December 21, 2011 063-6569011.300

Mr. Ervin Lane, Hydrogeologist
Department of Environment and Natural Resources
Division of Waste Management
Solid Waste Section
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605

RE: GROUNDWATER ASSESSMENT AT MONITORING WELL MW-8
JMN/CLEVELAND CONTAINER LANDFILL, PERMIT NO. 23-02
CLEVELAND COUNTY, NORTH CAROLINA

Dear Ervin:

On behalf of Republic Services of NC, LLC (Republic), Golder Associates North Carolina, Inc. (Golder) is submitting this Groundwater Assessment at monitoring well MW-8 for the above referenced facility. This groundwater assessment was performed under the direction of the *Groundwater Assessment Work Plan* (*Work Plan*) dated June 1, 2011, and approved by the North Carolina Department of Environment and Natural Resources (DENR) on June 15, 2011. The groundwater assessment was performed to investigate the potential source(s) of volatile organic compounds (VOCs) that have been detected at concentrations above North Carolina (NC) 2L Drinking Water Standards (2L Standards) in groundwater samples collected from monitoring well MW-8 at the closed JMN/Cleveland Container Landfill.

BACKGROUND

During the July 2011 monitoring event, no VOCs were detected at concentrations above the Solid Waste Section Limits (SWSLs) in the sample from monitoring well MW-8. Three VOCs (acetone, tetrachloroethene, and vinyl chloride) were detected at estimated (i.e., non-quantifiable) concentrations below the SWSLs in the sample from the well. Of these detections, tetrachloroethene and vinyl chloride exceeded their respective 2L Standards.

As presented on Table 1, ten VOCs have historically been detected in samples from MW-8 at concentrations above laboratory detection limits. Of those, only four constituents (cis-1,2-dichloroethene; iodomethane; tetrachloroethene; and vinyl chloride) have been detected at quantifiable concentrations above their respective SWSLs. Below is a summary of VOCs detected in samples collected from MW-8.

Three NC Appendix I VOCs (acetone, tetrachloroethene, and vinyl chloride) have been detected on a consistent basis in samples from MW-8 during recent monitoring events at concentrations above the laboratory detection limits. Acetone has been detected in samples from MW-8 during seven of the last ten sampling events since 2007. Each concentration of acetone has been below the SWSL and the 2L Standard, and one concentration was blank-qualified. Tetrachloroethene has been detected in samples from MW-8 during ten of the last 16 sampling events since 2003. Each concentration has been estimated below the SWSL, except for the detections during the January 2003 and July 2010 events, which were above the SWSL and 2L Standard. The tetrachloroethene concentrations during the July 2009, January 2010, January 2011, and July 2011 events were below the SWSL, but above the 2L Standard. Vinyl chloride has been detected in samples from MW-8 during seven of the last 16 monitoring events since 2003. Concentrations during the January 2007, July 2009, January 2010, July 2010, and July 2011 events were estimated below the SWSL, but above the 2L Standard. Vinyl chloride detections during the January 2003 and January 2011 events were at concentrations above the SWSL and 2L Standard.

Seven NC Appendix I VOCs (cis-1,2-dichloroethene; chloromethane; iodomethene; toluene; trichloroethene; trichlorofluoromethane; and total xylenes) have been detected sporadically in samples

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from MW-8. Cis-1,2-dichloroethene was detected at an estimated concentration below the SWSL and 2L Standard during the July 2010 monitoring event. The detection was the first since 2003 when cis-1,2-dichloroethene was detected during four consecutive sampling events between 2001 and 2003 at quantifiable concentrations. Chloromethane was detected during the January 2007 event at an estimated concentration below the SWSL and 2L Standard. Chloromethane has not been detected in MW-8 during any other monitoring events. Iodomethane was detected during one monitoring event in July 2000 at a quantifiable concentration. The January 2011 monitoring event was the only event during which toluene has been detected in a sample from MW-8. The detection was below the SWSL and 2L Standard. Trichlorothene was detected in a sample from MW-8 at an estimated concentration below the SWSL and 2L Standard during the July 2010 event. Trichloroethene has not been detected in any samples from MW-8 during any other monitoring events. Trichlorofluoromethane has been detected in MW-8 at estimated concentrations below the SWSL and 2L Standard during the January 2007, July 2007, and January 2010 events. Once during the July 2010 event, total xylenes were detected at an estimated concentration below the SWSL and 2L Standard.

In summary, two VOCs (tetrachloroethene and vinyl chloride) have been detected at concentrations that exceeded both the SWSL and 2L Standard in samples from MW-8 during two sampling events since 2002; but thus far, the concentrations of these constituents have not been detected consistently or at consistent concentrations. No VOCs were detected in the samples from MW-8 at concentrations above both the SWSLs and 2L Standards during the most recent monitoring event in July 2011.

On April 5, 2011, NC DENR issued a letter to Republic stating that tetrachloroethene and vinyl chloride had been reported at concentrations greater than their respective 2L Standards in samples from MW-8 during the most recent sampling events. The letter requested that an assessment work plan to delineate VOC contamination in MW-8 be submitted to NC DENR. Representatives of Republic and Golder met with NC DENR on May 11, 2011 to discuss and the *Work Plan* was submitted on June 1, 2011, and was approved by NC DENR on June 15, 2011.

The *Work Plan* proposed that, during the July 2011 routine semi-annual groundwater monitoring event, a headspace gas sample from MW-8 would be collected in a SUMMA canister and analyzed for VOCs. The laboratory results would be evaluated using Henry's Law to determine if the VOCs detected in groundwater could be derived from landfill gas. The *Work Plan* also proposed that two nearby sites that are in the NC DENR Inactive Hazardous Sites Program (Patterson Springs Dump and the Camp, Leonard Property) would be evaluated as possible sources of groundwater contamination for samples from MW-8.

GROUNDWATER ASSESSMENT AT MW-8

Groundwater surface contours constructed from water level measurements from compliance monitoring wells at the JMN/Cleveland County Landfill during the January 2011 monitoring event are presented on Drawing 1. The groundwater surface contours indicate that MW-8 is a sidegradient well and the primary groundwater flow across the site is to the south-southeast. Based on the groundwater flow direction at the landfill, a source other than leachate from the landfill is a possible source of contamination of groundwater in the vicinity of MW-8.

According to information provided by Republic, methane had historically been detected in methane probes MP-3 and MP-4 until the installation of landfill gas cut-off trenches between the waste unit and the methane monitoring probes in June 2008 and June 2009. During recent methane monitoring events, low level methane concentrations have also been measured in probe MP-5, which is located adjacent to groundwater monitoring well MW-8. Drawing 1 shows the location of the facility monitoring wells and methane monitoring probes.

Based on the information provided above and the types and concentrations of constituents reported in groundwater samples from MW-8, along with the close proximity of MW-8 to the waste disposal unit, landfill gas is a potential source for the VOCs detected in groundwater samples from MW-8. The static groundwater level in MW-8 intersects the screened interval of the well, which could allow landfill gas to enter the monitoring well through the unsaturated portion of the screen. Therefore, an evaluation of landfill gas as a potential source of groundwater impacts was performed. Also, a geochemical evaluation

of groundwater samples collected from MW-8 and background wells MW-1B and MW-1C was performed to further assess potential influences on the uppermost aquifer monitored in the vicinity of MW-8. Lastly, the two nearby sites that are in the DENR Inactive Hazardous Sites Program (Patterson Springs Dump and the Camp, Leonard Property) were evaluated as possible sources of contamination of samples from MW-8. The locations of these two sites relative to the JMN/Cleveland Container landfill are shown on Drawing 2. Each of these evaluations is provided in the sections below.

Evaluation of Landfill Gas as a Potential Source of Groundwater Impacts

As proposed in the *Work Plan*, a headspace gas sample was collected from above the water table within monitoring well MW-8 on July 26, 2011. As per the *Work Plan*, the sample was collected using a SUMMA canister connected to a piece of polyethylene tubing placed within MW-8 to a depth just above the water table. The top of the monitoring well casing was sealed, to the extent practicable, with modified polyvinyl chloride (PVC) slip-on cap during sample collection. The SUMMA canister, was opened and allowed to fill (i.e., collect the headspace gas sample). The gas sample was delivered, under standard chain-of-custody control, to Environmental Conservation Laboratories (ENCO), for analysis of VOCs by United States Environmental Protection Agency (US EPA) Method TO-15. A copy of the laboratory analytical report is attached to this letter.

As presented in the gas sample laboratory analytical report and summarized on the attached Table 2, fourteen VOCs were detected in the gas sample collected from the headspace of monitoring well MW-8. Six (acetone, tetrachloroethene, toluene, trichloroethene, trichlorofluoromethane, and total xylenes) of the ten historical groundwater analytes of interest were detected in the gas headspace sample. However, vinyl chloride, which has been consistently detected in groundwater samples from MW-8, was not detected above the laboratory detection limit in the gas headspace sample.

An evaluation of groundwater concentrations that may be attributable to VOCs partitioning from the gas sample to the aquifer in the vicinity of MW-8, based on Henry's Law, is presented in Table 2. To provide this evaluation, Table 2 presents measured gas VOC concentrations in micrograms per liter (ug/L), along with the dimensionless Henry's Law constant for analytes detected in the gas sample and the additional analyte of interest, vinyl chloride. The right side of the table presents a grouped summary of information, including the predicted groundwater concentration (taking into consideration the analytical detection limit used for the most recent groundwater analyses), as compared to recently and historically measured concentrations of the analytes of interest in groundwater at monitoring well MW-8.

As presented in Table 2, twelve of the fourteen compounds detected in the gas sample are not predicted to partition to groundwater at concentrations above the laboratory detection limit for the most recent groundwater analysis. Of these, only one compound, tetrachloroethene, was detected in the most recent groundwater sample, though only slightly above the laboratory detection limit. The remaining 11 compounds were not detected in the groundwater sample, as predicted based on the partitioning calculations. In summary, the majority of these compounds was not predicted to be detected in groundwater, and was not detected in the most recent groundwater sample.

Two compounds, 2-hexanone and acetone, were predicted to partition to groundwater at concentrations above the laboratory detection limit. Groundwater analytical results for the July 2011 sample from MW-8 indicate that one of the two compounds, acetone, was detected in the groundwater sample, though at a higher concentration (20 ug/L) than the concentration predicted by the partitioning calculation (1.4 ug/L). Finally, vinyl chloride, although not detected in the gas sample, was detected in the groundwater sample collected from monitoring well MW-8 in July 2011.

In summary, six of ten analytes of interest in groundwater were also detected in the headspace gas sample collected from monitoring well MW-8. Two VOCs, 2-hexanone and acetone, were predicted to partition to groundwater at detectable concentrations, though only acetone was detected in the groundwater sample collected in July 2011. Furthermore, the groundwater acetone concentration was higher than the concentration predicted due to partitioning from gas. Finally, two VOCs of interest, vinyl chloride and tetrachloroethene, were detected in the groundwater sample collected from MW-8 in July 2011, but the analytes were either not detect in the gas sample (vinyl chloride) or detected at a concentration that is not predicted to transfer to groundwater at a detectable concentration (tetrachloroethene). Therefore, the gas sample collected demonstrates that several of the same VOCs

are present in gas and groundwater at MW-8, though the concentrations measured in the July 26, 2011, headspace sample at MW-8 are not predicted to partition to groundwater at concentrations equal to or greater than the observed concentrations, and vinyl chloride was not detected in the gas sample. However, due to relatively fast changes in landfill gas presence and migration routes, landfill gas concentrations at other times in the past may have been higher than the concentrations measured on this date and/or of a different chemical composition.

Groundwater Geochemical Evaluations

To further evaluate potential influences on the uppermost aquifer monitored in the vicinity of MW-8, Golder collected groundwater samples at upgradient monitoring wells MW-1B and MW-1C and compliance monitoring well MW-8 during the July 2011 monitoring event for analysis of calcium, chloride, magnesium, sodium, alkalinity, and ammonia by ENCO. A copy of the laboratory analytical report is attached to this letter. Wells MW-1B and MW-8 are both screened in saprolite and MW-1C is screened in interlayered partially weathered rock and bedrock. To provide a visual evaluation of the water-types at each well, as indicated by the geochemical analyses, a Piper diagram was created for the three wells and is included as Figure 1. As presented in the Piper diagram, a degree of variability in aquifer geochemistry is present between the three wells. With respect to measured cation concentrations (lower left plot), the three wells plot closely together, indicating a similar cation geochemistry. With respect to measured concentrations of anions (lower right plot), monitoring well MW-8 plots distinctly away from the two upgradient wells due to the presence of ammonia. The plotted cumulative geochemical signature (presented in the top portion of the plot) shows a greater similarity between MW-1B and MW-8 than between upgradient monitoring wells MW-1B and MW-1C. The most prominent difference shown in the Piper diagram appears to be related to ammonia, which is detected in the sample collected from MW-8.

Stiff diagrams were also produced for the three samples. Stiff diagrams using variable scales for each groundwater sample are included as Figure 2. As presented, despite their close proximity to each other, the two upgradient wells (MW-1B and MW-1C) show a degree of geochemical variability. The upgradient water samples show dominant calcium-magnesium and chloride-bicarbonate ions, while the downgradient sample collected from MW-8 shares similarities with MW-1B, as a magnesium-bicarbonate water sample. The same-scale stiff diagrams, included as Figure 3, indicate that MW-1C is relatively rich in ions, and further demonstrates similarities in the geochemistry of MW-1B and MW-8.

Since monitoring well MW-1B and MW-8 show the most similarities in geochemistry, but are located farther apart than MW-1B and MW-1C, the geochemical evaluations demonstrate the variability in aquifer geochemistry present at the site. Furthermore, since MW-8 shares more similarities to an upgradient well (MW-1B) than are apparent between the two upgradient wells, the geochemical evaluations do not indicate that monitoring well MW-8 has been impacted by a release of landfill leachate, as leachate impacts would be predicted to provide higher ion concentrations and a distinct ion signature relative to the upgradient wells.

