lab ID: 92223181019** Collected: 10/28/14 12:30 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 15:02	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 15:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 15:02	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 15:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 15:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 15:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 15:02	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 15:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 15:02	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 15:02	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 15:02	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 15:02	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 15:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 15:02	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 15:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 15:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 15:02	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 15:02	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 15:02	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 15:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 15:02	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 15:02	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 15:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 15:02	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 15:02	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 15:02	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 15:02	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 15:02	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 15:02	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/08/14 15:02	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		11/08/14 15:02	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 15:02	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: SW-6 **Lab ID: 92223181020** Collected: 10/28/14 09:30 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/12/14 17:36		
Collected Date	**10/28/14**			1		11/12/14 17:36		
Collected Time	**09:30**			1		11/12/14 17:36		
Field pH	**6.8**	Std. Units	0.10	1		11/12/14 17:36		
Field Temperature	**12.4**	deg C	0.50	1		11/12/14 17:36		
Field Specific Conductance	**43**	umhos/cm	1.0	1		11/12/14 17:36		
Turbidity	**4.30**	NTU	1.0	1		11/12/14 17:36		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:41	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:41	7440-38-2	
Barium	**31.4**	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:41	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:41	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:41	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:41	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:41	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:41	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:41	7439-92-1	
Nickel	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:41	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:41	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:41	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 22:41	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:41	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:41	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 15:18	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 15:18	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 15:18	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 15:18	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 15:18	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 15:18	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 15:18	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 15:18	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 15:18	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 15:18	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 15:18	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 15:18	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 15:18	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 15:18	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 15:18	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 15:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 15:18	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 15:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 15:18	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 15:18	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: SW-6 **Lab ID: 92223181020** Collected: 10/28/14 09:30 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 15:18	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 15:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 15:18	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 15:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 15:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 15:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 15:18	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 15:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 15:18	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 15:18	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 15:18	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 15:18	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 15:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 15:18	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 15:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 15:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 15:18	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 15:18	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 15:18	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 15:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 15:18	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 15:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 15:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 15:18	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 15:18	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 15:18	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 15:18	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 15:18	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 15:18	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/08/14 15:18	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		11/08/14 15:18	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		11/08/14 15:18	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: SW-7 **Lab ID: 92223181021** Collected: 10/28/14 09:50 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/12/14 17:37		
Collected Date	**10/28/14**			1		11/12/14 17:37		
Collected Time	**09:50**			1		11/12/14 17:37		
Field pH	**6.9**	Std. Units	0.10	1		11/12/14 17:37		
Field Temperature	**11.3**	deg C	0.50	1		11/12/14 17:37		
Field Specific Conductance	**57**	umhos/cm	1.0	1		11/12/14 17:37		
Turbidity	**1.45**	NTU	1.0	1		11/12/14 17:37		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:44	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:44	7440-38-2	
Barium	**28.0**	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:44	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:44	7440-41-7	
Cadmium	ND	ug/L	1.0	1	10/28/14 20:30	10/29/14 22:44	7440-43-9	
Chromium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:44	7440-47-3	
Cobalt	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:44	7440-48-4	
Copper	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:44	7440-50-8	
Lead	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:44	7439-92-1	
Nickel	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:44	7440-02-0	
Selenium	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:44	7782-49-2	
Silver	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:44	7440-22-4	
Thallium	ND	ug/L	5.4	1	10/28/14 20:30	10/29/14 22:44	7440-28-0	
Vanadium	ND	ug/L	5.0	1	10/28/14 20:30	10/29/14 22:44	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/28/14 20:30	10/29/14 22:44	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 15:35	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		11/08/14 15:35	107-13-1	
Benzene	ND	ug/L	1.0	1		11/08/14 15:35	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 15:35	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 15:35	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 15:35	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 15:35	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 15:35	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		11/08/14 15:35	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 15:35	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 15:35	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 15:35	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 15:35	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 15:35	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 15:35	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 15:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 15:35	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 15:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 15:35	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 15:35	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: SW-7 **Lab ID: 92223181021** Collected: 10/28/14 09:50 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		11/08/14 15:35	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 15:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 15:35	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 15:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 15:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 15:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 15:35	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 15:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 15:35	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		11/08/14 15:35	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 15:35	591-78-6	
Iodomethane	ND	ug/L	5.0	1		11/08/14 15:35	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 15:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 15:35	108-10-1	
Styrene	ND	ug/L	1.0	1		11/08/14 15:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 15:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 15:35	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 15:35	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 15:35	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 15:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 15:35	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 15:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 15:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 15:35	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 15:35	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 15:35	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 15:35	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 15:35	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/08/14 15:35	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		11/08/14 15:35	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		11/08/14 15:35	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		11/08/14 15:35	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: Leachate **Lab ID: 92223181022** Collected: 10/28/14 12:50 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Collected By	**Mark Swann**			1		11/12/14 17:38		
Collected Date	**10/28/14**			1		11/12/14 17:38		
Collected Time	**12:50**			1		11/12/14 17:38		
Field pH	**7.5**	Std. Units	0.10	1		11/12/14 17:38		
Field Temperature	**19.4**	deg C	0.50	1		11/12/14 17:38		
Field Specific Conductance	**15,110**	umhos/cm	1.0	1		11/12/14 17:38		
Turbidity	**4.71**	NTU	1.0	1		11/12/14 17:38		
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Aluminum	ND	ug/L	100	1	10/30/14 21:40	10/31/14 21:34	7429-90-5	
Antimony	**56.7**	ug/L	5.0	1	10/30/14 21:40	10/31/14 21:34	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/30/14 21:40	10/31/14 21:34	7440-38-2	
Barium	**360**	ug/L	5.0	1	10/30/14 21:40	10/31/14 21:34	7440-39-3	
Beryllium	ND	ug/L	1.0	1	10/30/14 21:40	10/31/14 21:34	7440-41-7	
Boron	**3760**	ug/L	50.0	1	10/30/14 21:40	10/31/14 21:34	7440-42-8	
Cadmium	ND	ug/L	1.0	1	10/30/14 21:40	10/31/14 21:34	7440-43-9	
Calcium	**46100**	ug/L	100	1	10/30/14 21:40	10/31/14 21:34	7440-70-2	
Chromium	**27.1**	ug/L	5.0	1	10/30/14 21:40	10/31/14 21:34	7440-47-3	
Cobalt	**14.5**	ug/L	5.0	1	10/30/14 21:40	10/31/14 21:34	7440-48-4	
Copper	ND	ug/L	5.0	1	10/30/14 21:40	10/31/14 21:34	7440-50-8	
Iron	**1910**	ug/L	50.0	1	10/30/14 21:40	10/31/14 21:34	7439-89-6	
Lead	ND	ug/L	5.0	1	10/30/14 21:40	10/31/14 21:34	7439-92-1	
Magnesium	**913000**	ug/L	2000	20	10/30/14 21:40	11/03/14 13:56	7439-95-4	
Manganese	**2580**	ug/L	5.0	1	10/30/14 21:40	10/31/14 21:34	7439-96-5	
Molybdenum	ND	ug/L	5.0	1	10/30/14 21:40	10/31/14 21:34	7439-98-7	
Nickel	**135**	ug/L	5.0	1	10/30/14 21:40	10/31/14 21:34	7440-02-0	
Potassium	**358000**	ug/L	100000	20	10/30/14 21:40	11/03/14 13:56	7440-09-7	
Selenium	ND	ug/L	10.0	1	10/30/14 21:40	10/31/14 21:34	7782-49-2	
Silicon	**11800**	ug/L	2000	20	10/30/14 21:40	11/03/14 13:56	7440-21-3	
Silver	ND	ug/L	5.0	1	10/30/14 21:40	10/31/14 21:34	7440-22-4	
Sodium	**1460000**	ug/L	100000	20	10/30/14 21:40	11/03/14 13:56	7440-23-5	
Strontium	**329**	ug/L	5.0	1	10/30/14 21:40	10/31/14 21:34	7440-24-6	
Thallium	ND	ug/L	10.0	1	10/30/14 21:40	10/31/14 21:34	7440-28-0	
Tin	**6.4**	ug/L	5.0	1	10/30/14 21:40	10/31/14 21:34	7440-31-5	
Titanium	**31.6**	ug/L	5.0	1	10/30/14 21:40	10/31/14 21:34	7440-32-6	
Vanadium	**24.0**	ug/L	5.0	1	10/30/14 21:40	10/31/14 21:34	7440-62-2	
Zinc	ND	ug/L	10.0	1	10/30/14 21:40	10/31/14 21:34	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		11/08/14 21:27	67-64-1	
Benzene	ND	ug/L	1.0	1		11/08/14 21:27	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/08/14 21:27	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/08/14 21:27	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/08/14 21:27	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/08/14 21:27	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/08/14 21:27	74-83-9	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: Leachate **Lab ID: 92223181022** Collected: 10/28/14 12:50 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
2-Butanone (MEK)	ND	ug/L	5.0	1		11/08/14 21:27	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/08/14 21:27	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/08/14 21:27	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/08/14 21:27	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/08/14 21:27	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/08/14 21:27	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/08/14 21:27	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/08/14 21:27	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/08/14 21:27	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/08/14 21:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/08/14 21:27	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/08/14 21:27	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 21:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/08/14 21:27	541-73-1	
1,4-Dichlorobenzene	**2.8**	ug/L	1.0	1		11/08/14 21:27	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/08/14 21:27	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/08/14 21:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/08/14 21:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/08/14 21:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 21:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/08/14 21:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 21:27	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/08/14 21:27	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/08/14 21:27	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/08/14 21:27	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 21:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/08/14 21:27	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/08/14 21:27	108-20-3	
Ethylbenzene	**1.1**	ug/L	1.0	1		11/08/14 21:27	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/08/14 21:27	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/08/14 21:27	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/08/14 21:27	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		11/08/14 21:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/08/14 21:27	108-10-1	
Methyl-tert-butyl ether	**1.7**	ug/L	1.0	1		11/08/14 21:27	1634-04-4	
Naphthalene	**2.1**	ug/L	1.0	1		11/08/14 21:27	91-20-3	
Styrene	ND	ug/L	1.0	1		11/08/14 21:27	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 21:27	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/08/14 21:27	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/08/14 21:27	127-18-4	
Toluene	ND	ug/L	1.0	1		11/08/14 21:27	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/08/14 21:27	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/08/14 21:27	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/08/14 21:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/08/14 21:27	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/08/14 21:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/08/14 21:27	75-69-4	

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ANALYTICAL RESULTS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Sample: Leachate **Lab ID: 92223181022** Collected: 10/28/14 12:50 Received: 10/28/14 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/08/14 21:27	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/08/14 21:27	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/08/14 21:27	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		11/08/14 21:27	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/08/14 21:27	179601-23-1	
o-Xylene	**1.2**	ug/L	1.0	1		11/08/14 21:27	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		11/08/14 21:27	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		11/08/14 21:27	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/08/14 21:27	2037-26-5	
5210B BOD, 5 day	Analytical Method: SM 5210B							
BOD, 5 day	**48.9**	mg/L	2.0	1	10/29/14 03:45	11/03/14 09:01		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	**3070**	mg/L	400	200		11/08/14 20:58	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.12**	mg/L	0.020	1		10/29/14 19:18		
Nitrogen, Nitrite	**0.080**	mg/L	0.020	1		10/29/14 19:18		
Nitrogen, NO2 plus NO3	**0.20**	mg/L	0.020	1		10/29/14 19:18		
365.1 Phosphorus, Total	Analytical Method: EPA 365.1							
Phosphorus	**1.7**	mg/L	0.050	1		11/07/14 15:20	7723-14-0	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E							
Cyanide	**0.0075**	mg/L	0.0050	1		11/02/14 14:33	57-12-5	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	**1010**	mg/L	50.0	2		11/04/14 17:00		

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

QC Batch: MPRP/17226 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92223181001, 92223181002, 92223181003, 92223181004, 92223181005, 92223181006, 92223181007, 92223181008, 92223181009, 92223181010, 92223181011, 92223181012, 92223181013, 92223181015, 92223181016, 92223181017, 92223181018, 92223181019, 92223181020, 92223181021

METHOD BLANK: 1317108 Matrix: Water
Associated Lab Samples: 92223181001, 92223181002, 92223181003, 92223181004, 92223181005, 92223181006, 92223181007, 92223181008, 92223181009, 92223181010, 92223181011, 92223181012, 92223181013, 92223181015, 92223181016, 92223181017, 92223181018, 92223181019, 92223181020, 92223181021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	10/29/14 21:13	
Arsenic	ug/L	ND	10.0	10/29/14 21:13	
Barium	ug/L	ND	5.0	10/29/14 21:13	
Beryllium	ug/L	ND	1.0	10/29/14 21:13	
Cadmium	ug/L	ND	1.0	10/29/14 21:13	
Chromium	ug/L	ND	5.0	10/29/14 21:13	
Cobalt	ug/L	ND	5.0	10/29/14 21:13	
Copper	ug/L	ND	5.0	10/29/14 21:13	
Lead	ug/L	ND	5.0	10/29/14 21:13	
Nickel	ug/L	ND	5.0	10/29/14 21:13	
Selenium	ug/L	ND	10.0	10/29/14 21:13	
Silver	ug/L	ND	5.0	10/29/14 21:13	
Thallium	ug/L	ND	5.4	10/29/14 21:13	
Vanadium	ug/L	ND	5.0	10/29/14 21:13	
Zinc	ug/L	ND	10.0	10/29/14 21:13	

LABORATORY CONTROL SAMPLE: 1317109

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	489	98	80-120	
Arsenic	ug/L	500	470	94	80-120	
Barium	ug/L	500	482	96	80-120	
Beryllium	ug/L	500	488	98	80-120	
Cadmium	ug/L	500	483	97	80-120	
Chromium	ug/L	500	487	97	80-120	
Cobalt	ug/L	500	480	96	80-120	
Copper	ug/L	500	490	98	80-120	
Lead	ug/L	500	480	96	80-120	
Nickel	ug/L	500	483	97	80-120	
Selenium	ug/L	500	474	95	80-120	
Silver	ug/L	250	242	97	80-120	
Thallium	ug/L	500	476	95	80-120	
Vanadium	ug/L	500	483	97	80-120	
Zinc	ug/L	500	475	95	80-120	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1317110 1317111

Parameter	Units	92223181001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Antimony	ug/L	ND	500	500	491	474	98	95	75-125	4	
Arsenic	ug/L	ND	500	500	473	457	94	91	75-125	3	
Barium	ug/L	136	500	500	621	608	97	94	75-125	2	
Beryllium	ug/L	ND	500	500	492	478	98	96	75-125	3	
Cadmium	ug/L	ND	500	500	484	469	97	94	75-125	3	
Chromium	ug/L	ND	500	500	491	477	98	95	75-125	3	
Cobalt	ug/L	ND	500	500	476	460	95	92	75-125	3	
Copper	ug/L	ND	500	500	492	479	98	96	75-125	3	
Lead	ug/L	ND	500	500	476	459	95	92	75-125	4	
Nickel	ug/L	ND	500	500	483	468	96	93	75-125	3	
Selenium	ug/L	ND	500	500	475	461	94	92	75-125	3	
Silver	ug/L	ND	250	250	243	236	97	94	75-125	3	
Thallium	ug/L	ND	500	500	469	456	94	91	75-125	3	
Vanadium	ug/L	ND	500	500	489	474	97	95	75-125	3	
Zinc	ug/L	ND	500	500	473	457	94	91	75-125	3	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

QC Batch: MPRP/17241 | Analysis Method: EPA 6010
QC Batch Method: EPA 3010 | Analysis Description: 6010 MET
Associated Lab Samples: 92223181022

METHOD BLANK: 1319223 | Matrix: Water
Associated Lab Samples: 92223181022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	100	10/31/14 21:07	
Antimony	ug/L	ND	5.0	10/31/14 21:07	
Arsenic	ug/L	ND	10.0	10/31/14 21:07	
Barium	ug/L	ND	5.0	10/31/14 21:07	
Beryllium	ug/L	ND	1.0	10/31/14 21:07	
Boron	ug/L	ND	50.0	10/31/14 21:07	
Cadmium	ug/L	ND	1.0	10/31/14 21:07	
Calcium	ug/L	ND	100	10/31/14 21:07	
Chromium	ug/L	ND	5.0	10/31/14 21:07	
Cobalt	ug/L	ND	5.0	10/31/14 21:07	
Copper	ug/L	ND	5.0	10/31/14 21:07	
Iron	ug/L	ND	50.0	10/31/14 21:07	
Lead	ug/L	ND	5.0	10/31/14 21:07	
Magnesium	ug/L	ND	100	10/31/14 21:07	
Manganese	ug/L	ND	5.0	10/31/14 21:07	
Molybdenum	ug/L	ND	5.0	10/31/14 21:07	
Nickel	ug/L	ND	5.0	10/31/14 21:07	
Potassium	ug/L	ND	5000	10/31/14 21:07	
Selenium	ug/L	ND	10.0	10/31/14 21:07	
Silicon	ug/L	ND	100	10/31/14 21:07	
Silver	ug/L	ND	5.0	10/31/14 21:07	
Sodium	ug/L	ND	5000	10/31/14 21:07	
Strontium	ug/L	ND	5.0	10/31/14 21:07	
Thallium	ug/L	ND	10.0	10/31/14 21:07	
Tin	ug/L	ND	5.0	10/31/14 21:07	
Titanium	ug/L	ND	5.0	10/31/14 21:07	
Vanadium	ug/L	ND	5.0	10/31/14 21:07	
Zinc	ug/L	ND	10.0	10/31/14 21:07	

LABORATORY CONTROL SAMPLE: 1319224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	5000	4790	96	80-120	
Antimony	ug/L	500	483	97	80-120	
Arsenic	ug/L	500	468	94	80-120	
Barium	ug/L	500	477	95	80-120	
Beryllium	ug/L	500	480	96	80-120	
Boron	ug/L	500	469	94	80-120	
Cadmium	ug/L	500	476	95	80-120	
Calcium	ug/L	5000	4780	96	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

LABORATORY CONTROL SAMPLE: 1319224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium	ug/L	500	476	95	80-120	
Cobalt	ug/L	500	477	95	80-120	
Copper	ug/L	500	483	97	80-120	
Iron	ug/L	5000	4810	96	80-120	
Lead	ug/L	500	479	96	80-120	
Magnesium	ug/L	5000	4760	95	80-120	
Manganese	ug/L	500	472	94	80-120	
Molybdenum	ug/L	500	485	97	80-120	
Nickel	ug/L	500	475	95	80-120	
Potassium	ug/L	5000	4820J	96	80-120	
Selenium	ug/L	500	469	94	80-120	
Silicon	ug/L	2500	2400	96	80-120	
Silver	ug/L	250	238	95	80-120	
Sodium	ug/L	5000	4800J	96	80-120	
Strontium	ug/L	500	478	96	80-120	
Thallium	ug/L	500	470	94	80-120	
Tin	ug/L	500	480	96	80-120	
Titanium	ug/L	500	483	97	80-120	
Vanadium	ug/L	500	476	95	80-120	
Zinc	ug/L	500	467	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1319225 1319226

Parameter	Units	92223372012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Aluminum	ug/L	22200	5000	5000	33300	31400	221	184	75-125	6	M1
Antimony	ug/L	ND	500	500	416	419	83	84	75-125	1	
Arsenic	ug/L	11.5	500	500	459	459	90	90	75-125	0	
Barium	ug/L	113	500	500	563	554	90	88	75-125	2	
Beryllium	ug/L	0.69J	500	500	470	465	94	93	75-125	1	
Boron	ug/L	ND	500	500	459	456	89	89	75-125	1	
Cadmium	ug/L	0.93J	500	500	466	460	93	92	75-125	1	
Calcium	ug/L	24500	5000	5000	29200	28500	93	80	75-125	2	
Chromium	ug/L	42.0	500	500	504	498	92	91	75-125	1	
Cobalt	ug/L	23.3	500	500	479	474	91	90	75-125	1	
Copper	ug/L	61.0	500	500	545	537	97	95	75-125	1	
Iron	ug/L	52500	5000	5000	54300	51700	36	-16	75-125	5	M1
Lead	ug/L	19.6	500	500	457	454	88	87	75-125	1	
Magnesium	ug/L	18400	5000	5000	22400	21800	80	68	75-125	3	M1
Manganese	ug/L	7540	500	500	7940	7790	78	49	75-125	2	M1
Molybdenum	ug/L	ND	500	500	458	454	91	91	75-125	1	
Nickel	ug/L	30.8	500	500	484	481	91	90	75-125	1	
Potassium	ug/L	2530J	5000	5000	7120	7020	92	90	75-125	1	
Selenium	ug/L	9.4J	500	500	458	451	90	88	75-125	2	
Silicon	ug/L	29100	2500	2500	39300	37100	408	318	75-125	6	M1

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1319225 1319226

Parameter	Units	92223372012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Silver	ug/L	ND	250	250	234	234	93	93	75-125	0	
Sodium	ug/L	3780J	5000	5000	8360	8200	92	88	75-125	2	
Strontium	ug/L	61.5	500	500	525	519	93	91	75-125	1	
Thallium	ug/L	ND	500	500	444	438	88	87	75-125	1	
Tin	ug/L	ND	500	500	464	456	93	91	75-125	2	
Titanium	ug/L	368	500	500	821	791	91	85	75-125	4	
Vanadium	ug/L	88.3	500	500	553	544	93	91	75-125	2	
Zinc	ug/L	122	500	500	560	550	88	86	75-125	2	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

QC Batch: MSV/29122 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92223181001, 92223181002, 92223181003, 92223181004, 92223181005, 92223181006, 92223181007, 92223181008, 92223181009, 92223181010, 92223181011, 92223181012, 92223181013, 92223181014, 92223181015, 92223181016, 92223181017, 92223181018

METHOD BLANK: 1324964 | Matrix: Water
Associated Lab Samples: 92223181001, 92223181002, 92223181003, 92223181004, 92223181005, 92223181006, 92223181007, 92223181008, 92223181009, 92223181010, 92223181011, 92223181012, 92223181013, 92223181014, 92223181015, 92223181016, 92223181017, 92223181018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	11/07/14 23:38	
1,1,1-Trichloroethane	ug/L	ND	1.0	11/07/14 23:38	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/07/14 23:38	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/07/14 23:38	
1,1-Dichloroethane	ug/L	ND	1.0	11/07/14 23:38	
1,1-Dichloroethene	ug/L	ND	1.0	11/07/14 23:38	
1,2,3-Trichloropropane	ug/L	ND	1.0	11/07/14 23:38	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	11/07/14 23:38	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/07/14 23:38	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/07/14 23:38	
1,2-Dichloroethane	ug/L	ND	1.0	11/07/14 23:38	
1,2-Dichloropropane	ug/L	ND	1.0	11/07/14 23:38	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/07/14 23:38	
2-Butanone (MEK)	ug/L	ND	5.0	11/07/14 23:38	
2-Hexanone	ug/L	ND	5.0	11/07/14 23:38	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	11/07/14 23:38	
Acetone	ug/L	ND	25.0	11/07/14 23:38	
Acrylonitrile	ug/L	ND	10.0	11/07/14 23:38	
Benzene	ug/L	ND	1.0	11/07/14 23:38	
Bromochloromethane	ug/L	ND	1.0	11/07/14 23:38	
Bromodichloromethane	ug/L	ND	1.0	11/07/14 23:38	
Bromoform	ug/L	ND	1.0	11/07/14 23:38	
Bromomethane	ug/L	ND	2.0	11/07/14 23:38	
Carbon disulfide	ug/L	ND	2.0	11/07/14 23:38	
Carbon tetrachloride	ug/L	ND	1.0	11/07/14 23:38	
Chlorobenzene	ug/L	ND	1.0	11/07/14 23:38	
Chloroethane	ug/L	ND	1.0	11/07/14 23:38	
Chloroform	ug/L	ND	1.0	11/07/14 23:38	
Chloromethane	ug/L	ND	1.0	11/07/14 23:38	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/07/14 23:38	
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/07/14 23:38	
Dibromochloromethane	ug/L	ND	1.0	11/07/14 23:38	
Dibromomethane	ug/L	ND	1.0	11/07/14 23:38	
Ethylbenzene	ug/L	ND	1.0	11/07/14 23:38	
Iodomethane	ug/L	ND	5.0	11/07/14 23:38	
m&p-Xylene	ug/L	ND	2.0	11/07/14 23:38	
Methylene Chloride	ug/L	ND	2.0	11/07/14 23:38	
o-Xylene	ug/L	ND	1.0	11/07/14 23:38	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

METHOD BLANK: 1324964 Matrix: Water

Associated Lab Samples: 92223181001, 92223181002, 92223181003, 92223181004, 92223181005, 92223181006, 92223181007, 92223181008, 92223181009, 92223181010, 92223181011, 92223181012, 92223181013, 92223181014, 92223181015, 92223181016, 92223181017, 92223181018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Styrene	ug/L	ND	1.0	11/07/14 23:38	
Tetrachloroethene	ug/L	ND	1.0	11/07/14 23:38	
Toluene	ug/L	ND	1.0	11/07/14 23:38	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/07/14 23:38	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/07/14 23:38	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	11/07/14 23:38	
Trichloroethene	ug/L	ND	1.0	11/07/14 23:38	
Trichlorofluoromethane	ug/L	ND	1.0	11/07/14 23:38	
Vinyl acetate	ug/L	ND	2.0	11/07/14 23:38	
Vinyl chloride	ug/L	ND	1.0	11/07/14 23:38	
Xylene (Total)	ug/L	ND	2.0	11/07/14 23:38	
1,2-Dichloroethane-d4 (S)	%	104	70-130	11/07/14 23:38	
4-Bromofluorobenzene (S)	%	97	70-130	11/07/14 23:38	
Toluene-d8 (S)	%	102	70-130	11/07/14 23:38	

LABORATORY CONTROL SAMPLE: 1324965

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	52.2	104	70-130	
1,1,1-Trichloroethane	ug/L	50	51.3	103	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.0	100	70-130	
1,1,2-Trichloroethane	ug/L	50	50.7	101	70-130	
1,1-Dichloroethane	ug/L	50	52.5	105	70-130	
1,1-Dichloroethene	ug/L	50	51.5	103	70-132	
1,2,3-Trichloropropane	ug/L	50	51.9	104	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	44.4	89	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	50.9	102	70-130	
1,2-Dichlorobenzene	ug/L	50	50.4	101	70-130	
1,2-Dichloroethane	ug/L	50	47.8	96	70-130	
1,2-Dichloropropane	ug/L	50	50.6	101	70-130	
1,4-Dichlorobenzene	ug/L	50	51.0	102	70-130	
2-Butanone (MEK)	ug/L	100	91.4	91	70-145	
2-Hexanone	ug/L	100	99.3	99	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	99.7	100	70-140	
Acetone	ug/L	100	88.9	89	50-175	
Acrylonitrile	ug/L	250	240	96	70-143	
Benzene	ug/L	50	51.9	104	70-130	
Bromochloromethane	ug/L	50	51.8	104	70-130	
Bromodichloromethane	ug/L	50	48.5	97	70-130	
Bromoform	ug/L	50	44.0	88	70-130	
Bromomethane	ug/L	50	39.2	78	54-130	
Carbon disulfide	ug/L	50	48.6	97	70-131	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

LABORATORY CONTROL SAMPLE: 1324965

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	53.8	108	70-132	
Chlorobenzene	ug/L	50	51.0	102	70-130	
Chloroethane	ug/L	50	50.1	100	64-134	
Chloroform	ug/L	50	47.0	94	70-130	
Chloromethane	ug/L	50	51.1	102	64-130	
cis-1,2-Dichloroethene	ug/L	50	52.7	105	70-131	
cis-1,3-Dichloropropene	ug/L	50	52.7	105	70-130	
Dibromochloromethane	ug/L	50	44.7	89	70-130	
Dibromomethane	ug/L	50	52.0	104	70-131	
Ethylbenzene	ug/L	50	50.9	102	70-130	
Iodomethane	ug/L	100	177	177	49-180	
m&p-Xylene	ug/L	100	102	102	70-130	
Methylene Chloride	ug/L	50	54.4	109	63-130	
o-Xylene	ug/L	50	49.6	99	70-130	
Styrene	ug/L	50	54.2	108	70-130	
Tetrachloroethene	ug/L	50	46.9	94	70-130	
Toluene	ug/L	50	50.0	100	70-130	
trans-1,2-Dichloroethene	ug/L	50	51.0	102	70-130	
trans-1,3-Dichloropropene	ug/L	50	54.9	110	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	50.0	100	70-141	
Trichloroethene	ug/L	50	49.2	98	70-130	
Trichlorofluoromethane	ug/L	50	48.7	97	62-133	
Vinyl acetate	ug/L	100	93.6	94	66-157	
Vinyl chloride	ug/L	50	48.2	96	50-150	
Xylene (Total)	ug/L	150	151	101	70-130	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1324966

Parameter	Units	92223181017 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	22.6	113	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	23.9	119	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	21.5	107	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	21.8	109	70-130	
1,1-Dichloroethane	ug/L	ND	20	24.1	120	70-130	
1,1-Dichloroethene	ug/L	ND	20	25.0	125	70-166	
1,2,3-Trichloropropane	ug/L	ND	20	22.6	113	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	19.9	100	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	22.1	111	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	21.9	110	70-130	
1,2-Dichloroethane	ug/L	ND	20	21.2	106	70-130	
1,2-Dichloropropane	ug/L	ND	20	22.8	114	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	22.5	112	70-130	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

MATRIX SPIKE SAMPLE: 1324966

Parameter	Units	92223181017 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2-Butanone (MEK)	ug/L	ND	40	39.6	99	70-130	
2-Hexanone	ug/L	ND	40	43.2	108	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	42.8	107	70-130	
Acetone	ug/L	ND	40	41.2	96	70-130	
Acrylonitrile	ug/L	ND	100	107	107	70-130	
Benzene	ug/L	ND	20	23.1	116	70-148	
Bromochloromethane	ug/L	ND	20	24.6	123	70-130	
Bromodichloromethane	ug/L	ND	20	20.8	104	70-130	
Bromoform	ug/L	ND	20	18.9	95	70-130	
Bromomethane	ug/L	ND	20	21.5	108	70-130	
Carbon disulfide	ug/L	ND	20	23.8	119	70-130	
Carbon tetrachloride	ug/L	ND	20	25.1	125	70-130	
Chlorobenzene	ug/L	ND	20	22.8	114	70-146	
Chloroethane	ug/L	ND	20	24.3	121	70-130	
Chloroform	ug/L	ND	20	21.4	107	70-130	
Chloromethane	ug/L	ND	20	23.3	117	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	24.1	120	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	22.0	110	70-130	
Dibromochloromethane	ug/L	ND	20	19.4	97	70-130	
Dibromomethane	ug/L	ND	20	22.4	112	70-130	
Ethylbenzene	ug/L	ND	20	23.2	116	70-130	
Iodomethane	ug/L	ND	40	78.1	195	70-130	M0
m&p-Xylene	ug/L	ND	40	46.0	115	70-130	
Methylene Chloride	ug/L	ND	20	21.3	107	70-130	
o-Xylene	ug/L	ND	20	22.2	111	70-130	
Styrene	ug/L	ND	20	23.1	115	70-130	
Tetrachloroethene	ug/L	ND	20	22.2	111	70-130	
Toluene	ug/L	ND	20	22.7	113	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	23.8	119	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	23.1	116	70-130	
trans-1,4-Dichloro-2-butene	ug/L	ND	20	19.2	96	70-130	
Trichloroethene	ug/L	ND	20	22.4	112	69-151	
Trichlorofluoromethane	ug/L	ND	20	24.0	120	70-130	
Vinyl acetate	ug/L	ND	40	37.7	94	70-130	
Vinyl chloride	ug/L	ND	20	24.0	120	70-130	
1,2-Dichloroethane-d4 (S)	%				101	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1324967

Parameter	Units	92223181018 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		
1,1,1-Trichloroethane	ug/L	ND	ND		
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

SAMPLE DUPLICATE: 1324967

Parameter	Units	92223181018 Result	Dup Result	RPD	Qualifiers
1,1,2-Trichloroethane	ug/L	ND	ND		
1,1-Dichloroethane	ug/L	ND	ND		
1,1-Dichloroethene	ug/L	ND	ND		
1,2,3-Trichloropropane	ug/L	ND	ND		
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1,2-Dichlorobenzene	ug/L	ND	ND		
1,2-Dichloroethane	ug/L	ND	ND		
1,2-Dichloropropane	ug/L	ND	ND		
1,4-Dichlorobenzene	ug/L	ND	ND		
2-Butanone (MEK)	ug/L	ND	ND		
2-Hexanone	ug/L	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		
Acetone	ug/L	ND	ND		
Acrylonitrile	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Bromochloromethane	ug/L	ND	ND		
Bromodichloromethane	ug/L	ND	ND		
Bromoform	ug/L	ND	ND		
Bromomethane	ug/L	ND	ND		
Carbon disulfide	ug/L	ND	ND		
Carbon tetrachloride	ug/L	ND	ND		
Chlorobenzene	ug/L	ND	ND		
Chloroethane	ug/L	ND	ND		
Chloroform	ug/L	ND	ND		
Chloromethane	ug/L	ND	ND		
cis-1,2-Dichloroethene	ug/L	ND	ND		
cis-1,3-Dichloropropene	ug/L	ND	ND		
Dibromochloromethane	ug/L	ND	ND		
Dibromomethane	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
Iodomethane	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methylene Chloride	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
Styrene	ug/L	ND	ND		
Tetrachloroethene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
trans-1,2-Dichloroethene	ug/L	ND	ND		
trans-1,3-Dichloropropene	ug/L	ND	ND		
trans-1,4-Dichloro-2-butene	ug/L	ND	ND		
Trichloroethene	ug/L	ND	ND		
Trichlorofluoromethane	ug/L	ND	ND		
Vinyl acetate	ug/L	ND	ND		
Vinyl chloride	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	103	104	2	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

SAMPLE DUPLICATE: 1324967

Parameter	Units	92223181018 Result	Dup Result	RPD	Qualifiers
4-Bromofluorobenzene (S)	%	94	96	2	
Toluene-d8 (S)	%	102	101	1	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

QC Batch: MSV/29138 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92223181019, 92223181020, 92223181021