Potential Offsite Sources of Contamination

Golder evaluated two nearby sites that are in the NC DENR Inactive Hazardous Sites Program; the Patterson Springs Dump and the Camp, Leonard Property. The approximate location of each site is shown on Drawing 2. The Patterson Springs Dump is located approximately 0.45 miles north-northwest of the JMN/Cleveland Container Landfill and is listed on NC DENR's *Pre-Regulatory (Pre-1983) Landfill Tracking List*.

The Patterson Springs Dump consists of a 6.1 acre landfill unit on a 38.9 acre property. The Patterson Springs Dump operated for an unspecified time period that began in the early 1960s and was closed between the mid-1980s and early 1990s. Information regarding groundwater quality around the Patterson Springs Dump is unavailable. Based on interpretation of groundwater flow using the USGS topographic maps of the area, the Patterson Springs Dump is upgradient of the JMN/Cleveland Container Landfill and at this time is a potential source of groundwater contamination in MW-8.

The Camp, Leonard Property is located approximately 0.65 miles west-northwest of the JMN/Cleveland Container Landfill and is listed on NC DENR's *Inactive Hazardous Sites and Pollution-Only Sites*

Inventory. The property is known to have VOC contamination from a textile source. A perennial stream creates a potential groundwater divide between the Camp, Leonard Property and the JMN/Cleveland Container Landfill and therefore this site is not a likely source of contamination in MW-8.

Other, more local offsite sources have not been located, but may be responsible for the contamination in MW-8. Well MW-8 is located outside the fence at the property boundary of the JMN/Cleveland County Landfill at a gravel pull-off along Roseborough Road. Illegal dumping and/or roadside maintenance, that may include spraying of herbicides, may represent additional sources for low-level VOCs as detected in samples from MW-8.

SUMMARY

Two VOCs (tetrachloroethene and vinyl chloride) have been detected at concentrations that exceeded both the SWSL and 2L Standard in samples from MW-8 during two sampling events since 2002. However, to date, the concentrations of these constituents have not been detected consistently or at consistent concentrations. No VOCs were detected in the samples from MW-8 at concentrations above both the SWSLs and 2L Standards during the most recent monitoring event in July 2011.

Based on the types and concentrations of constituents reported in groundwater samples from MW-8, along with the close proximity of MW-8 to the waste disposal unit, landfill gas is a potential source for the VOCs detected in groundwater samples from MW-8. During the July 2011 routine semi-annual groundwater monitoring event, headspace gases from MW-8 were collected and analyzed for VOCs. The laboratory results were evaluated using Henry's Law to determine if the VOCs detected in groundwater could be derived from landfill gas. The laboratory results demonstrate that several of the same VOCs are present in gas and groundwater at MW-8, though are not predicted to partition to groundwater at concentrations equal to or greater than the observed concentrations, and vinyl chloride was not detected in the gas sample. However, due to relatively fast changes in landfill gas presence and migration routes, landfill gas concentrations and compositions at other times in the past may have been higher and/or different than the concentrations measured on this date.

A geochemical evaluation of groundwater samples collected from MW-8 and background wells MW-1B and MW-1C was performed to further assess potential influences on the uppermost aquifer monitored in the vicinity of MW-8. Monitoring wells MW-1B and MW-8 show the more similarities in geochemistry than MW-1B and MW-1C. Since MW-8 shares more similarities to an upgradient well (MW-1B) than are apparent between the two upgradient wells, the geochemical evaluations do not indicate that monitoring well MW-8 has been impacted by a release of landfill leachate, as leachate impacts would be predicted to provide higher ion concentrations and a distinct ion signature relative to the upgradient wells.

An evaluation of two sites that are in the NC DENR Inactive Hazardous Sites Program (Patterson Springs Dump and the Camp, Leonard Property) as potential sources of contamination at the JMN/Cleveland Container Landfill was performed. The Patterson Springs Dump is located approximately 0.45 miles north-northwest and upgradient of the JMN/Cleveland Container Landfill and though information regarding groundwater quality around the Patterson Springs Dump is unavailable, at this time it is a potential source of contamination in MW-8. The Camp, Leonard Property is located approximately 0.65 miles west-northwest of the JMN/Cleveland Container Landfill and is known to have VOC contamination, but a perennial stream creates a potential groundwater divide between the Camp, Leonard Property and the JMN/Cleveland Container Landfill and therefore, this site is not a likely source of contamination in MW-8.

Other, more local offsite sources have not been located, but may be responsible for the contamination in MW-8. Well MW-8 is located outside the fence at the property boundary of the JMN/Cleveland Container Landfill at a gravel pull-off along Roseborough Road. Illegal dumping and/or roadside maintenance, that may include spraying of herbicides, may represent additional sources for VOCs at the relatively low levels detected in samples from MW-8.

Based on the recent data, which do not indicate any quantifiable concentrations of VOCs above applicable groundwater standards, along with the inconsistent nature of the detections of VOCs reported above the SWSLs and 2L Standards, and the possibility of offsite sources of groundwater contamination, Republic requests that no further action be required at this time. If you have any questions, please

contact the undersigned at 336-852-4903 or Ray Hoffman at 828-695-2055. We appreciate your assistance with this project.

Sincerely,
GOLDER ASSOCIATES NC, INC.

David "Dusty" Y. Reedy II, P.G.
Senior Project Hydrogeologist

Rachel P. Kirkman, P.G.
Associate and Senior Geologist

Attachments:

Table 1	Summary of Groundwater Monitoring Results
Table 2	Estimated Groundwater Concentrations Resulting Directly From Gas
Drawing 1	Groundwater Surface Contour Map, January 2011
Drawing 2	Site Location Map
Figure 1	Piper Diagram
Figure 2	Same Scale Stiff Diagram
Figure 3	Variable Scale Stiff Diagram
July 2011 Gas Sample Certificates-of-Analysis	
July 2011 Groundwater Certificates-of-Analysis	

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TABLES

TABLE 1

Summary of Groundwater Monitoring Results
JMN/Cleveland Container Landfill, Permit No. 23-02
Cleveland County, North Carolina

Detected Monitoring Constituents/Analytes	Units	Sample Date	SWS Reporting Limit	Upgradient MW-1A	Upgradient MW-1B	Upgradient MW-1C	Downgradient MW-4	Downgradient MW-5	Downgradient MW-6	Downgradient MW-6A	Downgradient MW-7	Downgradient MW-7A	Downgradient MW-8	Blanks
Arsenic	ug/L	06/01/97	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 10 ug/L	ug/L	11/09/97	10	16	--	--	ND	ND	ND	--	16	--	ND	ND
	ug/L	02/01/98	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	50	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	10	ND	--	--	ND	ND	--	--	ND	--	ND	ND
	ug/L	01/08/01	10	--	ND	ND	ND	ND	--	--	--	ND	ND	ND
	ug/L	07/17/01	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	--
	ug/L	07/16/02	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	--
	ug/L	01/29/03	5	--	ND	ND	ND	ND	--	--	--	ND	ND	ND
	ug/L	07/28/03	5	--	7.87	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	50	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	50	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	50	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	50	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	50	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/26/07	10	--	ND	3.6 B	3.1 B	18.9 B	--	ND	--	4.0 B	ND	4.4 J
	ug/L	01/09/08	10	--	ND	ND	2.7 J	ND	--	ND	--	3.0 J	ND	ND
	ug/L	07/25/08	10	--	ND	ND	ND	ND	--	ND	--	ND	3.0 J	ND
	ug/L	01/08/09	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	3.2 J
	ug/L	07/10/09	10	--	ND	ND	ND	ND	--	5.00 J	--	5.81 J	ND	ND
	ug/L	01/21/10	10	--	ND	ND	ND	ND	--	ND	--	5.88 J	ND	ND
	ug/L	07/28/10	10	--	ND	ND	ND	ND	--	ND	--	ND	3.01 J	ND
	ug/L	01/25/11	10	--	2.93 J	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/27/11	10	--	ND	ND	ND	4.31 J	--	5.35 J	--	3.78 J	3.75 J	ND
Barium	ug/L	06/01/97	500	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 700 ug/L	ug/L	11/09/97	500	1300	--	--	ND	1900	ND	--	1200	--	ND	ND
	ug/L	02/01/98	500	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	20	150	--	--	30	260	70	--	80	--	40	--
	ug/L	01/25/99	500	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	500	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	500	ND	--	--	ND	ND	ND	--	1100	--	ND	ND
	ug/L	07/20/00	500	1800	--	--	ND	2000	ND	--	ND	--	ND	ND
	ug/L	01/08/01	500	2200	--	--	ND	ND	--	--	ND	--	ND	ND
	ug/L	01/08/01	500	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	500	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	500	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	500	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	500	--	ND	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	07/16/02	500	--	ND	ND	ND	ND	--	ND	--	ND	700	--
	ug/L	01/29/03	5	--	41.1	17.2	31.1	319	--	--	--	168	70.3	ND
	ug/L	07/28/03	5	--	492	35.0	77.0	219	--	52.3	--	155	--	46.9
	ug/L	01/14/04	500	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	500	--	ND	ND	ND	503	--	ND	--	ND	--	ND
	ug/L	08/31/04	500	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	500	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	500	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	500	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	500	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	100	--	109	28.4 J	33.2 J	354	--	47.6 J	--	126	57.5 J	0.30 J
	ug/L	07/26/07	100	--	46.3 J	14.8 J	33.9 J	167	--	103	--	189	56.1 J	0.80 J
	ug/L	01/09/08	100	--	53.6 J	27.6 J	51.0 J	269	--	44.8 J	--	126	63.4 J	ND
	ug/L	07/25/08	100	--	35.1 J	18.4 J	36.7 J	294	--	78.1 J	--	115	70.4 J	ND
	ug/L	01/08/09	100	--	38.5 J	20.0 J	37.5 J	285	--	14.1 J	--	118	66.2 J	ND
	ug/L	07/10/09	100	--	94.2 J	30.9 J	26.6 J	304	--	71.0 J	--	135	59.0 J	ND
	ug/L	01/21/10	100	--	45.3 J	24.4 J	57.1 J	417	--	19.7 J	--	130	68.3 J	0.601 J
	ug/L	07/28/10	100	--	72.2 J	20.2 J	19.0 J	240	--	65.2 J	--	87.4 J	33.9 J	ND
	ug/L	01/25/11	100	--	31.9 J	27.9 J	32.2 J	335	--	85.8 J	--	94.5 J	70.4 J	ND
	ug/L	07/27/11	100	--	27.8 J	19.7 J	36.8 J	330	--	59.5 J	--	89.6 J	63.6 J	ND
Cadmium	ug/L	06/01/97	1	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 2 ug/L	ug/L	11/09/97	1	3.2	--	--	ND	2.9	ND	--	3.4	--	1.2	ND
	ug/L	02/01/98	1	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	1	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	1	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	1	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	1	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	1	ND	--	--	ND	ND	--	--	ND	--	ND	ND
	ug/L	01/08/01	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	1	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	1	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	--
	ug/L	07/16/02	1	--	ND	ND	ND	1	--	ND	--	ND	ND	--
	ug/L	01/29/03	5	--	ND	ND	ND	0.446	--	--	--	ND	ND	ND
	ug/L	07/28/03	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	5	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	1	--	ND	ND	ND	ND	--	ND	--	ND	1.10	ND
	ug/L	07/26/07	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/09/08	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	1	--	ND	ND	ND	0.50 J	--	0.50 J	--	ND	0.70 J	ND
	ug/L	01/08/09	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/10/09	1	--	0.570 J	0.265 J	0.146 J	0.784 J	--	0.278 J	--	0.569 J	0.809 J	ND
	ug/L	01/21/10	1	--	0.521 B	0.376 B	0.215 B	1.29 B	--	0.286 B	--	0.496 B	0.663 B	0.327 J
	ug/L	07/28/10	1	--	ND	ND	ND	0.485 J	--	ND	--	ND	0.569 J	ND
	ug/L	01/25/11	1	--	ND	ND	ND	0.644 J	--	0.499 J	--	0.472 J	1.96	ND
	ug/L	07/27/11	1	--	ND	ND	1.10	0.590 J	--	ND	--	ND	1.01	ND

TABLE 1

Summary of Groundwater Monitoring Results
JMN/Cleveland Container Landfill, Permit No. 23-02
Cleveland County, North Carolina

Detected Monitoring Constituents/Analytes	Units	Sample Date	SWS Reporting Limit	Upgradient MW-1A	MW-1B	MW-1C	Downgradient MW-4	MW-5	MW-6	MW-6A	MW-7	MW-7A	MW-8	Blanks
Chromium	ug/L	06/01/97	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 10 ug/L	ug/L	11/09/97	10	110	--	--	10	47	14	--	100	--	36	ND
	ug/L	02/01/98	10	ND	--	--	ND	ND	24	--	ND	--	ND	--
	ug/L	07/28/98	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	10	ND	--	--	ND	ND	ND	--	ND	--	10	ND
	ug/L	07/21/99	10	ND	--	--	ND	ND	10	--	ND	--	ND	ND
	ug/L	01/25/00	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	10	330	--	--	ND	ND	--	--	ND	--	ND	ND
	ug/L	01/08/01	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	10	--	20	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	10	--	10	ND	ND	ND	--	ND	--	ND	ND	--
	ug/L	07/16/02	10	--	10	ND	ND	ND	--	ND	--	ND	160	--
	ug/L	01/29/03	5	--	7.14	ND	ND	ND	--	--	--	ND	ND	ND
	ug/L	07/28/03	5	--	157	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	10	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	10	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	10	--	--	--	--	--	--	--	--	-	ND	--
	ug/L	01/26/05	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	10	--	23.2	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	10	--	13.7	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/26/07	10	--	5.8 J	ND	ND	ND	--	ND	--	4.1 J	5.2 J	ND
	ug/L	01/09/08	10	--	15.4	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	10	--	ND	ND	ND	ND	--	ND	--	ND	8.8 B	1.8 J
	ug/L	01/08/09	10	--	8.3 B	6.2 B	7.9 B	1.0 B	--	4.5 B	--	10.0 B	6.2 B	7.0 J
	ug/L	07/10/09	10	--	17.8	1.37 J	1.01 J	ND	--	ND	--	1.71 J	ND	ND
	ug/L	01/21/10	10	--	5.84 J	ND	6.02 J	5.00 J	--	ND	--	2.73 J	ND	ND
	ug/L	07/28/10	10	--	11.7	1.04 J	ND	ND	--	ND	--	1.18 J	ND	ND
	ug/L	01/25/11	10	--	3.83 J	1.09 J	ND	ND	--	ND	--	1.91 J	ND	ND
	ug/L	07/27/11	10	--	3.11 J	1.53 J	2.64 J	1.67 J	--	ND	--	2.37 J	ND	ND
Lead	ug/L	06/01/97	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 15 ug/L	ug/L	11/09/97	10	35	--	--	ND	44	ND	--	26	--	15	ND
	ug/L	02/01/98	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	15	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	10	ND	--	--	ND	ND	ND	--	20	--	ND	ND
	ug/L	07/20/00	10	40	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	10	210	--	--	ND	ND	--	--	ND	--	ND	ND
	ug/L	01/08/01	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	--
	ug/L	07/16/02	10	--	ND	ND	ND	ND	--	ND	--	ND	60	--
	ug/L	01/29/03	5	--	ND	ND	ND	ND	--	--	--	ND	ND	ND
	ug/L	07/28/03	5	--	48.9	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	10	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	10	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	10	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	10	--	3.3 J	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/26/07	10	--	3.6 B	3.2 B	ND	10.7 B	--	ND	--	3.1 B	2.8 B	2.4 J
	ug/L	01/09/08	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/08/09	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/10/09	10	--	4.44 J	ND	1.75 J	1.77 J	--	ND	--	ND	ND	ND
	ug/L	01/21/10	10	--	3.82 B	2.68 B	8.70 B	6.46 B	--	1.81 B	--	3.37 B	3.89 B	3.08 J
	ug/L	07/28/10	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/11	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/27/11	10	--	ND	ND	3.09 J	ND	--	ND	--	ND	ND	ND
Mercury	ug/L	01/25/07	0.2	--	ND	ND	ND	ND	--	ND	--	1.70	ND	ND
NC 2L = 1 ug/L	ug/L	07/26/07	0.2	--	0.20 R	0.24 R	0.16 R	ND	--	ND	--	3.64 R	0.27 R	0.25 R
(re-analyzation)	ug/L	07/26/07	0.2	--	ND	ND	ND	--	--	--	--	2.69	ND	ND
	ug/L	01/09/08	0.2	--	ND	ND	ND	ND	--	ND	--	0.86	ND	ND
	ug/L	07/25/08	0.2	--	ND	ND	ND	ND	--	ND	--	1.91	ND	ND
	ug/L	01/08/09	0.2	--	ND	ND	ND	ND	--	ND	--	1.36	ND	ND
	ug/L	07/10/09	0.2	--	ND	ND	ND	ND	--	0.0635 B	--	0.582	ND	0.0777 J
	ug/L	01/21/10	0.2	--	ND	ND	ND	ND	--	0.0555 J	--	1.79	ND	ND
	ug/L	07/28/10	0.2	--	ND	ND	ND	ND	--	ND	--	0.196 J	ND	ND
	ug/L	01/25/11	0.2	--	ND	ND	ND	ND	--	ND	--	0.262	ND	ND
	ug/L	07/27/11	0.2	--	ND	ND	ND	ND	--	ND	--	1.04	ND	ND
Selenium	ug/L	06/01/97	20	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 20 ug/L	ug/L	11/09/97	20	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	20	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	20	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	20	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	20	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	20	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	20	ND	--	--	ND	ND	--	--	ND	--	ND	ND
	ug/L	01/08/01	20	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	20	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	20	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	20	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	20	--	ND	ND	ND	ND	--	ND	--	ND	ND	--
	ug/L	07/16/02	20	--	ND	ND	ND	ND	--	ND	--	ND	ND	--
	ug/L	01/29/03	5	--	9.07	7.55	ND	ND	--	--	--	ND	ND	ND
	ug/L	07/28/03	5	--	35.7	8.20	9.43	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	20	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	20	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	20	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	20	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	20	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	20	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	20	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	10	--	ND	2.2 B	ND	ND	--	ND	--	ND	ND	2.6 J
	ug/L	07/26/07	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	2.7 J
	ug/L	01/09/08	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/08/09	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/10/09	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/21/10	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/28/10	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/11	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/27/11	10	--	ND	4.56 J	ND	ND	--	ND	--	ND	6.37 J	ND

TABLE 1

Summary of Groundwater Monitoring Results
JMN/Cleveland Container Landfill, Permit No. 23-02
Cleveland County, North Carolina

Detected Monitoring Constituents/Analytes	Units	Sample Date	SWS Reporting Limit	Upgradient MW-1A	MW-1B	MW-1C	Downgradient MW-4	MW-5	MW-6	MW-6A	MW-7	MW-7A	MW-8	Blanks
Acetone	ug/L	06/01/97	100	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 6000 ug/L	ug/L	11/09/97	100	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	100	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	100	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	100	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	100	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	100	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	100	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	100	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	100	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	100	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/16/02	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/29/03	5	--	ND	ND	ND	ND	--	--	--	ND	ND	ND
	ug/L	07/28/03	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	100	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	100	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	100	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	100	--	ND	ND	ND	ND	--	ND	--	ND	31 J	ND
	ug/L	07/26/07	100	--	ND	ND	ND	ND	--	ND	--	ND	3.1 J	ND
	ug/L	01/09/08	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	100	--	ND	ND	ND	ND	--	3.6 B	--	ND	28 B	4.9 J
	ug/L	01/08/09	100	--	ND	ND	ND	ND	--	ND	--	ND	33 J	ND
	ug/L	07/10/09	100	--	ND	ND	ND	ND	--	ND	--	12 J	ND	ND
	ug/L	01/21/10	100	--	ND	ND	8.7 J	ND	--	8.5 J	--	ND	22 J	ND
	ug/L	07/28/10	100	--	ND	ND	3.0 J	ND	--	4.4 J	--	3.0 J	68 J	ND
	ug/L	01/25/11	100	--	ND	ND	5.2 J	ND	--	ND	--	ND	4.9 J	ND
	ug/L	07/27/11	100	--	ND	ND	13 J	ND	--	ND	--	ND	20 J	ND
Benzene	ug/L	06/01/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 1 ug/L	ug/L	11/09/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	2	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/16/02	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/29/03	1	--	ND	ND	ND	1.03	--	--	--	ND	ND	ND
	ug/L	07/28/03	1	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	1	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	1	--	ND	ND	ND	1.04	--	ND	--	ND	--	ND
	ug/L	08/31/04	1	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	1	--	ND	ND	ND	1.10	--	ND	--	ND	ND	ND
	ug/L	01/20/06	1	--	ND	ND	ND	1.17	--	ND	--	ND	ND	ND
	ug/L	07/25/06	1	--	ND	ND	ND	1.08	--	ND	--	1.03	ND	ND
	ug/L	01/25/07	1	--	ND	ND	ND	1.5	--	ND	--	1.7	ND	ND
	ug/L	07/26/07	1	--	ND	ND	ND	1.3	--	0.35 J	--	1.0	ND	ND
	ug/L	01/09/08	1	--	ND	ND	ND	0.97 J	--	ND	--	1.8	ND	ND
	ug/L	07/25/08	1	--	ND	ND	ND	0.54 J	--	ND	--	1.5	ND	ND
	ug/L	01/08/09	1	--	ND	ND	ND	0.57 J	--	ND	--	1.3	ND	ND
	ug/L	07/10/09	1	--	ND	ND	ND	0.62 J	--	ND	--	0.95 J	ND	ND
	ug/L	01/21/10	1	--	ND	ND	ND	ND	--	ND	--	0.86 J	ND	ND
	ug/L	07/28/10	1	--	ND	ND	ND	ND	--	ND	--	0.44 J	ND	ND
	ug/L	01/25/11	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/27/11	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
Chlorobenzene	ug/L	06/01/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 50 ug/L	ug/L	11/09/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	5	ND	--	--	ND	8	ND	--	ND	--	ND	ND
	ug/L	07/20/00	5	ND	--	--	ND	6	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	ND	--	--	ND	6	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	--	ND	ND	ND	6	--	ND	--	ND	ND	ND
	ug/L	07/17/01	5	--	ND	ND	ND	6	--	ND	--	7	ND	ND
	ug/L	09/25/01	5	--	ND	ND	--	--	--	ND	--	8	--	--
	ug/L	11/27/01	5	--	ND	ND	--	--	--	ND	--	8	--	--
	ug/L	01/23/02	5	--	ND	ND	ND	7	--	ND	--	8	ND	ND
	ug/L	07/16/02	5	--	ND	ND	ND	ND	--	ND	--	6	ND	ND
	ug/L	01/29/03	1	--	ND	ND	ND	2.2	--	--	--	5.50	ND	ND
	ug/L	07/28/03	1	--	ND	ND	ND	ND	--	ND	--	3.65	--	ND
	ug/L	01/14/04	5	--	ND	ND	ND	5.26	--	ND	--	ND	--	ND
	ug/L	07/07/04	5	--	ND	ND	ND	6.85	--	ND	--	ND	--	ND
	ug/L	08/31/04	5	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	5	--	ND	ND	ND	7.01	--	ND	--	ND	ND	ND
	ug/L	01/20/06	5	--	ND	ND	ND	12.1	--	ND	--	ND	ND	ND
	ug/L	07/25/06	5	--	ND	ND	ND	11.3	--	ND	--	ND	ND	ND
	ug/L	01/25/07	3	--	ND	ND	ND	14	--	0.71 J	--	2.0 J	ND	ND
	ug/L	07/26/07	3	--	ND	ND	ND	14	--	3.0	--	1.4 J	ND	ND
	ug/L	01/09/08	3	--	ND	ND	ND	6.9	--	0.63 J	--	2.2 J	ND	ND
	ug/L	07/25/08	3	--	ND	ND	ND	5.0	--	1.5 J	--	2.2 J	ND	ND
	ug/L	01/08/09	3	--	ND	ND	ND	5.5	--	ND	--	2.6 J	ND	ND
	ug/L	07/10/09	3	--	ND	ND	ND	3.6	--	1.2 J	--	2.0 J	ND	ND
	ug/L	01/21/10	3	--	ND	ND	ND	3.8	--	ND	--	1.9 J	ND	ND
	ug/L	07/28/10	3	--	ND	ND	ND	2.3 J	--	1.5 J	--	0.97 J	ND	ND
	ug/L	01/25/11	3	--	ND	ND	ND	3.2	--	1.8 J	--	0.50 J	ND	ND
	ug/L	07/27/11	3	--	ND	ND	ND	3.2	--	ND	--	0.82 J	ND	ND

TABLE 1

Summary of Groundwater Monitoring Results
JMN/Cleveland Container Landfill, Permit No. 23-02
Cleveland County, North Carolina