METHOD BLANK: 1325867 Matrix: Water
Associated Lab Samples: 92223181019, 92223181020, 92223181021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	11/08/14 13:21	
1,1,1-Trichloroethane	ug/L	ND	1.0	11/08/14 13:21	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/08/14 13:21	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/08/14 13:21	
1,1-Dichloroethane	ug/L	ND	1.0	11/08/14 13:21	
1,1-Dichloroethene	ug/L	ND	1.0	11/08/14 13:21	
1,2,3-Trichloropropane	ug/L	ND	1.0	11/08/14 13:21	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	11/08/14 13:21	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/08/14 13:21	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/08/14 13:21	
1,2-Dichloroethane	ug/L	ND	1.0	11/08/14 13:21	
1,2-Dichloropropane	ug/L	ND	1.0	11/08/14 13:21	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/08/14 13:21	
2-Butanone (MEK)	ug/L	ND	5.0	11/08/14 13:21	
2-Hexanone	ug/L	ND	5.0	11/08/14 13:21	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	11/08/14 13:21	
Acetone	ug/L	ND	25.0	11/08/14 13:21	
Acrylonitrile	ug/L	ND	10.0	11/08/14 13:21	
Benzene	ug/L	ND	1.0	11/08/14 13:21	
Bromochloromethane	ug/L	ND	1.0	11/08/14 13:21	
Bromodichloromethane	ug/L	ND	1.0	11/08/14 13:21	
Bromoform	ug/L	ND	1.0	11/08/14 13:21	
Bromomethane	ug/L	ND	2.0	11/08/14 13:21	
Carbon disulfide	ug/L	ND	2.0	11/08/14 13:21	
Carbon tetrachloride	ug/L	ND	1.0	11/08/14 13:21	
Chlorobenzene	ug/L	ND	1.0	11/08/14 13:21	
Chloroethane	ug/L	ND	1.0	11/08/14 13:21	
Chloroform	ug/L	ND	1.0	11/08/14 13:21	
Chloromethane	ug/L	ND	1.0	11/08/14 13:21	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/08/14 13:21	
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/08/14 13:21	
Dibromochloromethane	ug/L	ND	1.0	11/08/14 13:21	
Dibromomethane	ug/L	ND	1.0	11/08/14 13:21	
Ethylbenzene	ug/L	ND	1.0	11/08/14 13:21	
Iodomethane	ug/L	ND	5.0	11/08/14 13:21	
m&p-Xylene	ug/L	ND	2.0	11/08/14 13:21	
Methylene Chloride	ug/L	ND	2.0	11/08/14 13:21	
o-Xylene	ug/L	ND	1.0	11/08/14 13:21	
Styrene	ug/L	ND	1.0	11/08/14 13:21	
Tetrachloroethene	ug/L	ND	1.0	11/08/14 13:21	
Toluene	ug/L	ND	1.0	11/08/14 13:21	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

METHOD BLANK: 1325867 Matrix: Water
Associated Lab Samples: 92223181019, 92223181020, 92223181021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/08/14 13:21	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/08/14 13:21	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	11/08/14 13:21	
Trichloroethene	ug/L	ND	1.0	11/08/14 13:21	
Trichlorofluoromethane	ug/L	ND	1.0	11/08/14 13:21	
Vinyl acetate	ug/L	ND	2.0	11/08/14 13:21	
Vinyl chloride	ug/L	ND	1.0	11/08/14 13:21	
Xylene (Total)	ug/L	ND	2.0	11/08/14 13:21	
1,2-Dichloroethane-d4 (S)	%	101	70-130	11/08/14 13:21	
4-Bromofluorobenzene (S)	%	96	70-130	11/08/14 13:21	
Toluene-d8 (S)	%	101	70-130	11/08/14 13:21	

LABORATORY CONTROL SAMPLE: 1325868

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	55.8	112	70-130	
1,1,1-Trichloroethane	ug/L	50	54.0	108	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	52.8	106	70-130	
1,1,2-Trichloroethane	ug/L	50	52.4	105	70-130	
1,1-Dichloroethane	ug/L	50	54.1	108	70-130	
1,1-Dichloroethene	ug/L	50	53.7	107	70-132	
1,2,3-Trichloropropane	ug/L	50	55.2	110	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	46.9	94	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	54.4	109	70-130	
1,2-Dichlorobenzene	ug/L	50	52.9	106	70-130	
1,2-Dichloroethane	ug/L	50	49.2	98	70-130	
1,2-Dichloropropane	ug/L	50	52.7	105	70-130	
1,4-Dichlorobenzene	ug/L	50	54.3	109	70-130	
2-Butanone (MEK)	ug/L	100	96.9	97	70-145	
2-Hexanone	ug/L	100	106	106	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	104	104	70-140	
Acetone	ug/L	100	92.5	93	50-175	
Acrylonitrile	ug/L	250	254	101	70-143	
Benzene	ug/L	50	54.6	109	70-130	
Bromochloromethane	ug/L	50	56.2	112	70-130	
Bromodichloromethane	ug/L	50	49.9	100	70-130	
Bromoform	ug/L	50	46.6	93	70-130	
Bromomethane	ug/L	50	41.8	84	54-130	
Carbon disulfide	ug/L	50	51.7	103	70-131	
Carbon tetrachloride	ug/L	50	57.1	114	70-132	
Chlorobenzene	ug/L	50	54.3	109	70-130	
Chloroethane	ug/L	50	53.4	107	64-134	
Chloroform	ug/L	50	49.5	99	70-130	
Chloromethane	ug/L	50	54.5	109	64-130	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

LABORATORY CONTROL SAMPLE: 1325868

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	55.2	110	70-131	
cis-1,3-Dichloropropene	ug/L	50	55.7	111	70-130	
Dibromochloromethane	ug/L	50	47.6	95	70-130	
Dibromomethane	ug/L	50	54.3	109	70-131	
Ethylbenzene	ug/L	50	55.0	110	70-130	
Iodomethane	ug/L	100	200	200	49-180	L0
m&p-Xylene	ug/L	100	109	109	70-130	
Methylene Chloride	ug/L	50	55.2	110	63-130	
o-Xylene	ug/L	50	53.0	106	70-130	
Styrene	ug/L	50	57.8	116	70-130	
Tetrachloroethene	ug/L	50	51.2	102	70-130	
Toluene	ug/L	50	52.8	106	70-130	
trans-1,2-Dichloroethene	ug/L	50	53.3	107	70-130	
trans-1,3-Dichloropropene	ug/L	50	57.5	115	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	52.8	106	70-141	
Trichloroethene	ug/L	50	52.9	106	70-130	
Trichlorofluoromethane	ug/L	50	51.9	104	62-133	
Vinyl acetate	ug/L	100	98.5	99	66-157	
Vinyl chloride	ug/L	50	51.1	102	50-150	
Xylene (Total)	ug/L	150	162	108	70-130	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1325869 1325870

Parameter	Units	92223187005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	22.7	22.6	114	113	70-130	1	
1,1,1-Trichloroethane	ug/L	ND	20	20	23.7	23.8	118	119	70-130	1	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	21.5	21.5	108	108	70-130	0	
1,1,2-Trichloroethane	ug/L	ND	20	20	22.0	21.9	110	110	70-130	1	
1,1-Dichloroethane	ug/L	ND	20	20	23.7	23.7	118	119	70-130	0	
1,1-Dichloroethene	ug/L	ND	20	20	24.3	24.2	121	121	70-166	0	
1,2,3-Trichloropropane	ug/L	ND	20	20	22.3	22.0	112	110	70-130	1	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	19.5	19.2	98	96	70-130	2	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	22.4	22.3	112	112	70-130	0	
1,2-Dichlorobenzene	ug/L	ND	20	20	22.2	22.1	111	111	70-130	0	
1,2-Dichloroethane	ug/L	ND	20	20	20.7	20.7	103	104	70-130	0	
1,2-Dichloropropane	ug/L	ND	20	20	23.0	22.8	115	114	70-130	1	
1,4-Dichlorobenzene	ug/L	ND	20	20	22.9	22.6	115	113	70-130	1	
2-Butanone (MEK)	ug/L	ND	40	40	40.5	38.3	101	96	70-130	6	
2-Hexanone	ug/L	ND	40	40	43.2	42.1	108	105	70-130	3	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	40	42.4	42.6	106	107	70-130	1	
Acetone	ug/L	ND	40	40	38.8	37.8	92	90	70-130	3	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1325869 1325870

Parameter	Units	92223187005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Acrylonitrile	ug/L	ND	100	100	107	104	107	104	70-130	3	
Benzene	ug/L	ND	20	20	23.7	23.5	119	117	70-148	1	
Bromochloromethane	ug/L	ND	20	20	24.2	23.9	121	119	70-130	1	
Bromodichloromethane	ug/L	ND	20	20	21.1	20.8	106	104	70-130	1	
Bromoform	ug/L	ND	20	20	19.5	18.7	97	93	70-130	4	
Bromomethane	ug/L	ND	20	20	19.8	20.2	99	101	70-130	2	
Carbon disulfide	ug/L	ND	20	20	23.1	22.4	116	112	70-130	3	
Carbon tetrachloride	ug/L	ND	20	20	25.2	25.4	126	127	70-130	1	
Chlorobenzene	ug/L	ND	20	20	23.0	23.2	115	116	70-146	1	
Chloroethane	ug/L	ND	20	20	23.2	23.5	116	118	70-130	1	
Chloroform	ug/L	ND	20	20	21.4	21.2	107	106	70-130	1	
Chloromethane	ug/L	ND	20	20	23.3	22.0	117	110	70-130	6	
cis-1,2-Dichloroethene	ug/L	ND	20	20	24.0	24.0	120	120	70-130	0	
cis-1,3-Dichloropropene	ug/L	ND	20	20	22.5	22.7	112	114	70-130	1	
Dibromochloromethane	ug/L	ND	20	20	19.9	19.6	99	98	70-130	2	
Dibromomethane	ug/L	ND	20	20	22.6	22.7	113	113	70-130	0	
Ethylbenzene	ug/L	ND	20	20	23.1	23.3	116	116	70-130	1	
Iodomethane	ug/L	ND	40	40	78.6	75.5	197	189	70-130	4	M0
m&p-Xylene	ug/L	ND	40	40	46.4	46.5	116	116	70-130	0	
Methylene Chloride	ug/L	ND	20	20	20.4	20.8	102	104	70-130	2	
o-Xylene	ug/L	ND	20	20	22.3	22.5	112	112	70-130	1	
Styrene	ug/L	ND	20	20	23.4	23.4	117	117	70-130	0	
Tetrachloroethene	ug/L	ND	20	20	22.1	22.7	110	113	70-130	3	
Toluene	ug/L	ND	20	20	23.0	22.9	115	114	70-155	0	
trans-1,2-Dichloroethene	ug/L	ND	20	20	23.7	23.6	118	118	70-130	0	
trans-1,3-Dichloropropene	ug/L	ND	20	20	23.7	23.3	118	116	70-130	2	
trans-1,4-Dichloro-2-butene	ug/L	ND	20	20	20.9	20.4	104	102	70-130	2	
Trichloroethene	ug/L	ND	20	20	22.6	22.5	113	113	69-151	0	
Trichlorofluoromethane	ug/L	ND	20	20	22.8	23.2	114	116	70-130	2	
Vinyl acetate	ug/L	ND	40	40	40.5	40.0	101	100	70-130	1	
Vinyl chloride	ug/L	ND	20	20	23.2	23.1	116	115	70-130	1	
1,2-Dichloroethane-d4 (S)	%						98	97	70-130		
4-Bromofluorobenzene (S)	%						100	100	70-130		
Toluene-d8 (S)	%						101	100	70-130		

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

QC Batch: MSV/29139 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92223181022

METHOD BLANK: 1325872 | Matrix: Water
Associated Lab Samples: 92223181022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	11/08/14 13:38	
1,1,1-Trichloroethane	ug/L	ND	1.0	11/08/14 13:38	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/08/14 13:38	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/08/14 13:38	
1,1-Dichloroethane	ug/L	ND	1.0	11/08/14 13:38	
1,1-Dichloroethene	ug/L	ND	1.0	11/08/14 13:38	
1,1-Dichloropropene	ug/L	ND	1.0	11/08/14 13:38	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	11/08/14 13:38	
1,2,3-Trichloropropane	ug/L	ND	1.0	11/08/14 13:38	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	11/08/14 13:38	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	11/08/14 13:38	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/08/14 13:38	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/08/14 13:38	
1,2-Dichloroethane	ug/L	ND	1.0	11/08/14 13:38	
1,2-Dichloropropane	ug/L	ND	1.0	11/08/14 13:38	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/08/14 13:38	
1,3-Dichloropropane	ug/L	ND	1.0	11/08/14 13:38	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/08/14 13:38	
2,2-Dichloropropane	ug/L	ND	1.0	11/08/14 13:38	
2-Butanone (MEK)	ug/L	ND	5.0	11/08/14 13:38	
2-Chlorotoluene	ug/L	ND	1.0	11/08/14 13:38	
2-Hexanone	ug/L	ND	5.0	11/08/14 13:38	
4-Chlorotoluene	ug/L	ND	1.0	11/08/14 13:38	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	11/08/14 13:38	
Acetone	ug/L	ND	25.0	11/08/14 13:38	
Benzene	ug/L	ND	1.0	11/08/14 13:38	
Bromobenzene	ug/L	ND	1.0	11/08/14 13:38	
Bromochloromethane	ug/L	ND	1.0	11/08/14 13:38	
Bromodichloromethane	ug/L	ND	1.0	11/08/14 13:38	
Bromoform	ug/L	ND	1.0	11/08/14 13:38	
Bromomethane	ug/L	ND	2.0	11/08/14 13:38	
Carbon tetrachloride	ug/L	ND	1.0	11/08/14 13:38	
Chlorobenzene	ug/L	ND	1.0	11/08/14 13:38	
Chloroethane	ug/L	ND	1.0	11/08/14 13:38	
Chloroform	ug/L	ND	1.0	11/08/14 13:38	
Chloromethane	ug/L	ND	1.0	11/08/14 13:38	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/08/14 13:38	
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/08/14 13:38	
Dibromochloromethane	ug/L	ND	1.0	11/08/14 13:38	
Dibromomethane	ug/L	ND	1.0	11/08/14 13:38	
Dichlorodifluoromethane	ug/L	ND	1.0	11/08/14 13:38	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

METHOD BLANK: 1325872 Matrix: Water
Associated Lab Samples: 92223181022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	11/08/14 13:38	
Ethylbenzene	ug/L	ND	1.0	11/08/14 13:38	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	11/08/14 13:38	
m&p-Xylene	ug/L	ND	2.0	11/08/14 13:38	
Methyl-tert-butyl ether	ug/L	ND	1.0	11/08/14 13:38	
Methylene Chloride	ug/L	ND	2.0	11/08/14 13:38	
Naphthalene	ug/L	ND	1.0	11/08/14 13:38	
o-Xylene	ug/L	ND	1.0	11/08/14 13:38	
p-Isopropyltoluene	ug/L	ND	1.0	11/08/14 13:38	
Styrene	ug/L	ND	1.0	11/08/14 13:38	
Tetrachloroethene	ug/L	ND	1.0	11/08/14 13:38	
Toluene	ug/L	ND	1.0	11/08/14 13:38	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/08/14 13:38	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/08/14 13:38	
Trichloroethene	ug/L	ND	1.0	11/08/14 13:38	
Trichlorofluoromethane	ug/L	ND	1.0	11/08/14 13:38	
Vinyl acetate	ug/L	ND	2.0	11/08/14 13:38	
Vinyl chloride	ug/L	ND	1.0	11/08/14 13:38	
Xylene (Total)	ug/L	ND	2.0	11/08/14 13:38	
1,2-Dichloroethane-d4 (S)	%	103	70-130	11/08/14 13:38	
4-Bromofluorobenzene (S)	%	97	70-130	11/08/14 13:38	
Toluene-d8 (S)	%	101	70-130	11/08/14 13:38	

LABORATORY CONTROL SAMPLE: 1325873

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	54.9	110	70-130	
1,1,1-Trichloroethane	ug/L	50	53.0	106	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	52.2	104	70-130	
1,1,2-Trichloroethane	ug/L	50	51.5	103	70-130	
1,1-Dichloroethane	ug/L	50	53.1	106	70-130	
1,1-Dichloroethene	ug/L	50	52.5	105	70-132	
1,1-Dichloropropene	ug/L	50	54.1	108	70-130	
1,2,3-Trichlorobenzene	ug/L	50	51.3	103	70-135	
1,2,3-Trichloropropane	ug/L	50	54.8	110	70-130	
1,2,4-Trichlorobenzene	ug/L	50	51.7	103	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	46.0	92	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	53.3	107	70-130	
1,2-Dichlorobenzene	ug/L	50	51.4	103	70-130	
1,2-Dichloroethane	ug/L	50	48.1	96	70-130	
1,2-Dichloropropane	ug/L	50	52.5	105	70-130	
1,3-Dichlorobenzene	ug/L	50	52.0	104	70-130	
1,3-Dichloropropane	ug/L	50	53.1	106	70-130	
1,4-Dichlorobenzene	ug/L	50	52.2	104	70-130	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

LABORATORY CONTROL SAMPLE: 1325873

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	54.9	110	58-145	
2-Butanone (MEK)	ug/L	100	96.8	97	70-145	
2-Chlorotoluene	ug/L	50	52.0	104	70-130	
2-Hexanone	ug/L	100	107	107	70-144	
4-Chlorotoluene	ug/L	50	51.6	103	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	103	103	70-140	
Acetone	ug/L	100	92.4	92	50-175	
Benzene	ug/L	50	53.6	107	70-130	
Bromobenzene	ug/L	50	52.1	104	70-130	
Bromochloromethane	ug/L	50	53.1	106	70-130	
Bromodichloromethane	ug/L	50	49.4	99	70-130	
Bromoform	ug/L	50	45.7	91	70-130	
Bromomethane	ug/L	50	36.5	73	54-130	
Carbon tetrachloride	ug/L	50	56.2	112	70-132	
Chlorobenzene	ug/L	50	52.8	106	70-130	
Chloroethane	ug/L	50	49.1	98	64-134	
Chloroform	ug/L	50	48.6	97	70-130	
Chloromethane	ug/L	50	52.4	105	64-130	
cis-1,2-Dichloroethene	ug/L	50	53.9	108	70-131	
cis-1,3-Dichloropropene	ug/L	50	54.9	110	70-130	
Dibromochloromethane	ug/L	50	47.0	94	70-130	
Dibromomethane	ug/L	50	53.3	107	70-131	
Dichlorodifluoromethane	ug/L	50	57.0	114	56-130	
Diisopropyl ether	ug/L	50	50.4	101	70-130	
Ethylbenzene	ug/L	50	53.3	107	70-130	
Hexachloro-1,3-butadiene	ug/L	50	47.2	94	70-130	
m&p-Xylene	ug/L	100	106	106	70-130	
Methyl-tert-butyl ether	ug/L	50	47.6	95	70-130	
Methylene Chloride	ug/L	50	53.9	108	63-130	
Naphthalene	ug/L	50	51.8	104	70-138	
o-Xylene	ug/L	50	51.8	104	70-130	
p-Isopropyltoluene	ug/L	50	51.9	104	70-130	
Styrene	ug/L	50	56.4	113	70-130	
Tetrachloroethene	ug/L	50	49.7	99	70-130	
Toluene	ug/L	50	51.8	104	70-130	
trans-1,2-Dichloroethene	ug/L	50	51.7	103	70-130	
trans-1,3-Dichloropropene	ug/L	50	56.5	113	70-132	
Trichloroethene	ug/L	50	51.0	102	70-130	
Trichlorofluoromethane	ug/L	50	49.1	98	62-133	
Vinyl acetate	ug/L	100	96.3	96	66-157	
Vinyl chloride	ug/L	50	50.4	101	50-150	
Xylene (Total)	ug/L	150	158	105	70-130	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			100	70-130	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

MATRIX SPIKE SAMPLE: 1325874

Parameter	Units	92223944003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	23.1	115	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	24.0	120	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	22.4	112	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	22.4	112	70-130	
1,1-Dichloroethane	ug/L	ND	20	23.6	118	70-130	
1,1-Dichloroethene	ug/L	ND	20	24.5	122	70-166	
1,1-Dichloropropene	ug/L	ND	20	25.0	125	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	21.8	109	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	22.8	114	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	22.6	113	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20.1	101	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	22.9	114	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	22.5	113	70-130	
1,2-Dichloroethane	ug/L	ND	20	20.9	105	70-130	
1,2-Dichloropropane	ug/L	ND	20	22.9	115	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	23.2	116	70-130	
1,3-Dichloropropane	ug/L	ND	20	22.7	114	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	23.1	115	70-130	
2,2-Dichloropropane	ug/L	ND	20	25.3	127	70-130	
2-Butanone (MEK)	ug/L	ND	40	41.5	104	70-130	
2-Chlorotoluene	ug/L	ND	20	23.5	117	70-130	
2-Hexanone	ug/L	ND	40	44.7	111	70-130	
4-Chlorotoluene	ug/L	ND	20	23.2	116	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	43.4	109	70-130	
Acetone	ug/L	ND	40	40.4	75	70-130	
Benzene	ug/L	ND	20	23.6	118	70-148	
Bromobenzene	ug/L	ND	20	22.7	113	70-130	
Bromochloromethane	ug/L	ND	20	24.0	120	70-130	
Bromodichloromethane	ug/L	ND	20	20.5	102	70-130	
Bromoform	ug/L	ND	20	18.8	94	70-130	
Bromomethane	ug/L	ND	20	19.6	98	70-130	
Carbon tetrachloride	ug/L	ND	20	25.5	127	70-130	
Chlorobenzene	ug/L	ND	20	23.3	117	70-146	
Chloroethane	ug/L	ND	20	22.9	114	70-130	
Chloroform	ug/L	ND	20	21.3	106	70-130	
Chloromethane	ug/L	ND	20	22.6	113	70-130	
cis-1,2-Dichloroethene	ug/L	2.8	20	26.4	118	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	22.6	113	70-130	
Dibromochloromethane	ug/L	ND	20	19.9	100	70-130	
Dibromomethane	ug/L	ND	20	22.8	114	70-130	
Dichlorodifluoromethane	ug/L	ND	20	23.6	118	70-130	
Diisopropyl ether	ug/L	ND	20	22.1	110	70-130	
Ethylbenzene	ug/L	ND	20	23.8	119	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	21.5	108	70-130	
m&p-Xylene	ug/L	ND	40	46.8	117	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	20.3	102	70-130	
Methylene Chloride	ug/L	ND	20	20.1	100	70-130	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

MATRIX SPIKE SAMPLE: 1325874

Parameter	Units	92223944003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	ND	20	22.4	112	70-130	
o-Xylene	ug/L	ND	20	22.8	114	70-130	
p-Isopropyltoluene	ug/L	ND	20	23.5	117	70-130	
Styrene	ug/L	ND	20	23.6	118	70-130	
Tetrachloroethene	ug/L	5.3	20	27.1	109	70-130	
Toluene	ug/L	ND	20	22.9	115	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	23.4	117	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	23.1	115	70-130	
Trichloroethene	ug/L	16.5	20	36.0	97	69-151	
Trichlorofluoromethane	ug/L	ND	20	23.0	115	70-130	
Vinyl acetate	ug/L	ND	40	40.2	100	70-130	
Vinyl chloride	ug/L	ND	20	23.0	115	70-130	
1,2-Dichloroethane-d4 (S)	%				97	70-130	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1325875

Parameter	Units	92223196001 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		
1,1,1-Trichloroethane	ug/L	ND	ND		
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		
1,1,2-Trichloroethane	ug/L	ND	ND		
1,1-Dichloroethane	ug/L	ND	ND		
1,1-Dichloroethene	ug/L	ND	ND		
1,1-Dichloropropene	ug/L	ND	ND		
1,2,3-Trichlorobenzene	ug/L	ND	ND		
1,2,3-Trichloropropane	ug/L	ND	ND		
1,2,4-Trichlorobenzene	ug/L	ND	ND		
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1,2-Dichlorobenzene	ug/L	ND	ND		
1,2-Dichloroethane	ug/L	0.16J	.17J		
1,2-Dichloropropane	ug/L	ND	ND		
1,3-Dichlorobenzene	ug/L	ND	ND		
1,3-Dichloropropane	ug/L	ND	ND		
1,4-Dichlorobenzene	ug/L	ND	ND		
2,2-Dichloropropane	ug/L	ND	ND		
2-Butanone (MEK)	ug/L	ND	16.5		
2-Chlorotoluene	ug/L	ND	ND		
2-Hexanone	ug/L	0.49J	ND		
4-Chlorotoluene	ug/L	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/L	17.1	13.5	23	
Acetone	ug/L	245	253	3	
Benzene	ug/L	2.8	2.8	0	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

SAMPLE DUPLICATE: 1325875

Parameter	Units	92223196001 Result	Dup Result	RPD	Qualifiers
Bromobenzene	ug/L	ND	ND		
Bromochloromethane	ug/L	ND	ND		
Bromodichloromethane	ug/L	ND	ND		
Bromoform	ug/L	ND	ND		
Bromomethane	ug/L	ND	ND		
Carbon tetrachloride	ug/L	ND	ND		
Chlorobenzene	ug/L	ND	ND		
Chloroethane	ug/L	ND	ND		
Chloroform	ug/L	ND	ND		
Chloromethane	ug/L	ND	ND		
cis-1,2-Dichloroethene	ug/L	ND	ND		
cis-1,3-Dichloropropene	ug/L	ND	ND		
Dibromochloromethane	ug/L	ND	ND		
Dibromomethane	ug/L	ND	ND		
Dichlorodifluoromethane	ug/L	ND	ND		
Diisopropyl ether	ug/L	0.15J	.14J		
Ethylbenzene	ug/L	0.59J	.61J		
Hexachloro-1,3-butadiene	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methyl-tert-butyl ether	ug/L	15.2	15.7	3	
Methylene Chloride	ug/L	ND	ND		
Naphthalene	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
p-Isopropyltoluene	ug/L	ND	ND		
Styrene	ug/L	ND	ND		
Tetrachloroethene	ug/L	ND	ND		
Toluene	ug/L	0.38J	.39J		
trans-1,2-Dichloroethene	ug/L	ND	ND		
trans-1,3-Dichloropropene	ug/L	ND	ND		
Trichloroethene	ug/L	ND	ND		
Trichlorofluoromethane	ug/L	ND	ND		
Vinyl acetate	ug/L	ND	ND		
Vinyl chloride	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	101	103	2	
4-Bromofluorobenzene (S)	%	94	95	1	
Toluene-d8 (S)	%	104	101	3	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

QC Batch: WET/33984 | Analysis Method: SM 5210B
QC Batch Method: SM 5210B | Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 92223181022

METHOD BLANK: 1317124 | Matrix: Water
Associated Lab Samples: 92223181022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	ND	2.0	11/03/14 09:01	

LABORATORY CONTROL SAMPLE: 1317125

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	171	86	84.5-115.4	

SAMPLE DUPLICATE: 1317126

Parameter	Units	92223150001 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	216	214	1	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

QC Batch: WETA/20779 | Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 | Analysis Description: 300.0 IC Anions
Associated Lab Samples: 92223181022

METHOD BLANK: 1321776 | Matrix: Water
Associated Lab Samples: 92223181022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.0	11/08/14 18:15	

LABORATORY CONTROL SAMPLE: 1321777

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	18.7	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1321778 1321779

Parameter	Units	92223537010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Sulfate	mg/L	2.5	20	20	20.8	20.4	91	89	90-110	2	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1321780 1321781

Parameter	Units	92223446009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Sulfate	mg/L	3.1	20	20	22.0	22.0	95	95	90-110	0	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

QC Batch: WETA/20712 | Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 | Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 92223181022

METHOD BLANK: 1317957 | Matrix: Water
Associated Lab Samples: 92223181022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.020	10/29/14 19:05	
Nitrogen, Nitrite	mg/L	ND	0.020	10/29/14 19:05	
Nitrogen, NO2 plus NO3	mg/L	ND	0.020	10/29/14 19:05	

LABORATORY CONTROL SAMPLE: 1317958

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.5	2.5	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	101	90-110	
Nitrogen, NO2 plus NO3	mg/L	2.5	2.5	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1317959 1317960

Parameter	Units	92223100001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, Nitrate	mg/L	ND	2.5	2.5	2.6	2.6	103	102	90-110	0	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.1	104	105	90-110	1	
Nitrogen, NO2 plus NO3	mg/L	ND	2.5	2.5	2.6	2.6	103	102	90-110	0	

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

QC Batch: WETA/20823 | Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1 | Analysis Description: 365.1 Phosphorus, Total
Associated Lab Samples: 92223181022

METHOD BLANK: 1324755 | Matrix: Water
Associated Lab Samples: 92223181022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.050	11/07/14 15:07	

LABORATORY CONTROL SAMPLE: 1324756

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	2.5	2.6	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1324757 1324758

Parameter	Units	92224226005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Phosphorus	mg/L	7.7	2.5	2.5	9.6	9.6	77	79	90-110	1	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1324759 1324760

Parameter	Units	92223183001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Phosphorus	mg/L	1.4	2.5	2.5	3.5	3.5	84	84	90-110	0	M1

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

QC Batch: WETA/20756 — Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E — Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 92223181022

METHOD BLANK: 1320462 — Matrix: Water
Associated Lab Samples: 92223181022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	11/02/14 13:19	

LABORATORY CONTROL SAMPLE: 1320463

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1320464 — 1320465

Parameter	Units	92223277001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Cyanide	mg/L	0.027	.1	.1	0.052	0.074	25	47	75-125	35	M1,R1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1320466 — 1320467

Parameter	Units	92223327002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Cyanide	mg/L	0.14	.1	.1	0.18	0.11	44	-26	75-125	48	M1,R1

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QUALITY CONTROL DATA

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

QC Batch: WETA/20777 — Analysis Method: SM 5220D
QC Batch Method: SM 5220D — Analysis Description: 5220D COD
Associated Lab Samples: 92223181022

METHOD BLANK: 1321438 — Matrix: Water
Associated Lab Samples: 92223181022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	11/04/14 17:00	

LABORATORY CONTROL SAMPLE: 1321439

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	750	804	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1321440 — 1321441

Parameter	Units	92222426001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Chemical Oxygen Demand	mg/L	81.0	750	750	875	875	106	106	90-110	0	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1321442 — 1321443

Parameter	Units	92223181022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Chemical Oxygen Demand	mg/L	1010	1500	1500	2620	2620	107	107	90-110	0	

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QUALIFIERS

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.
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LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92223181001	MW-1A		FLD/		
92223181002	MW-2		FLD/		
92223181003	MW-2D		FLD/		
92223181004	MW-3R		FLD/		
92223181005	MW-3DR		FLD/		
92223181006	MW-4A		FLD/		
92223181007	MW-8		FLD/		
92223181008	MW-15		FLD/		
92223181009	MW-16		FLD/		
92223181010	MW-17		FLD/		
92223181011	MW-11s		FLD/		
92223181012	MW-11D		FLD/		
92223181013	MW-14		FLD/		
92223181016	SW-1		FLD/		
92223181017	SW-2		FLD/		
92223181018	SW-3		FLD/		
92223181019	SW-5		FLD/		
92223181020	SW-6		FLD/		
92223181021	SW-7		FLD/		
92223181022	Leachate		FLD/		
92223181001	MW-1A	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181002	MW-2	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181003	MW-2D	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181004	MW-3R	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181005	MW-3DR	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181006	MW-4A	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181007	MW-8	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181008	MW-15	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181009	MW-16	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181010	MW-17	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181011	MW-11s	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181012	MW-11D	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181013	MW-14	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181015	Equipment Blank	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181016	SW-1	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181017	SW-2	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181018	SW-3	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181019	SW-5	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181020	SW-6	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181021	SW-7	EPA 3010	MPRP/17226	EPA 6010	ICP/15528
92223181022	Leachate	EPA 3010	MPRP/17241	EPA 6010	ICP/15543
92223181001	MW-1A	EPA 8260	MSV/29122		
92223181002	MW-2	EPA 8260	MSV/29122		
92223181003	MW-2D	EPA 8260	MSV/29122		
92223181004	MW-3R	EPA 8260	MSV/29122		
92223181005	MW-3DR	EPA 8260	MSV/29122		
92223181006	MW-4A	EPA 8260	MSV/29122		

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Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Haywood Co WOLF MW's 10/28
Pace Project No.: 92223181

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92223181007	**MW-8**	EPA 8260	MSV/29122		
92223181008	**MW-15**	EPA 8260	MSV/29122		
92223181009	**MW-16**	EPA 8260	MSV/29122		
92223181010	**MW-17**	EPA 8260	MSV/29122		
92223181011	**MW-11s**	EPA 8260	MSV/29122		
92223181012	**MW-11D**	EPA 8260	MSV/29122		
92223181013	**MW-14**	EPA 8260	MSV/29122		
92223181014	**TVL BLANK**	EPA 8260	MSV/29122		
92223181015	**Equipment Blank**	EPA 8260	MSV/29122		
92223181016	**SW-1**	EPA 8260	MSV/29122		
92223181017	**SW-2**	EPA 8260	MSV/29122		
92223181018	**SW-3**	EPA 8260	MSV/29122		
92223181019	**SW-5**	EPA 8260	MSV/29138		
92223181020	**SW-6**	EPA 8260	MSV/29138		
92223181021	**SW-7**	EPA 8260	MSV/29138		
92223181022	**Leachate**	EPA 8260	MSV/29139		
92223181022	**Leachate**	SM 5210B	WET/33984	SM 5210B	WET/33988
92223181022	**Leachate**	EPA 300.0	WETA/20779		
92223181022	**Leachate**	EPA 353.2	WETA/20712		
92223181022	**Leachate**	EPA 365.1	WETA/20823		
92223181022	**Leachate**	SM 4500-CN-E	WETA/20756		
92223181022	**Leachate**	SM 5220D	WETA/20777		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 4

1808786

Section A Required Client Information:

Company: HAYWOOD Co
Address:
Email To:
Phone: Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: BLG SAMTEK HAYWOOD
Copy To:
Purchase Order No.:
Project Name: HAYWOOD Co WOLF MW'S
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	FLD	STATIC H_2O	VOC	Metals	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-1A					10-27-14	1100		4			1	3						X	X	X	X		922 23181-001
2	MW-2					10-27	1110		4			1	3						X	X	X	X		002
3	MW-2D					10-27	1120		4			1	3						X	X	X	X		003
4	MW-3R					10-27	1425		4			1	3						X	X	X	X		004
5	MW-3DR					10-27	1435		4			1	3						X	X	X	X		005
6	MW-4A					10-28	1310		4			1	3						X	X	X	X		006
7	MW-8					10-28	1410		4			1	3						X	X	X	X		007
8	MW-15					10-28	1000		4			1	3						X	X	X	X		008
9	MW 16					10-28	1340		4			1	3						X	X	X	X		009
10	MW 17					10-27	1355		4			1	3						X	X	X	X		010
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
		10-28-14	1510	[signature]	10-28-14	1510				
	[signature]	10-28-14	1610	[signature]	10/28/14	16:10	5.5	Y	N	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MARK P SWANN

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10-28-14

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 4

1808785

Section A Required Client Information:

Company: HAYWOOD CO
Address:
Email To:
Phone: Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: WOLF MW'S (BACKLOG)
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	COLLECTED Composite Start Time	COLLECTED Composite End/Grab Date	COLLECTED Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: Fe	Static H2O	VOC	Methyl	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-11S					10.28	1020		4			1	3					X	X	X	X		92223181-011
2	MW-11D					10.28.14	1030		4			1	3					X	X	X	X		92223181-012
3	MW-14					10.28.14	1455		4			1	3					X	X	X	X		92223181-013
4																							
5	TVC BLK					10.27.14			2											X			92223181-014
6	EQUIP BLK					10.27			3											X	X		92223181-015
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
		10.27.14	1510	[signature] Pace	10.27.14	1510
	[signature] Pace	10.27.14	1610	[signature]	10/28/14	1630

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
5.5	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MARK P. SWANN