Detected Monitoring Constituents/Analytes	Units	Sample Date	SWS Reporting Limit	Upgradient MW-1A	MW-1B	MW-1C	Downgradient MW-4	MW-5	MW-6	MW-6A	MW-7	MW-7A	MW-8	Blanks
Chloroethane	ug/L	06/01/97	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC GPS = 2800 ug/L	ug/L	11/09/97	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	2	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/16/02	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/29/03	1	--	ND	ND	ND	ND	--	--	--	ND	ND	ND
	ug/L	07/28/03	1	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	10	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	10	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	10	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	10	--	ND	ND	ND	ND	--	0.51 J	--	ND	ND	ND
	ug/L	07/26/07	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/09/08	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/08/09	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/10/09	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/21/10	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/28/10	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/11	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/27/11	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
1,2-Dichlorobenzene	ug/L	06/01/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 20 ug/L	ug/L	11/09/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	5	ND	--	--	ND	11	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	ND	--	--	ND	12	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	--	ND	ND	ND	12	--	ND	--	ND	ND	ND
	ug/L	07/17/01	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	5	--	ND	ND	ND	12	--	ND	--	ND	ND	ND
	ug/L	07/16/02	5	--	ND	ND	ND	12	--	ND	--	ND	ND	ND
	ug/L	01/29/03	1	--	ND	ND	ND	5.77	--	--	--	ND	ND	ND
	ug/L	07/28/03	1	--	ND	ND	ND	3.11	--	ND	--	ND	--	ND
	ug/L	01/14/04	5	--	ND	ND	ND	12.5	--	ND	--	ND	--	ND
	ug/L	07/07/04	5	--	ND	ND	ND	17.3	--	ND	--	ND	--	ND
	ug/L	08/31/04	5	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	5	--	ND	ND	ND	15.3	--	ND	--	ND	ND	ND
	ug/L	01/20/06	5	--	ND	ND	ND	24.0	--	ND	--	ND	ND	ND
	ug/L	07/25/06	5	--	ND	ND	ND	25.2	--	ND	--	ND	ND	ND
	ug/L	01/25/07	5	--	ND	ND	ND	30	--	0.36 J	--	ND	ND	ND
	ug/L	07/26/07	5	--	0.34 J	ND	ND	31	--	ND	--	ND	ND	ND
	ug/L	01/09/08	5	--	ND	ND	ND	18	--	ND	--	ND	ND	ND
	ug/L	07/25/08	5	--	ND	ND	ND	12	--	ND	--	ND	ND	ND
	ug/L	01/08/09	5	--	ND	ND	ND	13	--	ND	--	ND	ND	ND
	ug/L	07/10/09	5	--	ND	ND	ND	7.4	--	ND	--	ND	ND	ND
	ug/L	01/21/10	5	--	ND	ND	ND	5.6	--	ND	--	ND	ND	ND
	ug/L	07/28/10	5	--	ND	ND	ND	3.6 J	--	ND	--	ND	ND	ND
	ug/L	01/25/11	5	--	ND	ND	ND	5.6	--	ND	--	ND	ND	ND
	ug/L	07/27/11	5	--	ND	ND	ND	6.6	--	ND	--	ND	ND	ND
1,4-Dichlorobenzene	ug/L	06/01/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 6 ug/L	ug/L	11/09/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/16/02	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/29/03	1	--	ND	ND	ND	1.01	--	--	--	2.46	ND	ND
	ug/L	07/28/03	1	--	ND	ND	ND	ND	--	ND	--	1.57	--	ND
	ug/L	01/14/04	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	5	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	3	--	ND	ND	ND	3.6	--	ND	--	0.62 J	ND	ND
	ug/L	07/26/07	1	--	ND	ND	ND	4.0	--	0.97 J	--	0.43 J	ND	ND
	ug/L	01/09/08	1	--	ND	ND	ND	2.3	--	ND	--	0.63 J	ND	ND
	ug/L	07/25/08	1	--	ND	ND	ND	ND	--	0.53 J	--	0.71 J	ND	ND
	ug/L	01/08/09	1	--	ND	ND	ND	2.1	--	ND	--	0.86 J	ND	ND
	ug/L	07/10/09	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/21/10	1	--	ND	ND	ND	1.2	--	ND	--	0.59 J	ND	ND
	ug/L	07/28/10	1	--	ND	ND	ND	0.87 J	--	0.58 J	--	ND	ND	ND
	ug/L	01/25/11	1	--	ND	ND	ND	1.1	--	0.64 J	--	ND	ND	ND
	ug/L	07/27/11	1	--	ND	ND	ND	1.1	--	ND	--	ND	ND	ND

TABLE 1

Summary of Groundwater Monitoring Results
JMN/Cleveland Container Landfill, Permit No. 23-02
Cleveland County, North Carolina

Detected Monitoring Constituents/Analytes	Units	Sample Date	SWS Reporting Limit	Upgradient MW-1A	MW-1B	MW-1C	Downgradient MW-4	MW-5	MW-6	MW-6A	MW-7	MW-7A	MW-8	Blanks
cis-1,2-Dichloroethene	ug/L	06/01/97	5	ND	--	--	ND	ND	ND	--	5.7	--	ND	--
NC 2L = 70 ug/L	ug/L	11/09/97	5	ND	--	--	ND	ND	ND	--	9.2	--	ND	ND
	ug/L	02/01/98	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	2	ND	--	--	ND	ND	ND	--	14	--	ND	--
	ug/L	01/25/99	5	ND	--	--	ND	ND	ND	--	5	--	ND	ND
	ug/L	07/21/99	5	ND	--	--	ND	ND	ND	--	13	--	ND	ND
	ug/L	01/25/00	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	5	ND	--	--	ND	ND	ND	--	20	--	ND	ND
	ug/L	01/08/01	5	ND	--	--	ND	ND	ND	--	17	--	ND	ND
	ug/L	01/08/01	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	5	--	ND	ND	ND	ND	--	ND	--	15	5	ND
	ug/L	09/25/01	5	--	ND	ND	--	--	--	ND	--	16	--	--
	ug/L	11/27/01	5	--	ND	ND	--	--	--	ND	--	13	--	--
	ug/L	01/23/02	5	--	ND	ND	ND	ND	--	ND	--	13	7	ND
	ug/L	07/16/02	5	--	ND	ND	ND	ND	--	ND	--	12	5	ND
	ug/L	01/29/03	1	--	ND	ND	ND	ND	--	--	--	8.81	8.51	ND
	ug/L	07/28/03	1	--	ND	ND	ND	ND	--	ND	--	4.73	--	ND
	ug/L	01/14/04	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	5	--	--	--	--	--	--	--	--	-	ND	--
	ug/L	01/26/05	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	5	--	ND	ND	0.31 J	1.4 J	--	ND	--	1.7 J	ND	ND
	ug/L	07/26/07	5	--	ND	ND	0.86 J	1.3 J	--	0.44 J	--	1.1 J	ND	ND
	ug/L	01/09/08	5	--	ND	ND	0.76 J	1.3 J	--	ND	--	2.9 J	ND	ND
	ug/L	07/25/08	5	--	ND	ND	ND	1.1 J	--	ND	--	3.1 J	ND	ND
	ug/L	01/08/09	5	--	ND	ND	ND	1.5 J	--	ND	--	3.5 J	ND	ND
	ug/L	07/10/09	5	--	ND	ND	0.63 J	1.6 J	--	0.58 J	--	2.8 J	ND	ND
	ug/L	01/21/10	5	--	ND	ND	ND	1.8 J	--	ND	--	2.8 J	ND	ND
	ug/L	07/28/10	5	--	ND	ND	ND	1.2 J	--	0.51 J	--	1.3 J	1.4 J	ND
	ug/L	01/25/11	5	--	ND	ND	ND	1.3 J	--	ND	--	0.98 J	ND	ND
	ug/L	07/27/11	5	--	ND	ND	ND	1.4 J	--	ND	--	2.0 J	ND	ND
trans-1,2-Dichloroethene	ug/L	06/01/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 100 ug/L	ug/L	11/09/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	2	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	--	--	--	ND	ND	--	--	--	--	ND	ND
	ug/L	07/17/01	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/16/02	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/29/03	1	--	ND	ND	ND	ND	--	--	--	ND	ND	ND
	ug/L	07/28/03	1	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	5	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/26/07	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/09/08	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/08/09	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/10/09	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/21/10	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/28/10	5	--	ND	ND	ND	ND	--	1.1 J	--	ND	ND	ND
	ug/L	01/25/11	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/27/11	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
Chloromethane	ug/L	06/01/97	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC GPS = 2.6 ug/L	ug/L	11/09/97	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	10	ND	--	--	ND	ND	ND	--	25	--	ND	--
	ug/L	01/25/99	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	10	ND	--	--	ND	ND	ND	--	17	--	ND	ND
	ug/L	01/08/01	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/16/02	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/29/03	1	--	ND	ND	ND	ND	--	--	--	ND	ND	ND
	ug/L	07/28/03	1	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	2.6	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	2.6	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	2.6	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	2.6	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	2.6	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	2.6	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	2.6	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	5.5	--	ND	ND	1.0 J	5.3 J	--	1.8 J	--	3.9 J	0.34 J	ND
	ug/L	07/26/07	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/09/08	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/08/09	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/10/09	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/21/10	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/28/10	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/11	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/27/11	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND

TABLE 1

Summary of Groundwater Monitoring Results
JMN/Cleveland Container Landfill, Permit No. 23-02
Cleveland County, North Carolina

Detected Monitoring Constituents/Analytes	Units	Sample Date	SWS Reporting Limit	Upgradient MW-1A	MW-1B	MW-1C	Downgradient MW-4	MW-5	MW-6	MW-6A	MW-7	MW-7A	MW-8	Blanks
Methylene chloride	ug/L	06/01/97	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 5 ug/L	ug/L	11/09/97	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/16/02	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/29/03	5	--	ND	ND	ND	ND	--	--	--	ND	ND	ND
	ug/L	07/28/03	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	10	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	10	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	10	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	5.5	--	ND	ND	ND	0.49 J	--	ND	--	ND	ND	ND
	ug/L	07/26/07	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/09/08	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/08/09	1	--	ND	ND	ND	0.66 J	--	ND	--	ND	ND	ND
	ug/L	07/10/09	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/21/10	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/28/10	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/11	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/27/11	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
2-Butanone	ug/L	06/01/97	100	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 4000 ug/L	ug/L	11/09/97	100	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	100	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	100	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	100	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	100	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	100	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	100	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	100	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	100	--	--	--	ND	ND	--	--	--	--	ND	ND
	ug/L	07/17/01	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	100	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	100	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/16/02	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/29/03	5	--	ND	ND	ND	ND	--	--	--	ND	ND	ND
	ug/L	07/28/03	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	100	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	100	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	100	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/26/07	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/09/08	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/08/09	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/10/09	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/21/10	100	--	ND	ND	1.1 J	ND	--	ND	--	ND	ND	ND
	ug/L	07/28/10	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/11	100	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/27/11	100	--	ND	ND	2.1 J	ND	--	ND	--	ND	ND	ND
Iodomethane	ug/L	06/01/97	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
No 2L Standard	ug/L	11/09/97	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	100	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	10	ND	--	--	ND	ND	ND	--	44	--	ND	ND
	ug/L	07/20/00	10	ND	--	--	ND	ND	ND	--	16	--	10	ND
	ug/L	01/08/01	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/16/02	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/29/03	5	--	ND	ND	ND	ND	--	--	--	ND	ND	ND
	ug/L	07/28/03	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	10	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	10	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	10	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/26/07	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/09/08	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/08/09	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/10/09	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/21/10	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/28/10	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/11	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/27/11	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND

TABLE 1

Summary of Groundwater Monitoring Results
JMN/Cleveland Container Landfill, Permit No. 23-02
Cleveland County, North Carolina

Detected Monitoring Constituents/Analytes	Units	Sample Date	SWS Reporting Limit	Upgradient MW-1A	MW-1B	MW-1C	Downgradient MW-4	MW-5	MW-6	MW-6A	MW-7	MW-7A	MW-8	Blanks
Tetrachloroethene	ug/L	06/01/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 0.7 ug/L	ug/L	11/09/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	2	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/16/02	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/29/03	1	--	ND	ND	ND	ND	--	--	--	ND	1.38	ND
	ug/L	07/28/03	1	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	1	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	1	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	1	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	3	--	ND	ND	ND	0.50 J	--	ND	--	ND	0.68 J	ND
	ug/L	07/26/07	1	--	ND	ND	ND	0.51 J	--	ND	--	ND	0.51 J	ND
	ug/L	01/09/08	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	1	--	ND	ND	ND	ND	--	ND	--	ND	0.45 J	ND
	ug/L	01/08/09	1	--	ND	ND	ND	ND	--	ND	--	ND	0.42 J	ND
	ug/L	07/10/09	1	--	ND	ND	ND	ND	--	ND	--	ND	0.90 J	ND
	ug/L	01/21/10	1	--	ND	ND	ND	ND	--	ND	--	ND	0.94 J	ND
	ug/L	07/28/10	1	--	ND	ND	ND	ND	--	ND	--	ND	2.5	ND
	ug/L	01/25/11	1	--	ND	ND	ND	ND	--	ND	--	ND	0.91 J	ND
	ug/L	07/27/11	1	--	ND	ND	ND	ND	--	ND	--	ND	0.87 J	ND
Toluene	ug/L	06/01/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 600 ug/L	ug/L	11/09/97	5	ND	--	--	25	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	2	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/16/02	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/29/03	1	--	ND	ND	ND	ND	--	--	--	ND	ND	10.5
	ug/L	07/28/03	1	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	5	--	ND	ND	ND	ND	--	ND	--	ND	--	5.32
	ug/L	08/31/04	5	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	5	--	ND	ND	2.8 J	ND	--	ND	--	ND	ND	ND
	ug/L	07/26/07	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/09/08	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/08/09	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/10/09	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/21/10	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/28/10	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/11	1	--	ND	ND	ND	ND	--	ND	--	ND	0.60 J	ND
	ug/L	07/27/11	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
Trichloroethene	ug/L	06/01/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L =3 ug/L	ug/L	11/09/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	2	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	--	--	--	ND	ND	--	--	--	--	ND	ND
	ug/L	07/17/01	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/16/02	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/29/03	1	--	ND	ND	ND	ND	--	--	--	ND	ND	ND
	ug/L	07/28/03	1	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	2	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	2	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	2	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	2	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	2	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	2	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	2	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	3	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/26/07	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/09/08	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/08/09	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/10/09	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/21/10	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/28/10	1	--	ND	ND	ND	ND	--	ND	--	ND	0.57 J	ND
	ug/L	01/25/11	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/27/11	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND

TABLE 1

Summary of Groundwater Monitoring Results
JMN/Cleveland Container Landfill, Permit No. 23-02
Cleveland County, North Carolina

Detected Monitoring Constituents/Analytes	Units	Sample Date	SWS Reporting Limit	Upgradient MW-1A	MW-1B	MW-1C	Downgradient MW-4	MW-5	MW-6	MW-6A	MW-7	MW-7A	MW-8	Blanks
Trichlorofluoromethane	ug/L	06/01/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 2000 ug/L	ug/L	11/09/97	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	5	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	5	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/16/02	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/29/03	1	--	ND	ND	ND	2.39	--	--	--	ND	ND	ND
	ug/L	07/28/03	1	--	ND	ND	ND	1.69	--	ND	--	ND	--	ND
	ug/L	01/14/04	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	5	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	5	--	--	--	--	--	--	--	--	--	ND	--
	ug/L	01/26/05	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	5	--	ND	ND	ND	0.40 J	--	ND	--	ND	0.85 J	ND
	ug/L	07/26/07	1	--	ND	ND	ND	ND	--	ND	--	ND	0.59 J	ND
	ug/L	01/09/08	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/08/09	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/10/09	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/21/10	1	--	ND	ND	ND	ND	--	ND	--	ND	0.44 J	ND
	ug/L	07/28/10	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/11	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/27/11	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
Vinyl Chloride	ug/L	06/01/97	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
NC 2L = 0.03 ug/L	ug/L	11/09/97	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	02/01/98	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	07/28/98	2	ND	--	--	ND	ND	ND	--	ND	--	ND	--
	ug/L	01/25/99	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/21/99	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/25/00	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	07/20/00	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	10	ND	--	--	ND	ND	ND	--	ND	--	ND	ND
	ug/L	01/08/01	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/17/01	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	09/25/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	11/27/01	10	--	ND	ND	--	--	--	ND	--	ND	--	--
	ug/L	01/23/02	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/16/02	10	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/29/03	1	--	ND	ND	ND	ND	--	-	--	ND	2.03	ND
	ug/L	07/28/03	1	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	01/14/04	1	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	07/07/04	1	--	ND	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	08/31/04	1	--	--	--	--	--	--	-	--	--	ND	--
	ug/L	01/26/05	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/20/05	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/20/06	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/06	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/25/07	5.5	--	ND	ND	ND	ND	--	ND	--	ND	1.2 J	ND
	ug/L	07/26/07	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/09/08	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/25/08	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/08/09	1	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/10/09	1	--	ND	ND	ND	ND	--	ND	--	ND	0.72 J	ND
	ug/L	01/21/10	1	--	ND	ND	ND	ND	--	ND	--	ND	0.76 J	ND
	ug/L	07/28/10	1	--	ND	ND	ND	ND	--	ND	--	ND	0.89 J	ND
	ug/L	01/25/11	1	--	ND	ND	ND	ND	--	ND	--	ND	1.0	ND
	ug/L	07/27/11	1	--	ND	ND	ND	ND	--	ND	--	ND	0.82 J	ND
Xylenes (Total)	ug/L	07/25/08	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
NC2L = 500 ug/L	ug/L	01/08/09	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/10/09	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	01/21/10	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/28/10	5	--	ND	ND	ND	ND	--	ND	--	ND	0.97 J	ND
	ug/L	01/25/11	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
	ug/L	07/27/11	5	--	ND	ND	ND	ND	--	ND	--	ND	ND	ND
pH (field)	S.U.	06/01/97	--	5.85	--	--	6.28	5.40	6.49	--	5.58	--	5.70	--
	S.U.	11/09/97	--	5.97	--	--	5.93	5.04	6.24	--	5.30	--	5.07	--
	S.U.	02/01/98	--	6.22	--	--	5.81	2.39	6.06	--	4.83	--	4.77	--
	S.U.	07/28/98	--	5.67	--	--	6.00	5.22	6.10	--	5.34	--	5.23	--
	S.U.	01/25/99	--	5.78	--	--	6.34	5.14	6.18	--	5.44	--	5.23	--
	S.U.	07/21/99	--	5.79	--	--	6.35	5.41	6.18	--	5.56	--	5.20	--
	S.U.	01/25/00	--	6.14	--	--	7.37	6.21	6.21	--	6.01	--	5.68	--
	S.U.	07/20/00	--	6.16	--	--	6.33	5.32	6.51	--	5.53	--	5.47	--
	S.U.	01/08/01	--	5.70	--	--	6.49	5.49	6.38	--	5.64	--	5.70	--
	S.U.	01/08/01	--	--	--	--	6.49	5.49	--	--	--	--	5.70	--
	S.U.	07/17/01	--	--	6.24	6.45	6.32	5.40	--	6.08	--	5.38	5.49	--
	S.U.	09/25/01	--	--	6.35	6.38	--	--	--	6.28	--	5.19	--	--
	S.U.	11/27/01	--	--	6.67	6.65	--	--	--	6.35	--	5.58	--	--
	S.U.	01/23/02	--	--	6.24	6.29	6.36	5.82	--	6.32	--	5.32	5.63	--
	S.U.	07/16/02	--	--	5.90	5.83	5.66	4.95	--	5.77	--	4.95	4.95	--
	S.U.	01/29/03	--	--	6.20	6.30	6.40	5.50	--	--	--	5.10	5.60	--
	S.U.	07/28/03	--	--	6.10	6.50	6.40	5.50	--	6.20	--	5.40	--	--
	S.U.	01/14/04	--	--	6.32	6.32	6.29	5.37	--	6.24	--	5.01	--	--
	S.U.	07/07/04	--	--	5.85	6.17	5.99	5.23	--	5.67	--	5.42	--	--
	S.U.	08/31/04	--	--	--	--	--	--	--	--	--	--	5.31	--
	S.U.	01/26/05	--	--	5.78	6.16	6.22	5.29	--	6.06	--	5.05	5.38	--
	S.U.	07/20/05	--	--	6.10	6.40	6.30	5.29	--	6.10	--	6.70	5.10	--
	S.U.	01/20/06	--	--	5.70	6.30	6.50	5.30	--	5.60	--	5.00	5.60	--
	S.U.	07/25/06	--	--	6.00	6.20	6.10	5.60	--	6.10	--	5.20	5.40	--
	S.U.	01/25/07	--	--	5.89	6.13	6.09	5.72	--	6.25	--	5.27	5.63	--
	S.U.	07/26/07	--	--	6.60	6.51	6.44	5.96	--	6.25	--	7.29	5.29	--
	S.U.	01/09/08	--	--	5.70	5.91	6.07	5.73	--	6.40	--	6.46	5.59	--
	S.U.	07/25/08	--	--	5.21	5.31	6.60	7.47	--	6.07	--	5.40	5.64	--
	S.U.	01/08/09	--	--	6.57	6.30	5.64	5.81	--	6.83	--	5.70	5.70	--
	S.U.	07/10/09	--	--	6.23	6.89	6.62	6.05	--	6.39	--	5.95	5.63	--
	S.U.	01/21/10	--	--	5.95	5.83	5.66	5.61	--	5.89	--	5.48	5.26	--
	S.U.	07/28/10	--	--	5.65	6.00	6.03	5.22	--	5.78	--	4.97	5.29	--
	S.U.	01/25/11	--	--	5.77	5.97	5.56	5.36	--	5.95	--	5.83	5.22	--
	S.U.	07/27/11	--	--	5.72	5.72	5.59	5.15	--	5.91	--	5.21	4.90	--

TABLE 1

Summary of Groundwater Monitoring Results
JMN/Cleveland Container Landfill, Permit No. 23-02
Cleveland County, North Carolina

Detected Monitoring Constituents/Analytes	Units	Sample Date	SWS Reporting Limit	Upgradient			Downgradient							Blanks
				MW-1A	MW-1B	MW-1C	MW-4	MW-5	MW-6	MW-6A	MW-7	MW-7A	MW-8	
Specific	uS/cm	06/01/97	--	80	--	--	102	261	166	--	157	--	49	--
Conductance (field)	uS/cm	11/09/97	--	66	--	--	118	302	138	--	163	--	35	--
	uS/cm	02/01/98	--	69	--	--	117	254	172	--	137	--	34	--
	uS/cm	07/28/98	--	25	--	--	62	99	47	--	68	--	20	--
	uS/cm	01/25/99	--	26	--	--	66	102	49	--	70	--	19	--
	uS/cm	07/21/99	--	70	--	--	140	238	48	--	111	--	27	--
	uS/cm	01/25/00	--	63	--	--	145	296	53	--	138	--	40	--
	uS/cm	07/20/00	--	52	--	--	187	223	40	--	104	--	41	--
	uS/cm	01/08/01	--	42	--	--	176	253	66	--	121	--	42	--
	uS/cm	01/08/01	--	--	--	--	176	253	--	--	--	--	42	--
	uS/cm	07/17/01	--	--	81	180	244	290	--	252	--	123	46	--
	uS/cm	09/25/01	--	--	67	145	--	--	--	346	--	107	--	--
	uS/cm	11/27/01	--	--	62	142	--	--	--	399	--	114	--	--
	uS/cm	01/23/02	--	--	51	101	114	166	--	220	--	95	37	--
	uS/cm	07/16/02	--	--	61	87	118	189	--	373	--	84	30	--
	uS/cm	01/29/03	--	--	158	201	248	284	--	--	--	139	62.4	--
	uS/cm	07/28/03	--	--	204	232	226	252	--	292	--	116	--	--
	uS/cm	01/14/04	--	--	122.3	202.3	191	295.2	--	138	--	121	--	--
	uS/cm	07/07/04	--	--	118.6	194.8	175.9	299.1	--	258.7	--	125.1	--	--
	uS/cm	08/31/04	--	--	--	--	--	--	--	--	--	--	53.7	--
	uS/cm	01/26/05	--	--	315	451	425	624	--	663	--	319	165	--
	uS/cm	07/20/05	--	--	148	230	196	402	--	507	--	148	51.2	--
	uS/cm	01/20/06	--	--	96.4	132	319	388	--	467	--	173.5	69.7	--
	uS/cm	07/25/06	--	--	106.7	206.9	175.7	341.3	--	479	--	149.6	51.3	--
	uS/cm	01/25/07	--	--	105	313	244	473	--	360	--	234	59	--
	uS/cm	07/26/07	--	--	94	249	163	424	--	641	--	145	57	--
	uS/cm	01/09/08	--	--	162	323	159	485	--	507	--	257	88	--
	uS/cm	07/25/08	--	--	233	275	175	455	--	561	--	224	70	--
	uS/cm	01/08/09	--	--	206	258	86	440	--	75	--	237	56	--
	uS/cm	07/10/09	--	--	256	275	183	454	--	459	--	191	68	--
	uS/cm	01/21/10	--	--	216	255	185	432	--	169	--	175	61	--
	uS/cm	07/28/10	--	--	245	250	229	411	--	571	--	126	108	--
	uS/cm	01/25/11	--	--	111	255	169	426	--	675	--	149	64	--
	uS/cm	07/27/11	--	--	140	285	236	453	--	416	--	178	70	--
Temperature (field)	°C	06/01/97	--	16.90	--	--	16.10	15.90	17.60	--	16.10	--	17.60	--
	°C	11/09/97	--	16.10	--	--	16.90	16.90	16.00	--	15.80	--	16.60	--
	°C	02/01/98	--	13.90	--	--	13.10	15.80	15.90	--	13.80	--	15.90	--
	°C	07/28/98	--	15.40	--	--	16.70	15.90	15.10	--	19.90	--	18.17	--
	°C	01/25/99	--	25.00	--	--	25.00	25.00	25.00	--	25.00	--	25.00	--
	°C	07/21/99	--	19.70	--	--	20.00	19.40	20.60	--	22.70	--	19.40	--
	°C	01/25/00	--	16.10	--	--	7.70	7.90	8.30	--	13.00	--	15.50	--
	°C	07/20/00	--	21.80	--	--	23.30	20.00	21.90	--	22.20	--	22.00	--
	°C	01/08/01	--	16.00	--	--	15.70	15.80	16.00	--	16.30	--	16.00	--
	°C	01/08/01	--	--	--	--	15.70	15.80	--	--	--	--	16.00	--
	°C	07/17/01	--	--	21.80	19.90	20.30	20.70	--	18.80	--	19.60	20.10	--
	°C	09/25/01	--	--	19.80	19.40	--	--	--	19.70	--	17.60	--	--
	°C	11/27/01	--	--	17.10	17.00	--	--	--	15.70	--	15.50	--	--
	°C	01/23/02	--	--	15.90	15.90	15.70	16.60	--	15.80	--	14.90	17.50	--
	°C	07/16/02	--	--	21.10	20.20	19.30	18.40	--	21.30	--	18.40	22.00	--
	°C	01/29/03	--	--	14.80	14.10	13.10	15.80	--	--	--	13.60	15.50	--
	°C	07/28/03	--	--	20.10	19.60	21.50	19.00	--	18.10	--	19.30	--	--
	°C	01/14/04	--	--	16.20	11.70	13.10	17.20	--	7.70	--	15.60	--	--
	°C	07/07/04	--	--	21.60	20.60	23.10	23.70	--	18.30	--	18.80	--	--
	°C	08/31/04	--	--	--	--	--	--	--	--	--	--	19.60	--
	°C	01/26/05	--	--	16.90	17.50	10.70	15.20	--	15.10	--	13.40	14.90	--
	°C	07/20/05	--	--	22.40	20.70	23.70	20.70	--	19.50	--	19.30	20.40	--
	°C	01/20/06	--	--	17.70	17.50	13.50	15.80	--	16.30	--	15.90	15.20	--
	°C	07/25/06	--	--	21.60	22.20	23.30	19.90	--	21.40	--	21.60	22.40	--
	°C	01/25/07	--	--	16.60	15.60	14.30	16.50	--	17.80	--	16.30	17.00	--
	°C	07/26/07	--	--	18.56	18.59	22.41	21.49	--	21.71	--	21.25	21.41	--
	°C	01/09/08	--	--	17.16	17.16	17.40	19.46	--	18.83	--	18.40	19.29	--
	°C	07/25/08	--	--	18.51	18.37	19.65	18.95	--	18.41	--	18.71	19.40	--
	°C	01/08/09	--	--	13.56	15.30	11.09	14.90	--	14.02	--	14.89	16.16	--
	°C	07/10/09	--	--	17.51	17.77	20.37	17.33	--	18.02	--	17.31	19.15	--
	°C	01/21/10	--	--	14.51	14.29	9.20	17.05	--	15.48	--	14.59	16.88	--
	°C	07/28/10	--	--	19.17	18.57	21.84	19.09	--	17.45	--	17.61	18.64	--
	°C	01/25/11	--	--	14.64	14.66	8.66	14.52	--	14.28	--	13.35	15.40	--
	°C	07/27/11	--	--	15.52	18.69	21.91	19.20	--	17.35	--	18.87	18.57	--
Turbidity (field)	NTU	06/01/97	--	52.00	--	--	440	91	550.00	--	80.00	--	31	--
	NTU	11/09/97	--	>1000	--	--	>1000	>1000	>1000	--	>1000	--	>1000	--
	NTU	02/01/98	--	500.00	--	--	190	150	749.00	--	150.00	--	431	--
	NTU	07/28/98	--	41.00	--	--	17	26	142.00	--	19.00	--	15	--
	NTU	01/25/99	--	73.00	--	--	12	24	11.00	--	49.00	--	120	--
	NTU	07/21/99	--	120.00	--	--	38	205	122.00	--	120.00	--	7.77	--
	NTU	01/25/00	--	8.67	--	--	8.18	143	16.00	--	677.00	--	30	--
	NTU	07/20/00	--	32.00	--	--	12	165	27.00	--	16.00	--	39	--
	NTU	01/08/01	--	35.00	--	--	110	45	--	--	37.00	--	35	--
	NTU	01/08/01	--	--	--	--	110	45	--	--	--	--	35	--
	NTU	07/17/01	--	--	542	180	126	140	--	6.64	--	115	38	--
	NTU	09/25/01	--	--	145	11	--	--	--	6.85	--	20	--	--
	NTU	11/27/01	--	--	147	16	--	--	--	12	--	6.04	--	--
	NTU	01/23/02	--	--	156	10	152	12	--	4.28	--	11	39	--
	NTU	07/16/02	--	--	77	29	28	18	--	4.89	--	12	650	--
	NTU	01/29/03	--	--	62.1	12.4	23.9	24.5	--	--	--	5.93	65.3	--
	NTU	07/28/03	--	--	100	20	16	10	--	0	--	10	--	--
	NTU	01/14/04	--	--	80	7.55	61.7	45.2	--	9.48	--	26.1	--	--
	NTU	07/07/04	--	--	54	5.96	50.1	71.4	--	10.4	--	127	--	--
	NTU	08/31/04	--	--	--	--	--	--	--	--	--	--	82	--
	NTU	01/26/05	--	--	47.6	19.8	10.6	10.6	--	1.04	--	1.84	5.34	--
	NTU	07/20/05	--	--	46.1	18	12.7	14	--	21	--	31.7	17.8	--
	NTU	01/20/06	--	--	11	13.38	26.72	6.11	--	5.79	--	26.2	2.08	--
	NTU	07/25/06	--	--	283	22.4	56.6	38.6	--	2.64	--	8.18	34.5	--
	NTU	01/25/07	--	--	>1000	97.4	>1000	642	--	0	--	527	854	--
	NTU	07/26/07	--	--	150	24.6	29.4	14.1	--	12.8	--	54.1	1	--
	NTU	01/09/08	--	--	106	8.76	58.4	6.16	--	1.15	--	2.32	6.69	--
	NTU	07/25/08	--	--	128	5.34	62.1	168	--	3.92	--	1.44	16.9	--
	NTU	01/08/09	--	--	44.6	16.2	53.9	9.27	--	38	--	5.89	42.5	--
	NTU	07/10/09	--	--	93.7	21.9	75.1	34.7	--	30.9	--	6.11	20.1	--
	NTU	01/21/10	--	--	32.7	24.8	212	47.5	--	5.64	--	7.59	24	--
	NTU	07/28/10	--	--	58.6	8.88	20.4	4.09	--	6.27	--	2.52	27.5	--
	NTU	01/25/11	--	--	38.4	7.81	50.4	3.41	--	1.75	--	16.8	7.25	--
	NTU	07/27/11	--	--	18.49	7.29	19.47	3.91	--	2.26	--	3.92	5.92	--