SIGNATURE of SAMPLER: [signature] Pace

DATE Signed (MM/DD/YY): 10.28.14

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 4 of 4

1808784

Section A Required Client Information:

Company: HAYWOOD Co
Address:
Email To:
Phone: Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: BLG SANITARY / HAYWOOD Co
Copy To:
Purchase Order No.:
Project Name: WOLF SW's
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NC

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): pH Total Alkalinity	Tivas	TOC	Methanol	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	SW-1					10-23-14	1140		4			1	3					X	X	X	X		92223181-016
2	SW-2					10-27	1155		4			1	3					X	X	X	X		92223181-017
3	SW-3					10-28	1215		4			1	3					X	X	X	X		92223181-018
4	SW-5					10-28	1230		4			1	3					X	X	X	X		92223181-019
5	SW-6					10-28	930		4			1	3					X	X	X	X		92223181-020
6	SW 7					10-27	950		4			1	3					X	X	X	X		92223181-021
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
		10-22-14	1510	[signature]	10-22-14	1510				
	[signature]	10-22-14	1610	[signature]	10/23/14	1650	5.5	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MARK L. SWANN

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10-22-14

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month on any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 3 of 3 4

1808783

Section A Required Client Information:

Company: HASWOOD CO
Address:
Email To:
Phone: Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: BLE, WILL MARTIN
Copy To: Stephen King
Purchase Order No.:
Project Name: WOLF LEACHATE
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N) Fe	Bod	SO4	NH3	VOC	Metals	TP	COD	Cl-	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92223181
1	LEACHATE					10-28-14	1250		10	3	2	1	3	1				X	X	X	X	X	X	X	X	X		022
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
		10-28-14	1510	[signature]	10-28-14	1510				
	[signature]	10-28-14	1610	[signature]	10/28/14	1610	8.5	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MARK L. SWANN

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10-28-14

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and [illegible]

Pace Analytical www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: June 10, 2014 Page 1 of 2
	Document No.: F-ASV-CS-003-rev.14	Issuing Authorities: Pace Asheville Quality Office

Client Name: Haywood

Courier (Circle): Fed Ex UPS USPS Client Commercial (Pace) Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used: IR Gun#3 -130265963 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

IR Gun #4 SN:140290365 Other:_____

Temp Correction Factor: Add / Subtract 0.0 C

Corrected Cooler Temp.: 5.5 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: RDB 10/28/14

Comments:

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☑No ☐N/A	11.
Sample Labels match COC:	☐Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☐Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☑No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: [signature] Date: 10/29/14

SRF Review: [signature] Date: 10/29/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO#: 92223181

92223181

APPENDIX D

STATISTICAL CALCULATIONS

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

COMPOUND	TOTAL	ND	DETECTED	%ND	STATISTICAL TEST
Total Antimony	315	308	7	97.8%	Poisson Prediction Limits
Total Arsenic	315	288	27	91.4%	Poisson Prediction Limits
Total Barium	318	16	302	5.0%	Kruskal-Wallis
Total Beryllium	316	272	44	86.1%	Kruskal-Wallis
Total Cadmium	316	275	41	87.0%	Kruskal-Wallis
Total Chromium	316	178	138	56.3%	Kruskal-Wallis
Total Cobalt	316	202	114	63.9%	Kruskal-Wallis
Total Copper	316	196	120	62.0%	Kruskal-Wallis
Total Lead	317	240	77	75.7%	Kruskal-Wallis
Total Nickel	317	149	168	47.0%	Kruskal-Wallis
Total Selenium	316	312	4	98.7%	Poisson Prediction Limits
Total Silver	316	313	3	99.1%	Poisson Prediction Limits
Total Thallium	316	297	19	94.0%	Poisson Prediction Limits
Total Vanadium	316	183	133	57.9%	Kruskal-Wallis
Total Zinc	316	112	204	35.4%	Kruskal-Wallis
Acetone	265	264	1	99.6%	Poisson Prediction Limits
Carbon Disulfide	265	262	3	98.9%	Poisson Prediction Limits
Chloroethane	265	264	1	99.6%	Poisson Prediction Limits
Dichloromethane	265	263	2	99.2%	Poisson Prediction Limits
2-Butanone	239	238	1	99.6%	Poisson Prediction Limits

Sampling Event	# Detected
N 1	64
N 2	13
N 3	14
N 4	3
N 5	64
N 6	0
N 7	0
N 8	0
N 9	0
N 10	53
N 11	88
N 12	59
N 13	55
N 14	74
N 15	49
N 16	61
N 17	60
N 18	28
N 19	38
N 20	43
N 21	57
N 22	52
N 23	58
N 24	55
N 25	37
N 26	27
N 27	46
N 28	41
N 29	54
N 30	43
N 31	45
N 32	40
N 33	35
N 34	34
N 35	19

LEGEND FOR THE FOLLOWING PAGES:

ND = *Not Detected* at the method detection limit
MCL = *Maximum Contaminant Level* ; NCAC 2L Standard
NE = *Not Established* ; NC has not established a MCL
NP = *Not Present* during sampling event
NS = *Not Sampled*
NT = *Not Tested*
NA = information *Not Available*
MDL = *Method Detection Limit*

Total Detected Concentrations (per compound) =	1409
Total Detected Concentrations (per event) =	1409
Are all accounted for ?	Yes
Statistical Package Prepared By:	IAI
Statistical Package Checked By:	MSP

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Antimony**
MCL (µg/l): Not Established
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	10
06/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
07/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	30
04/09/01	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	10
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	30
04/15/02	**15**	ND	NS	ND	ND	ND	NT	ND	ND	**11**	NS	NP	NP	10
09/26/02	ND	ND	ND	**12**	ND	ND	ND	ND	ND	ND	**98**	NP	NP	10
04/28/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	10
10/30/03	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	5
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	5
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	5
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**12**	NP	NP	5
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	5
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	30
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	5
04/25/07	ND	ND	ND	ND	ND	**20**	ND	ND	ND	ND	ND	NP	NP	6
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	5
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	5
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	5
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	5
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	5
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	5
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.1**	ND	5
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 29.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 80$
$T_{n1} = 286.5$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where c = k/n
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 80$
$T_{n1} = 286.5$
$t\,[79,.01] = 2.3799$

$c = 0.0125$

$T^*_k = 8.1$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Arsenic**
MCL (µg/l): 10
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	10
06/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
07/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	10
04/09/01	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	10
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
04/15/02	ND	ND	NS	ND	ND	ND	NT	ND	ND	ND	NS	NP	NP	10
09/26/02	ND	**5.7**	ND	ND	ND	ND	ND	ND	**27**	ND	**68**	NP	NP	5
04/28/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**24**	NP	NP	5
10/30/03	ND	ND	NT	ND	ND	ND	ND	ND	ND	**5.3**	**81**	NP	NP	5
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	**7.4**	**30**	NP	NP	5
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**59**	NP	NP	5
04/18/05	ND	ND	ND	**10**	ND	ND	ND	ND	ND	**5.2**	**65**	NP	NP	5
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**44**	NP	NP	5
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**42**	NP	NP	10
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**13**	NP	NP	5
04/25/07	ND	ND	ND	ND	ND	**280**	ND	ND	ND	ND	**12**	NP	NP	5
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**21.4**	NP	NP	5
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10.2**	NP	NP	5
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.6**	NP	NP	5
04/22/09	ND	ND	**5.4**	ND	ND	**5.6**	ND	ND	ND	ND	NS	NP	NP	5
10/26/09	ND	ND	ND	ND	**6**	ND	NS	NS	NS	ND	ND	NP	NP	5
04/22/10	ND	ND	ND	ND	**7.4**	**9.8**	NS	NS	ND	ND	ND	NP	NP	5
10/27/10	ND	ND	ND	ND	**5.4**	**5.9**	ND	ND	ND	ND	ND	ND	ND	5
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 29.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 80$
$T_{n1} = 258.6$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where $c = k/n$
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 80$
$T_{n1} = 258.6$
$t\,[79,.01] = 2.3799$

$c = 0.0125$

$T^*_k = 7.6$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	5	5	5	5	5	5	5	5	5	5

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Barium**
NC MCL (µg/l): 700
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	250	NS	NS	240	420	200	63	300	93	230	NS	NP	NP	5
06/26/00	300	67	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
07/26/00	330	30	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
09/18/00	NS	NS	NS	330	92	NS	NS	NS	NT	NS	NS	NP	NP	500
04/09/01	1300	380	NS	180	330	120	80	290	360	970	NS	NP	NP	5
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	500
04/15/02	1300	41	NS	ND	ND	160	23	190	460	1400	NS	NP	NP	5
09/26/02	330	500	750	4200	120	230	93	410	910	1400	11000	NP	NP	5
04/28/03	600	66	220	1800	160	140	110	92	360	800	2800	NP	NP	5
10/30/03	320	100	NT	210	310	130	95	110	1200	270	4900	NP	NP	5
04/20/04	320	56	120	410	460	170	140	210	62	940	2000	NP	NP	5
10/21/04	320	40	200	300	310	140	140	130	12	900	4900	NP	NP	5
04/18/05	480	55	160	7200	610	180	160	140	12	1000	3700	NP	NP	5
10/13/05	770	37	160	1700	870	250	160	140	27	810	2700	NP	NP	5
04/25/06	650	ND	ND	ND	1100	ND	ND	ND	ND	750	2700	NP	NP	500
10/20/06	410	22	180	470	1100	ND	ND	ND	160	ND	650	NP	NP	5
04/25/07	290	ND	200	240	1300	1500	130	180	ND	ND	600	NP	NP	100
10/31/07	501	31.5	223	198	1350	591	184	208	62.4	516	872	NP	NP	5
04/23/08	194	30.8	253	168	1230	661	216	202	61.8	151	361	NP	NP	5
10/20/08	474	66	313	224	1210	894	164	216	41.1	182	245	NP	NP	5
04/22/09	126	47.2	591	309	1300	817	230	216	77	163	NS	NP	NP	5
10/26/09	131	16.8	144	188	1720	987	NS	NS	NS	209	178	NP	NP	5
04/22/10	208	43.5	153	157	1920	1380	NS	NS	20.9	150	74.8	NP	NP	5
10/27/10	147	15.8	162	178	1760	1550	531	234	20	190	111	191	84.4	5
04/29/11	191	16.3	188	182	1620	1390	428	173	13.6	196	125	201	133	5
10/25/11	185	19.7	120	332	1200	1300	945	205	8.2	238	123	161	154	5
04/20/12	304	17.5	129	153	1020	1140	442	215	9.5	232	65	249	169	5
10/24/12	389	19	124	167	889	1030	393	229	26.1	235	43	177	181	5
04/24/13	241	16.8	100	164	842	964	344	226	9.3	218	97	116	190	5
10/24/13	255	18.1	156	166	839	1160	510	256	9.1	250	55	171	218	5
04/24/14	174	17.7	127	148	941	1290	378	248	8.3	238	28	148	189	5
10/27/14	117	16.1	102	136	1280	1410	363	224	8.6	228	23	156	180	5
N_i	30	29	24	29	29	28	26	26	27	28	24	9	9	
sum of rank values (R_i)	6001.5	1592.5	3194.5	5024.5	7075.0	5848.0	3733.5	3868.0	2088.5	5416.5	4482.5	1216.5	1179.5	
avg rank value (Rbar)	200.1	54.9	133.1	173.3	244.0	208.9	143.6	148.8	77.4	193.4	186.8	135.2	131.1	

	Number of each rank value													Rank Value
rank value of NDs =	0	2	1	2	1	2	2	2	2	2	0	0	0	8.5
rank value of 8.2s =	0	0	0	0	0	0	0	0	1	0	0	0	0	17
rank value of 8.3s =	0	0	0	0	0	0	0	0	1	0	0	0	0	18
rank value of 8.6s =	0	0	0	0	0	0	0	0	1	0	0	0	0	19
rank value of 9.1s =	0	0	0	0	0	0	0	0	1	0	0	0	0	20
rank value of 9.3s =	0	0	0	0	0	0	0	0	1	0	0	0	0	21
rank value of 9.5s =	0	0	0	0	0	0	0	0	1	0	0	0	0	22
rank value of 12s =	0	0	0	0	0	0	0	0	2	0	0	0	0	23.5
rank value of 13.6s =	0	0	0	0	0	0	0	0	1	0	0	0	0	25
rank value of 15.8s =	0	1	0	0	0	0	0	0	0	0	0	0	0	26
rank value of 16.1s =	0	1	0	0	0	0	0	0	0	0	0	0	0	27
rank value of 16.3s =	0	1	0	0	0	0	0	0	0	0	0	0	0	28
rank value of 16.8s =	0	2	0	0	0	0	0	0	0	0	0	0	0	29.5
rank value of 17.5s =	0	1	0	0	0	0	0	0	0	0	0	0	0	31
rank value of 17.7s =	0	1	0	0	0	0	0	0	0	0	0	0	0	32
rank value of 18.1s =	0	1	0	0	0	0	0	0	0	0	0	0	0	33
rank value of 19s =	0	1	0	0	0	0	0	0	0	0	0	0	0	34
rank value of 19.7s =	0	1	0	0	0	0	0	0	0	0	0	0	0	35
rank value of 20s =	0	0	0	0	0	0	0	0	1	0	0	0	0	36

rank value of 20.9s =	0	0	0	0	0	0	0	0	1	0	0	0	0	37
rank value of 22s =	0	1	0	0	0	0	0	0	0	0	0	0	0	38
rank value of 23s =	0	0	0	0	0	0	1	0	0	0	0	0	0	39
rank value of 23.2s =	0	0	0	0	0	0	0	0	0	0	1	0	0	40
rank value of 26.1s =	0	0	0	0	0	0	0	0	1	0	0	0	0	41
rank value of 27s =	0	0	0	0	0	0	0	0	1	0	0	0	0	42
rank value of 27.5s =	0	0	0	0	0	0	0	0	0	0	1	0	0	43
rank value of 30s =	0	1	0	0	0	0	0	0	0	0	0	0	0	44
rank value of 30.8s =	0	1	0	0	0	0	0	0	0	0	0	0	0	45
rank value of 31.5s =	0	1	0	0	0	0	0	0	0	0	0	0	0	46
rank value of 37s =	0	1	0	0	0	0	0	0	0	0	0	0	0	47
rank value of 40s =	0	1	0	0	0	0	0	0	0	0	0	0	0	48
rank value of 41s =	0	1	0	0	0	0	0	0	0	0	0	0	0	49
rank value of 41.1s =	0	0	0	0	0	0	0	0	1	0	0	0	0	50
rank value of 43.2s =	0	0	0	0	0	0	0	0	0	0	1	0	0	51
rank value of 43.5s =	0	1	0	0	0	0	0	0	0	0	0	0	0	52
rank value of 47.2s =	0	1	0	0	0	0	0	0	0	0	0	0	0	53
rank value of 55s =	0	1	0	0	0	0	0	0	0	0	0	0	0	54
rank value of 55.2s =	0	0	0	0	0	0	0	0	0	0	1	0	0	55
rank value of 56s =	0	1	0	0	0	0	0	0	0	0	0	0	0	56
rank value of 61.8s =	0	0	0	0	0	0	0	0	1	0	0	0	0	57
rank value of 62s =	0	0	0	0	0	0	0	0	1	0	0	0	0	58
rank value of 62.4s =	0	0	0	0	0	0	0	0	1	0	0	0	0	59
rank value of 63s =	0	0	0	0	0	0	1	0	0	0	0	0	0	60
rank value of 64.8s =	0	0	0	0	0	0	0	0	0	0	1	0	0	61
rank value of 66s =	0	2	0	0	0	0	0	0	0	0	0	0	0	62.5
rank value of 67s =	0	1	0	0	0	0	0	0	0	0	0	0	0	64
rank value of 74.8s =	0	0	0	0	0	0	0	0	0	0	1	0	0	65
rank value of 77s =	0	0	0	0	0	0	0	0	1	0	0	0	0	66
rank value of 80s =	0	0	0	0	0	0	1	0	0	0	0	0	0	67
rank value of 84.4s =	0	0	0	0	0	0	0	0	0	0	0	0	1	68
rank value of 92s =	0	0	0	0	1	0	0	1	0	0	0	0	0	69.5
rank value of 93s =	0	0	0	0	0	0	1	0	1	0	0	0	0	71.5
rank value of 95s =	0	0	0	0	0	0	1	0	0	0	0	0	0	73
rank value of 96.5s =	0	0	0	0	0	0	0	0	0	0	1	0	0	74
rank value of 100s =	0	1	1	0	0	0	0	0	0	0	0	0	0	75.5
rank value of 102s =	0	0	1	0	0	0	0	0	0	0	0	0	0	77
rank value of 110s =	0	0	0	0	0	0	1	1	0	0	0	0	0	78.5
rank value of 111s =	0	0	0	0	0	0	0	0	0	0	1	0	0	80
rank value of 116s =	0	0	0	0	0	0	0	0	0	0	0	1	0	81
rank value of 117s =	1	0	0	0	0	0	0	0	0	0	0	0	0	82
rank value of 120s =	0	0	2	0	1	1	0	0	0	0	0	0	0	84.5
rank value of 123s =	0	0	0	0	0	0	0	0	0	0	1	0	0	87
rank value of 124s =	0	0	1	0	0	0	0	0	0	0	0	0	0	88
rank value of 125s =	0	0	0	0	0	0	0	0	0	0	1	0	0	89
rank value of 126s =	1	0	0	0	0	0	0	0	0	0	0	0	0	90
rank value of 127s =	0	0	1	0	0	0	0	0	0	0	0	0	0	91
rank value of 129s =	0	0	1	0	0	0	0	0	0	0	0	0	0	92
rank value of 130s =	0	0	0	0	0	1	1	1	0	0	0	0	0	94
rank value of 131s =	1	0	0	0	0	0	0	0	0	0	0	0	0	96
rank value of 133s =	0	0	0	0	0	0	0	0	0	0	0	0	1	97
rank value of 136s =	0	0	0	1	0	0	0	0	0	0	0	0	0	98
rank value of 140s =	0	0	0	0	0	2	2	2	0	0	0	0	0	101.5
rank value of 144s =	0	0	1	0	0	0	0	0	0	0	0	0	0	105
rank value of 147s =	1	0	0	0	0	0	0	0	0	0	0	0	0	106
rank value of 148s =	0	0	0	1	0	0	0	0	0	0	0	1	0	107.5
rank value of 150s =	0	0	0	0	0	0	0	0	0	1	0	0	0	109
rank value of 151s =	0	0	0	0	0	0	0	0	0	1	0	0	0	110
rank value of 153s =	0	0	1	1	0	0	0	0	0	0	0	0	0	111.5
rank value of 154s =	0	0	0	0	0	0	0	0	0	0	0	0	1	113
rank value of 156s =	0	0	1	0	0	0	0	0	0	0	0	1	0	114.5
rank value of 157s =	0	0	0	1	0	0	0	0	0	0	0	0	0	116
rank value of 160s =	0	0	2	0	1	1	2	0	1	0	0	0	0	120
rank value of 161s =	0	0	0	0	0	0	0	0	0	0	0	1	0	124
rank value of 162s =	0	0	1	0	0	0	0	0	0	0	0	0	0	125
rank value of 163s =	0	0	0	0	0	0	0	0	0	1	0	0	0	126
rank value of 164s =	0	0	0	1	0	0	1	0	0	0	0	0	0	127.5
rank value of 166s =	0	0	0	1	0	0	0	0	0	0	0	0	0	129
rank value of 167s =	0	0	0	1	0	0	0	0	0	0	0	0	0	130
rank value of 168s =	0	0	0	1	0	0	0	0	0	0	0	0	0	131
rank value of 169s =	0	0	0	0	0	0	0	0	0	0	0	0	1	132
rank value of 170s =	0	0	0	0	0	1	0	0	0	0	0	0	0	133

rank value of 171s =	0	0	0	0	0	0	0	0	0	0	0	1	0	134
rank value of 173s =	0	0	0	0	0	0	0	1	0	0	0	0	0	135
rank value of 174s =	1	0	0	0	0	0	0	0	0	0	0	0	0	136
rank value of 177s =	0	0	0	0	0	0	0	0	0	0	0	1	0	137
rank value of 178s =	0	0	0	1	0	0	0	0	0	0	1	0	0	138.5
rank value of 180s =	0	0	1	1	0	1	0	1	0	0	0	0	1	142
rank value of 181s =	0	0	0	0	0	0	0	0	0	0	0	0	1	145
rank value of 182s =	0	0	0	1	0	0	0	0	0	1	0	0	0	146.5
rank value of 184s =	0	0	0	0	0	0	1	0	0	0	0	0	0	148
rank value of 185s =	1	0	0	0	0	0	0	0	0	0	0	0	0	149
rank value of 188s =	0	0	1	1	0	0	0	0	0	0	0	0	0	150.5
rank value of 189s =	0	0	0	0	0	0	0	0	0	0	0	0	1	152
rank value of 190s =	0	0	0	0	0	0	0	1	0	1	0	0	1	154
rank value of 191s =	1	0	0	0	0	0	0	0	0	0	0	1	0	156.5
rank value of 194s =	1	0	0	0	0	0	0	0	0	0	0	0	0	158
rank value of 196s =	0	0	0	0	0	0	0	0	0	1	0	0	0	159
rank value of 198s =	0	0	0	1	0	0	0	0	0	0	0	0	0	160
rank value of 200s =	0	0	2	0	0	1	0	0	0	0	0	0	0	162
rank value of 201s =	0	0	0	0	0	0	0	0	0	0	0	1	0	164
rank value of 202s =	0	0	0	0	0	0	0	1	0	0	0	0	0	165
rank value of 205s =	0	0	0	0	0	0	0	1	0	0	0	0	0	166
rank value of 208s =	1	0	0	0	0	0	0	1	0	0	0	0	0	167.5
rank value of 209s =	0	0	0	0	0	0	0	0	0	1	0	0	0	169
rank value of 210s =	0	0	0	1	0	0	0	1	0	0	0	0	0	170.5
rank value of 215s =	0	0	0	0	0	0	0	1	0	0	0	0	0	172
rank value of 216s =	0	0	0	0	0	0	1	2	0	0	0	0	0	174
rank value of 218s =	0	0	0	0	0	0	0	0	0	1	0	0	1	176.5
rank value of 220s =	0	0	1	0	0	0	0	0	0	0	0	0	0	178
rank value of 223s =	0	0	1	0	0	0	0	0	0	0	0	0	0	179
rank value of 224s =	0	0	0	1	0	0	0	1	0	0	0	0	0	180.5
rank value of 226s =	0	0	0	0	0	0	0	1	0	0	0	0	0	182
rank value of 228s =	0	0	0	0	0	0	0	0	0	1	0	0	0	183
rank value of 229s =	0	0	0	0	0	0	0	1	0	0	0	0	0	184
rank value of 230s =	0	0	0	0	0	1	1	0	0	1	0	0	0	186
rank value of 232s =	0	0	0	0	0	0	0	0	0	1	0	0	0	188
rank value of 234s =	0	0	0	0	0	0	0	1	0	0	0	0	0	189
rank value of 235s =	0	0	0	0	0	0	0	0	0	1	0	0	0	190
rank value of 238s =	0	0	0	0	0	0	0	0	0	2	0	0	0	191.5
rank value of 240s =	0	0	0	2	0	0	0	0	0	0	0	0	0	193.5
rank value of 241s =	1	0	0	0	0	0	0	0	0	0	0	0	0	195
rank value of 245s =	0	0	0	0	0	0	0	0	0	0	1	0	0	196
rank value of 248s =	0	0	0	0	0	0	0	1	0	0	0	0	0	197
rank value of 249s =	0	0	0	0	0	0	0	0	0	0	0	1	0	198
rank value of 250s =	1	0	0	0	0	1	0	0	0	1	0	0	0	200
rank value of 253s =	0	0	1	0	0	0	0	0	0	0	0	0	0	202
rank value of 255s =	1	0	0	0	0	0	0	0	0	0	0	0	0	203
rank value of 256s =	0	0	0	0	0	0	0	1	0	0	0	0	0	204
rank value of 270s =	0	0	0	0	0	0	0	0	0	1	0	0	0	205
rank value of 290s =	1	0	0	0	0	0	0	1	0	0	0	0	0	206.5
rank value of 300s =	1	0	0	1	0	0	0	1	0	0	0	0	0	209
rank value of 304s =	1	0	0	0	0	0	0	0	0	0	0	0	0	211
rank value of 309s =	0	0	0	1	0	0	0	0	0	0	0	0	0	212
rank value of 310s =	0	0	0	0	2	0	0	0	0	0	0	0	0	213.5
rank value of 313s =	0	0	1	0	0	0	0	0	0	0	0	0	0	215
rank value of 320s =	3	0	0	0	0	0	0	0	0	0	0	0	0	217
rank value of 330s =	2	0	0	1	1	0	0	0	0	0	0	0	0	220.5
rank value of 332s =	0	0	0	1	0	0	0	0	0	0	0	0	0	223
rank value of 344s =	0	0	0	0	0	0	1	0	0	0	0	0	0	224
rank value of 360s =	0	0	0	0	0	0	0	0	2	0	0	0	0	225.5
rank value of 361s =	0	0	0	0	0	0	0	0	0	0	1	0	0	227
rank value of 363s =	0	0	0	0	0	0	1	0	0	0	0	0	0	228
rank value of 378s =	0	0	0	0	0	0	1	0	0	0	0	0	0	229
rank value of 380s =	0	1	0	0	0	0	0	0	0	0	0	0	0	230
rank value of 389s =	1	0	0	0	0	0	0	0	0	0	0	0	0	231
rank value of 393s =	0	0	0	0	0	0	1	0	0	0	0	0	0	232
rank value of 410s =	1	0	0	1	0	0	0	1	0	0	0	0	0	234
rank value of 420s =	0	0	0	0	1	0	0	0	0	0	0	0	0	236
rank value of 428s =	0	0	0	0	0	0	1	0	0	0	0	0	0	237
rank value of 442s =	0	0	0	0	0	0	1	0	0	0	0	0	0	238
rank value of 460s =	0	0	0	0	1	0	0	0	1	0	0	0	0	239.5
rank value of 470s =	0	0	0	1	0	0	0	0	0	0	0	0	0	241
rank value of 474s =	1	0	0	0	0	0	0	0	0	0	0	0	0	242

rank value of 480s =	1	0	0	0	0	0	0	0	0	0	0	0	0	243
rank value of 500s =	0	1	0	0	0	0	0	0	0	0	0	0	0	244
rank value of 501s =	1	0	0	0	0	0	0	0	0	0	0	0	0	245
rank value of 510s =	0	0	0	0	0	0	1	0	0	0	0	0	0	246
rank value of 516s =	0	0	0	0	0	0	0	0	0	1	0	0	0	247
rank value of 531s =	0	0	0	0	0	0	1	0	0	0	0	0	0	248
rank value of 591s =	0	0	1	0	0	1	0	0	0	0	0	0	0	249.5
rank value of 600s =	1	0	0	0	0	0	0	0	0	0	1	0	0	251.5
rank value of 610s =	0	0	0	0	1	0	0	0	0	0	0	0	0	253
rank value of 650s =	1	0	0	0	0	0	0	0	0	0	1	0	0	254.5
rank value of 661s =	0	0	0	0	0	1	0	0	0	0	0	0	0	256
rank value of 750s =	0	0	1	0	0	0	0	0	0	1	0	0	0	257.5
rank value of 770s =	1	0	0	0	0	0	0	0	0	0	0	0	0	259
rank value of 800s =	0	0	0	0	0	0	0	0	0	1	0	0	0	260
rank value of 810s =	0	0	0	0	0	0	0	0	0	1	0	0	0	261
rank value of 817s =	0	0	0	0	0	1	0	0	0	0	0	0	0	262
rank value of 839s =	0	0	0	0	1	0	0	0	0	0	0	0	0	263
rank value of 842s =	0	0	0	0	1	0	0	0	0	0	0	0	0	264
rank value of 870s =	0	0	0	0	1	0	0	0	0	0	0	0	0	265
rank value of 872s =	0	0	0	0	0	0	0	0	0	0	1	0	0	266
rank value of 889s =	0	0	0	0	1	0	0	0	0	0	0	0	0	267
rank value of 894s =	0	0	0	0	0	1	0	0	0	0	0	0	0	268
rank value of 900s =	0	0	0	0	0	0	0	0	0	1	0	0	0	269
rank value of 910s =	0	0	0	0	0	0	0	0	1	0	0	0	0	270
rank value of 940s =	0	0	0	0	0	0	0	0	0	1	0	0	0	271
rank value of 941s =	0	0	0	0	1	0	0	0	0	0	0	0	0	272
rank value of 945s =	0	0	0	0	0	0	1	0	0	0	0	0	0	273
rank value of 964s =	0	0	0	0	0	1	0	0	0	0	0	0	0	274
rank value of 970s =	0	0	0	0	0	0	0	0	0	1	0	0	0	275
rank value of 987s =	0	0	0	0	0	1	0	0	0	0	0	0	0	276
rank value of 1000s =	0	0	0	0	0	0	0	0	0	1	0	0	0	277
rank value of 1020s =	0	0	0	0	1	0	0	0	0	0	0	0	0	278
rank value of 1030s =	0	0	0	0	0	1	0	0	0	0	0	0	0	279
rank value of 1100s =	0	0	0	0	2	0	0	0	0	0	0	0	0	280.5
rank value of 1140s =	0	0	0	0	0	1	0	0	0	0	0	0	0	282
rank value of 1160s =	0	0	0	0	0	1	0	0	0	0	0	0	0	283
rank value of 1200s =	0	0	0	0	1	0	0	0	1	0	0	0	0	284.5
rank value of 1210s =	0	0	0	0	1	0	0	0	0	0	0	0	0	286
rank value of 1230s =	0	0	0	0	1	0	0	0	0	0	0	0	0	287
rank value of 1280s =	0	0	0	0	1	0	0	0	0	0	0	0	0	288
rank value of 1290s =	0	0	0	0	0	1	0	0	0	0	0	0	0	289
rank value of 1300s =	2	0	0	0	2	1	0	0	0	0	0	0	0	292
rank value of 1350s =	0	0	0	0	1	0	0	0	0	0	0	0	0	295
rank value of 1380s =	0	0	0	0	0	1	0	0	0	0	0	0	0	296
rank value of 1390s =	0	0	0	0	0	1	0	0	0	0	0	0	0	297
rank value of 1400s =	0	0	0	0	0	0	0	0	0	2	0	0	0	298.5
rank value of 1410s =	0	0	0	0	0	1	0	0	0	0	0	0	0	300
rank value of 1500s =	0	0	0	0	0	1	0	0	0	0	0	0	0	301
rank value of 1550s =	0	0	0	0	0	1	0	0	0	0	0	0	0	302
rank value of 1620s =	0	0	0	0	1	0	0	0	0	0	0	0	0	303
rank value of 1700s =	0	0	0	1	0	0	0	0	0	0	0	0	0	304
rank value of 1720s =	0	0	0	0	1	0	0	0	0	0	0	0	0	305
rank value of 1760s =	0	0	0	0	1	0	0	0	0	0	0	0	0	306
rank value of 1800s =	0	0	0	1	0	0	0	0	0	0	0	0	0	307
rank value of 1920s =	0	0	0	0	1	0	0	0	0	0	0	0	0	308
rank value of 2000s =	0	0	0	0	0	0	0	0	0	0	1	0	0	309
rank value of 2700s =	0	0	0	0	0	0	0	0	0	0	2	0	0	310.5
rank value of 2800s =	0	0	0	0	0	0	0	0	0	0	1	0	0	312
rank value of 3700s =	0	0	0	0	0	0	0	0	0	0	1	0	0	313
rank value of 4200s =	0	0	0	1	0	0	0	0	0	0	0	0	0	314
rank value of 4900s =	0	0	0	0	0	0	0	0	0	0	2	0	0	315.5
rank value of 7200s =	0	0	0	1	0	0	0	0	0	0	0	0	0	317
rank value of 11000s =	0	0	0	0	0	0	0	0	0	0	1	0	0	318

n =	**30**	**29**	**24**	**29**	**29**	**28**	**26**	**26**	**27**	**28**	**24**	**9**	**9**

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} - 3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	1402310.0	870538	2E+06	1E+06	536116	575439	161549	1E+06	837200	164430	154580

$N_{i\,bg}$ = 83
N = 318
H = 71.85

Adjust H for ties:

T_i = 5406 sum of T1..T50

$H' = H/(1-(T_i/(N^3-N)))$
H' = 71.87
Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =71.87.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value $(C_x) = P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$
P = 2.33 Percentile of Standard Normal Distribution
from Table 4 of IFG
N = total sample size
$N_{i\,bg}$ = total samples (N_i) of background data
N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	**MW-2**	**MW-2D**	MW-3	MW-3D	MW-4A	**MW-8**	**MW-15**	MW-16	MW-17
Rbar (well x) =	173.3	244.0	208.9	143.6	148.8	77.4	193.4	186.8	135.2	131.1
avg Rbar (background) =	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
Dx =	43.3	114.0	78.9	13.6	18.8	-52.6	63.5	56.8	5.2	1.1
Cx =	46.2	46.2	46.8	48.1	48.1	47.5	46.8	49.7	75.2	75.2
Statistical Significance ?	No	**Yes**	**Yes**	No	No	No	**Yes**	**Yes**	No	No
If SSI, is current event above MCL?	-	**Yes**	**Yes**	-	-	-	No	No	-	-

Compare each difference (Dx) with the corresponding critical value (Cx).
The Dx value for the above indicated wells do exceed the corresponding Cx value.
Therefore, we conclude that the concentration of Total Barium averaged over these compliance wells are significantly greater than that of the background wells.
Shewart-CUSUM Control Charts should be performed for each failing well to check for statistical significance.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Barium**
NC MCL (µg/l): 700
Method: Levene's Test for Homogeneity
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
4/24/00	250	NS	NS	240	420	200	63	300	93	230	NS	NP	NP	5
6/26/00	300	67	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
7/26/00	330	30	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
9/18/00	NS	NS	NS	330	92	NS	NS	NS	NT	NS	NS	NP	NP	500
4/9/01	1300	380	NS	180	330	120	80	290	360	970	NS	NP	NP	5
9/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
1/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
2/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	500
4/15/02	1300	41	NS	ND	ND	160	23	190	460	1400	NS	NP	NP	5
9/26/02	330	500	750	4200	120	230	93	410	910	1400	11000	NP	NP	5
4/28/03	600	66	220	1800	160	140	110	92	360	800	2800	NP	NP	5
10/30/03	320	100	NT	210	310	130	95	110	1200	270	4900	NP	NP	5
4/20/04	320	56	120	410	460	170	140	210	62	940	2000	NP	NP	5
10/21/04	320	40	200	300	310	140	140	130	12	900	4900	NP	NP	5
4/18/05	480	55	160	7200	610	180	160	140	12	1000	3700	NP	NP	5
10/13/05	770	37	160	1700	870	250	160	140	27	810	2700	NP	NP	5
4/25/06	650	ND	ND	ND	1100	ND	ND	ND	ND	750	2700	NP	NP	500
10/20/06	410	22	180	470	1100	ND	ND	ND	160	ND	650	NP	NP	5
4/25/07	290	ND	200	240	1300	1500	130	180	ND	ND	600	NP	NP	100
10/31/07	501	31.5	223	198	1350	591	184	208	62.4	516	872	NP	NP	5
4/23/08	194	30.8	253	168	1230	661	216	202	61.8	151	361	NP	NP	5
10/20/08	474	66	313	224	1210	894	164	216	41.1	182	245	NP	NP	5
4/22/09	126	47.2	591	309	1300	817	230	216	77	163	NS	NP	NP	5
10/26/09	131	16.8	144	188	1720	987	NS	NS	NS	209	178	NP	NP	5
4/22/10	208	43.5	153	157	1920	1380	NS	NS	20.9	150	74.8	NP	NP	5
10/27/10	147	15.8	162	178	1760	1550	531	234	20	190	111	191	84.4	5
4/29/11	191	16.3	188	182	1620	1390	428	173	13.6	196	125	201	133	5
10/25/11	185	19.7	120	332	1200	1300	945	205	8.2	238	123	161	154	5
4/20/12	304	17.5	129	153	1020	1140	442	215	9.5	232	64.8	249	169	5
10/24/12	389	19	124	167	889	1030	393	229	26.1	235	43.2	177	181	5
4/24/13	241	16.8	100	164	842	964	344	226	9.3	218	96.5	116	190	5
10/24/13	255	18.1	156	166	839	1160	510	256	9.1	250	55.2	171	218	5
4/24/14	174	17.7	127	148	941	1290	378	248	8.3	238	27.5	148	189	5
10/27/14	117	16.1	102	136	1280	1410	363	224	8.6	228	23.2	156	180	5

If not detected (ND), use half of the detection limit.

n =	30	29	24	29	29	28	26	26	27	28	24	9	9
bar x_i =	386.9	71.959	213.54	703.53	907.09	715.59	252.87	203.71	160.44	461.38	1597.9	174.44	166.49
bar z_i =	200.33	64.977	92.101	833.51	444.46	485.27	158.32	52.124	190.92	348.02	1826.4	26.716	28.459
n_i * bar z_i^2 =	1E+06	122438	203581	2E+07	6E+06	7E+06	651728	70640	984113	3E+06	8E+07	6423.7	7289.4

bar z = 365.51
N = 318

	SS	df	MS	F_{Ratio}	$F_{critical}$
Between Wells	8E+07	12	6E+06	9.97	1.67
Error	2E+08	305	641005		
Total	3E+08	317			

Since the F-ratio = 9.97 exceeds the tabulated value of F-critical = 1.67 (see Table 2 of IFG) with 12 and 305 df, the assumption of equal variances should be rejected.
Re-test the data set using the natural log of the above values.

n =	30	29	24	29	29	28	26	26	27	28	24	9	9
bar x_i =	5.7545	3.7017	5.2186	5.589	6.4084	6.0544	5.118	5.1389	3.8714	5.6576	5.9881	5.1414	5.0842
bar z_i =	0.4652	0.6916	0.3542	0.7917	0.8918	1.0725	0.7823	0.4572	1.2777	0.8281	1.636	0.1519	0.1977
n_i * bar z_i^2 =	6.492	13.872	3.0111	18.175	23.065	32.206	15.911	5.4354	44.076	19.201	64.236	0.2077	0.3517

bar z = 0.7383
N = 318

	SS	df	MS	F_{Ratio}	$F_{critical}$
Between Wells	72.90	12	6.08	7.16	1.67
Error	258.83	305	0.85		
Total	331.74	317			

Since the F-ratio = 7.16 exceeds the tabulated value of F-critical = 1.67 (see Table 2 of IFG) with 12 and 305 df, the assumption of equal variances should be rejected.
A non-parametric testing procedure should be used on the data set.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Barium**
NC MCL (µg/l): 700
Method: Skewness Test for Normality
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
4/24/00	250	NS	NS	240	420	200	63	300	93	230	NS	NP	NP	5
6/26/00	300	67	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
7/26/00	330	30	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
9/18/00	NS	NS	NS	330	92	NS	NS	NS	NT	NS	NS	NP	NP	500
4/9/01	1300	380	NS	180	330	120	80	290	360	970	NS	NP	NP	5
9/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
1/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
2/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	500
4/15/02	1300	41	NS	ND	ND	160	23	190	460	1400	NS	NP	NP	5
9/26/02	330	500	750	4200	120	230	93	410	910	1400	11000	NP	NP	5
4/28/03	600	66	220	1800	160	140	110	92	360	800	2800	NP	NP	5
10/30/03	320	100	NT	210	310	130	95	110	1200	270	4900	NP	NP	5
4/20/04	320	56	120	410	460	170	140	210	62	940	2000	NP	NP	5
10/21/04	320	40	200	300	310	140	140	130	12	900	4900	NP	NP	5
4/18/05	480	55	160	7200	610	180	160	140	12	1000	3700	NP	NP	5
10/13/05	770	37	160	1700	870	250	160	140	27	810	2700	NP	NP	5
4/25/06	650	ND	ND	ND	1100	ND	ND	ND	ND	750	2700	NP	NP	500
10/20/06	410	22	180	470	1100	ND	ND	ND	160	ND	650	NP	NP	5
4/25/07	290	ND	200	240	1300	1500	130	180	ND	ND	600	NP	NP	100
10/31/07	501	31.5	223	198	1350	591	184	208	62.4	516	872	NP	NP	5
4/23/08	194	30.8	253	168	1230	661	216	202	61.8	151	361	NP	NP	5
10/20/08	474	66	313	224	1210	894	164	216	41.1	182	245	NP	NP	5
4/22/09	126	47.2	591	309	1300	817	230	216	77	163	NS	NP	NP	5
10/26/09	131	16.8	144	188	1720	987	NS	NS	NS	209	178	NP	NP	5
4/22/10	208	43.5	153	157	1920	1380	NS	NS	20.9	150	74.8	NP	NP	5
10/27/10	147	15.8	162	178	1760	1550	531	234	20	190	111	191	84.4	5
4/29/11	191	16.3	188	182	1620	1390	428	173	13.6	196	125	201	133	5
10/25/11	185	19.7	120	332	1200	1300	945	205	8.2	238	123	161	154	5
4/20/12	304	17.5	129	153	1020	1140	442	215	9.5	232	64.8	249	169	5
10/24/12	389	19	124	167	889	1030	393	229	26.1	235	43.2	177	181	5
4/24/13	241	16.8	100	164	842	964	344	226	9.3	218	96.5	116	190	5
10/24/13	255	18.1	156	166	839	1160	510	256	9.1	250	55.2	171	218	5
4/24/14	174	17.7	127	148	941	1290	378	248	8.3	238	27.5	148	189	5
10/27/14	117	16.1	102	136	1280	1410	363	224	8.6	228	23.2	156	180	5

If not detected (ND), use half of the detection limit.

X_{bar} = 490.89
SD = 960.43
N = 318
$1/N\Sigma_i(X_i-X_{bar})^3$ = 6E+09
γ_1= 6.3178

Since the Coefficient of Skewness of 6.32 is greater than 1.0, the data appear to be significantly skewed.
Do not assume that the data follow a Normal distribution.
Perform the Skewness Test on the natural log of the values.

X_{bar} = 5.3083
SD = 1.4216
N = 318
$1/N\Sigma_i(X_i-X_{bar})^3$ = -1.48
γ_1= 0.5176

Since the Coefficient of Skewness of 0.52 is less than 1.0, the data appear not to be significantly skewed.
Proceed with further statistical tests using the log-transformed values shown above.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound:	**Total Barium**
NC MCL (µg/l):	700
Method:	Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-2	MDL
9/26/02	**120**	**5**
4/28/03	**160**	**5**
10/30/03	**310**	**5**
4/20/04	**460**	**5**
10/21/04	**310**	**5**
4/18/05	**610**	**5**
10/13/05	**870**	**5**
4/25/06	**1100**	**500**
10/20/06	**1100**	**5**
4/25/07	**1300**	**100**
10/31/07	**1350**	**5**
4/23/08	**1230**	**5**
10/20/08	**1210**	**5**
4/22/09	**1300**	**5**
10/26/09	**1720**	**5**
4/22/10	**1920**	**5**
10/27/10	**1760**	**5**
4/29/11	**1620**	**5**
10/25/11	**1200**	**5**
4/20/12	**1020**	**5**
10/24/12	**889**	**5**
4/24/13	**842**	**5**
10/24/13	**839**	**5**
4/24/14	**941**	**5**
10/27/14	**1280**	**5**

If not detected (ND), use half of the detection limit.

X_{bar} = 1018.44
SD = 492.27728
N = 25
$1/N\Sigma_i(X_i-X_{bar})^3$ = -20090570
γ_1= 0.1790425

Since the Coefficient of Skewness of 0.18 is less than 1.0, the data appear not to be significantly skewed. Proceed with further statistical tests using the real detected values shown above.

X_{bar} = 6.7426822
SD = 0.7231949
N = 25
$1/N\Sigma_i(X_i-X_{bar})^3$ = -0.4937107
γ_1= 1.3877131

Use the real values (not log-transformed) indicated in the previous section.

Part 2: Shewhart-CUSUM Control Chart

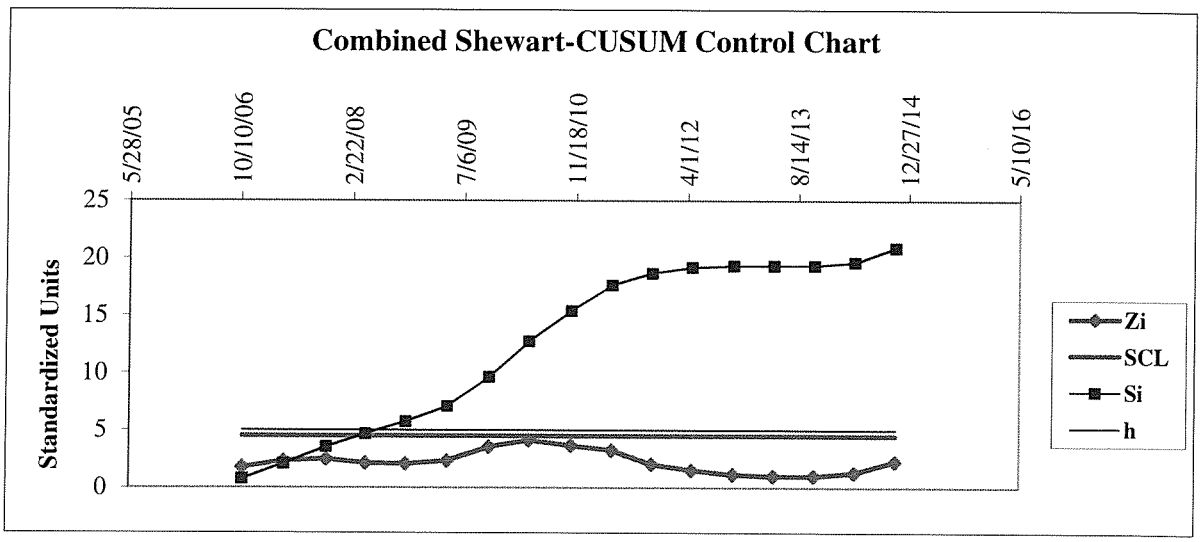
Compute the mean and standard deviation of the historical data:

492.5 = x_{mean} (Mean of N1-N8 historical data)
346.89438 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
10/20/06	1100	1.7512535	0.7512535	5	4.5
4/25/07	1300	2.3277978	2.0790513	5	4.5
10/31/07	1350	2.4719339	3.5509853	5	4.5
4/23/08	1230	2.1260073	4.6769926	5	4.5
10/20/08	**1210**	2.0683529	**5.7453454**	5	4.5
4/22/09	**1300**	2.3277978	**7.0731433**	5	4.5
10/26/09	**1720**	3.538541	**9.6116843**	5	4.5
4/22/10	**1920**	4.1150853	**12.72677**	5	4.5
10/27/10	**1760**	3.6538499	**15.380619**	5	4.5
4/29/11	**1620**	3.2502688	**17.630888**	5	4.5
10/25/11	**1200**	2.0395257	**18.670414**	5	4.5
4/20/12	**1020**	1.5206357	**19.19105**	5	4.5
10/24/12	**889**	1.1429992	**19.334049**	5	4.5
4/24/13	**842**	1.0075113	**19.34156**	5	4.5
10/24/13	**839**	0.9988631	**19.340423**	5	4.5
4/24/14	**941**	1.2929007	**19.633324**	5	4.5
10/27/14	**1280**	2.2701434	**20.903467**	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h.
One, or both, of the control limits was exceeded. Therefore, there is statistically significant evidence of contamination in this well at the concentrations indicated above.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound:	**Total Barium**
NC MCL (µg/l):	700
Method:	Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-2D	MDL
9/26/02	**230**	**5**
4/28/03	**140**	**5**
10/30/03	**130**	**5**
4/20/04	**170**	**5**
10/21/04	**140**	**5**
4/18/05	**180**	**5**
10/13/05	**250**	**5**
4/25/06	ND	**500**
10/20/06	ND	**5**
4/25/07	**1500**	**100**
10/31/07	**591**	**5**
4/23/08	**661**	**5**
10/20/08	**894**	**5**
4/22/09	**817**	**5**
10/26/09	**987**	**5**
4/22/10	**1380**	**5**
10/27/10	**1550**	**5**
4/29/11	**1390**	**5**
10/25/11	**1300**	**5**
4/20/12	**1140**	**5**
10/24/12	**1030**	**5**
4/24/13	**964**	**5**
10/24/13	**1160**	**5**
4/24/14	**1290**	**5**
10/27/14	**1410**	**5**

If not detected (ND), use half of the detection limit.

X_{bar} = 782.26
SD = 527.99663
N = 25
$1/N\Sigma_i(X_i-X_{bar})^3$ = -11998961
γ_1= 0.0866649

Since the Coefficient of Skewness of 0.09 is less than 1.0, the data appear not to be significantly skewed. Proceed with further statistical tests using the real detected values shown above.

X_{bar} = 6.1744722
SD = 1.4112061
N = 25
$1/N\Sigma_i(X_i-X_{bar})^3$ = -5.7122143
γ_1= 2.1608583

Use the real values (not log-transformed) indicated in the previous section.

Part 2: Shewhart-CUSUM Control Chart

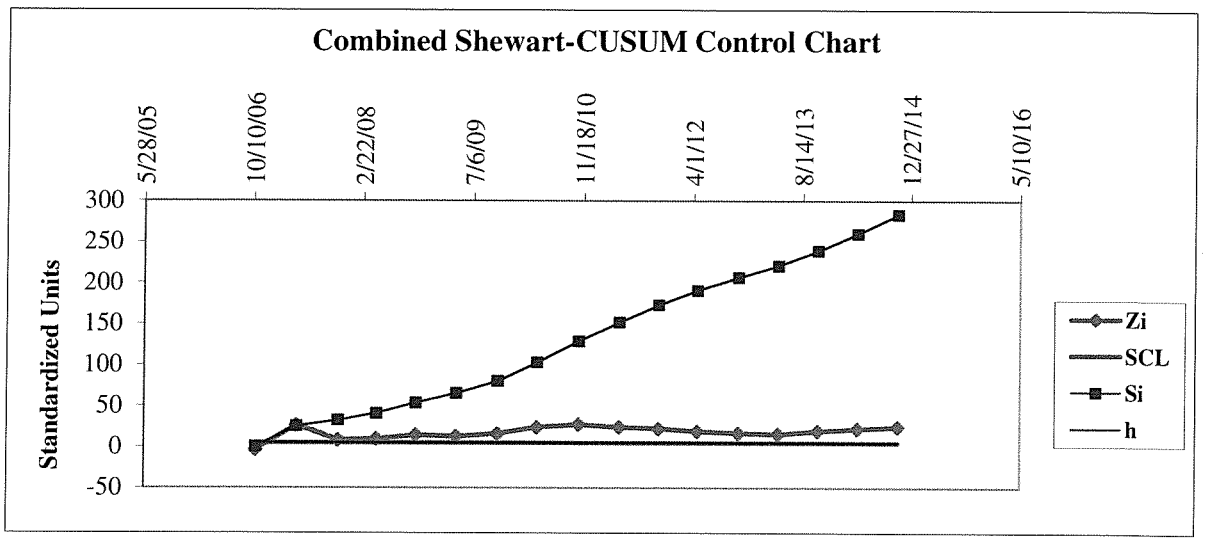
Compute the mean and standard deviation of the historical data:

186.25 = x_{mean} (Mean of N1-N8 historical data)
50.409041 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
10/20/06	2.5	-3.6451794	0	5	4.5
4/25/07	**1500**	**26.061793**	**25.061793**	5	4.5
10/31/07	**591**	**8.0293136**	**32.091107**	5	4.5
4/23/08	**661**	**9.4179534**	**40.50906**	5	4.5
10/20/08	**894**	**14.04014**	**53.5492**	5	4.5
4/22/09	**817**	**12.512636**	**65.061837**	5	4.5
10/26/09	**987**	**15.885047**	**79.946884**	5	4.5
4/22/10	**1380**	**23.681268**	**102.62815**	5	4.5
10/27/10	**1550**	**27.053679**	**128.68183**	5	4.5
4/29/11	**1390**	**23.879645**	**151.56148**	5	4.5
10/25/11	**1300**	**22.094251**	**172.65573**	5	4.5
4/20/12	**1140**	**18.920217**	**190.57594**	5	4.5
10/24/12	**1030**	**16.738069**	**206.31401**	5	4.5
4/24/13	**964**	**15.42878**	**220.74279**	5	4.5
10/24/13	**1160**	**19.316971**	**239.05976**	5	4.5
4/24/14	**1290**	**21.895874**	**259.95564**	5	4.5
10/27/14	**1410**	**24.276399**	**283.23204**	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h.
One, or both, of the control limits was exceeded. Therefore, there is statistically significant evidence of contamination in this well at the concentrations indicated above.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound:	**Total Barium**
NC MCL (µg/l):	700
Method:	Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-8	MDL
4/15/02	**1400**	**5**
9/26/02	**1400**	**5**
4/28/03	**800**	**5**
10/30/03	**270**	**5**
4/20/04	**940**	**5**
10/21/04	**900**	**5**
4/18/05	**1000**	**5**
10/13/05	**810**	**5**
4/25/06	**750**	**500**
10/20/06	ND	**5**
4/25/07	ND	**100**
10/31/07	**516**	**5**
4/23/08	**151**	**5**
10/20/08	**182**	**5**
4/22/09	**163**	**5**
10/26/09	**209**	**5**
4/22/10	**150**	**5**
10/27/10	**190**	**5**
4/29/11	**196**	**5**
10/25/11	**238**	**5**
4/20/12	**232**	**5**
10/24/12	**235**	**5**
4/24/13	**218**	**5**
10/24/13	**250**	**5**
4/24/14	**238**	**5**
10/27/14	**228**	**5**

If not detected (ND), use half of the detection limit.

X_{bar} = 450.71154
SD = 406.92678
N = 26
$1/N\Sigma_i(X_i-X_{bar})^3$ = 70118107
γ_1= 1.10365

Since the Coefficient of Skewness of 1.10 is greater than 1.0, the real data appear to be significantly skewed.
Do not assume that the data follow a Normal distribution.
Perform the Skewness Test on the natural log of the values.

X_{bar} = 5.6191676
SD = 1.2693629
N = 26
$1/N\Sigma_i(X_i-X_{bar})^3$ = -3.5331386
γ_1= 1.8321171

Since the Coefficient of Skewness of 1.83 is greater than 1.0, the data appear to be significantly skewed.
Do not assume that the data follow a Normal distribution.
A non-parametric testing procedure should be used on the data set.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Barium**
GA MCL (ug/l): 2000
Method: Kendall-Mann Non-Parametric Trend Test (Concentration vs. Time)
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	250	NS	NS	240	420	200	63	300	93	230	NS	NP	NP	5
06/26/00	300	67	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
07/26/00	330	30	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
09/18/00	NS	NS	NS	330	92	NS	NS	NS	NT	NS	NS	NP	NP	500
04/09/01	1300	380	NS	180	330	120	80	290	360	970	NS	NP	NP	5
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	500
04/15/02	1300	41	NS	ND	ND	160	23	190	460	1400	NS	NP	NP	5
09/26/02	330	500	750	4200	120	230	93	410	910	1400	11000	NP	NP	5
04/28/03	600	66	220	1800	160	140	110	92	360	800	2800	NP	NP	5
10/30/03	320	100	NT	210	310	130	95	110	1200	270	4900	NP	NP	5
04/20/04	320	56	120	410	460	170	140	210	62	940	2000	NP	NP	5
10/21/04	320	40	200	300	310	140	140	130	12	900	4900	NP	NP	5
04/18/05	480	55	160	7200	610	180	160	140	12	1000	3700	NP	NP	5
10/13/05	770	37	160	1700	870	250	160	140	27	810	2700	NP	NP	5
04/25/06	650	ND	ND	ND	1100	ND	ND	ND	ND	750	2700	NP	NP	500
10/20/06	410	22	180	470	1100	ND	ND	ND	160	ND	650	NP	NP	5
04/25/07	290	ND	200	240	1300	1500	130	180	ND	ND	600	NP	NP	100
10/31/07	501	31.5	223	198	1350	591	184	208	62.4	516	872	NP	NP	5
04/23/08	194	30.8	253	168	1230	661	216	202	61.8	151	361	NP	NP	5
10/20/08	474	66	313	224	1210	894	164	216	41.1	182	245	NP	NP	5
04/22/09	126	47.2	591	309	1300	817	230	216	77	163	NS	NP	NP	5
10/26/09	131	16.8	144	188	1720	987	NS	NS	NS	209	178	NP	NP	5
04/22/10	208	43.5	153	157	1920	1380	NS	NS	20.9	150	74.8	NP	NP	5
10/27/10	147	15.8	162	178	1760	1550	531	234	20	190	111	191	84.4	5
04/29/11	191	16.3	188	182	1620	1390	428	173	13.6	196	125	201	133	5
10/25/11	185	19.7	120	332	1200	1300	945	205	8.2	238	123	161	154	5
04/20/12	304	17.5	129	153	1020	1140	442	215	9.5	232	64.8	249	169	5
10/24/12	389	19	124	167	889	1030	393	229	26.1	235	43.2	177	181	5
04/24/13	241	16.8	100	164	842	964	344	226	9.3	218	96.5	116	190	5
10/24/13	255	18.1	156	166	839	1160	510	256	9.1	250	55.2	171	218	5
04/24/14	174	17.7	127	148	941	1290	378	248	8.3	238	27.5	148	189	5
10/27/14	117	16.1	102	136	1280	1410	363	224	8.6	228	23.2	156	180	5

If not detected (ND), use half of the detection limit.

Trendline Slope =	-	-	-	-	-	-	-0.17	-	-	-
Standard Deviation =	-	-	-	-	-	-	406.2	-	-	-
ımber of observations **n** =	-	-	-	-	-	-	28	-	-	-
S =	-	-	-	-	-	-	-108	-	-	-
uncorrected for ties **τ** =	-	-	-	-	-	-	-0.29	-	-	-
U =	-	-	-	-	-	-	2	-	-	-
corrected for ties τ =	**-**	**-**	**-**	**-**	**-**	**-**	**-0.29**	**-**	**-**	**-**
Concentration Trend	,	,	,	,	,	,	**decrease**	,	,	,

MW-8

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound:	**Total Barium**
NC MCL (µg/l):	700
Method:	Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-15	MDL
9/26/02	**11000**	**5**
4/28/03	**2800**	**5**
10/30/03	**4900**	**5**
4/20/04	**2000**	**5**
10/21/04	**4900**	**5**
4/18/05	**3700**	**5**
10/13/05	**2700**	**5**
4/25/06	**2700**	**500**
10/20/06	**650**	**5**
4/25/07	**600**	**100**
10/31/07	**872**	**5**
4/23/08	**361**	**5**
10/20/08	**245**	**5**
4/22/09	NS	**5**
10/26/09	**178**	**5**
4/22/10	**74.8**	**5**
10/27/10	**111**	**5**
4/29/11	**125**	**5**
10/25/11	**123**	**5**
4/20/12	**64.8**	**5**
10/24/12	**43.2**	**5**
4/24/13	**96.5**	**5**
10/24/13	**55.2**	**5**
4/24/14	**27.5**	**5**
10/27/14	**23.2**	**5**

If not detected (ND), use half of the detection limit.

X_{bar} = 1597.925
SD = 2551.0659
N = 24
$1/N\Sigma_i(X_i-X_{bar})^3$ = 3.633E+10
γ_1= 2.3328163

Since the Coefficient of Skewness of 2.33 is greater than 1.0, the real data appear to be significantly skewed.
Do not assume that the data follow a Normal distribution.
Perform the Skewness Test on the natural log of the values.

X_{bar} = 5.9880608
SD = 1.8737897
N = 24
$1/N\Sigma_i(X_i-X_{bar})^3$ = 1.0481925
γ_1= 0.1698258

Since the Coefficient of Skewness of 0.17 is less than 1.0, the data appear not to be significantly skewed.
Proceed with further statistical tests using the log-transformed values shown above.

Part 2: Shewhart-CUSUM Control Chart

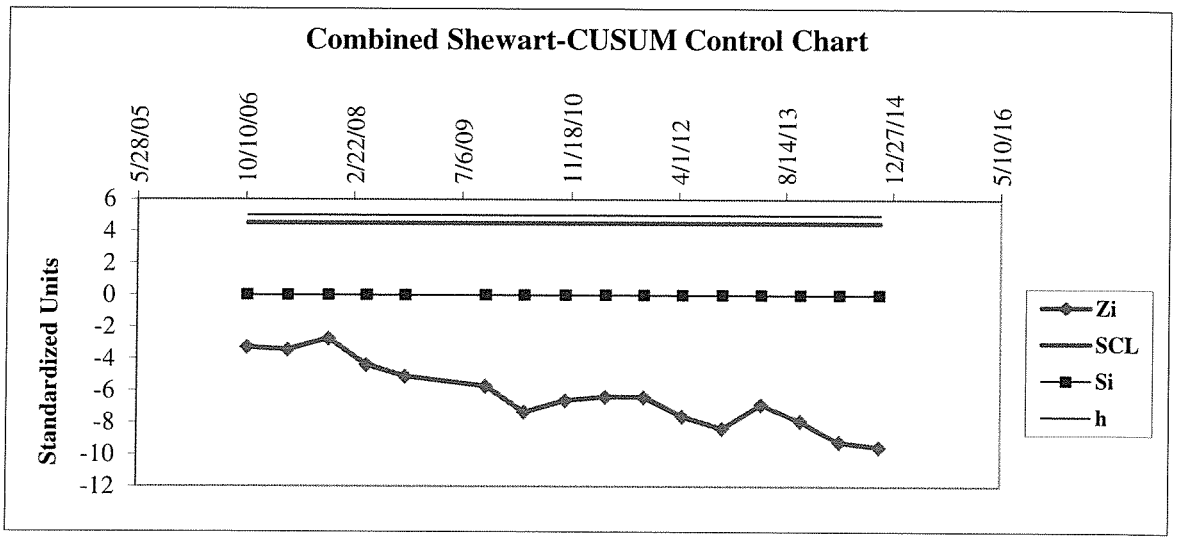
Compute the mean and standard deviation of the historical data:

8.2320014 = x_{mean} (Mean of N1-N8 historical data)
0.5342043 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
10/20/06	6.4769724	-3.2853144	0	5	4.5
4/25/07	6.3969297	-3.4351498	0	5	4.5
10/31/07	6.7707894	-2.7353056	0	5	4.5
4/23/08	5.888878	-4.3861937	0	5	4.5
10/20/08	5.5012582	-5.1117958	0	5	4.5
10/26/09	5.1817836	-5.7098342	0	5	4.5
4/22/10	4.3148179	-7.3327445	0	5	4.5
10/27/10	4.7095302	-6.5938655	0	5	4.5
4/29/11	4.8283137	-6.3715095	0	5	4.5
10/25/11	4.8121844	-6.4017028	0	5	4.5
4/20/12	4.1713056	-7.6013914	0	5	4.5
10/24/12	3.7658405	-8.360399	0	5	4.5
4/24/13	4.569543	-6.8559136	0	5	4.5
10/24/13	4.010963	-7.9015437	0	5	4.5
4/24/14	3.314186	-9.2058705	0	5	4.5
10/27/14	3.1441523	-9.5241639	0	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h.
The limits were not exceeded and do not indicate statistically significant evidence of contamination at the site.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Beryllium**
NC MCL (µg/l): Not Established
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	**4.4**	NS	NS	ND	**2**	ND	**2.2**	ND	ND	ND	NS	NP	NP	2
06/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	2
07/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	2
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	2
04/09/01	**2.3**	**7**	NS	ND	ND	ND	ND	ND	**2.4**	**4.8**	NS	NP	NP	2
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	2
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	2
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	2
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	2
04/15/02	**2.1**	ND	NS	ND	ND	ND	ND	ND	**2.5**	**5**	NS	NP	NP	2
09/26/02	ND	**7**	**2.1**	**5.1**	ND	ND	ND	ND	**8.5**	**4.7**	**95**	NP	NP	2
04/28/03	ND	ND	ND	ND	ND	ND	ND	ND	**2**	**2.2**	**20**	NP	NP	2
10/30/03	ND	ND	NT	ND	ND	ND	ND	ND	**2.4**	ND	**33**	NP	NP	1
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**21**	NP	NP	1
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.4**	**28**	NP	NP	1
04/18/05	ND	ND	ND	**7.2**	ND	ND	ND	ND	ND	**3.8**	**26**	NP	NP	1
10/13/05	ND	ND	ND	**3**	ND	ND	ND	ND	ND	**3.4**	**21**	NP	NP	1
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	**2.1**	ND	**17**	NP	NP	2
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.7**	NP	NP	1
04/25/07	ND	ND	ND	ND	ND	**14**	ND	ND	ND	ND	**4.9**	NP	NP	1
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6**	NP	NP	1
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3**	NP	NP	1
10/20/08	ND	**1.2**	ND	ND	ND	ND	ND	ND	ND	ND	**1.9**	NP	NP	1
04/22/09	ND	ND	**1.5**	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	1
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	**1.7**	NP	NP	1
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	1
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.1**	ND	ND	1
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.6**	ND	ND	1
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.2**	ND	ND	1
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
N_i	30	29	24	28	28	28	26	26	27	28	24	9	9	
sum of rank values (R_i)	4553.5	4432.5	3564.0	4312.0	3967.0	3993.5	3699.0	3549.0	4609.0	4912.0	6037.5	1228.5	1228.5	
avg rank value (Rbar)	151.8	152.8	148.5	154.0	141.7	142.6	142.3	136.5	170.7	175.4	251.6	136.5	136.5	

	Number of each rank value													Rank Value
rank value of NDs =	27	26	22	25	27	27	25	26	21	21	7	9	9	136.5
rank value of 1.1s =	0	0	0	0	0	0	0	0	0	0	1	0	0	273
rank value of 1.2s =	0	1	0	0	0	0	0	0	0	0	1	0	0	274.5
rank value of 1.4s =	0	0	0	0	0	0	0	0	0	1	0	0	0	276
rank value of 1.5s =	0	0	1	0	0	0	0	0	0	0	0	0	0	277

rank value of 1.6s =	0	0	0	0	0	0	0	0	0	0	1	0	0	278
rank value of 1.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	279
rank value of 1.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	280
rank value of 2s =	0	0	0	0	1	0	0	0	1	0	0	0	0	281.5
rank value of 2.1s =	1	0	1	0	0	0	0	0	1	0	0	0	0	284
rank value of 2.2s =	0	0	0	0	0	0	1	0	0	1	0	0	0	286.5
rank value of 2.3s =	1	0	0	0	0	0	0	0	0	0	0	0	0	288
rank value of 2.4s =	0	0	0	0	0	0	0	0	2	0	0	0	0	289.5
rank value of 2.5s =	0	0	0	0	0	0	0	0	1	0	0	0	0	291
rank value of 3s =	0	0	0	1	0	0	0	0	0	0	1	0	0	292.5
rank value of 3.4s =	0	0	0	0	0	0	0	0	0	1	0	0	0	294
rank value of 3.8s =	0	0	0	0	0	0	0	0	0	1	0	0	0	295
rank value of 4.4s =	1	0	0	0	0	0	0	0	0	0	0	0	0	296
rank value of 4.5s =	0	0	0	0	0	0	0	0	0	1	0	0	0	297
rank value of 4.7s =	0	0	0	0	0	0	0	0	0	1	0	0	0	298
rank value of 4.8s =	0	0	0	0	0	0	0	0	0	1	0	0	0	299
rank value of 4.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	300
rank value of 5.1s =	0	0	0	1	0	0	0	0	0	0	0	0	0	301
rank value of 5.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	302
rank value of 6s =	0	0	0	0	0	0	0	0	0	0	1	0	0	303
rank value of 7s =	0	2	0	0	0	0	0	0	0	0	0	0	0	304.5
rank value of 7.2s =	0	0	0	1	0	0	0	0	0	0	0	0	0	306
rank value of 8.5s =	0	0	0	0	0	0	0	0	1	0	0	0	0	307
rank value of 14s =	0	0	0	0	0	1	0	0	0	0	0	0	0	308
rank value of 17s =	0	0	0	0	0	0	0	0	0	0	1	0	0	309
rank value of 20s =	0	0	0	0	0	0	0	0	0	0	1	0	0	310
rank value of 21s =	0	0	0	0	0	0	0	0	0	0	2	0	0	311.5
rank value of 26s =	0	0	0	0	0	0	0	0	0	0	1	0	0	313
rank value of 28s =	0	0	0	0	0	0	0	0	0	0	1	0	0	314
rank value of 33s =	0	0	0	0	0	0	0	0	0	0	1	0	0	315
rank value of 95s =	0	0	0	0	0	0	0	0	0	0	1	0	0	316
n =	**30**	**29**	**24**	**28**	**28**	**28**	**26**	**26**	**27**	**28**	**24**	**9**	**9**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	1897620.5	664048	562039	569573	526254	484439	786773	861705	2E+06	167690	167690

$N_{i\,bg}$ = 83
N = 316
H = 32.11

Adjust H for ties:

T_i = 2E+07 sum of T1..T9

$H' = H/(1-(T_i/(N^3-N)))$

H' = 88.63

Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =88.63.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$

P = 2.33 Percentile of Standard Normal Distribution
from Table 4 of IFG

N = total sample size

$N_{i\,bg}$ = total samples (N_i) of background data

N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	**MW-15**	MW-16	MW-17
Rbar (well x) =	154.0	141.7	142.6	142.3	136.5	170.7	175.4	251.6	136.5	136.5
avg Rbar (background) =	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2
Dx =	2.8	-9.5	-8.6	-8.9	-14.7	19.5	24.2	100.4	-14.7	-14.7
Cx =	46.5	46.5	46.5	47.8	47.8	47.2	46.5	49.3	74.7	74.7
Statistical Significance ?	No	No	No	No	No	No	No	**Yes**	No	No
If SSI, is current event above MCL?	-	-	-	-	-	-	-	NE	-	-

Compare each difference (Dx) with the corresponding critical value (Cx).
The Dx value for the above indicated wells do exceed the corresponding Cx value.
Therefore, we conclude that the concentration of Total Beryllium averaged over these compliance wells are significantly greater than that of the background wells.
Shewart-CUSUM Control Charts should be performed for each failing well to check for statistical significance.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound:	**Total Beryllium**
NC MCL (µg/l):	Not Established
Method:	Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-15	MDL
9/26/02	**95**	**2**
4/28/03	**20**	**2**
10/30/03	**33**	**1**
4/20/04	**21**	**1**
10/21/04	**28**	**1**
4/18/05	**26**	**1**
10/13/05	**21**	**1**
4/25/06	**17**	**2**
10/20/06	**5.7**	**1**
4/25/07	**4.9**	**1**
10/31/07	**6**	**1**
4/23/08	**3**	**1**
10/20/08	**1.9**	**1**
4/22/09	NS	**1**
10/26/09	**1.7**	**1**
4/22/10	ND	**1**
10/27/10	ND	**1**
4/29/11	**1.1**	**1**
10/25/11	**1.6**	**1**
4/20/12	ND	**1**
10/24/12	ND	**1**
4/24/13	**1.2**	**1**
10/24/13	ND	**1**
4/24/14	ND	**1**
10/27/14	ND	**1**

If not detected (ND), use half of the detection limit.