TABLE 1

Summary of Groundwater Monitoring Results
JMN/Cleveland Container Landfill, Permit No. 23-02
Cleveland County, North Carolina

Notes:

mg/L =	milligrams per liter
ug/L =	micrograms per liter
J =	Estimated value
B =	Blank-qualified data
S.U. =	Standard Units
NTU =	Nephelometric Turbidity Units
R =	Anomalous data
ND =	Not detected at the stated reporting limit
uS/cm=	microsiemens per cubic centimeter
mV =	Millivolts
-- =	no data
Blanks =	field, trip and method blanks
Shaded =	Concentrations above the NC 2L or Groundwater Protection standards (GPS) have been shaded
SWS Reporting Limit =	NCPQL prior to 2007 and NCSWSL starting in 01/25/07

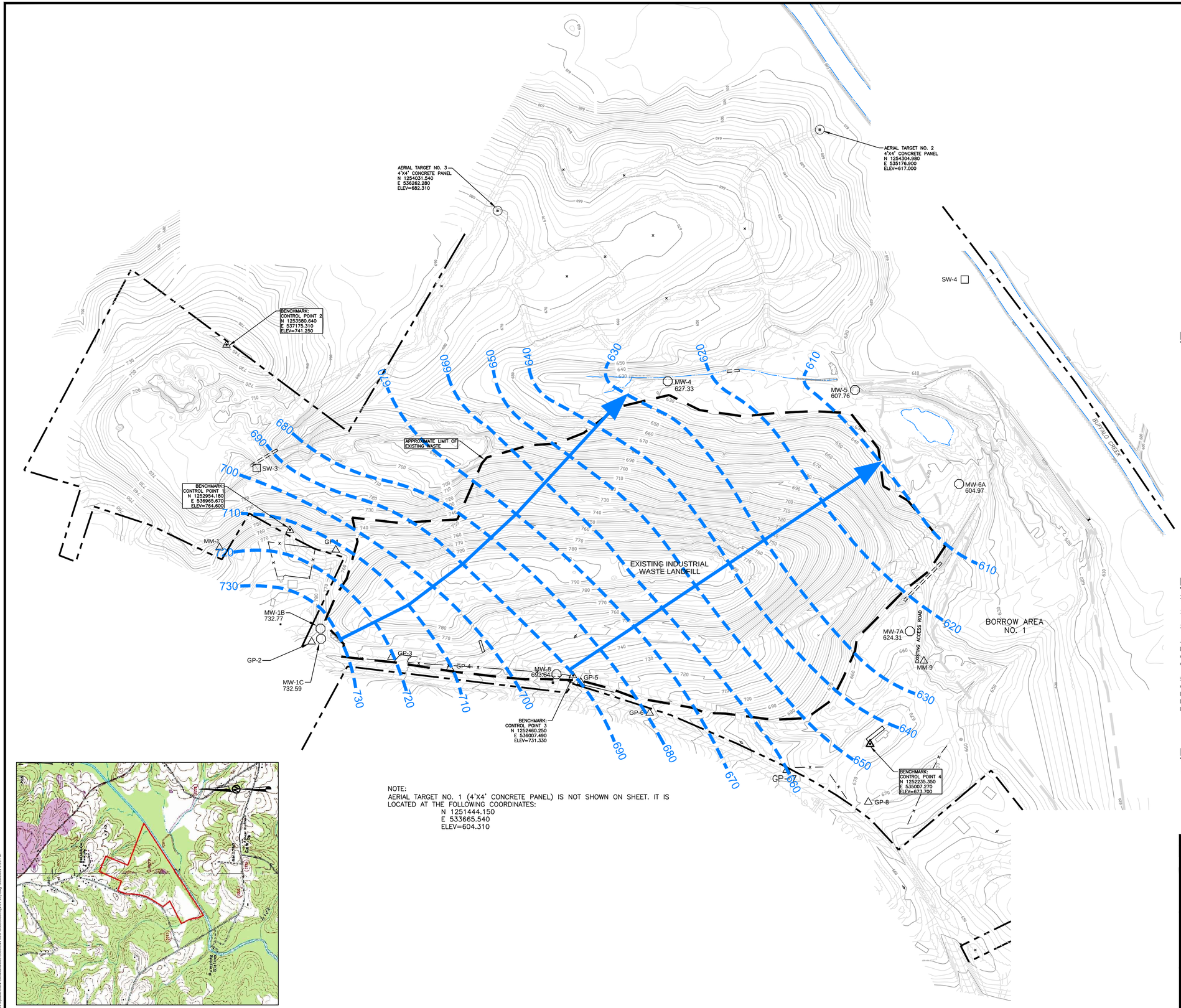
TABLE 2

Estimated Groundwater Concentrations Resulting Directly from Gas
JMN/Cleveland Container Landfill, Permit 23-02
Cleveland County, North Carolina

Analyte	Air Detection Limit (ppbv)	MW-8 Well Headspace Measured Gas Concentrations (ppbv)	MW of Compound (grams)	ppbv to ug/m3 Conversion Factor (MW/24.46)	MW-8 Well Headspace Measured Gas Concentrations (ug/m3)	MW-8 Well Headspace Measured Gas Concentrations (ug/L)	Henry's Law Constant (Dimensionless)	Predicted MW-8 Groundwater Concentrations (ug/L)	Groundwater Analytical Detection Limit (ug/L)	Main Comparison: Predicted Analytical Result Accounting for the Detection Limit (ug/L)	Main Comparison: Most Recently Measured MW-8 Groundwater Concentrations (ug/L)	Most Recently Detected MW-8 Groundwater Concentrations (ug/L)	Does Calculation Support Hypothesis that Gas Causes Groundwater Impacts?
1,1,1-Trichloroethane	0.66	1.0	130	5.31	5.3E+00	5.3E-03	7.25E-01	7.3E-03	6.5E-01	PBDL	ND	ND	Nuetral
1,1,2,2-Tetrachloroethane	1.1	3.8	170	6.95	2.6E+01	7.0E-03	1.45E-02	4.8E-01	7.5E-01	PBDL	ND	ND	Nuetral
1,1-Dichloroethane	0.82	2.2	99	4.05	8.9E+00	4.0E-03	2.39E-01	1.7E-02	8.0E-02	PBDL	ND	ND	Nuetral
1,2-Dichloroethane	0.51	0.8	99	4.05	3.2E+00	4.0E-03	4.18E-02	9.7E-02	4.7E-01	PBDL	ND	ND	Nuetral
2-Butanone / Methyl Ethyl Ketone (MEK)	0.77	34	72	2.94	1.0E+02	2.9E-03	2.39E-03	1.2E+00	1.3E+00	PBDL	ND	ND	Nuetral
2-Hexanone	0.85	1.9	100	4.09	7.8E+00	4.1E-03	3.97E-03	1.0E+00	8.8E-01	1.0	ND	ND	No, analyte not historically in groundwater, but is predicted to be there
Acetone	0.66	24	58	2.37	5.7E+01	2.4E-03	1.66E-03	1.4E+00	1.2E+00	1.4	20	20	No, analyte present, but is an order of magnitude higher in GW
Chloroform	0.65	1.8	120	4.91	8.8E+00	4.9E-03	1.58E-01	3.1E-02	7.0E-01	PBDL	ND	ND	Nuetral
Methylene Chloride	0.78	7.0	85	3.48	2.4E+01	3.5E-03	9.38E-02	3.7E-02	1.4E-01	PBDL	ND	ND	Nuetral
Tetrachloroethene	9.0	42	170	6.95	2.9E+02	7.0E-03	7.68E-01	9.0E-03	7.3E-01	PBDL	0.87	0.87	No, analyte is in groundwater, but is not predicted to be in groundwater
Toluene	0.45	49	92	3.76	1.8E+02	3.8E-03	2.82E-01	1.3E-02	8.5E-01	PBDL	ND	0.6	Nuetral
Trichloroethene	0.52	2.2	130	5.31	1.2E+01	5.3E-03	4.27E-01	1.2E-02	7.2E-01	PBDL	ND	0.57	Nuetral
Trichlorofluoromethane	1.1	19	140	5.72	1.1E+02	5.7E-03	4.17E+00	1.4E-03	6.6E-01	PBDL	ND	0.44	Nuetral
Total Xylenes	1.0	2.8	110	4.50	1.3E+01	4.5E-03	2.82E-01	1.6E-02	2.1E+00	PBDL	ND	0.97	Nuetral
Vinyl Chloride (detected in water, not gas)	1.4	ND	63	2.58	ND	ND	1.15E+00	ND	6.0E-01	Absent in Gas	0.82	0.82	No, analyte in groundwater, but was not present in gas sample

Notes:
ppbv = parts per billion by volume
ug/L = micrograms per liter
MW = molecular weight
ND = Not Detected
PBDL = Predicted Below Detection Limit

DRAWINGS



NOTE:
AERIAL TARGET NO. 1 (4'X4' CONCRETE PANEL) IS NOT SHOWN ON SHEET. IT IS LOCATED AT THE FOLLOWING COORDINATES:
N 1251444.150
E 533665.540
ELEV=604.310

LEGEND

- PROPERTY LINE
- TOPOGRAPHIC CONTOUR
- 730 GROUNDWATER SURFACE CONTOURS
- APPROXIMATE GROUNDWATER FLOW
- PAVED ROAD
- DIRT/GRAVEL ROAD
- TREE LINE
- GP-2 GAS PROBE
- MW-1B GROUNDWATER WELL
- SW-3 SURFACE WATER SAMPLE
- AERIAL TARGET
- BENCHMARK

NOTES

1. TOPOGRAPHIC CONTOUR INTERVAL = 2 FEET.

2. GROUNDWATER SURFACE CONTOUR INTERVAL = 10 FEET.

3. GROUNDWATER ELEVATIONS MEASURED ON JANUARY 20, 2011.

4. GROUNDWATER CONTOURS ARE BASED ON LINEAR INTERPOLATION BETWEEN AND EXTRAPOLATION FROM KNOWN DATA, TOPOGRAPHIC CONTOURS, AND KNOWN FIELD CONDITIONS. THEREFORE, GROUNDWATER CONTOURS MAY NOT REFLECT ACTUAL GROUNDWATER CONDITIONS.