X_{bar} = 12.15
SD = 20.554297
N = 24
$1/N\Sigma_i(X_i-X_{bar})^3$ = 23650.356
γ_1= 2.9030526

Since the Coefficient of Skewness of 2.90 is greater than 1.0, the real data appear to be significantly skewed.
Do not assume that the data follow a Normal distribution.
Perform the Skewness Test on the natural log of the values.

X_{bar} = 1.2436182
SD = 1.7118005
N = 24
$1/N\Sigma_i(X_i-X_{bar})^3$ = 1.3245331
γ_1= 0.2814677

Since the Coefficient of Skewness of 0.28 is less than 1.0, the data appear not to be significantly skewed.
Proceed with further statistical tests using the log-transformed values shown above.

Part 2: Shewhart-CUSUM Control Chart

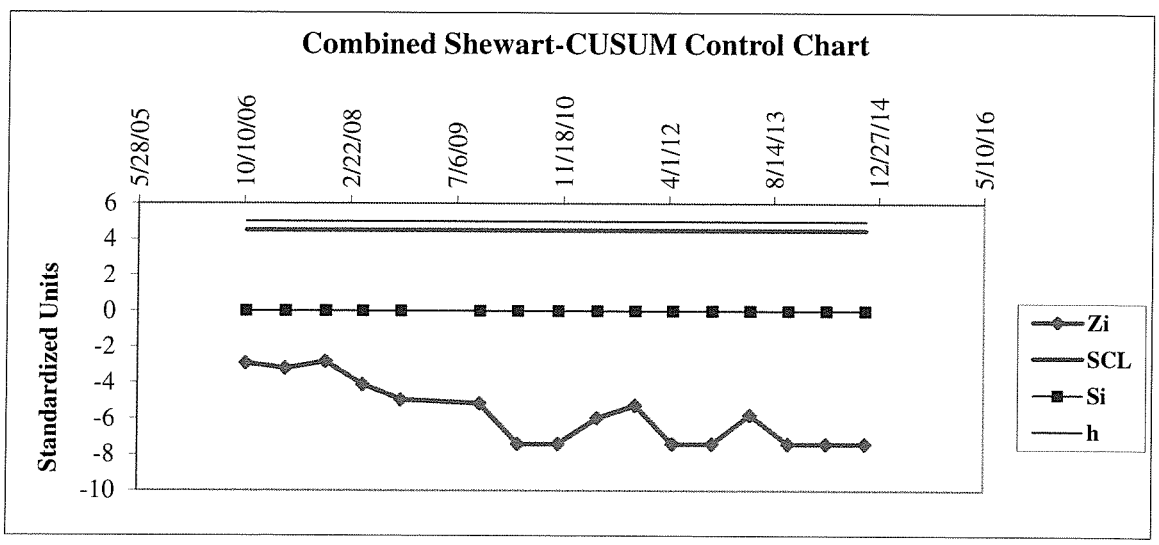
Compute the mean and standard deviation of the historical data:

3.3198345 = x_{mean} (Mean of N1-N8 historical data)
0.5413573 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
10/20/06	1.7404662	-2.9174229	0	5	4.5
4/25/07	1.5892352	-3.1967781	0	5	4.5
10/31/07	1.7917595	-2.8226735	0	5	4.5
4/23/08	1.0986123	-4.103061	0	5	4.5
10/20/08	0.6418539	-4.9467891	0	5	4.5
10/26/09	0.5306283	-5.152246	0	5	4.5
4/22/10	-0.693147	-7.4128146	0	5	4.5
10/27/10	-0.693147	-7.4128146	0	5	4.5
4/29/11	0.0953102	-5.9563693	0	5	4.5
10/25/11	0.4700036	-5.2642324	0	5	4.5
4/20/12	-0.693147	-7.4128146	0	5	4.5
10/24/12	-0.693147	-7.4128146	0	5	4.5
4/24/13	0.1823216	-5.7956412	0	5	4.5
10/24/13	-0.693147	-7.4128146	0	5	4.5
4/24/14	-0.693147	-7.4128146	0	5	4.5
10/27/14	-0.693147	-7.4128146	0	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h. The limits were not exceeded and do not indicate statistically significant evidence of contamination at the site.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Cadmium**
NC MCL (µg/l): 2
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	**2**	NS	NS	ND	**1.3**	**1.2**	**1.3**	**2.1**	ND	**5.4**	NS	NP	NP	1
06/26/00	**1.6**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	1
07/26/00	**1.1**	**3.2**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	1
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	1
04/09/01	**130**	**2**	NS	ND	ND	ND	**1.7**	**1.8**	**2.7**	**19**	NS	NP	NP	1
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	1
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	1
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	1
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	1
04/15/02	**13**	ND	NS	ND	ND	ND	**4**	ND	**5.5**	**19**	NS	NP	NP	10
09/26/02	ND	ND	**4.2**	**21**	ND	**10**	ND	**2.3**	**4.2**	**19**	**180**	NP	NP	1
04/28/03	**3.6**	ND	ND	**6**	ND	ND	ND	ND	**2.9**	**16**	**20**	NP	NP	1
10/30/03	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	1
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	**8.8**	**8.9**	NP	NP	1
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	1
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	1
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	1
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	1
10/20/06	**3.8**	ND	ND	ND	ND	ND	ND	ND	**1.5**	ND	**5.2**	NP	NP	1
04/25/07	ND	ND	ND	ND	ND	**2.2**	ND	ND	ND	ND	ND	NP	NP	1
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	1
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.6**	NP	NP	1
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	1
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	1
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	1
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	1
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**4.8**	ND	1
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**	ND	1
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.2**	ND	1
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
N_i	30	29	24	28	28	28	26	26	27	28	24	9	9	
sum of rank values (R_i)	5236.0	4307.5	3472.5	4206.0	4006.5	4325.5	4036.5	4040.0	4504.5	4885.0	4141.5	1682.5	1242.0	
avg rank value (Rbar)	174.5	148.5	144.7	150.2	143.1	154.5	155.3	155.4	166.8	174.5	172.6	186.9	138.0	

	Number of each rank value													Rank Value
rank value of NDs =	23	27	23	26	27	25	23	23	22	22	19	6	9	138
rank value of 1s =	0	0	0	0	0	0	0	0	0	0	0	1	0	276
rank value of 1.1s =	1	0	0	0	0	0	0	0	0	0	0	0	0	277
rank value of 1.2s =	0	0	0	0	0	1	0	0	0	0	0	1	0	278.5
rank value of 1.3s =	0	0	0	0	1	0	1	0	0	0	0	0	0	280.5

rank value of 1.5s =	0	0	0	0	0	0	0	0	1	0	0	0	0	282
rank value of 1.6s =	1	0	0	0	0	0	0	0	0	0	1	0	0	283.5
rank value of 1.7s =	0	0	0	0	0	0	1	0	0	0	0	0	0	285
rank value of 1.8s =	0	0	0	0	0	0	0	1	0	0	0	0	0	286
rank value of 2s =	1	1	0	0	0	0	0	0	0	0	0	0	0	287.5
rank value of 2.1s =	0	0	0	0	0	0	0	1	0	0	0	0	0	289
rank value of 2.2s =	0	0	0	0	0	1	0	0	0	0	0	0	0	290
rank value of 2.3s =	0	0	0	0	0	0	0	1	0	0	0	0	0	291
rank value of 2.7s =	0	0	0	0	0	0	0	0	1	0	0	0	0	292
rank value of 2.9s =	0	0	0	0	0	0	0	0	1	0	0	0	0	293
rank value of 3.2s =	0	1	0	0	0	0	0	0	0	0	0	0	0	294
rank value of 3.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	295
rank value of 3.8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	296
rank value of 4s =	0	0	0	0	0	0	1	0	0	0	0	0	0	297
rank value of 4.2s =	0	0	1	0	0	0	0	0	1	0	0	0	0	298.5
rank value of 4.8s =	0	0	0	0	0	0	0	0	0	0	0	1	0	300
rank value of 5.2s =	0	0	0	0	0	0	0	0	0	0	1	0	0	301
rank value of 5.4s =	0	0	0	0	0	0	0	0	0	1	0	0	0	302
rank value of 5.5s =	0	0	0	0	0	0	0	0	1	0	0	0	0	303
rank value of 6s =	0	0	0	1	0	0	0	0	0	0	0	0	0	304
rank value of 8.8s =	0	0	0	0	0	0	0	0	0	1	0	0	0	305
rank value of 8.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	306
rank value of 10s =	0	0	0	0	0	1	0	0	0	0	0	0	0	307
rank value of 13s =	1	0	0	0	0	0	0	0	0	0	0	0	0	308
rank value of 16s =	0	0	0	0	0	0	0	0	0	1	0	0	0	309
rank value of 19s =	0	0	0	0	0	0	0	0	0	3	0	0	0	311
rank value of 20s =	0	0	0	0	0	0	0	0	0	0	1	0	0	313
rank value of 21s =	0	0	0	1	0	0	0	0	0	0	0	0	0	314
rank value of 130s =	1	0	0	0	0	0	0	0	0	0	0	0	0	315
rank value of 180s =	0	0	0	0	0	0	0	0	0	0	1	0	0	316
n =	**30**	**29**	**24**	**28**	**28**	**28**	**26**	**26**	**27**	**28**	**24**	**9**	**9**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	2041159.7	631801	573287	668213	626667	627754	751501	852258	714668	314534	171396

$N_{i\,bg}$ = 83
N = 316
H = 4.15

Adjust H for ties:

T_i = 2E+07 sum of T1..T7

$H' = H/(1-(T_i/(N^3-N)))$

$H' = 12.16$

Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is greater than H' =12.16. Therefore, the null hypothesis of no contamination at the 5% level holds true and significant evidence of contamination does not exist.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Chromium**
NC MCL (µg/l): 10
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	15	NS	NS	18	17	11	ND	26	5.4	50	NS	NP	NP	5
06/26/00	22	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
07/26/00	29	20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	10
04/09/01	130	ND	NS	11	8.4	ND	ND	20	27	160	NS	NP	NP	5
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
04/15/02	170	ND	NS	ND	ND	5.7	7	10	56	180	NS	NP	NP	5
09/26/02	33	5.4	33	510	ND	5.2	ND	37	36	230	770	NP	NP	5
04/28/03	ND	ND	ND	89	ND	ND	ND	ND	ND	110	27	NP	NP	5
10/30/03	30	ND	NT	ND	6.2	ND	ND	ND	31	4.6	140	NP	NP	2
04/20/04	33	ND	2.1	45	13	ND	ND	11	3.5	190	68	NP	NP	2
10/21/04	21	ND	2.8	16	2	ND	ND	ND	ND	120	140	NP	NP	2
04/18/05	49	12	8.3	680	2.9	ND	ND	3.2	ND	210	100	NP	NP	2
10/13/05	52	ND	3.7	230	4.7	ND	ND	ND	ND	150	88	NP	NP	2
04/25/06	65	ND	16	ND	ND	ND	ND	ND	16	100	93	NP	NP	10
10/20/06	50	ND	11	24	ND	ND	ND	ND	17	ND	27	NP	NP	5
04/25/07	20	ND	ND	16	ND	410	ND	ND	ND	ND	17	NP	NP	10
10/31/07	40.9	ND	11.9	10.9	7.8	ND	ND	ND	5.1	75.5	33.7	NP	NP	5
04/23/08	10.7	ND	16.8	7.8	ND	ND	ND	ND	7.6	7.3	14.9	NP	NP	5
10/20/08	38.6	ND	29.4	12.7	ND	ND	ND	ND	ND	ND	6.8	NP	NP	5
04/22/09	12.3	ND	28.9	19.7	5.1	ND	ND	ND	7.3	ND	NS	NP	NP	5
10/26/09	10	ND	8.1	ND	18.7	ND	NS	NS	NS	10.9	8.1	NP	NP	5
04/22/10	14.3	10.9	13.1	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	5
10/27/10	10.1	ND	6.6	7.1	ND	ND	12	9.2	ND	ND	5.2	ND	ND	5
04/29/11	8	ND	8.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
10/25/11	15	ND	ND	21.1	ND	ND	8.1	ND	ND	9.2	5.1	ND	ND	5
04/20/12	24.5	ND	ND	5.1	ND	ND	7.9	ND	ND	ND	ND	12.3	ND	5
10/24/12	30.4	6	ND	6.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
04/24/13	19	ND	ND	8.8	6.8	ND	ND	ND	ND	ND	ND	ND	ND	5
10/24/13	14.5	ND	12.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
04/24/14	12.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.1	ND	5
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
N_i	30	29	24	28	28	28	26	26	27	28	24	9	9	
sum of rank values (R_i)	7551.5	3264.0	4379.0	5592.0	3839.5	3082.0	2832.5	3369.0	4039.5	5335.0	4942.5	1054.0	805.5	
avg rank value (Rbar)	251.7	112.6	182.5	199.7	137.1	110.1	108.9	129.6	149.6	190.5	205.9	117.1	89.5	

	Number of each rank value													Rank Value
rank value of NDs =	2	24	8	9	17	24	22	19	16	13	8	7	9	89.5
rank value of 2s =	0	0	0	0	1	0	0	0	0	0	0	0	0	179
rank value of 2.1s =	0	0	1	0	0	0	0	0	0	0	0	0	0	180
rank value of 2.8s =	0	0	1	0	0	0	0	0	0	0	0	0	0	181
rank value of 2.9s =	0	0	0	0	1	0	0	0	0	0	0	0	0	182

rank value of 3.2s =	0	0	0	0	0	0	0	1	0	0	0	0	0	183
rank value of 3.5s =	0	0	0	0	0	0	0	0	1	0	0	0	0	184
rank value of 3.7s =	0	0	1	0	0	0	0	0	0	0	0	0	0	185
rank value of 4.6s =	0	0	0	0	0	0	0	0	0	1	0	0	0	186
rank value of 4.7s =	0	0	0	0	1	0	0	0	0	0	0	0	0	187
rank value of 5.1s =	0	0	0	1	1	0	0	0	1	0	1	1	0	190
rank value of 5.2s =	0	0	0	0	0	1	0	0	0	0	1	0	0	193.5
rank value of 5.4s =	0	1	0	0	0	0	0	0	1	0	0	0	0	195.5
rank value of 5.7s =	0	0	0	0	0	1	0	0	0	0	0	0	0	197
rank value of 6s =	0	1	0	0	0	0	0	0	0	0	0	0	0	198
rank value of 6.2s =	0	0	0	0	1	0	0	0	0	0	0	0	0	199
rank value of 6.4s =	0	0	0	1	0	0	0	0	0	0	0	0	0	200
rank value of 6.6s =	0	0	1	0	0	0	0	0	0	0	0	0	0	201
rank value of 6.8s =	0	0	0	0	1	0	0	0	0	0	1	0	0	202.5
rank value of 7s =	0	0	0	0	0	0	1	0	0	0	0	0	0	204
rank value of 7.1s =	0	0	0	1	0	0	0	0	0	0	0	0	0	205
rank value of 7.3s =	0	0	0	0	0	0	0	0	1	1	0	0	0	206.5
rank value of 7.6s =	0	0	0	0	0	0	0	0	1	0	0	0	0	208
rank value of 7.8s =	0	0	0	1	1	0	0	0	0	0	0	0	0	209.5
rank value of 7.9s =	0	0	0	0	0	0	1	0	0	0	0	0	0	211
rank value of 8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	212
rank value of 8.1s =	0	0	1	0	0	0	1	0	0	0	1	0	0	214
rank value of 8.3s =	0	0	1	0	0	0	0	0	0	0	0	0	0	216
rank value of 8.4s =	0	0	0	0	1	0	0	0	0	0	0	0	0	217
rank value of 8.6s =	0	0	1	0	0	0	0	0	0	0	0	0	0	218
rank value of 8.8s =	0	0	0	1	0	0	0	0	0	0	0	0	0	219
rank value of 9.2s =	0	0	0	0	0	0	0	1	0	1	0	0	0	220.5
rank value of 10s =	1	0	0	0	0	0	0	1	0	0	0	0	0	222.5
rank value of 10.1s =	1	0	0	0	0	0	0	0	0	0	0	0	0	224
rank value of 10.7s =	1	0	0	0	0	0	0	0	0	0	0	0	0	225
rank value of 10.9s =	0	1	0	1	0	0	0	0	0	1	0	0	0	227
rank value of 11s =	0	0	1	1	0	1	0	1	0	0	0	0	0	230.5
rank value of 11.9s =	0	0	1	0	0	0	0	0	0	0	0	0	0	233
rank value of 12s =	0	1	0	0	0	0	1	0	0	0	0	0	0	234.5
rank value of 12.1s =	0	0	1	0	0	0	0	0	0	0	0	0	0	236
rank value of 12.3s =	1	0	0	0	0	0	0	0	0	0	0	1	0	237.5
rank value of 12.7s =	0	0	0	1	0	0	0	0	0	0	0	0	0	239
rank value of 12.8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	240
rank value of 13s =	0	0	0	0	1	0	0	0	0	0	0	0	0	241
rank value of 13.1s =	0	0	1	0	0	0	0	0	0	0	0	0	0	242
rank value of 14.3s =	1	0	0	0	0	0	0	0	0	0	0	0	0	243
rank value of 14.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	244
rank value of 14.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	245
rank value of 15s =	2	0	0	0	0	0	0	0	0	0	0	0	0	246.5
rank value of 16s =	0	0	1	2	0	0	0	0	1	0	0	0	0	249.5
rank value of 16.8s =	0	0	1	0	0	0	0	0	0	0	0	0	0	252
rank value of 17s =	0	0	0	0	1	0	0	0	1	0	1	0	0	254
rank value of 18s =	0	0	0	1	0	0	0	0	0	0	0	0	0	256
rank value of 18.7s =	0	0	0	0	1	0	0	0	0	0	0	0	0	257
rank value of 19s =	1	0	0	0	0	0	0	0	0	0	0	0	0	258
rank value of 19.7s =	0	0	0	1	0	0	0	0	0	0	0	0	0	259
rank value of 20s =	1	1	0	0	0	0	0	1	0	0	0	0	0	261
rank value of 21s =	1	0	0	0	0	0	0	0	0	0	0	0	0	263
rank value of 21.1s =	0	0	0	1	0	0	0	0	0	0	0	0	0	264
rank value of 22s =	1	0	0	0	0	0	0	0	0	0	0	0	0	265
rank value of 24s =	0	0	0	1	0	0	0	0	0	0	0	0	0	266
rank value of 24.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	267
rank value of 26s =	0	0	0	0	0	0	0	1	0	0	0	0	0	268

rank value of 27s =	0	0	0	0	0	0	0	0	1	0	2	0	0	270
rank value of 28.9s =	0	0	1	0	0	0	0	0	0	0	0	0	0	272
rank value of 29s =	1	0	0	0	0	0	0	0	0	0	0	0	0	273
rank value of 29.4s =	0	0	1	0	0	0	0	0	0	0	0	0	0	274
rank value of 30s =	1	0	0	0	0	0	0	0	0	0	0	0	0	275
rank value of 30.4s =	1	0	0	0	0	0	0	0	0	0	0	0	0	276
rank value of 31s =	0	0	0	0	0	0	0	0	1	0	0	0	0	277
rank value of 33s =	2	0	1	0	0	0	0	0	0	0	0	0	0	279
rank value of 33.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	281
rank value of 36s =	0	0	0	0	0	0	0	0	1	0	0	0	0	282
rank value of 37s =	0	0	0	0	0	0	0	1	0	0	0	0	0	283
rank value of 38.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	284
rank value of 40.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	285
rank value of 45s =	0	0	0	1	0	0	0	0	0	0	0	0	0	286
rank value of 49s =	1	0	0	0	0	0	0	0	0	0	0	0	0	287
rank value of 50s =	1	0	0	0	0	0	0	0	0	1	0	0	0	288.5
rank value of 52s =	1	0	0	0	0	0	0	0	0	0	0	0	0	290
rank value of 56s =	0	0	0	0	0	0	0	0	1	0	0	0	0	291
rank value of 65s =	1	0	0	0	0	0	0	0	0	0	0	0	0	292
rank value of 68s =	0	0	0	0	0	0	0	0	0	0	1	0	0	293
rank value of 75.5s =	0	0	0	0	0	0	0	0	0	1	0	0	0	294
rank value of 88s =	0	0	0	0	0	0	0	0	0	0	1	0	0	295
rank value of 89s =	0	0	0	1	0	0	0	0	0	0	0	0	0	296
rank value of 93s =	0	0	0	0	0	0	0	0	0	0	1	0	0	297
rank value of 100s =	0	0	0	0	0	0	0	0	0	1	1	0	0	298.5
rank value of 110s =	0	0	0	0	0	0	0	0	0	1	0	0	0	300
rank value of 120s =	0	0	0	0	0	0	0	0	0	1	0	0	0	301
rank value of 130s =	1	0	0	0	0	0	0	0	0	0	0	0	0	302
rank value of 140s =	0	0	0	0	0	0	0	0	0	0	2	0	0	303.5
rank value of 150s =	0	0	0	0	0	0	0	0	0	1	0	0	0	305
rank value of 160s =	0	0	0	0	0	0	0	0	0	1	0	0	0	306
rank value of 170s =	1	0	0	0	0	0	0	0	0	0	0	0	0	307
rank value of 180s =	0	0	0	0	0	0	0	0	0	1	0	0	0	308
rank value of 190s =	0	0	0	0	0	0	0	0	0	1	0	0	0	309
rank value of 210s =	0	0	0	0	0	0	0	0	0	1	0	0	0	310
rank value of 230s =	0	0	0	1	0	0	0	0	0	1	0	0	0	311.5
rank value of 410s =	0	0	0	0	0	1	0	0	0	0	0	0	0	313
rank value of 510s =	0	0	0	1	0	0	0	0	0	0	0	0	0	314
rank value of 680s =	0	0	0	1	0	0	0	0	0	0	0	0	0	315
rank value of 770s =	0	0	0	0	0	0	0	0	0	0	1	0	0	316
n =	**30**	**29**	**24**	**28**	**28**	**28**	**26**	**26**	**27**	**28**	**24**	**9**	**9**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	2781600.4	1E+06	526491	339240	308579	436545	604354	1E+06	1E+06	123435	72092

$N_{i\,bg}$ = 83
N = 316
H = 48.50

Adjust H for ties:

T_i = 6E+06 sum of T1..T24

$H' = H/(1-(T_i/(N^3-N)))$

$H' = 59.06$

Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =59.06.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$

P = 2.33 Percentile of Standard Normal Distribution

from Table 4 of IFG

N = total sample size

$N_{i\,bg}$ = total samples (N_i) of background data

N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
Rbar (well x) =	199.7	137.1	110.1	108.9	129.6	149.6	190.5	205.9	117.1	89.5
avg Rbar (background) =	183.1	183.1	183.1	183.1	183.1	183.1	183.1	183.1	183.1	183.1
Dx =	16.6	-45.9	-73.0	-74.1	-53.5	-33.5	7.5	22.9	-66.0	-93.6
Cx =	46.5	46.5	46.5	47.8	47.8	47.2	46.5	49.3	74.7	74.7
Statistical Significance ?	No	No	No	No	No	No	No	No	No	No
If SSI, is current event above MCL?	-	-	-	-	-	-	-	-	-	-

Compare each difference (Dx) with the corresponding critical value (Cx).
No compliance well's difference between average ranks exceeded its corresponding critical value at a 5% significance level. Therefore, we conclude that significant evidence of contamination does not exist at the 5% significance level.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Cobalt**
NC MCL (µg/l): Not Established
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	ND	NS	NS	ND	**8.2**	**5.4**	ND	**14**	ND	**16**	NS	NP	NP	5
06/26/00	**10**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
07/26/00	**9.9**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	10
04/09/01	**54**	ND	NS	ND	ND	ND	**13**	**12**	**13**	**59**	NS	NP	NP	5
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
04/15/02	**58**	ND	NS	ND	ND	ND	**18**	**8**	**21**	**82**	NS	NP	NP	5
09/26/02	**13**	**5.4**	**16**	**100**	ND	**16**	**7.4**	**21**	**19**	**85**	**560**	NP	NP	5
04/28/03	**21**	ND	ND	**37**	ND	ND	**6.9**	ND	**17**	**50**	**81**	NP	NP	5
10/30/03	**9**	ND	NT	ND	ND	ND	**5.7**	ND	**52**	**8.8**	**110**	NP	NP	5
04/20/04	**9.5**	ND	ND	**7.7**	**5.2**	ND	**13**	**6.4**	ND	**43**	**50**	NP	NP	5
10/21/04	**6.2**	ND	ND	ND	ND	ND	ND	ND	ND	**31**	**120**	NP	NP	5
04/18/05	**12**	ND	ND	**110**	ND	ND	ND	ND	ND	**36**	**70**	NP	NP	5
10/13/05	**21**	ND	ND	**32**	ND	ND	**5.1**	ND	ND	**29**	**56**	NP	NP	5
04/25/06	**16**	ND	ND	ND	ND	ND	ND	ND	ND	**25**	**57**	NP	NP	10
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	5
04/25/07	ND	ND	ND	ND	ND	**260**	ND	ND	ND	ND	ND	NP	NP	10
10/31/07	**16.8**	ND	ND	ND	**10.6**	ND	ND	ND	ND	ND	**17.6**	NP	NP	5
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**22.3**	NP	NP	5
10/20/08	**27**	**10.4**	**19.5**	**9.4**	**7.7**	ND	**12.6**	**5.3**	**7.1**	ND	**18.4**	NP	NP	5
04/22/09	**5**	**6.3**	**17.1**	**8.5**	**5.7**	ND	**7**	ND	**6.4**	ND	NS	NP	NP	5
10/26/09	ND	ND	ND	ND	**6**	ND	NS	NS	NS	ND	**6**	NP	NP	5
04/22/10	**5.6**	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	5
10/27/10	ND	ND	ND	ND	ND	ND	**17.3**	**5.6**	ND	ND	**7.8**	**29.6**	ND	5
04/29/11	ND	ND	ND	ND	**6.9**	ND	**8.9**	ND	ND	ND	ND	**26.3**	ND	5
10/25/11	**5.3**	ND	ND	**6.4**	**6.3**	ND	**21**	ND	ND	ND	ND	**42.4**	ND	5
04/20/12	**6.9**	ND	ND	ND	ND	ND	**6.4**	ND	ND	ND	ND	**134**	ND	5
10/24/12	**15.7**	ND	ND	ND	**5.6**	ND	**6.5**	ND	ND	ND	ND	**48.5**	ND	5
04/24/13	**16.5**	ND	ND	ND	**10.8**	ND	**5.6**	ND	ND	ND	**8.9**	**115**	ND	5
10/24/13	**11.8**	ND	ND	ND	**8**	ND	**7.5**	ND	ND	ND	ND	**84.5**	ND	5
04/24/14	ND	ND	ND	ND	**5.7**	ND	ND	ND	ND	ND	ND	**65.1**	ND	5
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**24.2**	ND	5
N_i	30	29	24	28	28	28	26	26	27	28	24	9	9	
sum of rank values (R_i)	6227.0	3317.0	2939.0	4172.5	4347.5	3324.5	4850.5	3600.0	3859.0	4881.5	4979.0	2675.0	913.5	
avg rank value (Rbar)	207.6	114.4	122.5	149.0	155.3	118.7	186.6	138.5	142.9	174.3	207.5	297.2	101.5	

	Number of each rank value													Rank Value
rank value of NDs =	9	26	21	20	16	25	10	19	20	17	10	0	9	101.5
rank value of 5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	203
rank value of 5.1s =	0	0	0	0	0	0	1	0	0	0	0	0	0	204
rank value of 5.2s =	0	0	0	0	1	0	0	0	0	0	0	0	0	205
rank value of 5.3s =	1	0	0	0	0	0	0	1	0	0	0	0	0	206.5

rank value of 5.4s =	0	1	0	0	0	1	0	0	0	0	0	0	0	208.5
rank value of 5.6s =	1	0	0	0	1	0	1	1	0	0	0	0	0	211.5
rank value of 5.7s =	0	0	0	0	2	0	1	0	0	0	0	0	0	215
rank value of 6s =	0	0	0	0	1	0	0	0	0	0	1	0	0	217.5
rank value of 6.2s =	1	0	0	0	0	0	0	0	0	0	0	0	0	219
rank value of 6.3s =	0	1	0	0	1	0	0	0	0	0	0	0	0	220.5
rank value of 6.4s =	0	0	0	1	0	0	1	1	1	0	0	0	0	223.5
rank value of 6.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	226
rank value of 6.9s =	1	0	0	0	1	0	1	0	0	0	0	0	0	228
rank value of 7s =	0	0	0	0	0	0	1	0	0	0	0	0	0	230
rank value of 7.1s =	0	0	0	0	0	0	0	0	1	0	0	0	0	231
rank value of 7.4s =	0	0	0	0	0	0	1	0	0	0	0	0	0	232
rank value of 7.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	233
rank value of 7.7s =	0	0	0	1	1	0	0	0	0	0	0	0	0	234.5
rank value of 7.8s =	0	0	0	0	0	0	0	0	0	0	1	0	0	236
rank value of 8s =	0	0	0	0	1	0	0	0	0	0	0	0	0	237
rank value of 8.2s =	0	0	0	0	1	0	0	1	0	0	0	0	0	238.5
rank value of 8.5s =	0	0	0	1	0	0	0	0	0	0	0	0	0	240
rank value of 8.8s =	0	0	0	0	0	0	0	0	0	1	0	0	0	241
rank value of 8.9s =	0	0	0	0	0	0	1	0	0	0	1	0	0	242.5
rank value of 9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	244
rank value of 9.4s =	0	0	0	1	0	0	0	0	0	0	0	0	0	245
rank value of 9.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	246
rank value of 9.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	247
rank value of 10s =	1	0	0	0	0	0	0	0	0	0	0	0	0	248
rank value of 10.4s =	0	1	0	0	0	0	0	0	0	0	0	0	0	249
rank value of 10.6s =	0	0	0	0	1	0	0	0	0	0	0	0	0	250
rank value of 10.8s =	0	0	0	0	1	0	0	0	0	0	0	0	0	251
rank value of 11.8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	252
rank value of 12s =	1	0	0	0	0	0	0	1	0	0	0	0	0	253.5
rank value of 12.6s =	0	0	0	0	0	0	1	0	0	0	0	0	0	255
rank value of 13s =	1	0	0	0	0	0	2	0	1	0	0	0	0	257.5
rank value of 14s =	0	0	0	0	0	0	0	1	0	0	0	0	0	260
rank value of 15.7s =	1	0	0	0	0	0	0	0	0	0	0	0	0	261
rank value of 16s =	1	0	1	0	0	1	0	0	0	1	0	0	0	263.5
rank value of 16.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	266
rank value of 16.8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	267
rank value of 17s =	0	0	0	0	0	0	0	0	1	0	0	0	0	268
rank value of 17.1s =	0	0	1	0	0	0	0	0	0	0	0	0	0	269
rank value of 17.3s =	0	0	0	0	0	0	1	0	0	0	0	0	0	270
rank value of 17.6s =	0	0	0	0	0	0	0	0	0	0	1	0	0	271
rank value of 18s =	0	0	0	0	0	0	1	0	0	0	0	0	0	272
rank value of 18.4s =	0	0	0	0	0	0	0	0	0	0	1	0	0	273
rank value of 19s =	0	0	0	0	0	0	0	0	1	0	0	0	0	274
rank value of 19.5s =	0	0	1	0	0	0	0	0	0	0	0	0	0	275
rank value of 21s =	2	0	0	0	0	0	1	1	1	0	0	0	0	278
rank value of 22.3s =	0	0	0	0	0	0	0	0	0	0	1	0	0	281
rank value of 24.2s =	0	0	0	0	0	0	0	0	0	0	0	1	0	282
rank value of 25s =	0	0	0	0	0	0	0	0	0	1	0	0	0	283
rank value of 26.3s =	0	0	0	0	0	0	0	0	0	0	0	1	0	284
rank value of 27s =	1	0	0	0	0	0	0	0	0	0	0	0	0	285
rank value of 29s =	0	0	0	0	0	0	0	0	0	1	0	0	0	286
rank value of 29.6s =	0	0	0	0	0	0	0	0	0	0	0	1	0	287
rank value of 31s =	0	0	0	0	0	0	0	0	0	1	0	0	0	288
rank value of 32s =	0	0	0	1	0	0	0	0	0	0	0	0	0	289
rank value of 36s =	0	0	0	0	0	0	0	0	0	1	0	0	0	290
rank value of 37s =	0	0	0	1	0	0	0	0	0	0	0	0	0	291
rank value of 42.4s =	0	0	0	0	0	0	0	0	0	0	0	1	0	292

rank value of 43s =	0	0	0	0	0	0	0	0	0	1	0	0	0	293
rank value of 48.5s =	0	0	0	0	0	0	0	0	0	0	0	1	0	294
rank value of 50s =	0	0	0	0	0	0	0	0	0	1	1	0	0	295.5
rank value of 52s =	0	0	0	0	0	0	0	0	1	0	0	0	0	297
rank value of 54s =	1	0	0	0	0	0	0	0	0	0	0	0	0	298
rank value of 56s =	0	0	0	0	0	0	0	0	0	0	1	0	0	299
rank value of 57s =	0	0	0	0	0	0	0	0	0	0	1	0	0	300
rank value of 58s =	1	0	0	0	0	0	0	0	0	0	0	0	0	301
rank value of 59s =	0	0	0	0	0	0	0	0	0	1	0	0	0	302
rank value of 65.1s =	0	0	0	0	0	0	0	0	0	0	0	1	0	303
rank value of 70s =	0	0	0	0	0	0	0	0	0	0	1	0	0	304
rank value of 81s =	0	0	0	0	0	0	0	0	0	0	1	0	0	305
rank value of 82s =	0	0	0	0	0	0	0	0	0	1	0	0	0	306
rank value of 84.5s =	0	0	0	0	0	0	0	0	0	0	0	1	0	307
rank value of 85s =	0	0	0	0	0	0	0	0	0	1	0	0	0	308
rank value of 100s =	0	0	0	1	0	0	0	0	0	0	0	0	0	309
rank value of 110s =	0	0	0	1	0	0	0	0	0	0	1	0	0	310.5
rank value of 115s =	0	0	0	0	0	0	0	0	0	0	0	1	0	312
rank value of 120s =	0	0	0	0	0	0	0	0	0	0	1	0	0	313
rank value of 134s =	0	0	0	0	0	0	0	0	0	0	0	1	0	314
rank value of 260s =	0	0	0	0	0	1	0	0	0	0	0	0	0	315
rank value of 560s =	0	0	0	0	0	0	0	0	0	0	1	0	0	316
n =	**30**	**29**	**24**	**28**	**28**	**28**	**26**	**26**	**27**	**28**	**24**	**9**	**9**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	1877413.1	621777	675027	394725	904898	498462	551551	851037	1E+06	795069	92720

$N_{i\ bg}$ = 83
N = 316
H = 42.76

Adjust H for ties:

T_i = 8E+06 sum of T1..T18

$H' = H/(1-(T_i/(N^3-N)))$
H' = 57.89
Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =57.89.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$

P = 2.33 Percentile of Standard Normal Distribution

from Table 4 of IFG

N = total sample size

$N_{i\,bg}$ = total samples (N_i) of background data

N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	**MW-15**	**MW-16**	MW-17
Rbar (well x) =	149.0	155.3	118.7	186.6	138.5	142.9	174.3	207.5	297.2	101.5
avg Rbar (background) =	150.4	150.4	150.4	150.4	150.4	150.4	150.4	150.4	150.4	150.4
Dx =	-1.4	4.9	-31.7	36.2	-11.9	-7.5	23.9	57.1	146.8	-48.9
Cx =	46.5	46.5	46.5	47.8	47.8	47.2	46.5	49.3	74.7	74.7
Statistical Significance ?	No	No	No	No	No	No	No	**Yes**	**Yes**	No
If SSI, is current event above MCL?	-	-	-	-	-	-	-	NE	NE	-

Compare each difference (Dx) with the corresponding critical value (Cx).

The Dx value for the above indicated wells do exceed the corresponding Cx value.

Therefore, we conclude that the concentration of Total Cobalt averaged over these compliance wells are significantly greater than that of the background wells.

Shewart-CUSUM Control Charts should be performed for each failing well to check for statistical significance.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound:	**Total Cobalt**
NC MCL (µg/l):	Not Established
Method:	Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-15	MDL
9/26/02	**560**	**5**
4/28/03	**81**	**5**
10/30/03	**110**	**5**
4/20/04	**50**	**5**
10/21/04	**120**	**5**
4/18/05	**70**	**5**
10/13/05	**56**	**5**
4/25/06	**57**	**10**
10/20/06	ND	**5**
4/25/07	ND	**10**
10/31/07	**17.6**	**5**
4/23/08	**22.3**	**5**
10/20/08	**18.4**	**5**
4/22/09	NS	**5**
10/26/09	**6**	**5**
4/22/10	ND	**5**
10/27/10	**7.8**	**5**
4/29/11	ND	**5**
10/25/11	ND	**5**
4/20/12	ND	**5**
10/24/12	ND	**5**
4/24/13	**8.9**	**5**
10/24/13	ND	**5**
4/24/14	ND	**5**
10/27/14	ND	**5**

If not detected (ND), use half of the detection limit.

X_{bar} = 50.520833
SD = 114.32075
N = 24
$1/N\Sigma_i(X_i-X_{bar})^3$ = 5475267.4
γ_1= 3.9062065

Since the Coefficient of Skewness of 3.91 is greater than 1.0, the real data appear to be significantly skewed.
Do not assume that the data follow a Normal distribution.
Perform the Skewness Test on the natural log of the values.

X_{bar} = 2.5505044
SD = 1.653067
N = 24
$1/N\Sigma_i(X_i-X_{bar})^3$ = 2.282635
γ_1= 0.5386296

Since the Coefficient of Skewness of 0.54 is less than 1.0, the data appear not to be significantly skewed.
Proceed with further statistical tests using the log-transformed values shown above.

Part 2: Shewhart-CUSUM Control Chart

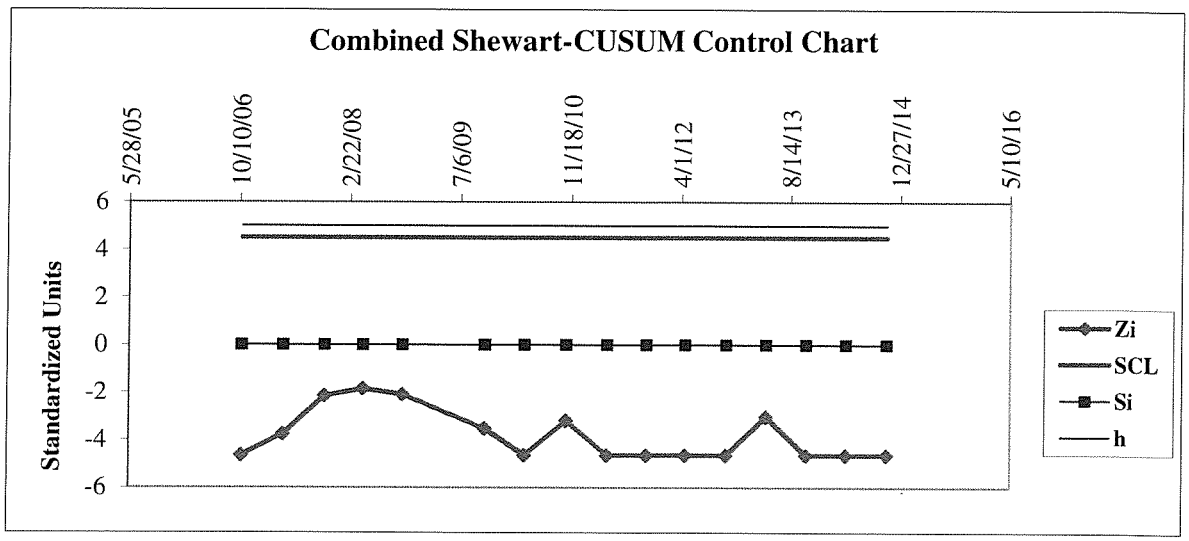
Compute the mean and standard deviation of the historical data:

4.5549099 = x_{mean} (Mean of N1-N8 historical data)
0.7832425 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
10/20/06	0.9162907	-4.6455844	0	5	4.5
4/25/07	1.6094379	-3.7606131	0	5	4.5
10/31/07	2.8678989	-2.1538808	0	5	4.5
4/23/08	3.1045867	-1.8516912	0	5	4.5
10/20/08	2.9123507	-2.0971273	0	5	4.5
10/26/09	1.7917595	-3.5278352	0	5	4.5
4/22/10	0.9162907	-4.6455844	0	5	4.5
10/27/10	2.0541237	-3.1928632	0	5	4.5
4/29/11	0.9162907	-4.6455844	0	5	4.5
10/25/11	0.9162907	-4.6455844	0	5	4.5
4/20/12	0.9162907	-4.6455844	0	5	4.5
10/24/12	0.9162907	-4.6455844	0	5	4.5
4/24/13	2.1860513	-3.0244255	0	5	4.5
10/24/13	0.9162907	-4.6455844	0	5	4.5
4/24/14	0.9162907	-4.6455844	0	5	4.5
10/27/14	0.9162907	-4.6455844	0	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h. The limits were not exceeded and do not indicate statistically significant evidence of contamination at the site.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound:	**Total Cobalt**
NC MCL (µg/l):	Not Established
Method:	Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-16	MDL
9/26/2002	NP	5
4/28/2003	NP	5
10/30/2003	NP	5
4/20/2004	NP	5
10/21/2004	NP	5
4/18/2005	NP	5
10/13/2005	NP	5
4/25/2006	NP	10
10/20/2006	NP	5
4/25/2007	NP	10
10/31/2007	NP	5
4/23/2008	NP	5
10/20/2008	NP	5
4/22/2009	NP	5
10/26/2009	NP	5
4/22/2010	NP	5
10/27/2010	**29.6**	5
4/29/2011	**26.3**	5
10/25/2011	**42.4**	5
4/20/2012	**134**	5
10/24/2012	**48.5**	5
4/24/2013	**115**	5
10/24/2013	**84.5**	5
4/24/2014	**65.1**	5
10/27/2014	**24.2**	5

If not detected (ND), use half of the detection limit.

X_{bar} = 63.288889
SD = 40.020946
N = 9
$1/N\Sigma_i(X_i-X_{bar})^3$ = 37829.932
γ_1= 0.7042102

Since the Coefficient of Skewness of 0.70 is less than 1.0, the data appear not to be significantly skewed. Proceed with further statistical tests using the real detected values shown above.

X_{bar} = 3.9697618
SD = 0.6347091
N = 9
$1/N\Sigma_i(X_i-X_{bar})^3$ = 0.0380941
γ_1= 0.1777717

Use the real values (not log-transformed) indicated in the previous section.

Part 2: Shewhart-CUSUM Control Chart

Date	MW-16	MDL	Data for Testing
9/26/2002	NP	5	-
4/28/2003	NP	5	-
10/30/2003	NP	5	-
4/20/2004	NP	5	-
10/21/2004	NP	5	-
4/18/2005	NP	5	-
10/13/2005	NP	5	-
4/25/2006	NP	10	-
10/20/2006	NP	5	-
4/25/2007	NP	10	-
10/31/2007	NP	5	-
4/23/2008	NP	5	-
10/20/2008	NP	5	-
4/22/2009	NP	5	-
10/26/2009	NP	5	-
4/22/2010	NP	5	-
10/27/2010	**29.6**	5	29.6
4/29/2011	**26.3**	5	26.3
10/25/2011	**42.4**	5	42.4
4/20/2012	**134**	5	134
10/24/2012	**48.5**	5	48.5
4/24/2013	**115**	5	115
10/24/2013	**84.5**	5	84.5
4/24/2014	**65.1**	5	65.1
10/27/2014	**24.2**	5	24.2

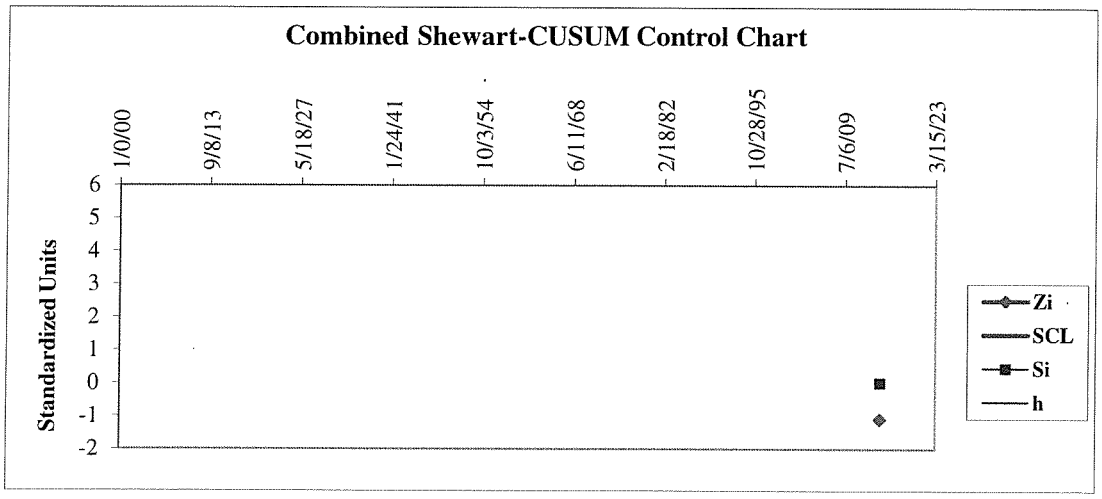
Compute the mean and standard deviation of the historical data:

68.175 = x_{mean} (Mean of N1-N8 historical data)
39.811117 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
10/27/2014	24.2	-1.104591	0	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h.
The limits were not exceeded and do not indicate statistically significant evidence of contamination at the site.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Copper**
NC MCL (µg/l): 1000
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	12	NS	NS	ND	ND	13	ND	27	ND	22	NS	NP	NP	5
06/26/00	17	6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
07/26/00	12	6.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	200
04/09/01	77	8.4	NS	ND	ND	5.4	ND	26	38	110	NS	NP	NP	5
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	200
04/15/02	69	ND	NS	ND	ND	ND	ND	13	68	120	NS	NP	NP	2
09/26/02	20	10	31	220	ND	ND	2.6	42	88	150	450	NP	NP	2
04/28/03	24	ND	2.6	40	ND	ND	ND	ND	28	94	71	NP	NP	2
10/30/03	18	ND	NT	ND	2.3	2.6	ND	3	85	4.4	150	NP	NP	2
04/20/04	18	ND	2.8	12	5.3	2.3	4.3	13	7.4	100	89	NP	NP	2
10/21/04	11	ND	ND	2	ND	ND	ND	ND	ND	63	140	NP	NP	2
04/18/05	29	ND	ND	240	ND	ND	ND	3.8	ND	120	130	NP	NP	2
10/13/05	31	2.6	3.5	70	ND	ND	ND	ND	3	82	96	NP	NP	2
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	200
10/20/06	26	ND	ND	9.6	ND	ND	ND	ND	20	ND	25	NP	NP	5
04/25/07	15	ND	ND	ND	ND	330	ND	ND	ND	ND	26	NP	NP	10
10/31/07	29.2	ND	ND	ND	ND	ND	ND	ND	6.3	40.3	47.4	NP	NP	5
04/23/08	7.2	ND	ND	ND	ND	ND	ND	ND	7.2	ND	17	NP	NP	5
10/20/08	26.5	ND	8.3	ND	ND	ND	ND	ND	ND	ND	9.7	NP	NP	5
04/22/09	5.1	ND	22.6	6	ND	ND	ND	ND	8.8	ND	NS	NP	NP	5
10/26/09	5.8	ND	ND	ND	6.4	ND	NS	NS	NS	ND	7.1	NP	NP	5
04/22/10	9.9	ND	ND	ND	ND	5.9	NS	NS	ND	ND	ND	NP	NP	5
10/27/10	6.7	ND	ND	ND	ND	ND	ND	12.4	ND	ND	53.9	ND	ND	5
04/29/11	6.4	ND	ND	ND	6.7	6.1	ND	ND	ND	ND	5.2	ND	ND	5
10/25/11	9.6	ND	ND	9.4	6.8	11.2	7.6	ND	ND	5.1	6.9	ND	ND	5
04/20/12	15.6	ND	ND	ND	5.8	5.2	ND	ND	ND	ND	ND	6.5	ND	5
10/24/12	22.7	ND	ND	ND	6	ND	ND	ND	5.1	ND	ND	ND	ND	5
04/24/13	13.4	ND	ND	ND	9.3	6	ND	ND	ND	ND	ND	ND	ND	5
10/24/13	12.6	ND	ND	ND	7.5	5.8	ND	ND	ND	ND	ND	ND	ND	5
04/24/14	7.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
N_i	30	29	24	28	28	28	26	26	27	28	24	9	9	
sum of rank values (R_i)	7511.5	3511.5	3187.0	4254.5	3910.5	4226.0	2917.0	3815.5	4579.0	4991.5	5276.5	1019.0	886.5	
avg rank value (Rbar)	250.4	121.1	132.8	151.9	139.7	150.9	112.2	146.8	169.6	178.3	219.9	113.2	98.5	

	Number of each rank value													Rank Value
rank value of NDs =	2	24	18	19	19	17	23	18	15	16	8	8	9	98.5
rank value of 2s =	0	0	0	1	0	0	0	0	0	0	0	0	0	197
rank value of 2.3s =	0	0	0	0	1	1	0	0	0	0	0	0	0	198.5
rank value of 2.6s =	0	1	1	0	0	1	1	0	0	0	0	0	0	201.5
rank value of 2.8s =	0	0	1	0	0	0	0	0	0	0	0	0	0	204

rank value of 3s =	0	0	0	0	0	0	0	1	1	0	0	0	0	205.5
rank value of 3.5s =	0	0	1	0	0	0	0	0	0	0	0	0	0	207
rank value of 3.8s =	0	0	0	0	0	0	0	1	0	0	0	0	0	208
rank value of 4.3s =	0	0	0	0	0	0	1	0	0	0	0	0	0	209
rank value of 4.4s =	0	0	0	0	0	0	0	0	0	1	0	0	0	210
rank value of 5.1s =	1	0	0	0	0	0	0	0	1	1	0	0	0	212
rank value of 5.2s =	0	0	0	0	0	1	0	0	0	0	1	0	0	214.5
rank value of 5.3s =	0	0	0	0	1	0	0	0	0	0	0	0	0	216
rank value of 5.4s =	0	0	0	0	0	1	0	0	0	0	0	0	0	217
rank value of 5.8s =	1	0	0	0	1	1	0	0	0	0	0	0	0	219
rank value of 5.9s =	0	0	0	0	0	1	0	0	0	0	0	0	0	221
rank value of 6s =	0	1	0	1	1	1	0	0	0	0	0	0	0	223.5
rank value of 6.1s =	0	1	0	0	0	1	0	0	0	0	0	0	0	226.5
rank value of 6.3s =	0	0	0	0	0	0	0	0	1	0	0	0	0	228
rank value of 6.4s =	1	0	0	0	1	0	0	0	0	0	0	0	0	229.5
rank value of 6.5s =	0	0	0	0	0	0	0	0	0	0	0	1	0	231
rank value of 6.7s =	1	0	0	0	1	0	0	0	0	0	0	0	0	232.5
rank value of 6.8s =	0	0	0	0	1	0	0	0	0	0	0	0	0	234
rank value of 6.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	235
rank value of 7.1s =	0	0	0	0	0	0	0	0	0	0	1	0	0	236
rank value of 7.2s =	1	0	0	0	0	0	0	0	1	0	0	0	0	237.5
rank value of 7.4s =	0	0	0	0	0	0	0	0	1	0	0	0	0	239
rank value of 7.5s =	0	0	0	0	1	0	0	0	0	0	0	0	0	240
rank value of 7.6s =	0	0	0	0	0	0	1	0	0	0	0	0	0	241
rank value of 7.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	242
rank value of 8.3s =	0	0	1	0	0	0	0	0	0	0	0	0	0	243
rank value of 8.4s =	0	1	0	0	0	0	0	0	0	0	0	0	0	244
rank value of 8.8s =	0	0	0	0	0	0	0	0	1	0	0	0	0	245
rank value of 9.3s =	0	0	0	0	1	0	0	0	0	0	0	0	0	246
rank value of 9.4s =	0	0	0	1	0	0	0	0	0	0	0	0	0	247
rank value of 9.6s =	1	0	0	1	0	0	0	0	0	0	0	0	0	248.5
rank value of 9.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	250
rank value of 9.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	251
rank value of 10s =	0	1	0	0	0	0	0	0	0	0	0	0	0	252
rank value of 11s =	1	0	0	0	0	0	0	0	0	0	0	0	0	253
rank value of 11.2s =	0	0	0	0	0	1	0	0	0	0	0	0	0	254
rank value of 12s =	2	0	0	1	0	0	0	0	0	0	0	0	0	256
rank value of 12.4s =	0	0	0	0	0	0	0	1	0	0	0	0	0	258
rank value of 12.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	259
rank value of 13s =	0	0	0	0	0	1	0	2	0	0	0	0	0	261
rank value of 13.4s =	1	0	0	0	0	0	0	0	0	0	0	0	0	263
rank value of 15s =	1	0	0	0	0	0	0	0	0	0	0	0	0	264
rank value of 15.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	265
rank value of 17s =	1	0	0	0	0	0	0	0	0	0	1	0	0	266.5
rank value of 18s =	2	0	0	0	0	0	0	0	0	0	0	0	0	268.5
rank value of 20s =	1	0	0	0	0	0	0	0	1	0	0	0	0	270.5
rank value of 22s =	0	0	0	0	0	0	0	0	0	1	0	0	0	272
rank value of 22.6s =	0	0	1	0	0	0	0	0	0	0	0	0	0	273
rank value of 22.7s =	1	0	0	0	0	0	0	0	0	0	0	0	0	274
rank value of 24s =	1	0	0	0	0	0	0	0	0	0	0	0	0	275
rank value of 25s =	0	0	0	0	0	0	0	0	0	0	1	0	0	276
rank value of 26s =	1	0	0	0	0	0	0	1	0	0	1	0	0	278
rank value of 26.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	280
rank value of 27s =	0	0	0	0	0	0	0	1	0	0	0	0	0	281
rank value of 28s =	0	0	0	0	0	0	0	0	1	0	0	0	0	282
rank value of 29s =	1	0	0	0	0	0	0	0	0	0	0	0	0	283
rank value of 29.2s =	1	0	0	0	0	0	0	0	0	0	0	0	0	284
rank value of 31s =	1	0	1	0	0	0	0	0	0	0	0	0	0	285.5

rank value of 38s =	0	0	0	0	0	0	0	0	1	0	0	0	0	287
rank value of 40s =	0	0	0	1	0	0	0	0	0	0	0	0	0	288
rank value of 40.3s =	0	0	0	0	0	0	0	0	0	1	0	0	0	289
rank value of 42s =	0	0	0	0	0	0	0	1	0	0	0	0	0	290
rank value of 47.4s =	0	0	0	0	0	0	0	0	0	0	1	0	0	291
rank value of 53.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	292
rank value of 63s =	0	0	0	0	0	0	0	0	0	1	0	0	0	293
rank value of 68s =	0	0	0	0	0	0	0	0	1	0	0	0	0	294
rank value of 69s =	1	0	0	0	0	0	0	0	0	0	0	0	0	295
rank value of 70s =	0	0	0	1	0	0	0	0	0	0	0	0	0	296
rank value of 71s =	0	0	0	0	0	0	0	0	0	0	1	0	0	297
rank value of 77s =	1	0	0	0	0	0	0	0	0	0	0	0	0	298
rank value of 82s =	0	0	0	0	0	0	0	0	0	1	0	0	0	299
rank value of 85s =	0	0	0	0	0	0	0	0	1	0	0	0	0	300
rank value of 88s =	0	0	0	0	0	0	0	0	1	0	0	0	0	301
rank value of 89s =	0	0	0	0	0	0	0	0	0	0	1	0	0	302
rank value of 94s =	0	0	0	0	0	0	0	0	0	1	0	0	0	303
rank value of 96s =	0	0	0	0	0	0	0	0	0	0	1	0	0	304
rank value of 100s =	0	0	0	0	0	0	0	0	0	1	0	0	0	305
rank value of 110s =	0	0	0	0	0	0	0	0	0	1	0	0	0	306
rank value of 120s =	0	0	0	0	0	0	0	0	0	2	0	0	0	307.5
rank value of 130s =	0	0	0	0	0	0	0	0	0	0	1	0	0	309
rank value of 140s =	0	0	0	0	0	0	0	0	0	0	1	0	0	310
rank value of 150s =	0	0	0	0	0	0	0	0	0	1	1	0	0	311.5
rank value of 220s =	0	0	0	1	0	0	0	0	0	0	0	0	0	313
rank value of 240s =	0	0	0	1	0	0	0	0	0	0	0	0	0	314
rank value of 330s =	0	0	0	0	0	1	0	0	0	0	0	0	0	315
rank value of 450s =	0	0	0	0	0	0	0	0	0	0	1	0	0	316
n =	**30**	**29**	**24**	**28**	**28**	**28**	**26**	**26**	**27**	**28**	**24**	**9**	**9**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	2432820.5	646456	546143	637824	327265	559925	776564	889824	1E+06	115373	87320

$N_{i\,bg}$ = 83
N = 316
H = 28.86

Adjust H for ties:

T_i = 8E+06 sum of T1..T22

$H' = H/(1-(T_i/(N^3-N)))$
H' = 37.91
Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =37.91.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$

P = 2.33 Percentile of Standard Normal Distribution

from Table 4 of IFG

N = total sample size

$N_{i\,bg}$ = total samples (N_i) of background data

N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
Rbar (well x) =	151.9	139.7	150.9	112.2	146.8	169.6	178.3	219.9	113.2	98.5
avg Rbar (background) =	171.2	171.2	171.2	171.2	171.2	171.2	171.2	171.2	171.2	171.2
Dx =	-19.3	-31.5	-20.3	-59.0	-24.5	-1.6	7.1	48.6	-58.0	-72.7
Cx =	46.5	46.5	46.5	47.8	47.8	47.2	46.5	49.3	74.7	74.7
Statistical Significance ?	No	No	No	No	No	No	No	No	No	No
If SSI, is current event above MCL?	-	-	-	-	-	-	-	-	-	-

Compare each difference (Dx) with the corresponding critical value (Cx).
No compliance well's difference between average ranks exceeded its corresponding critical value at a 5% significance level. Therefore, we conclude that significant evidence of contamination does not exist at the 5% significance level.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Lead**
NC MCL (µg/l): 15
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	**35**	NS	NS	ND	ND	ND	ND	**11**	ND	ND	NS	NP	NP	**10**
06/26/00	ND	**10**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
07/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	ND	NS	NS	NP	NP	**10**
04/09/01	ND	**59**	NS	ND	ND	ND	ND	ND	**18**	**2.5**	NS	NP	NP	**10**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
04/15/02	**13**	ND	NS	ND	ND	ND	ND	ND	**13**	**29**	NS	NP	NP	**10**
09/26/02	ND	**76**	**29**	ND	ND	ND	ND	ND	**150**	**20**	**740**	NP	NP	**10**
04/28/03	ND	ND	ND	ND	ND	ND	ND	ND	**25**	ND	**300**	NP	NP	**10**
10/30/03	**8.7**	**12**	NT	ND	ND	ND	ND	ND	**39**	**7.4**	**640**	NP	NP	**5**
04/20/04	**7.2**	**7**	**5.2**	**6.4**	**5.4**	ND	ND	ND	**12**	**39**	**250**	NP	NP	**5**
10/21/04	**7.2**	**5.6**	**5.7**	ND	ND	ND	ND	ND	ND	**24**	**430**	NP	NP	**5**
04/18/05	**13**	**8**	**5.2**	**73**	ND	ND	ND	ND	ND	**39**	**380**	NP	NP	**5**
10/13/05	**14**	**6.9**	ND	**20**	ND	ND	ND	ND	ND	**29**	**290**	NP	NP	**5**
04/25/06	**15**	ND	ND	ND	ND	ND	ND	ND	**53**	**19**	**300**	NP	NP	**10**
10/20/06	**20**	ND	ND	ND	ND	ND	ND	ND	**32**	ND	**89**	NP	NP	**5**
04/25/07	ND	ND	ND	ND	ND	**96**	ND	ND	ND	ND	**69**	NP	NP	**10**
10/31/07	**17.5**	**8.1**	ND	ND	ND	ND	ND	ND	ND	**12.3**	**123**	NP	NP	**5**
04/23/08	ND	ND	**8.4**	ND	ND	ND	ND	ND	**5.8**	ND	**50.2**	NP	NP	**5**
10/20/08	ND	**13.5**	**7.6**	ND	ND	ND	ND	ND	ND	ND	**25.9**	NP	NP	**5**
04/22/09	ND	**8.7**	**24.4**	ND	ND	ND	ND	ND	**9.8**	ND	NS	NP	NP	**5**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	**24.7**	NP	NP	**5**
04/22/10	ND	**10.5**	ND	ND	ND	ND	NS	NS	ND	ND	**9.2**	NP	NP	**5**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**16**	ND	ND	**5**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**11**	ND	ND	**5**
10/25/11	ND	ND	ND	ND	ND	ND	**6.3**	ND	ND	ND	**14.6**	ND	ND	**5**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.4**	ND	ND	**5**
10/24/12	**5.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10.4**	ND	ND	**5**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
N_i	30	29	24	28	28	28	26	26	28	28	24	9	9	
sum of rank values (R_i)	5274.0	5262.5	3877.5	3852.0	3497.5	3560.5	3261.5	3281.0	4999.5	4975.0	6393.0	1084.5	1084.5	
avg rank value (Rbar)	175.8	181.5	161.6	137.6	124.9	127.2	125.4	126.2	178.6	177.7	266.4	120.5	120.5	

	Number of each rank value													Rank Value
rank value of NDs =	19	17	17	25	27	27	25	25	18	18	4	9	9	120.5
rank value of 2.5s =	0	0	0	0	0	0	0	0	0	1	0	0	0	241
rank value of 5.2s =	0	0	2	0	0	0	0	0	0	0	0	0	0	242.5
rank value of 5.4s =	0	0	0	0	1	0	0	0	0	0	0	0	0	244
rank value of 5.6s =	0	1	0	0	0	0	0	0	0	0	0	0	0	245
rank value of 5.7s =	0	0	1	0	0	0	0	0	0	0	0	0	0	246
rank value of 5.8s =	0	0	0	0	0	0	0	0	1	0	0	0	0	247
rank value of 5.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	248
rank value of 6.3s =	0	0	0	0	0	0	1	0	0	0	0	0	0	249

rank value of 6.4s =	0	0	0	1	0	0	0	0	0	0	1	0	0	250.5
rank value of 6.9s =	0	1	0	0	0	0	0	0	0	0	0	0	0	252
rank value of 7s =	0	1	0	0	0	0	0	0	0	0	0	0	0	253
rank value of 7.2s =	2	0	0	0	0	0	0	0	0	0	0	0	0	254.5
rank value of 7.4s =	0	0	0	0	0	0	0	0	0	1	0	0	0	256
rank value of 7.6s =	0	0	1	0	0	0	0	0	0	0	0	0	0	257
rank value of 8s =	0	1	0	0	0	0	0	0	0	0	0	0	0	258
rank value of 8.1s =	0	1	0	0	0	0	0	0	0	0	0	0	0	259
rank value of 8.4s =	0	0	1	0	0	0	0	0	0	0	0	0	0	260
rank value of 8.7s =	1	1	0	0	0	0	0	0	0	0	0	0	0	261.5
rank value of 9.2s =	0	0	0	0	0	0	0	0	0	0	1	0	0	263
rank value of 9.8s =	0	0	0	0	0	0	0	0	1	0	0	0	0	264
rank value of 10s =	0	1	0	0	0	0	0	0	0	0	0	0	0	265
rank value of 10.4s =	0	0	0	0	0	0	0	0	0	0	1	0	0	266
rank value of 10.5s =	0	1	0	0	0	0	0	0	0	0	0	0	0	267
rank value of 11s =	0	0	0	0	0	0	0	1	0	0	1	0	0	268.5
rank value of 12s =	0	1	0	0	0	0	0	0	1	0	0	0	0	270.5
rank value of 12.3s =	0	0	0	0	0	0	0	0	0	1	0	0	0	272
rank value of 13s =	2	0	0	0	0	0	0	0	1	0	0	0	0	274
rank value of 13.5s =	0	1	0	0	0	0	0	0	0	0	0	0	0	276
rank value of 14s =	1	0	0	0	0	0	0	0	0	0	0	0	0	277
rank value of 14.6s =	0	0	0	0	0	0	0	0	0	0	1	0	0	278
rank value of 15s =	1	0	0	0	0	0	0	0	0	0	0	0	0	279
rank value of 16s =	0	0	0	0	0	0	0	0	0	0	1	0	0	280
rank value of 17.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	281
rank value of 18s =	0	0	0	0	0	0	0	0	1	0	0	0	0	282
rank value of 19s =	0	0	0	0	0	0	0	0	0	1	0	0	0	283
rank value of 20s =	1	0	0	1	0	0	0	0	0	1	0	0	0	285
rank value of 24s =	0	0	0	0	0	0	0	0	0	1	0	0	0	287
rank value of 24.4s =	0	0	1	0	0	0	0	0	0	0	0	0	0	288
rank value of 24.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	289
rank value of 25s =	0	0	0	0	0	0	0	0	1	0	0	0	0	290
rank value of 25.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	291
rank value of 29s =	0	0	1	0	0	0	0	0	0	2	0	0	0	293
rank value of 32s =	0	0	0	0	0	0	0	0	1	0	0	0	0	295
rank value of 35s =	1	0	0	0	0	0	0	0	0	0	0	0	0	296
rank value of 39s =	0	0	0	0	0	0	0	0	1	2	0	0	0	298
rank value of 50.2s =	0	0	0	0	0	0	0	0	0	0	1	0	0	300
rank value of 53s =	0	0	0	0	0	0	0	0	1	0	0	0	0	301
rank value of 59s =	0	1	0	0	0	0	0	0	0	0	0	0	0	302
rank value of 69s =	0	0	0	0	0	0	0	0	0	0	1	0	0	303
rank value of 73s =	0	0	0	1	0	0	0	0	0	0	0	0	0	304
rank value of 76s =	0	1	0	0	0	0	0	0	0	0	0	0	0	305
rank value of 89s =	0	0	0	0	0	0	0	0	0	0	1	0	0	306
rank value of 96s =	0	0	0	0	0	1	0	0	0	0	0	0	0	307
rank value of 123s =	0	0	0	0	0	0	0	0	0	0	1	0	0	308
rank value of 150s =	0	0	0	0	0	0	0	0	1	0	0	0	0	309
rank value of 250s =	0	0	0	0	0	0	0	0	0	0	1	0	0	310
rank value of 290s =	0	0	0	0	0	0	0	0	0	0	1	0	0	311
rank value of 300s =	0	0	0	0	0	0	0	0	0	0	2	0	0	312.5
rank value of 380s =	0	0	0	0	0	0	0	0	0	0	1	0	0	314
rank value of 430s =	0	0	0	0	0	0	0	0	0	0	1	0	0	315
rank value of 640s =	0	0	0	0	0	0	0	0	0	0	1	0	0	316
rank value of 740s =	0	0	0	0	0	0	0	0	0	0	1	0	0	317

n =	**30**	**29**	**24**	**28**	**28**	**28**	**26**	**26**	**28**	**28**	**24**	**9**	**9**

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	2503173.4	529925	436875	452756	409130	414037	892679	883951	2E+06	130682	130682

$N_{i\,bg}$ = 83
N = 317
H = 56.28

Adjust H for ties:

T_i = 1E+07 sum of T1..T12

$H' = H/(1-(T_i/(N^3-N)))$
H' = 99.42
Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =99.42.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$
P = 2.33 Percentile of Standard Normal Distribution
from Table 4 of IFG
N = total sample size
$N_{i\,bg}$ = total samples (N_i) of background data
N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	**MW-15**	MW-16	MW-17
Rbar (well x) =	137.6	124.9	127.2	125.4	126.2	178.6	177.7	266.4	120.5	120.5
avg Rbar (background) =	173.7	173.7	173.7	173.7	173.7	173.7	173.7	173.7	173.7	173.7
Dx =	-36.1	-48.8	-46.5	-48.2	-47.5	4.9	4.0	92.7	-53.2	-53.2
Cx =	46.7	46.7	46.7	48.0	48.0	46.7	46.7	49.5	74.9	74.9
Statistical Significance ?	No	No	No	No	No	No	No	**Yes**	No	No
If SSI, is current event above MCL?	-	-	-	-	-	-	-	No	-	-

Compare each difference (Dx) with the corresponding critical value (Cx).
The Dx value for the above indicated wells do exceed the corresponding Cx value.
Therefore, we conclude that the concentration of Total Lead averaged over these compliance wells are significantly greater than that of the background wells.
Shewart-CUSUM Control Charts should be performed for each failing well to check for statistical significance.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound:	**Total Lead**
NC MCL (µg/l):	15
Method:	Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-15	MDL
9/26/02	**740**	**10**
4/28/03	**300**	**10**
10/30/03	**640**	**5**
4/20/04	**250**	**5**
10/21/04	**430**	**5**
4/18/05	**380**	**5**
10/13/05	**290**	**5**
4/25/06	**300**	**10**
10/20/06	**89**	**5**
4/25/07	**69**	**10**
10/31/07	**123**	**5**
4/23/08	**50.2**	**5**
10/20/08	**25.9**	**5**
4/22/09	NS	**5**
10/26/09	**24.7**	**5**
4/22/10	**9.2**	**5**
10/27/10	**16**	**5**
4/29/11	**11**	**5**
10/25/11	**14.6**	**5**
4/20/12	**6.4**	**5**
10/24/12	ND	**5**
4/24/13	**10.4**	**5**
10/24/13	ND	**5**
4/24/14	ND	**5**
10/27/14	ND	**5**

If not detected (ND), use half of the detection limit.