5. GROUNDWATER CONTOUR LINES SHOW THE WATER TABLE SHAPE AND ELEVATION. THESE CONTOURS ARE INFERRED LINES FOLLOWING THE GROUNDWATER SURFACE AT A CONSTANT ELEVATION ABOVE SEA LEVEL. THE GROUNDWATER FLOW DIRECTION IS GENERALLY PERPENDICULAR TO THE GROUNDWATER SURFACE CONTOURS, SIMILAR TO THE RELATIONSHIP BETWEEN SURFACE WATER FLOW AND TOPOGRAPHIC CONTOURS.

REFERENCES

1.) THIS TOPOGRAPHIC BASE MAP WAS PRODUCED BY BEI AERIAL MAPPING, PEACHTREE CITY, GEORGIA FOR HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.

150 0 150 300
SCALE FEET

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
1	4/27/11	DYR	UPDATED GW CONTOURS	LKB	DYR	RPK

PROJECT
JMN/CLEVELAND CONTAINER INDUSTRIAL LANDFILL
REPUBLIC SERVICES OF NC, LLC
CLEVELAND COUNTY, NC PERMIT NO. 23-02

TITLE
GROUNDWATER SURFACE CONTOUR MAP JANUARY 2011

Golder Associates
GREENSBORO, NC

PROJECT No.	063-6569.011		FILE No. 063569011(4-27-11)	
DESIGN	DYR	4/27/11	SCALE AS SHOWN	REV. –
CADD	LKB	4/27/11		
CHECK	–	–	DWG. 1	
REVIEW	–	–		

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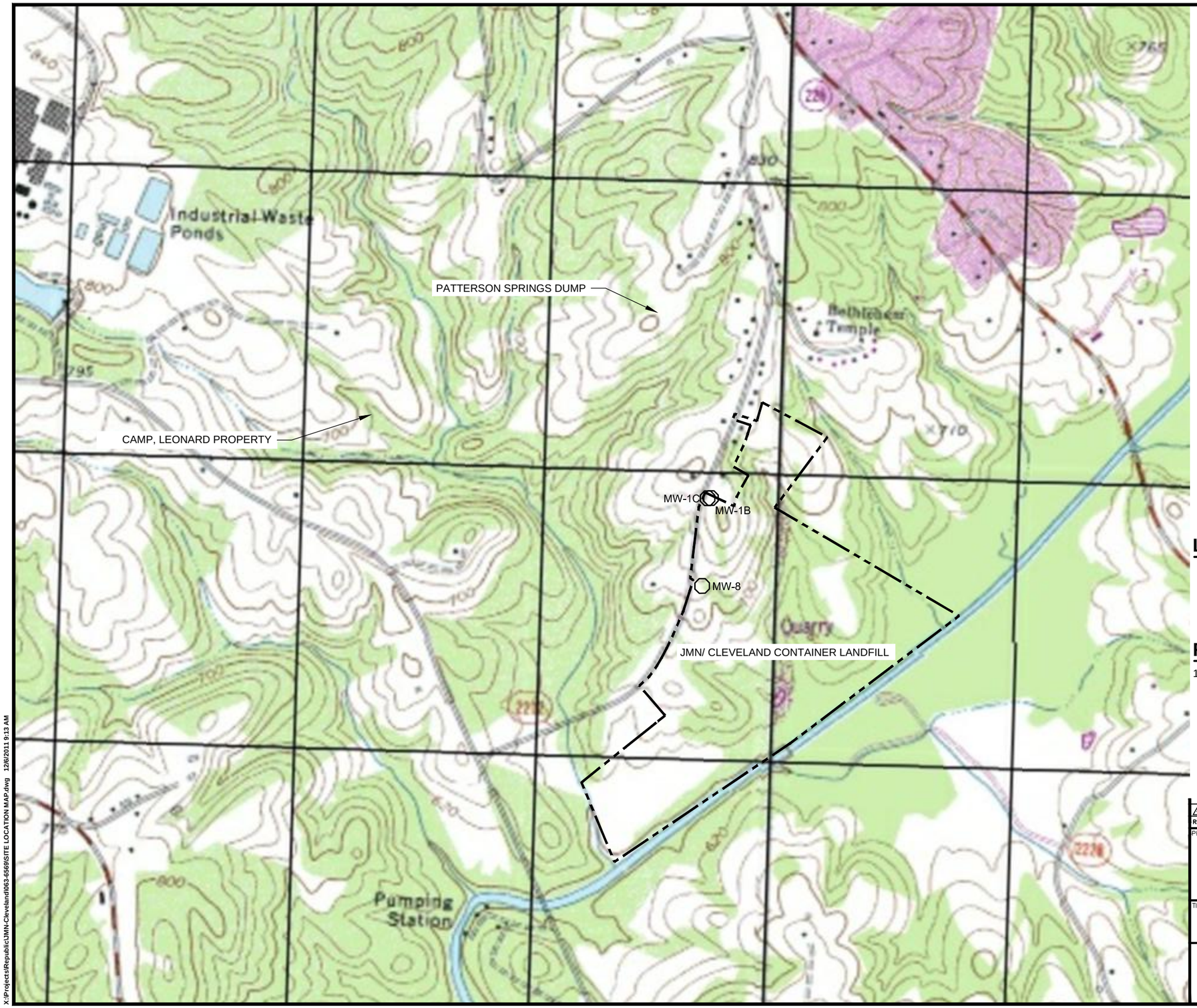

LEGEND

JMN/CLEVELAND CONTAINER LANDFILL APPROXIMATE FACILITY BOUNDARY

MW-1B MONITORING WELL

REFERENCES

1.) USGS MAP OBTAINED FROM TERRIAN NAVIGATOR PRO.

1000 0 1000
SCALE FEET

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
0	–	–	–	–		

PROJECT
JMN/CLEVELAND CONTAINER INDUSTRIAL LANDFILL
REPUBLIC SERVICES OF NC, LLC
CLEVELAND COUNTY, NC
PERMIT NO. 23-02

TITLE
SITE LOCATION MAP

Golder Associates
GOLDER ASSOCIATES NC, INC.

PROJECT No.	063-656911		FILE No. SITE LOCATION MAP	
DESIGN	DYR	11/21/11	SCALE 1"=1000'	REV. –
CADD	LKB	11/21/11		
CHECK			DWG. 2	
REVIEW				

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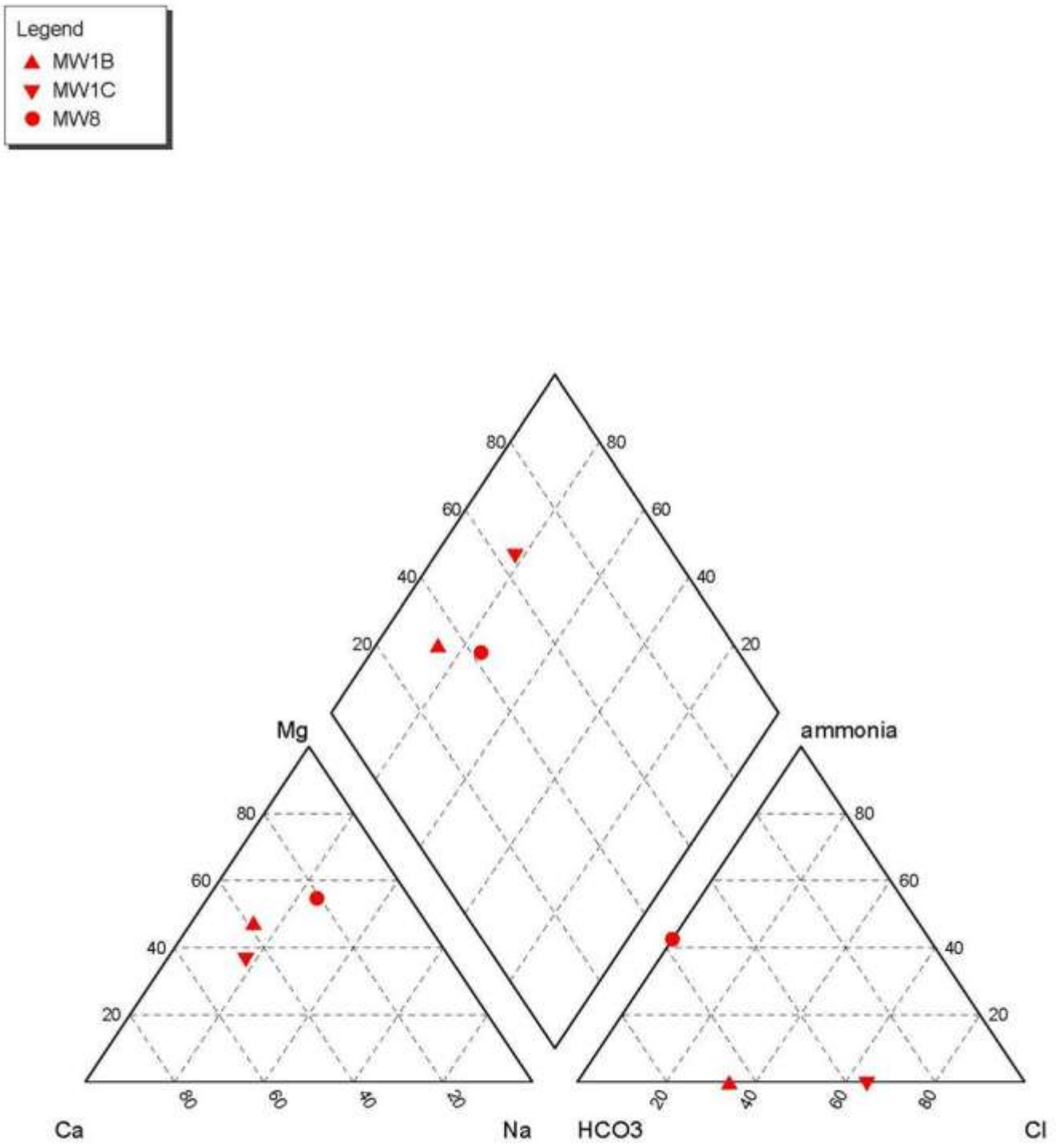
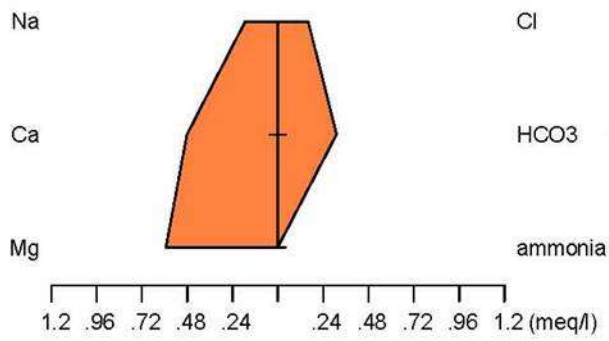
FIGURES

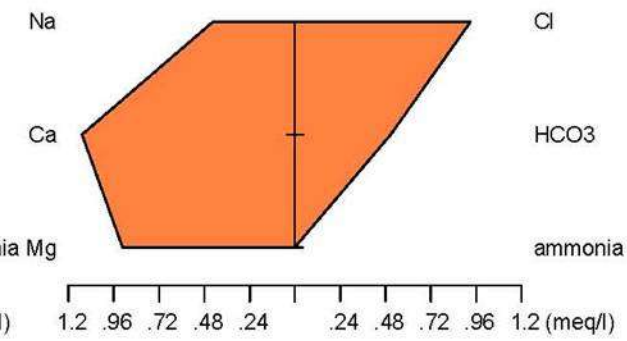


Golder Associates	DATE: 12/01/11 Project #: 0636-569011 Prepared By: Reviewed By:	**Title:** **PIPER DIAGRAM** **JMN/CLEVELAND CONTAINER LANDFILL** **PERMIT NO. 23-02**	**Figure No.** **1**

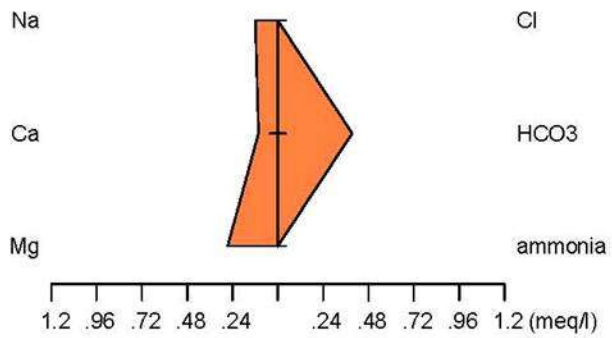
MW1B, 7/27/2011



MW1C, 7/27/2011

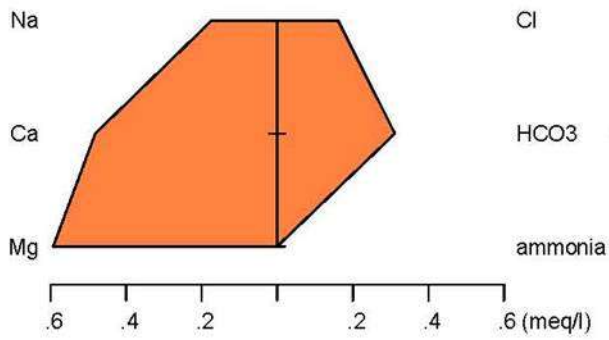


MW8, 7/27/2011

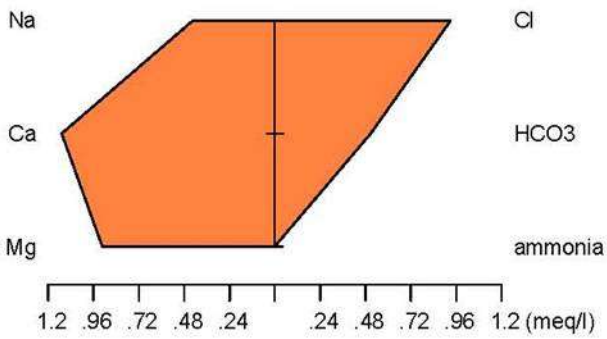


Golder Associates	DATE: 12/01/11 Project #: 0636-569011 Prepared By: Reviewed By:	**Title:** **SAME SCALE STIFF DIAGRAMS** **JMN/CLEVELAND CONTAINER LANDFILL** **PERMIT NO. 23-02**	**Figure No.** **2**