X_{bar} = 157.89167
SD = 213.38332
N = 24
$1/N\Sigma_i(X_i-X_{bar})^3$ = 12845909
γ_1= 1.4093165

Since the Coefficient of Skewness of 1.41 is greater than 1.0, the real data appear to be significantly skewed.
Do not assume that the data follow a Normal distribution.
Perform the Skewness Test on the natural log of the values.

X_{bar} = 3.7298727
SD = 1.9398195
N = 24
$1/N\Sigma_i(X_i-X_{bar})^3$ = -0.352543
γ_1= 0.0514817

Since the Coefficient of Skewness of 0.05 is less than 1.0, the data appear not to be significantly skewed.
Proceed with further statistical tests using the log-transformed values shown above.

Part 2: Shewhart-CUSUM Control Chart

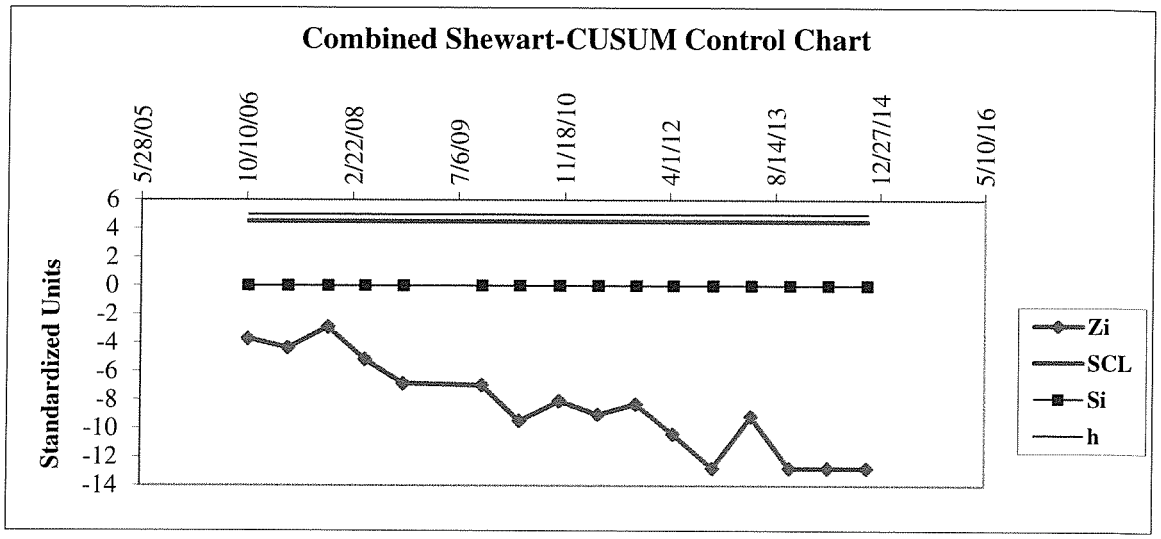
Compute the mean and standard deviation of the historical data:

5.9588727 = x_{mean} (Mean of N1-N8 historical data)
0.394346 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
10/20/06	4.4886364	-3.7282898	0	5	4.5
4/25/07	4.2341065	-4.3737378	0	5	4.5
10/31/07	4.8121844	-2.9078226	0	5	4.5
4/23/08	3.916015	-5.1803681	0	5	4.5
10/20/08	3.254243	-6.8585187	0	5	4.5
10/26/09	3.2068032	-6.9788185	0	5	4.5
4/22/10	2.2192035	-9.4832172	0	5	4.5
10/27/10	2.7725887	-8.0799187	0	5	4.5
4/29/11	2.3978953	-9.0300828	0	5	4.5
10/25/11	2.6810215	-8.3121188	0	5	4.5
4/20/12	1.856298	-10.403489	0	5	4.5
10/24/12	0.9162907	-12.787201	0	5	4.5
4/24/13	2.3418058	-9.1723169	0	5	4.5
10/24/13	0.9162907	-12.787201	0	5	4.5
4/24/14	0.9162907	-12.787201	0	5	4.5
10/27/14	0.9162907	-12.787201	0	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h.
The limits were not exceeded and do not indicate statistically significant evidence of contamination at the site.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Nickel**
NC MCL (µg/l): 100
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	15	NS	NS	17	12	8.3	ND	24	6.7	22	NS	NP	NP	5
06/26/00	15	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
07/26/00	16	9.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
09/18/00	NS	NS	NS	8.8	NT	NS	NS	NS	NT	NS	NS	NP	NP	50
04/09/01	76	7.2	NS	9.6	5.3	ND	ND	18	28	6.1	NS	NP	NP	5
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	50
04/15/02	74	ND	NS	ND	ND	ND	6	9	44	68	NS	NP	NP	5
09/26/02	16	6.8	31	400	ND	ND	ND	27	40	78	430	NP	NP	5
04/28/03	ND	ND	ND	90	ND	ND	ND	ND	ND	26	70	NP	NP	5
10/30/03	19	ND	NT	6.9	6.9	ND	ND	ND	48	ND	190	NP	NP	5
04/20/04	20	ND	ND	30	7.3	ND	ND	12	5.3	49	110	NP	NP	5
10/21/04	12	ND	ND	13	ND	ND	ND	ND	ND	35	160	NP	NP	5
04/18/05	29	9.6	17	460	ND	ND	5.5	5.4	ND	59	170	NP	NP	5
10/13/05	29	ND	ND	160	6.8	ND	ND	6.1	ND	46	100	NP	NP	5
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	88	NP	NP	50
10/20/06	22	ND	8.3	25	ND	ND	ND	ND	13	ND	24	NP	NP	5
04/25/07	ND	ND	ND	ND	ND	330	ND	ND	ND	ND	ND	NP	NP	50
10/31/07	24	ND	8	8.4	13.8	ND	5.8	9.8	ND	20.2	36.2	NP	NP	5
04/23/08	7.3	ND	12.9	6.3	10.8	5.7	ND	11.3	5.3	ND	19	NP	NP	5
10/20/08	23	ND	21	11.1	10.7	7.5	ND	14	ND	ND	8.5	NP	NP	5
04/22/09	5.6	7.2	19.7	16.7	10.9	6	5.1	14	6	ND	NS	NP	NP	5
10/26/09	6.7	ND	5.2	6	18	7.5	NS	NS	NS	6	8.4	NP	NP	5
04/22/10	8.6	9.6	7.6	ND	6.2	ND	NS	NS	ND	ND	ND	NP	NP	5
10/27/10	7	ND	ND	ND	7.4	ND	21.5	19	ND	ND	7.5	10.8	ND	5
04/29/11	ND	ND	ND	ND	10.5	8.6	19.5	15.2	ND	ND	ND	10.3	ND	5
10/25/11	6.9	ND	ND	14.7	8.8	7.5	20.8	19.9	ND	ND	ND	8	ND	5
04/20/12	12.2	ND	ND	ND	9.4	9.4	23.8	24.6	ND	ND	ND	19.3	ND	5
10/24/12	18.5	ND	ND	ND	10.1	8.9	20	25.3	ND	ND	ND	9.6	ND	5
04/24/13	10	ND	ND	ND	12	8.6	21.8	32.8	ND	ND	ND	9.2	ND	5
10/24/13	7.9	ND	8.3	ND	7.5	7	30.2	29.9	ND	ND	ND	12.1	ND	5
04/24/14	7	ND	ND	ND	9.3	10.1	23.6	33.9	ND	ND	ND	12.5	ND	5
10/27/14	ND	ND	ND	ND	10.7	10.1	29.5	31.4	ND	ND	ND	9.1	ND	5
N_i	30	29	24	29	28	28	26	26	27	28	24	9	9	
sum of rank values (R_i)	6230.5	2895.5	3272.0	5038.5	4731.5	3864.0	4046.0	5422.0	3396.5	4209.5	4632.0	1990.0	675.0	
avg rank value (Rbar)	207.7	99.8	136.3	173.7	169.0	138.0	155.6	208.5	125.8	150.3	193.0	221.1	75.0	

	Number of each rank value													Rank Value
rank value of NDs =	5	23	14	12	8	14	13	6	18	17	10	0	9	75
rank value of 5.1s =	0	0	0	0	0	0	1	0	0	0	0	0	0	150
rank value of 5.2s =	0	0	1	0	0	0	0	0	0	0	0	0	0	151
rank value of 5.3s =	0	0	0	0	1	0	0	0	2	0	0	0	0	153
rank value of 5.4s =	0	0	0	0	0	0	0	1	0	0	0	0	0	155
rank value of 5.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	156
rank value of 5.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	157

rank value of 5.7s =	0	0	0	0	0	1	0	0	0	0	0	0	0	158
rank value of 5.8s =	0	0	0	0	0	0	1	0	0	0	0	0	0	159
rank value of 6s =	0	0	0	1	0	1	0	0	1	1	0	0	0	161.5
rank value of 6.1s =	0	0	0	0	0	0	0	1	0	1	0	0	0	164.5
rank value of 6.2s =	0	0	0	0	1	0	1	0	0	0	0	0	0	166.5
rank value of 6.3s =	0	0	0	1	0	0	0	0	0	0	0	0	0	168
rank value of 6.7s =	1	0	0	0	0	0	0	0	1	0	0	0	0	169.5
rank value of 6.8s =	0	1	0	0	1	0	0	0	0	0	0	0	0	171.5
rank value of 6.9s =	1	0	0	1	1	0	0	0	0	0	0	0	0	174
rank value of 7s =	2	0	0	0	0	1	0	0	0	0	0	0	0	177
rank value of 7.2s =	0	2	0	0	0	0	0	0	0	0	0	0	0	179.5
rank value of 7.3s =	1	0	0	0	1	0	0	0	0	0	0	0	0	181.5
rank value of 7.4s =	0	0	0	0	1	0	0	0	0	0	0	0	0	183
rank value of 7.5s =	0	0	0	0	1	3	0	0	0	0	1	0	0	186
rank value of 7.6s =	0	0	1	0	0	0	0	0	0	0	0	0	0	189
rank value of 7.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	190
rank value of 8s =	0	0	1	0	0	0	0	0	0	0	0	1	0	191.5
rank value of 8.3s =	0	0	2	0	0	1	0	0	0	0	0	0	0	194
rank value of 8.4s =	0	0	0	1	0	0	0	0	0	0	1	0	0	196.5
rank value of 8.5s =	0	0	0	0	0	0	0	0	0	0	1	0	0	198
rank value of 8.6s =	1	0	0	0	0	2	0	0	0	0	0	0	0	200
rank value of 8.8s =	0	0	0	1	1	0	0	0	0	0	0	0	0	202.5
rank value of 8.9s =	0	0	0	0	0	1	0	0	0	0	0	0	0	204
rank value of 9.1s =	0	0	0	0	0	0	0	0	0	0	0	1	0	205
rank value of 9.2s =	0	0	0	0	0	0	0	1	0	0	0	1	0	206.5
rank value of 9.3s =	0	0	0	0	1	0	0	0	0	0	0	0	0	208
rank value of 9.4s =	0	0	0	0	1	1	0	0	0	0	0	0	0	209.5
rank value of 9.6s =	0	2	0	1	0	0	0	0	0	0	0	1	0	212.5
rank value of 9.7s =	0	1	0	0	0	0	0	0	0	0	0	0	0	215
rank value of 9.8s =	0	0	0	0	0	0	0	1	0	0	0	0	0	216
rank value of 10s =	1	0	0	0	0	0	0	0	0	0	0	0	0	217
rank value of 10.1s =	0	0	0	0	1	2	0	0	0	0	0	0	0	219
rank value of 10.3s =	0	0	0	0	0	0	0	0	0	0	0	1	0	221
rank value of 10.5s =	0	0	0	0	1	0	0	0	0	0	0	0	0	222
rank value of 10.7s =	0	0	0	0	2	0	0	0	0	0	0	0	0	223.5
rank value of 10.8s =	0	0	0	0	1	0	0	0	0	0	0	1	0	225.5
rank value of 10.9s =	0	0	0	0	1	0	0	0	0	0	0	0	0	227
rank value of 11.1s =	0	0	0	1	0	0	0	0	0	0	0	0	0	228
rank value of 11.3s =	0	0	0	0	0	0	0	1	0	0	0	0	0	229
rank value of 12s =	1	0	0	0	2	0	0	1	0	0	0	0	0	231.5
rank value of 12.1s =	0	0	0	0	0	0	0	0	0	0	0	1	0	234
rank value of 12.2s =	1	0	0	0	0	0	0	0	0	0	0	0	0	235
rank value of 12.5s =	0	0	0	0	0	0	0	0	0	0	0	1	0	236
rank value of 12.9s =	0	0	1	0	0	0	0	0	0	0	0	0	0	237
rank value of 13s =	0	0	0	1	0	0	0	0	1	0	0	0	0	238.5
rank value of 13.8s =	0	0	0	0	1	0	0	0	0	0	0	0	0	240
rank value of 14s =	0	0	0	0	0	0	0	2	0	0	0	0	0	241.5
rank value of 14.7s =	0	0	0	1	0	0	0	0	0	0	0	0	0	243
rank value of 15s =	2	0	0	0	0	0	0	0	0	0	0	0	0	244.5
rank value of 15.2s =	0	0	0	0	0	0	0	1	0	0	0	0	0	246
rank value of 16s =	2	0	0	0	0	0	0	0	0	0	0	0	0	247.5
rank value of 16.7s =	0	0	0	1	0	0	0	0	0	0	0	0	0	249
rank value of 17s =	0	0	1	1	0	0	0	0	0	0	0	0	0	250.5
rank value of 18s =	0	0	0	0	1	0	0	1	0	0	0	0	0	252.5
rank value of 18.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	254
rank value of 19s =	1	0	0	0	0	0	0	1	0	0	1	0	0	256
rank value of 19.3s =	0	0	0	0	0	0	0	0	0	0	0	1	0	258
rank value of 19.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	259
rank value of 19.7s =	0	0	1	0	0	0	0	0	0	0	0	0	0	260

rank value of 19.9s =	0	0	0	0	0	0	0	1	0	0	0	0	0	261
rank value of 20s =	1	0	0	0	0	0	1	0	0	0	0	0	0	262.5
rank value of 20.2s =	0	0	0	0	0	0	0	0	0	1	0	0	0	264
rank value of 20.8s =	0	0	0	0	0	0	1	0	0	0	0	0	0	265
rank value of 21s =	0	0	1	0	0	0	0	0	0	0	0	0	0	266
rank value of 21.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	267
rank value of 21.8s =	0	0	0	0	0	0	1	0	0	0	0	0	0	268
rank value of 22s =	1	0	0	0	0	0	0	0	0	1	0	0	0	269.5
rank value of 23s =	1	0	0	0	0	0	0	0	0	0	0	0	0	271
rank value of 23.6s =	0	0	0	0	0	0	1	0	0	0	0	0	0	272
rank value of 23.8s =	0	0	0	0	0	0	1	0	0	0	0	0	0	273
rank value of 24s =	1	0	0	0	0	0	0	1	0	0	1	0	0	275
rank value of 24.6s =	0	0	0	0	0	0	0	1	0	0	0	0	0	277
rank value of 25s =	0	0	0	1	0	0	0	0	0	0	0	0	0	278
rank value of 25.3s =	0	0	0	0	0	0	0	1	0	0	0	0	0	279
rank value of 26s =	0	0	0	0	0	0	0	0	0	1	0	0	0	280
rank value of 27s =	0	0	0	0	0	0	0	1	0	0	0	0	0	281
rank value of 28s =	0	0	0	0	0	0	0	0	1	0	0	0	0	282
rank value of 29s =	2	0	0	0	0	0	0	0	0	0	0	0	0	283.5
rank value of 29.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	285
rank value of 29.9s =	0	0	0	0	0	0	0	1	0	0	0	0	0	286
rank value of 30s =	0	0	0	1	0	0	0	0	0	0	0	0	0	287
rank value of 30.2s =	0	0	0	0	0	0	1	0	0	0	0	0	0	288
rank value of 31s =	0	0	1	0	0	0	0	0	0	0	0	0	0	289
rank value of 31.4s =	0	0	0	0	0	0	0	1	0	0	0	0	0	290
rank value of 32.8s =	0	0	0	0	0	0	0	1	0	0	0	0	0	291
rank value of 33.9s =	0	0	0	0	0	0	0	1	0	0	0	0	0	292
rank value of 35s =	0	0	0	0	0	0	0	0	0	1	0	0	0	293
rank value of 36.2s =	0	0	0	0	0	0	0	0	0	0	1	0	0	294
rank value of 40s =	0	0	0	0	0	0	0	0	1	0	0	0	0	295
rank value of 44s =	0	0	0	0	0	0	0	0	1	0	0	0	0	296
rank value of 46s =	0	0	0	0	0	0	0	0	0	1	0	0	0	297
rank value of 48s =	0	0	0	0	0	0	0	0	1	0	0	0	0	298
rank value of 49s =	0	0	0	0	0	0	0	0	0	1	0	0	0	299
rank value of 59s =	0	0	0	0	0	0	0	0	0	1	0	0	0	300
rank value of 68s =	0	0	0	0	0	0	0	0	0	1	0	0	0	301
rank value of 70s =	0	0	0	0	0	0	0	0	0	0	1	0	0	302
rank value of 74s =	1	0	0	0	0	0	0	0	0	0	0	0	0	303
rank value of 76s =	1	0	0	0	0	0	0	0	0	0	0	0	0	304
rank value of 78s =	0	0	0	0	0	0	0	0	0	1	0	0	0	305
rank value of 88s =	0	0	0	0	0	0	0	0	0	0	1	0	0	306
rank value of 90s =	0	0	0	1	0	0	0	0	0	0	0	0	0	307
rank value of 100s =	0	0	0	0	0	0	0	0	0	0	1	0	0	308
rank value of 110s =	0	0	0	0	0	0	0	0	0	0	1	0	0	309
rank value of 160s =	0	0	0	1	0	0	0	0	0	0	1	0	0	310.5
rank value of 170s =	0	0	0	0	0	0	0	0	0	0	1	0	0	312
rank value of 190s =	0	0	0	0	0	0	0	0	0	0	1	0	0	313
rank value of 330s =	0	0	0	0	0	1	0	0	0	0	0	0	0	314
rank value of 400s =	0	0	0	1	0	0	0	0	0	0	0	0	0	315
rank value of 430s =	0	0	0	0	0	0	0	0	0	0	1	0	0	316
rank value of 460s =	0	0	0	1	0	0	0	0	0	0	0	0	0	317
n =	**30**	**29**	**24**	**29**	**28**	**28**	**26**	**26**	**27**	**28**	**24**	**9**	**9**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	Background	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
Ri^2/N_i =	1851932.6	875396	799539	533232	629620	1E+06	427267	632853	893976	440011	50625

$N_{i\,bg}$ = 83
N = 317
H = 29.89

Adjust H for ties:

T_i = 3E+06 sum of T1..T36

$H' = H/(1-(T_i/(N^3-N)))$
H' = 33.35
Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =33.35.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$
P = 2.33 Percentile of Standard Normal Distribution
from Table 4 of IFG
N = total sample size
$N_{i\,bg}$ = total samples (N_i) of background data
N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
Rbar (well x) =	173.7	169.0	138.0	155.6	208.5	125.8	150.3	193.0	221.1	75.0
avg Rbar (background) =	149.4	149.4	149.4	149.4	149.4	149.4	149.4	149.4	149.4	149.4
Dx =	24.4	19.6	-11.4	6.2	59.2	-23.6	1.0	43.6	71.7	-74.4
Cx =	46.1	46.7	46.7	48.0	48.0	47.3	46.7	49.5	74.9	74.9
Statistical Significance ?	No	No	No	No	**Yes**	No	No	No	No	No
If SSI, is current event above MCL?	-	-	-	-	No	-	-	-	-	-

Compare each difference (Dx) with the corresponding critical value (Cx).
The Dx value for the above indicated wells do exceed the corresponding Cx value.
Therefore, we conclude that the concentration of Total Nickel averaged over these compliance wells are significantly greater than that of the background wells.
Shewart-CUSUM Control Charts should be performed for each failing well to check for statistical significance.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound:	**Total Nickel**
NC MCL (µg/l):	100
Method:	Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-3D	MDL
4/24/00	**24**	**5**
6/26/00	NS	**5**
7/26/00	NS	**5**
9/18/00	NS	**50**
4/9/01	**18**	**5**
9/18/01	NS	**5**
10/29/01	NS	**5**
1/30/02	NS	**5**
2/28/02	NS	**50**
4/15/02	**9**	**5**
9/26/02	**27**	**5**
4/28/03	ND	**5**
10/30/03	ND	**5**
4/20/04	**12**	**5**
10/21/04	ND	**5**
4/18/05	**5**	**5**
10/13/05	**6**	**5**
4/25/06	ND	**50**
10/20/06	ND	**5**
4/25/07	ND	**50**
10/31/07	**10**	**5**
4/23/08	**11**	**5**
10/20/08	**14**	**5**
4/22/09	**14**	**5**
10/26/09	NS	**5**
4/22/10	NS	**5**
10/27/10	**19**	**5**
4/29/11	**15**	**5**
10/25/11	**20**	**5**
4/20/12	**25**	**5**
10/24/12	**25**	**5**
4/24/13	**33**	**5**
10/24/13	**30**	**5**
4/24/14	**34**	**5**
10/27/14	**31**	**5**

If not detected (ND), use half of the detection limit.

X_{bar} = 17.030769
SD = 10.221224
N = 26
$1/N\Sigma_i(X_i-X_{bar})^3$ = 30.984721
γ_1 = 0.0307744

Since the Coefficient of Skewness of 0.03 is less than 1.0, the data appear not to be significantly skewed. Proceed with further statistical tests using the real detected values shown above.

X_{bar} = 2.5615304
SD = 0.8664986
N = 26

$1/N\Sigma_i(X_i-X_{bar})^3 =$ -0.541081
$\gamma_1 =$ 0.882081

Use the real values (not log-transformed) indicated in the previous section.

Part 2: Shewhart-CUSUM Control Chart

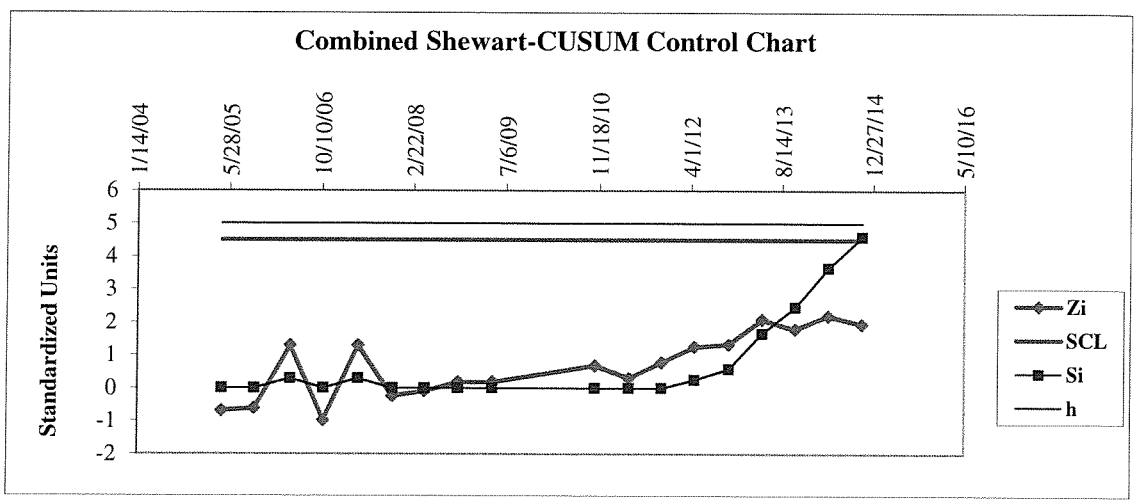
Compute the mean and standard deviation of the historical data:

12.2125 = x_{mean} (Mean of N1-N8 historical data)
9.8794791 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
4/18/05	5.4	-0.6895606	0	5	4.5
10/13/05	6.1	-0.6187067	0	5	4.5
4/25/06	25	1.2943496	0.2943496	5	4.5
10/20/06	2.5	-0.9830984	0	5	4.5
4/25/07	25	1.2943496	0.2943496	5	4.5
10/31/07	9.8	-0.244193	0	5	4.5
4/23/08	11.3	-0.0923632	0	5	4.5
10/20/08	14	0.1809306	0	5	4.5
4/22/09	14	0.1809306	0	5	4.5
10/27/10	19	0.6870301	0	5	4.5
4/29/11	15.2	0.3023945	0	5	4.5
10/25/11	19.9	0.7781281	0	5	4.5
4/20/12	24.6	1.2538617	0.2538617	5	4.5
10/24/12	25.3	1.3247156	0.5785772	5	4.5
4/24/13	32.8	2.0838649	1.6624422	5	4.5
10/24/13	29.9	1.7903272	2.4527694	5	4.5
4/24/14	33.9	2.1952068	3.6479762	5	4.5
10/27/14	31.4	1.9421571	4.5901332	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h.
The limits were not exceeded and do not indicate statistically significant evidence of contamination at the site.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Selenium**
MCL (µg/l): 20
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11L	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**20**
06/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**20**
07/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**20**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**20**
04/09/01	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**20**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**20**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**20**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**20**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**20**
04/15/02	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**20**
09/26/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**20**
04/28/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**20**
10/30/03	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/20/04	ND	ND	ND	ND	ND	**5**	ND	ND	ND	ND	ND	NP	NP	**5**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**20**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/07	**12**	ND	ND	ND	ND	**460**	ND	ND	ND	ND	**18**	NP	NP	**10**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**10**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**10**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**10**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 29.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 80$
$T_{n1} = 462$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where $c = k/n$
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 80$
$T_{n1} = 462$
$t\,[79,.01] = 2.3799$

$c = 0.0125$

$T^*_k = 11.6$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	5	5	5	5	5	5	5	5	5	5

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Silver**
MCL (µg/l): 20
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	**3.7**	NS	NS	ND	ND	ND	**6.9**	ND	ND	ND	NS	NP	NP	2
06/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	2
07/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	2
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	10
04/09/01	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	2
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	2
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	2
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	2
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
04/15/02	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	2
09/26/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	2
04/28/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	2
10/30/03	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	2
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	2
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	2
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	2
10/13/05	**2.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	2
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	10
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	5
04/25/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	10
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	5
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	5
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	5
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	5
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	5
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	5
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 29.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 80$
$T_{n1} = 176.1$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where $c = k/n$
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 80$
$T_{n1} = 176.1$
$t\,[79,.01] = 2.3799$

$c = 0.0125$

$T^*_k = 5.8$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Thallium**
MCL (µg/l): Not Established
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	**2**	NS	NS	ND	**3**	**2**	**4**	ND	**2**	**5**	NS	NP	NP	**2**
06/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
07/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**20**
04/09/01	**40**	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**2**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**20**
04/15/02	**40**	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**2**
09/26/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**65**	NP	NP	**2**
04/28/03	ND	ND	ND	**1.6**	ND	ND	ND	ND	**1.4**	ND	**15**	NP	NP	**1**
10/30/03	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/13/05	**22**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/07	ND	ND	ND	ND	ND	**35**	ND	ND	ND	ND	ND	NP	NP	**5.5**
10/31/07	**11.6**	ND	ND	ND	ND	ND	ND	ND	ND	**9.5**	ND	NP	NP	**5.5**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5.5**
10/20/08	**7.2**	ND	ND	ND	ND	ND	ND	**6.1**	ND	ND	ND	NP	NP	**5.4**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**5.4**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**5.4**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**5.4**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.6**	ND	**5.4**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 29.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 80$
$T_{n1} = 344.8$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where $c = k/n$
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 80$
$T_{n1} = 344.8$
$t\,[79,.01] = 2.3799$

$c = 0.0125$

$T^*_k = 9.3$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Vanadium**
NC MCL (µg/l): Not Established
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	**17**	NS	NS	**19**	**32**	**21**	ND	**29**	**8.9**	**78**	NS	NP	NP	**5**
06/26/00	**40**	**6.3**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
07/26/00	**45**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**40**
04/09/01	**250**	**1.4**	NS	**13**	**19**	**9.3**	ND	**24**	**41**	**230**	NS	NP	NP	**5**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**40**
04/15/02	**240**	ND	NS	ND	ND	**11**	**21**	**14**	**69**	**260**	NS	NP	NP	**5**
09/26/02	**58**	**16**	**44**	**640**	ND	ND	ND	**42**	**50**	**310**	**1000**	NP	NP	**5**
04/28/03	**89**	ND	**9.6**	**170**	**6.8**	**6.8**	ND	ND	**37**	**230**	**130**	NP	NP	**5**
10/30/03	**54**	ND	NT	**6.6**	**16**	ND	ND	ND	**92**	**14**	**200**	NP	NP	**5**
04/20/04	**55**	ND	ND	**45**	**25**	ND	ND	**13**	**5.1**	**240**	**88**	NP	NP	**5**
10/21/04	**41**	ND	ND	**18**	ND	ND	ND	ND	ND	**160**	**210**	NP	NP	**5**
04/18/05	**85**	ND	ND	**680**	**5.4**	ND	ND	ND	ND	**240**	**110**	NP	NP	**5**
10/13/05	**82**	ND	ND	**210**	**8.9**	ND	ND	ND	ND	**170**	**82**	NP	NP	**5**
04/25/06	**110**	ND	ND	ND	ND	ND	ND	ND	ND	**120**	**85**	NP	NP	**40**
10/20/06	**79**	ND	ND	**28**	ND	ND	ND	ND	**23**	ND	**30**	NP	NP	**5**
04/25/07	**43**	ND	ND	ND	ND	**300**	ND	ND	ND	ND	**26**	NP	NP	**25**
10/31/07	**89**	ND	**8.8**	**14.7**	**20**	ND	ND	ND	**8.6**	**103**	**48.2**	NP	NP	**5**
04/23/08	**26.1**	ND	**11.4**	**9.7**	**10.1**	ND	ND	**5.1**	**9.7**	**10**	**23.1**	NP	NP	**5**
10/20/08	**79**	ND	**15.1**	**15.8**	ND	ND	ND	ND	**5.4**	ND	**14.8**	NP	NP	**5**
04/22/09	**16**	ND	**32.7**	**19.8**	**7.7**	ND	ND	ND	**13.3**	ND	NS	NP	NP	**5**
10/26/09	**17.9**	ND	ND	**5.3**	**33.6**	ND	NS	NS	NS	**12.2**	**11.9**	NP	NP	**5**
04/22/10	**27.9**	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**5**
10/27/10	**17.4**	ND	ND	**6.9**	ND	ND	**14.2**	**7.1**	ND	ND	**5.9**	ND	ND	**5**
04/29/11	**15.8**	ND	**5.1**	ND	ND	ND	ND	ND	ND	ND	**5.5**	**7.3**	ND	**5**
10/25/11	**25.6**	ND	ND	**23**	ND	ND	**15.1**	ND	ND	**9.7**	**6.3**	ND	ND	**5**
04/20/12	**44.3**	ND	ND	ND	ND	ND	**10**	ND	ND	ND	ND	**15**	ND	**5**
10/24/12	**59**	ND	ND	**5.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/13	**33.5**	ND	ND	**7.7**	**9.6**	ND	ND	ND	ND	ND	**5.4**	ND	ND	**5**
10/24/13	**30.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/14	**22.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
N_i	30	29	24	28	28	28	26	26	27	28	24	9	9	
sum of rank values (R_i)	7931.0	3007.5	3152.0	5449.5	4202.5	3300.0	2944.5	3364.0	4241.5	5395.5	5194.0	1076.0	828.0	
avg rank value (Rbar)	264.4	103.7	131.3	194.6	150.1	117.9	113.3	129.4	157.1	192.7	216.4	119.6	92.0	

	Number of each rank value													Rank Value
rank value of NDs =	1	26	17	9	16	23	22	19	15	13	6	7	9	92
rank value of 1.4s =	0	1	0	0	0	0	0	0	0	0	0	0	0	184
rank value of 5.1s =	0	0	1	0	0	0	0	1	1	0	0	0	0	186
rank value of 5.3s =	0	0	0	1	0	0	0	0	0	0	0	0	0	188
rank value of 5.4s =	0	0	0	0	1	0	0	0	1	0	1	0	0	190

rank value of 5.5s =	0	0	0	0	0	0	0	0	0	0	1	0	0	192
rank value of 5.9s =	0	0	0	1	0	0	0	0	0	0	1	0	0	193.5
rank value of 6.3s =	0	1	0	0	0	0	0	0	0	0	1	0	0	195.5
rank value of 6.6s =	0	0	0	1	0	0	0	0	0	0	0	0	0	197
rank value of 6.8s =	0	0	0	0	1	1	0	0	0	0	0	0	0	198.5
rank value of 6.9s =	0	0	0	1	0	0	0	0	0	0	0	0	0	200
rank value of 7.1s =	0	0	0	0	0	0	0	1	0	0	0	0	0	201
rank value of 7.3s =	0	0	0	0	0	0	0	0	0	0	0	1	0	202
rank value of 7.7s =	0	0	0	1	1	0	0	0	0	0	0	0	0	203.5
rank value of 8.6s =	0	0	0	0	0	0	0	0	1	0	0	0	0	205
rank value of 8.8s =	0	0	1	0	0	0	0	0	0	0	0	0	0	206
rank value of 8.9s =	0	0	0	0	1	0	0	0	1	0	0	0	0	207.5
rank value of 9.3s =	0	0	0	0	0	1	0	0	0	0	0	0	0	209
rank value of 9.6s =	0	0	1	0	1	0	0	0	0	0	0	0	0	210.5
rank value of 9.7s =	0	0	0	1	0	0	0	0	1	1	0	0	0	213
rank value of 10s =	0	0	0	0	0	0	1	0	0	1	0	0	0	215.5
rank value of 10.1s =	0	0	0	0	1	0	0	0	0	0	0	0	0	217
rank value of 11s =	0	0	0	0	0	1	0	0	0	0	0	0	0	218
rank value of 11.4s =	0	0	1	0	0	0	0	0	0	0	0	0	0	219
rank value of 11.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	220
rank value of 12.2s =	0	0	0	0	0	0	0	0	0	1	0	0	0	221
rank value of 13s =	0	0	0	1	0	0	0	1	0	0	0	0	0	222.5
rank value of 13.3s =	0	0	0	0	0	0	0	0	1	0	0	0	0	224
rank value of 14s =	0	0	0	0	0	0	0	1	0	1	0	0	0	225.5
rank value of 14.2s =	0	0	0	0	0	0	1	0	0	0	0	0	0	227
rank value of 14.7s =	0	0	0	1	0	0	0	0	0	0	0	0	0	228
rank value of 14.8s =	0	0	0	0	0	0	0	0	0	0	1	0	0	229
rank value of 15s =	0	0	0	0	0	0	0	0	0	0	0	1	0	230
rank value of 15.1s =	0	0	1	0	0	0	1	0	0	0	0	0	0	231.5
rank value of 15.8s =	1	0	0	1	0	0	0	0	0	0	0	0	0	233.5
rank value of 16s =	1	1	0	0	1	0	0	0	0	0	0	0	0	236
rank value of 17s =	1	0	0	0	0	0	0	0	0	0	0	0	0	238
rank value of 17.4s =	1	0	0	0	0	0	0	0	0	0	0	0	0	239
rank value of 17.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	240
rank value of 18s =	0	0	0	1	0	0	0	0	0	0	0	0	0	241
rank value of 19s =	0	0	0	1	1	0	0	0	0	0	0	0	0	242.5
rank value of 19.8s =	0	0	0	1	0	0	0	0	0	0	0	0	0	244
rank value of 20s =	0	0	0	0	1	0	0	0	0	0	0	0	0	245
rank value of 21s =	0	0	0	0	0	1	1	0	0	0	0	0	0	246.5
rank value of 22.8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	248
rank value of 23s =	0	0	0	1	0	0	0	0	1	0	0	0	0	249.5
rank value of 23.1s =	0	0	0	0	0	0	0	0	0	0	1	0	0	251
rank value of 24s =	0	0	0	0	0	0	0	1	0	0	0	0	0	252
rank value of 25s =	0	0	0	0	1	0	0	0	0	0	0	0	0	253
rank value of 25.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	254
rank value of 26s =	0	0	0	0	0	0	0	0	0	0	1	0	0	255
rank value of 26.1s =	1	0	0	0	0	0	0	0	0	0	0	0	0	256
rank value of 27.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	257
rank value of 28s =	0	0	0	1	0	0	0	0	0	0	0	0	0	258
rank value of 29s =	0	0	0	0	0	0	0	1	0	0	0	0	0	259
rank value of 30s =	0	0	0	0	0	0	0	0	0	0	1	0	0	260
rank value of 30.4s =	1	0	0	0	0	0	0	0	0	0	0	0	0	261
rank value of 32s =	0	0	0	0	1	0	0	0	0	0	0	0	0	262
rank value of 32.7s =	0	0	1	0	0	0	0	0	0	0	0	0	0	263
rank value of 33.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	264
rank value of 33.6s =	0	0	0	0	1	0	0	0	0	0	0	0	0	265
rank value of 37s =	0	0	0	0	0	0	0	0	1	0	0	0	0	266
rank value of 40s =	1	0	0	0	0	0	0	0	0	0	0	0	0	267

rank value of 41s =	1	0	0	0	0	0	0	0	1	0	0	0	0	268.5
rank value of 42s =	0	0	0	0	0	0	0	1	0	0	0	0	0	270
rank value of 43s =	1	0	0	0	0	0	0	0	0	0	0	0	0	271
rank value of 44s =	0	0	1	0	0	0	0	0	0	0	0	0	0	272
rank value of 44.3s =	1	0	0	0	0	0	0	0	0	0	0	0	0	273
rank value of 45s =	1	0	0	1	0	0	0	0	0	0	0	0	0	274.5
rank value of 48.2s =	0	0	0	0	0	0	0	0	0	0	1	0	0	276
rank value of 50s =	0	0	0	0	0	0	0	0	1	0	0	0	0	277
rank value of 54s =	1	0	0	0	0	0	0	0	0	0	0	0	0	278
rank value of 55s =	1	0	0	0	0	0	0	0	0	0	0	0	0	279
rank value of 58s =	1	0	0	0	0	0	0	0	0	0	0	0	0	280
rank value of 59s =	1	0	0	0	0	0	0	0	0	0	0	0	0	281
rank value of 69s =	0	0	0	0	0	0	0	0	1	0	0	0	0	282
rank value of 78s =	0	0	0	0	0	0	0	0	0	1	0	0	0	283
rank value of 79s =	2	0	0	0	0	0	0	0	0	0	0	0	0	284.5
rank value of 82s =	1	0	0	0	0	0	0	0	0	0	1	0	0	286.5
rank value of 85s =	1	0	0	0	0	0	0	0	0	0	1	0	0	288.5
rank value of 88s =	0	0	0	0	0	0	0	0	0	0	1	0	0	290
rank value of 89s =	2	0	0	0	0	0	0	0	0	0	0	0	0	291.5
rank value of 92s =	0	0	0	0	0	0	0	0	1	0	0	0	0	293
rank value of 103s =	0	0	0	0	0	0	0	0	0	1	0	0	0	294
rank value of 110s =	1	0	0	0	0	0	0	0	0	0	1	0	0	295.5
rank value of 120s =	0	0	0	0	0	0	0	0	0	1	0	0	0	297
rank value of 130s =	0	0	0	0	0	0	0	0	0	0	1	0	0	298
rank value of 160s =	0	0	0	0	0	0	0	0	0	1	0	0	0	299
rank value of 170s =	0	0	0	1	0	0	0	0	0	1	0	0	0	300.5
rank value of 200s =	0	0	0	0	0	0	0	0	0	0	1	0	0	302
rank value of 210s =	0	0	0	1	0	0	0	0	0	0	1	0	0	303.5
rank value of 230s =	0	0	0	0	0	0	0	0	0	2	0	0	0	305.5
rank value of 240s =	1	0	0	0	0	0	0	0	0	2	0	0	0	308
rank value of 250s =	1	0	0	0	0	0	0	0	0	0	0	0	0	310
rank value of 260s =	0	0	0	0	0	0	0	0	0	1	0	0	0	311
rank value of 300s =	0	0	0	0	0	1	0	0	0	0	0	0	0	312
rank value of 310s =	0	0	0	0	0	0	0	0	0	1	0	0	0	313
rank value of 640s =	0	0	0	1	0	0	0	0	0	0	0	0	0	314
rank value of 680s =	0	0	0	1	0	0	0	0	0	0	0	0	0	315
rank value of 1000s =	0	0	0	0	0	0	0	0	0	0	1	0	0	316
n =	**30**	**29**	**24**	**28**	**28**	**28**	**26**	**26**	**27**	**28**	**24**	**9**	**9**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	2392074.6	1E+06	630750	388929	333465	435250	666308	1E+06	1E+06	128642	76176

$N_{i\ bg}$ = 83
N = 316
H = 40.41

Adjust H for ties:

T_i = 6E+06 sum of T1..T30

$H' = H/(1-(T_i/(N^3-N)))$
H' = 50.15

Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =50.15.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$
P = 2.33 Percentile of Standard Normal Distribution
from Table 4 of IFG
N = total sample size
$N_{i\,bg}$ = total samples (N_i) of background data
N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
Rbar (well x) =	194.6	150.1	117.9	113.3	129.4	157.1	192.7	216.4	119.6	92.0
avg Rbar (background) =	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.8
Dx =	24.9	-19.7	-51.9	-56.5	-40.4	-12.7	22.9	46.7	-50.2	-77.8
Cx =	46.5	46.5	46.5	47.8	47.8	47.2	46.5	49.3	74.7	74.7
Statistical Significance ?	No	No	No	No	No	No	No	No	No	No
If SSI, is current event above MCL?	-	-	-	-	-	-	-	-	-	-

Compare each difference (Dx) with the corresponding critical value (Cx).
No compliance well's difference between average ranks exceeded its corresponding critical value at a 5% significance level. Therefore, we conclude that significant evidence of contamination does not exist at the 5% significance level.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Total Zinc**
NC MCL (µg/l): 1000
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	150	NS	NS	35	48	36	12	43	28	68	NS	NP	NP	10
06/26/00	37	12	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
07/26/00	65	66	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	50
04/09/01	230	130	NS	12	24	18	17	33	75	200	NS	NP	NP	10
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	10
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	50
04/15/02	230	16	NS	ND	ND	13	33	38	120	230	NS	NP	NP	10
09/26/02	57	120	110	580	ND	20	ND	56	250	280	4800	NP	NP	10
04/28/03	86	14	31	160	16	ND	ND	ND	81	190	800	NP	NP	10
10/30/03	55	22	NT	17	26	10	ND	ND	140	26	1800	NP	NP	10
04/20/04	55	10	ND	44	30	11	14	19	23	220	770	NP	NP	10
10/21/04	29	ND	ND	17	ND	14	ND	12	15	70	1200	NP	NP	10
04/18/05	83	ND	ND	780	ND	30	13	10	ND	240	1200	NP	NP	10
10/13/05	92	13	12	230	19	25	ND	ND	14	170	800	NP	NP	10
04/25/06	130	ND	88	ND	ND	ND	ND	ND	110	120	780	NP	NP	50
10/20/06	74	ND	20	37	ND	ND	ND	ND	55	ND	200	NP	NP	10
04/25/07	55	21	30	30	22	830	22	15	10	12	200	NP	NP	10
10/31/07	86	ND	66.2	14	37.4	33.3	12	ND	11.6	91.1	336	NP	NP	10
04/23/08	27.3	ND	50.3	12.2	24.4	36.9	ND	10.3	17.5	38.8	138	NP	NP	10
10/20/08	66.5	19.9	59.2	15.3	10.6	29.1	ND	12.4	ND	17.4	71.5	NP	NP	10
04/22/09	23.1	43.5	99.9	25.3	17.9	17.6	10.5	ND	35.2	ND	NS	NP	NP	10
10/26/09	19.6	ND	14.8	ND	37.8	ND	NS	NS	NS	ND	63.8	NP	NP	10
04/22/10	22.2	14.2	ND	ND	ND	ND	NS	NS	ND	ND	24.6	NP	NP	10
10/27/10	19.1	ND	12.3	15	ND	ND	32.4	16.3	ND	ND	60.7	ND	ND	10
04/29/11	25.7	ND	21.9	ND	11.8	23.9	13.7	ND	ND	ND	42.9	20.5	21.5	10
10/25/11	34.5	ND	11.6	23.7	12.8	10.1	32.5	ND	ND	17.7	49.9	15.1	ND	10
04/20/12	47.6	ND	12.5	ND	11.6	10.1	21.1	ND	ND	11.1	30.7	50.8	ND	10
10/24/12	93.4	10.4	11.3	22.4	23.8	ND	10.3	16.1	14.9	12.2	15.7	15.8	ND	10
04/24/13	56.3	ND	ND	ND	18.6	14.9	ND	ND	ND	ND	33.2	ND	ND	10
10/24/13	30.6	ND	ND	ND	ND	ND	28.1	ND	ND	28.8	39.6	14.9	ND	10
04/24/14	25.8	ND	ND	ND	ND	ND	18.9	ND	ND	ND	ND	14.9	10.1	10
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
N_i	30	29	24	28	28	28	26	26	27	28	24	9	9	
sum of rank values (R_i)	7246.0	3489.0	3721.5	4409.5	3823.5	3900.0	3215.5	2957.0	4111.5	5108.0	6144.5	1254.5	705.5	
avg rank value (Rbar)	241.5	120.3	155.1	157.5	136.6	139.3	123.7	113.7	152.3	182.4	256.0	139.4	78.4	

	Number of each rank value													Rank Value
rank value of NDs =	1	15	8	10	11	10	11	14	11	9	2	3	7	56.5
rank value of 10s =	0	1	0	0	0	1	0	1	1	0	0	0	0	114.5
rank value of 10.1s =	0	0	0	0	0	2	0	0	0	0	0	0	1	118
rank value of 10.3s =	0	0	0	0	0	0	1	1	0	0	0	0	0	120.5
rank value of 10.4s =	0	1	0	0	0	0	0	0	0	0	0	0	0	122

rank value of 10.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	123
rank value of 10.6s =	0	0	0	0	1	0	0	0	0	0	0	0	0	124
rank value of 11s =	0	0	0	0	0	1	0	0	0	0	0	0	0	125
rank value of 11.1s =	0	0	0	0	0	0	0	0	0	1	0	0	0	126
rank value of 11.3s =	0	0	1	0	0	0	0	0	0	0	0	0	0	127
rank value of 11.6s =	0	0	1	0	1	0	0	0	1	0	0	0	0	129
rank value of 11.8s =	0	0	0	0	1	0	0	0	0	0	0	0	0	131
rank value of 12s =	0	1	1	1	0	0	2	1	0	1	0	0	0	135
rank value of 12.2s =	0	0	0	1	0	0	0	0	0	1	0	0	0	139.5
rank value of 12.3s =	0	0	1	0	0	0	0	0	0	0	0	0	0	141
rank value of 12.4s =	0	0	0	0	0	0	0	1	0	0	0	0	0	142
rank value of 12.5s =	0	0	1	0	0	0	0	0	0	0	0	0	0	143
rank value of 12.8s =	0	0	0	0	1	0	0	0	0	0	0	0	0	144
rank value of 13s =	0	1	0	0	0	1	1	0	0	0	0	0	0	146
rank value of 13.7s =	0	0	0	0	0	0	1	0	0	0	0	0	0	148
rank value of 14s =	0	1	0	1	0	1	1	0	1	0	0	0	0	151
rank value of 14.2s =	0	1	0	0	0	0	0	0	0	0	0	0	0	154
rank value of 14.8s =	0	0	1	0	0	0	0	0	0	0	0	0	0	155
rank value of 14.9s =	0	0	0	0	0	1	0	0	1	0	0	2	0	157.5
rank value of 15s =	0	0	0	1	0	0	0	1	1	0	0	0	0	161
rank value of 15.1s =	0	0	0	0	0	0	0	0	0	0	0	1	0	163
rank value of 15.3s =	0	0	0	1	0	0	0	0	0	0	0	0	0	164
rank value of 15.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	165
rank value of 15.8s =	0	0	0	0	0	0	0	0	0	0	0	1	0	166
rank value of 16s =	0	1	0	0	1	0	0	0	0	0	0	0	0	167.5
rank value of 16.1s =	0	0	0	0	0	0	0	1	0	0	0	0	0	169
rank value of 16.3s =	0	0	0	0	0	0	0	1	0	0	0	0	0	170
rank value of 17s =	0	0	0	2	0	0	1	0	0	0	0	0	0	172
rank value of 17.4s =	0	0	0	0	0	0	0	0	0	1	0	0	0	174
rank value of 17.5s =	0	0	0	0	0	0	0	0	1	0	0	0	0	175
rank value of 17.6s =	0	0	0	0	0	1	0	0	0	0	0	0	0	176
rank value of 17.7s =	0	0	0	0	0	0	0	0	0	1	0	0	0	177
rank value of 17.9s =	0	0	0	0	1	0	0	0	0	0	0	0	0	178
rank value of 18s =	0	0	0	0	0	1	0	0	0	0	0	0	0	179
rank value of 18.6s =	0	0	0	0	1	0	0	0	0	0	0	0	0	180
rank value of 18.9s =	0	0	0	0	0	0	1	0	0	0	0	0	0	181
rank value of 19s =	0	0	0	0	1	0	0	1	0	0	0	0	0	182.5
rank value of 19.1s =	1	0	0	0	0	0	0	0	0	0	0	0	0	184
rank value of 19.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	185
rank value of 19.9s =	0	1	0	0	0	0	0	0	0	0	0	0	0	186
rank value of 20s =	0	0	1	0	0	1	0	0	0	0	0	0	0	187.5
rank value of 20.5s =	0	0	0	0	0	0	0	0	0	0	0	1	0	189
rank value of 21s =	0	1	0	0	0	0	0	0	0	0	0	0	0	190
rank value of 21.1s =	0	0	0	0	0	0	1	0	0	0	0	0	0	191
rank value of 21.5s =	0	0	0	0	0	0	0	0	0	0	0	0	1	192
rank value of 21.9s =	0	0	1	0	0	0	0	0	0	0	0	0	0	193
rank value of 22s =	0	1	0	0	1	0	1	0	0	0	0	0	0	195
rank value of 22.2s =	1	0	0	0	0	0	0	0	0	0	0	0	0	197
rank value of 22.4s =	0	0	0	1	0	0	0	0	0	0	0	0	0	198
rank value of 23s =	0	0	0	0	0	0	0	0	1	0	0	0	0	199
rank value of 23.1s =	1	0	0	0	0	0	0	0	0	0	0	0	0	200
rank value of 23.7s =	0	0	0	1	0	0	0	0	0	0	0	0	0	201
rank value of 23.8s =	0	0	0	0	1	0	0	0	0	0	0	0	0	202
rank value of 23.9s =	0	0	0	0	0	1	0	0	0	0	0	0	0	203
rank value of 24s =	0	0	0	0	1	0	0	0	0	0	0	0	0	204
rank value of 24.4s =	0	0	0	0	1	0	0	0	0	0	0	0	0	205
rank value of 24.6s =	0	0	0	0	0	0	0	0	0	0	1	0	0	206
rank value of 25s =	0	0	0	0	0	1	0	0	0	0	0	0	0	207

rank value of 25.3s =	0	0	0	1	0	0	0	0	0	0	0	0	0	208
rank value of 25.7s =	1	0	0	0	0	0	0	0	0	0	0	0	0	209
rank value of 25.8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	210
rank value of 26s =	0	0	0	0	1	0	0	0	0	1	0	0	0	211.5
rank value of 27.3s =	1	0	0	0	0	0	0	0	0	0	0	0	0	213
rank value of 28s =	0	0	0	0	0	0	0	0	1	0	0	0	0	214
rank value of 28.1s =	0	0	0	0	0	0	1	0	0	0	0	0	0	215
rank value of 28.8s =	0	0	0	0	0	0	0	0	0	1	0	0	0	216
rank value of 29s =	1	0	0	0	0	0	0	0	0	0	0	0	0	217
rank value of 29.1s =	0	0	0	0	0	1	0	0	0	0	0	0	0	218
rank value of 30s =	0	0	1	1	1	1	0	0	0	0	0	0	0	220.5
rank value of 30.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	223
rank value of 30.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	224
rank value of 31s =	0	0	1	0	0	0	0	0	0	0	0	0	0	225
rank value of 32.4s =	0	0	0	0	0	0	1	0	0	0	0	0	0	226
rank value of 32.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	227
rank value of 33s =	0	0	0	0	0	0	1	1	0	0	0	0	0	228.5
rank value of 33.2s =	0	0	0	0	0	0	0	0	0	0	1	0	0	230
rank value of 33.3s =	0	0	0	0	0	1	0	0	0	0	0	0	0	231
rank value of 34.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	232
rank value of 35s =	0	0	0	1	0	0	0	0	0	0	0	0	0	233
rank value of 35.2s =	0	0	0	0	0	0	0	0	1	0	0	0	0	234
rank value of 36s =	0	0	0	0	0	1	0	0	0	0	0	0	0	235
rank value of 36.9s =	0	0	0	0	0	1	0	0	0	0	0	0	0	236
rank value of 37s =	1	0	0	1	0	0	0	0	0	0	0	0	0	237.5
rank value of 37.4s =	0	0	0	0	1	0	0	0	0	0	0	0	0	239
rank value of 37.8s =	0	0	0	0	1	0	0	0	0	0	0	0	0	240
rank value of 38s =	0	0	0	0	0	0	0	1	0	0	0	0	0	241
rank value of 38.8s =	0	0	0	0	0	0	0	0	0	1	0	0	0	242
rank value of 39.6s =	0	0	0	0	0	0	0	0	0	0	1	0	0	243
rank value of 42.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	244
rank value of 43s =	0	0	0	0	0	0	0	1	0	0	0	0	0	245
rank value of 43.5s =	0	1	0	0	0	0	0	0	0	0	0	0	0	246
rank value of 44s =	0	0	0	1	0	0	0	0	0	0	0	0	0	247
rank value of 47.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	248
rank value of 48s =	0	0	0	0	1	0	0	0	0	0	0	0	0	249
rank value of 49.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	250
rank value of 50.3s =	0	0	1	0	0	0	0	0	0	0	0	0	0	251
rank value of 50.8s =	0	0	0	0	0	0	0	0	0	0	0	1	0	252
rank value of 55s =	3	0	0	0	0	0	0	0	1	0	0	0	0	254.5
rank value of 56s =	0	0	0	0	0	0	0	1	0	0	0	0	0	257
rank value of 56.3s =	1	0	0	0	0	0	0	0	0	0	0	0	0	258
rank value of 57s =	1	0	0	0	0	0	0	0	0	0	0	0	0	259
rank value of 59.2s =	0	0	1	0	0	0	0	0	0	0	0	0	0	260
rank value of 60.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	261
rank value of 63.8s =	0	0	0	0	0	0	0	0	0	0	1	0	0	262
rank value of 65s =	1	0	0	0	0	0	0	0	0	0	0	0	0	263
rank value of 66s =	0	1	0	0	0	0	0	0	0	0	0	0	0	264
rank value of 66.2s =	0	0	1	0	0	0	0	0	0	0	0	0	0	265
rank value of 66.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	266
rank value of 68s =	0	0	0	0	0	0	0	0	0	1	0	0	0	267
rank value of 70s =	0	0	0	0	0	0	0	0	0	1	0	0	0	268
rank value of 71.5s =	0	0	0	0	0	0	0	0	0	0	1	0	0	269
rank value of 74s =	1	0	0	0	0	0	0	0	0	0	0	0	0	270
rank value of 75s =	0	0	0	0	0	0	0	0	1	0	0	0	0	271
rank value of 81s =	0	0	0	0	0	0	0	0	1	0	0	0	0	272
rank value of 83s =	1	0	0	0	0	0	0	0	0	0	0	0	0	273
rank value of 86s =	2	0	0	0	0	0	0	0	0	0	0	0	0	274.5

rank value of 88s =	0	0	1	0	0	0	0	0	0	0	0	0	0	276
rank value of 91.1s =	0	0	0	0	0	0	0	0	0	1	0	0	0	277
rank value of 92s =	1	0	0	0	0	0	0	0	0	0	0	0	0	278
rank value of 93.4s =	1	0	0	0	0	0	0	0	0	0	0	0	0	279
rank value of 99.9s =	0	0	1	0	0	0	0	0	0	0	0	0	0	280
rank value of 110s =	0	0	1	0	0	0	0	0	1	0	0	0	0	281.5
rank value of 120s =	0	1	0	0	0	0	0	0	1	1	0	0	0	284
rank value of 130s =	1	1	0	0	0	0	0	0	0	0	0	0	0	286.5
rank value of 138s =	0	0	0	0	0	0	0	0	0	0	1	0	0	288
rank value of 140s =	0	0	0	0	0	0	0	0	1	0	0	0	0	289
rank value of 150s =	1	0	0	0	0	0	0	0	0	0	0	0	0	290
rank value of 160s =	0	0	0	1	0	0	0	0	0	0	0	0	0	291
rank value of 170s =	0	0	0	0	0	0	0	0	0	1	0	0	0	292
rank value of 190s =	0	0	0	0	0	0	0	0	0	1	0	0	0	293
rank value of 200s =	0	0	0	0	0	0	0	0	0	1	2	0	0	295
rank value of 220s =	0	0	0	0	0	0	0	0	0	1	0	0	0	297
rank value of 230s =	2	0	0	1	0	0	0	0	0	1	0	0	0	299.5
rank value of 240s =	0	0	0	0	0	0	0	0	0	1	0	0	0	302
rank value of 250s =	0	0	0	0	0	0	0	0	1	0	0	0	0	303
rank value of 280s =	0	0	0	0	0	0	0	0	0	1	0	0	0	304
rank value of 336s =	0	0	0	0	0	0	0	0	0	0	1	0	0	305
rank value of 580s =	0	0	0	1	0	0	0	0	0	0	0	0	0	306
rank value of 770s =	0	0	0	0	0	0	0	0	0	0	1	0	0	307
rank value of 780s =	0	0	0	1	0	0	0	0	0	0	1	0	0	308.5
rank value of 800s =	0	0	0	0	0	0	0	0	0	0	2	0	0	310.5
rank value of 830s =	0	0	0	0	0	1	0	0	0	0	0	0	0	312
rank value of 1200s =	0	0	0	0	0	0	0	0	0	0	2	0	0	313.5
rank value of 1800s =	0	0	0	0	0	0	0	0	0	0	1	0	0	315
rank value of 4800s =	0	0	0	0	0	0	0	0	0	0	1	0	0	316
n =	**30**	**29**	**24**	**28**	**28**	**28**	**26**	**26**	**27**	**28**	**24**	**9**	**9**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	2517956.5	694418	522113	543214	397671	336302	626090	931845	2E+06	174863	55303

$N_{i\ bg}$ = 83
N = 316
H = 52.02

Adjust H for ties:

T_i = 1E+06 sum of T1..T30

$H' = H/(1-(T_i/(N^3-N)))$
H' = 54.45
Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =54.45.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$

P = 2.33 Percentile of Standard Normal Distribution

from Table 4 of IFG

N = total sample size

$N_{i\,bg}$ = total samples (N_i) of background data

N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	**MW-15**	MW-16	MW-17
Rbar (well x) =	157.5	136.6	139.3	123.7	113.7	152.3	182.4	256.0	139.4	78.4
avg Rbar (background) =	174.2	174.2	174.2	174.2	174.2	174.2	174.2	174.2	174.2	174.2
Dx =	-16.7	-37.6	-34.9	-50.5	-60.4	-21.9	8.3	81.8	-34.8	-95.8
Cx =	46.5	46.5	46.5	47.8	47.8	47.2	46.5	49.3	74.7	74.7
Statistical Significance ?	No	No	No	No	No	No	No	**Yes**	No	No
If SSI, is current event above MCL?	-	-	-	-	-	-	-	No	-	-

Compare each difference (Dx) with the corresponding critical value (Cx).
The Dx value for the above indicated wells do exceed the corresponding Cx value.
Therefore, we conclude that the concentration of Total Zinc averaged over these compliance wells are significantly greater than that of the background wells.
Shewart-CUSUM Control Charts should be performed for each failing well to check for statistical significance.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound:	**Total Zinc**
NC MCL (µg/l):	1000
Method:	Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-15	MDL
9/26/02	**4800**	**10**
4/28/03	**800**	**10**
10/30/03	**1800**	**10**
4/20/04	**770**	**10**
10/21/04	**1200**	**10**
4/18/05	**1200**	**10**
10/13/05	**800**	**10**
4/25/06	**780**	**50**
10/20/06	**200**	**10**
4/25/07	**200**	**10**
10/31/07	**336**	**10**
4/23/08	**138**	**10**
10/20/08	**71.5**	**10**
4/22/09	NS	**10**
10/26/09	**63.8**	**10**
4/22/10	**24.6**	**10**
10/27/10	**60.7**	**10**
4/29/11	**42.9**	**10**
10/25/11	**49.9**	**10**
4/20/12	**30.7**	**10**
10/24/12	**15.7**	**10**
4/24/13	**33.2**	**10**
10/24/13	**39.6**	**10**
4/24/14	ND	**10**
10/27/14	ND	**10**

If not detected (ND), use half of the detection limit.

X_{bar} =	561.1083333
SD =	1028.268504
N =	24
$1/N\Sigma_i(X_i-X_{bar})^3$ =	3196527446
γ_1=	3.133891426

Since the Coefficient of Skewness of 3.13 is greater than 1.0, the real data appear to be significantly skewed.
Do not assume that the data follow a Normal distribution.
Perform the Skewness Test on the natural log of the values.

X_{bar} =	4.922882753
SD =	1.881376747
N =	24
$1/N\Sigma_i(X_i-X_{bar})^3$ =	0.177768081
γ_1=	0.028454541

Since the Coefficient of Skewness of 0.03 is less than 1.0, the data appear not to be significantly skewed.
Proceed with further statistical tests using the log-transformed values shown above.

Part 2: Shewhart-CUSUM Control Chart

Date	MW-15	MDL	Data for Testing
9/26/02	**4800**	10	8.476371197
4/28/03	**800**	10	6.684611728
10/30/03	**1800**	10	7.495541944
4/20/04	**770**	10	6.646390515
10/21/04	**1200**	10	7.090076836
4/18/05	**1200**	10	7.090076836
10/13/05	**800**	10	6.684611728

4/25/06	**780**	50	6.65929392
10/20/06	**200**	10	5.298317367
4/25/07	**200**	10	5.298317367
10/31/07	**336**	10	5.81711116
4/23/08	**138**	10	4.927253685
10/20/08	**71.5**	10	4.26969745
4/22/09	NS	10	-
10/26/09	**63.8**	10	4.15575319
4/22/10	**24.6**	10	3.202746443
10/27/10	**60.7**	10	4.105943698
4/29/11	**42.9**	10	3.758871826
10/25/11	**49.9**	10	3.910021003
4/20/12	**30.7**	10	3.424262655
10/24/12	**15.7**	10	2.753660712
4/24/13	**33.2**	10	3.502549876
10/24/13	**39.6**	10	3.678829118
4/24/14	ND	10	1.609437912
10/27/14	ND	10	1.609437912

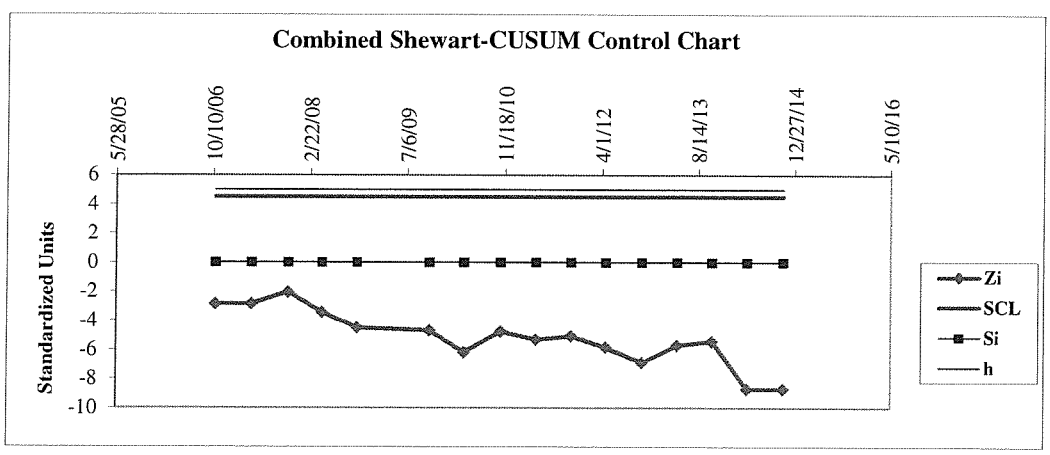
Compute the mean and standard deviation of the historical data:

7.103371838 = x_{mean} (Mean of N1-N8 historical data)
0.63200761 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
10/20/06	5.298317367	-2.8560645	0	5	4.5
4/25/07	5.298317367	-2.8560645	0	5	4.5
10/31/07	5.81711116	-2.0351981	0	5	4.5
4/23/08	4.927253685	-3.4431835	0	5	4.5
10/20/08	4.26969745	-4.483608	0	5	4.5
10/26/09	4.15575319	-4.6638974	0	5	4.5
4/22/10	3.202746443	-6.1718013	0	5	4.5
10/27/10	4.105943698	-4.7427089	0	5	4.5
4/29/11	3.758871826	-5.2918667	0	5	4.5
10/25/11	3.910021003	-5.0527095	0	5	4.5
4/20/12	3.424262655	-5.8213052	0	5	4.5
10/24/12	2.753660712	-6.8823714	0	5	4.5
4/24/13	3.502549876	-5.6974345	0	5	4.5
10/24/13	3.678829118	-5.418515	0	5	4.5
4/24/14	1.609437912	-8.6928288	0	5	4.5
10/27/14	1.609437912	-8.6928288	0	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h.
The limits were not exceeded and do not indicate statistically significant evidence of contamination at the site.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Acetone**
MCL (µg/l): 6000
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
06/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
07/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**100**
04/09/01	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
04/15/02	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
09/26/02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**100**
04/28/03	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**100**
10/30/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**25**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**25**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**25**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**25**
04/25/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**25**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**25**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**25**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**140**	NP	NP	**25**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**25**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**25**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**25**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 22.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 66$
$T_{n1} = 757.5$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where $c = k/n$
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 66$
$T_{n1} = 757.5$
$t\,[65,.01] = 2.3873$

$c = 0.0152$

$T^*_k = 19.7$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Carbon Disulfide**
MCL (µg/l): 700
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
06/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
07/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**100**
04/09/01	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
04/15/02	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
09/26/02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**100**
04/28/03	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**100**
10/30/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/21/04	ND	**24**	ND	ND	ND	ND	ND	ND	**15**	ND	ND	NP	NP	**10**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	**4.5**	ND	NS	NP	NP	**2**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**2**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**2**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 22.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 66$
$T_{n1} = 181$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where $c = k/n$
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 66$
$T_{n1} = 181$
$t[65,.01] = 2.3873$

$c = 0.0152$

$T^*_k = 6.8$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	1	1	1	1	1	1	1	1	1	1

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Chloroethane**
MCL (µg/l): 3000
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**10**
06/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
07/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**10**
04/09/01	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**10**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
04/15/02	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**10**
09/26/02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**10**
04/28/03	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**10**
10/30/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**1**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**1**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**1**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**1**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**1**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**1**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
10/24/12	ND	ND	ND	ND	**4.4**	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 22.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 66$
$T_{n1} = 141$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where c = k/n
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 66$
$T_{n1} = 141$
$t\,[65,.01] = 2.3873$

$c = 0.0152$

$T^*_k = 5.7$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **Dichloromethane (Methylene chloride)**
MCL (µg/l): 5
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**10**
06/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
07/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**10**
04/09/01	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**10**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
04/15/02	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**10**
09/26/02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**10**
04/28/03	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**10**
10/30/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/25/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**2**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**2**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**2**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/24/14	ND	ND	ND	ND	ND	**2**	ND	ND	ND	**2.2**	ND	ND	ND	**2**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 22.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 66$
$T_{n1} = 102$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where $c = k/n$
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 66$
$T_{n1} = 102$
$t\,[65,.01] = 2.3873$

$c = 0.0152$

$T^*_k = 4.6$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	1	1	1	1	1	1	1	1	1	1

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J14-1957-41

Compound: **2-Butanone**
MCL (µg/l): 4000
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
06/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
07/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**100**
04/09/01	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
04/15/02	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
09/26/02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**100**
04/28/03	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**100**
10/30/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**54.4**	NP	NP	**5**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**5**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**5**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**5**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 22.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 66$
$T_{n1} = 225$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where c = k/n
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 66$
$T_{n1} = 225$
$t\,[65,.01] = 2.3873$

$c = 0.0152$

$T^*_k = 7.9$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.