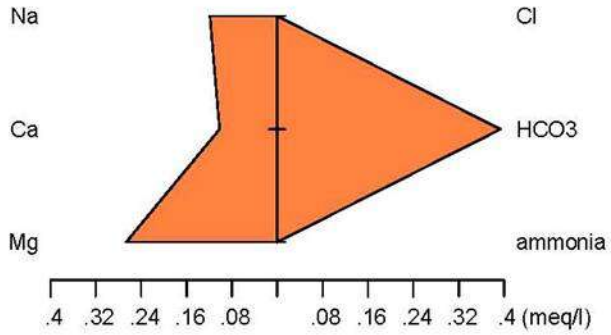
MW1B, 7/27/2011



MW1C, 7/27/2011



MW8, 7/27/2011



Golder Associates	DATE: 12/01/11 Project #: 0636-569011 Prepared By: Reviewed By:	**Title:** **VARIABLE SCALE STIFF DIAGRAMS** **JMN/CLEVELAND CONTAINER LANDFILL** **PERMIT NO. 23-02**	**Figure No.** **3**

CERTIFICATES-OF-ANALYSIS

Environmental Conservation Laboratories, Inc.
4810 Executive Park Court, Suite 111
Jacksonville FL, 32216-6069
Phone: 904.296.3007 FAX: 904.296.6210
www.encolabs.com

Tuesday, August 2, 2011

Golder Associates, Inc. (GO007)

Attn: David Reedy II

5B Oak Branch Drive

Greensboro, NC 27407

RE: Laboratory Results for
Project Number: 063-6569011.300, Project Name/Desc: Republic - JMN/Cleveland Container
ENCO Workorder: B102968

Dear David Reedy II,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Monday, August 1, 2011.

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

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

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

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

Sincerely,

Lindsay J Crawford For Chris Tompkins

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 9.

PROJECT NARRATIVE

Client: Golder Associates, Inc. (GO007)
Project: Republic - JMN/Cleveland Container
ENCO Project ID: B102968

Overview

All samples submitted were analyzed by Environmental Conservation Laboratories, Inc. in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling and processing will be discussed in the Remarks section below.

Remarks

Analysis: TO-15
Affected Samples: MW-8[B102968-01RE1]
Nonconformance: The result reported for Total Xylenes is the sum of the concentration of the individual xylene isomers. The concentration of one or more of the isomers used in the calculation is an estimated value (below the method reporting limit, MRL). Therefore, Total Xylenes must be qualified as an estimated value.

Lindsay J Crawford
Project Manager

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: MW-8	Lab ID: B102968-01	Sampled: 07/26/11 15:20	Received: 08/01/11 10:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
TO-15	08/25/11	08/01/11 13:30	8/1/2011 21:30

Client ID: MW-8	Lab ID: B102968-01RE1	Sampled: 07/26/11 15:20	Received: 08/01/11 10:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
TO-15	08/25/11	08/01/11 13:30	8/2/2011 07:16

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SAMPLE DETECTION SUMMARY

Client ID: MW-8 **Lab ID: B102968-01**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Tetrachloroethene	42		9.0	40	ppbv	TO-15	

Client ID: MW-8 **Lab ID: B102968-01RE1**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
1,1,1-Trichloroethane	1.0	J	0.66	2.5	ppbv	TO-15	
1,1,2,2-Tetrachloroethane	3.8		1.1	2.5	ppbv	TO-15	
1,1-Dichloroethane	2.2	J	0.82	2.5	ppbv	TO-15	
1,2-Dichloroethane	0.78	J	0.51	2.5	ppbv	TO-15	
2-Butanone	34		0.77	2.5	ppbv	TO-15	
2-Hexanone	1.9	J	0.85	2.5	ppbv	TO-15	
Acetone	24		0.66	2.5	ppbv	TO-15	
Chloroform	1.8	J	0.65	2.5	ppbv	TO-15	
Methylene chloride	7.0		0.78	2.5	ppbv	TO-15	
Toluene	49		0.45	2.5	ppbv	TO-15	
Trichloroethene	2.2	J	0.52	2.5	ppbv	TO-15	
Trichlorofluoromethane	19		1.1	2.5	ppbv	TO-15	
Xylenes (Total)	2.8	J	1.0	2.5	ppbv	TO-15	J

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ANALYTICAL RESULTS

Description: MW-8 | **Lab Sample ID:** B102968-01 | **Received:** 08/01/11 10:00

Matrix: Air | **Sampled:** 07/26/11 15:20 | **Work Order:** B102968

Project: Republic - JMN/Cleveland Container | **Sampled By:** Client | **% Solids:**

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
1,1,1-Trichloroethane [71-55-6]	**1.0**	J	ppbv	1	0.66	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
1,1,2,2-Tetrachloroethane [79-34-5]	**3.8**		ppbv	1	1.1	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
1,1,2-Trichloroethane [79-00-5]	0.41	U	ppbv	1	0.41	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
1,1-Dichloroethane [75-34-3]	**2.2**	J	ppbv	1	0.82	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
1,1-Dichloroethene [75-35-4]	0.94	U	ppbv	1	0.94	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
1,2-Dibromoethane [106-93-4]	0.41	U	ppbv	1	0.41	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
1,2-Dichlorobenzene [95-50-1]	1.8	U	ppbv	1	1.8	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
1,2-Dichloroethane [107-06-2]	**0.78**	J	ppbv	1	0.51	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
1,2-Dichloropropane [78-87-5]	0.47	U	ppbv	1	0.47	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
1,4-Dichlorobenzene [106-46-7]	1.4	U	ppbv	1	1.4	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
2-Butanone [78-93-3]	**34**		ppbv	1	0.77	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
2-Hexanone [591-78-6]	**1.9**	J	ppbv	1	0.85	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
4-Methyl-2-pentanone [108-10-1]	0.63	U	ppbv	1	0.63	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Acetone [67-64-1]	**24**		ppbv	1	0.66	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Benzene [71-43-2]	0.39	U	ppbv	1	0.39	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Bromodichloromethane [75-27-4]	0.43	U	ppbv	1	0.43	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Bromoform [75-25-2]	0.56	U	ppbv	1	0.56	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Bromomethane [74-83-9]	1.1	U	ppbv	1	1.1	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Carbon disulfide [75-15-0]	0.66	U	ppbv	1	0.66	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Carbon tetrachloride [56-23-5]	0.60	U	ppbv	1	0.60	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Chlorobenzene [108-90-7]	0.46	U	ppbv	1	0.46	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Chloroethane [75-00-3]	1.3	U	ppbv	1	1.3	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Chloroform [67-66-3]	**1.8**	J	ppbv	1	0.65	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Chloromethane [74-87-3]	1.5	U	ppbv	1	1.5	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
cis-1,2-Dichloroethene [156-59-2]	0.64	U	ppbv	1	0.64	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
cis-1,3-Dichloropropene [10061-01-5]	0.39	U	ppbv	1	0.39	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Dibromochloromethane [124-48-1]	0.32	U	ppbv	1	0.32	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Ethylbenzene [100-41-4]	0.49	U	ppbv	1	0.49	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Methylene chloride [75-09-2]	**7.0**		ppbv	1	0.78	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Styrene [100-42-5]	0.63	U	ppbv	1	0.63	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Tetrachloroethene [127-18-4]	**42**		ppbv	1	9.0	40	1H01022	TO-15	08/01/11 21:30	GMB	
Toluene [108-88-3]	**49**		ppbv	1	0.45	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
trans-1,2-Dichloroethene [156-60-5]	0.93	U	ppbv	1	0.93	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
trans-1,3-Dichloropropene [10061-02-6]	0.46	U	ppbv	1	0.46	0.46	1H01022	TO-15	08/02/11 07:16	GMB	
Trichloroethene [79-01-6]	**2.2**	J	ppbv	1	0.52	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Trichlorofluoromethane [75-69-4]	**19**		ppbv	1	1.1	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Vinyl acetate [108-05-4]	0.78	U	ppbv	1	0.78	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Vinyl chloride [75-01-4]	1.4	U	ppbv	1	1.4	2.5	1H01022	TO-15	08/02/11 07:16	GMB	
Xylenes (Total) [1330-20-7]	**2.8**	J	ppbv	1	1.0	2.5	1H01022	TO-15	08/02/11 07:16	GMB	J

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*31*	*1*	*31.2*	*100 %*	*64-124*	*1H01022*	*TO-15*	*08/01/11 21:30*	*GMB*	
4-Bromofluorobenzene	*34*	*1*	*31.2*	*107 %*	*64-124*	*1H01022*	*TO-15*	*08/02/11 07:16*	*GMB*	

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QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1H01022 - Same

Blank (1H01022-BLK1) Prepared: 08/01/2011 13:30 Analyzed: 08/01/2011 13:57

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1-Trichloroethane	0.66	U	2.5	ppbv							
1,1,2,2-Tetrachloroethane	1.1	U	2.5	ppbv							
1,1,2-Trichloroethane	0.41	U	2.5	ppbv							
1,1-Dichloroethane	0.82	U	2.5	ppbv							
1,1-Dichloroethene	0.94	U	2.5	ppbv							
1,2-Dibromoethane	0.41	U	2.5	ppbv							
1,2-Dichlorobenzene	1.8	U	2.5	ppbv							
1,2-Dichloroethane	0.51	U	2.5	ppbv							
1,2-Dichloropropane	0.47	U	2.5	ppbv							
1,4-Dichlorobenzene	1.4	U	2.5	ppbv							
2-Butanone	0.77	U	2.5	ppbv							
2-Hexanone	0.85	U	2.5	ppbv							
4-Methyl-2-pentanone	0.63	U	2.5	ppbv							
Acetone	0.66	U	2.5	ppbv							
Benzene	0.39	U	2.5	ppbv							
Bromodichloromethane	0.43	U	2.5	ppbv							
Bromoform	0.56	U	2.5	ppbv							
Bromomethane	1.1	U	2.5	ppbv							
Carbon disulfide	0.66	U	2.5	ppbv							
Carbon tetrachloride	0.60	U	2.5	ppbv							
Chlorobenzene	0.46	U	2.5	ppbv							
Chloroethane	1.3	U	2.5	ppbv							
Chloroform	0.65	U	2.5	ppbv							
Chloromethane	1.5	U	2.5	ppbv							
cis-1,2-Dichloroethene	0.64	U	2.5	ppbv							
cis-1,3-Dichloropropene	0.39	U	2.5	ppbv							
Dibromochloromethane	0.32	U	2.5	ppbv							
Ethylbenzene	0.49	U	2.5	ppbv							
Methylene chloride	0.78	U	2.5	ppbv							
Styrene	0.63	U	2.5	ppbv							
Tetrachloroethene	0.56	U	2.5	ppbv							
Toluene	0.45	U	2.5	ppbv							
trans-1,2-Dichloroethene	0.93	U	2.5	ppbv							
trans-1,3-Dichloropropene	0.46	U	0.46	ppbv							
Trichloroethene	0.52	U	2.5	ppbv							
Trichlorofluoromethane	1.1	U	2.5	ppbv							
Vinyl acetate	0.78	U	2.5	ppbv							
Vinyl chloride	1.4	U	2.5	ppbv							
Xylenes (Total)	1.0	U	2.5	ppbv							
Surrogate: 4-Bromofluorobenzene	*31*			*ppbv*	*31.2*		*97.8*	*64-124*			

LCS (1H01022-BS1) Prepared: 08/01/2011 13:30 Analyzed: 08/01/2011 14:33

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	7.3		2.5	ppbv	10.0		72.6	53-175			
Benzene	8.8		2.5	ppbv	10.0		88.1	65-133			
Chlorobenzene	11		2.5	ppbv	10.0		108	56-158			
Toluene	11		2.5	ppbv	10.0		110	55-138			

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QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1H01022 - Same

LCS (1H01022-BS1) Continued Prepared: 08/01/2011 13:30 Analyzed: 08/01/2011 14:33

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Trichloroethene	10		2.5	ppbv	10.0		103	59-133			
Surrogate: 4-Bromofluorobenzene	*31*			*ppbv*	*31.2*		*98.3*	*64-124*			

Matrix Spike (1H01022-MS1) Prepared: 08/01/2011 13:30 Analyzed: 08/01/2011 23:13

Source: B102968-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	120		40	ppbv	160	15 U	74.0	53-175			
Benzene	160		40	ppbv	160	6.2 U	97.3	65-133			
Chlorobenzene	200		40	ppbv	160	7.4 U	125	56-158			
Toluene	230		40	ppbv	160	13	135	55-138			
Trichloroethene	190		40	ppbv	160	8.3 U	122	59-133			
Surrogate: 4-Bromofluorobenzene	*32*			*ppbv*	*31.2*		*102*	*64-124*			

Matrix Spike Dup (1H01022-MSD1) Prepared: 08/01/2011 13:30 Analyzed: 08/01/2011 23:49

Source: B102968-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	110		40	ppbv	160	15 U	69.0	53-175	6.99	43	
Benzene	140		40	ppbv	160	6.2 U	86.9	65-133	11.3	35	
Chlorobenzene	170		40	ppbv	160	7.4 U	107	56-158	15.3	20	
Toluene	190		40	ppbv	160	13	110	55-138	18.9	25	
Trichloroethene	170		40	ppbv	160	8.3 U	106	59-133	14.3	14	QM-11
Surrogate: 4-Bromofluorobenzene	*31*			*ppbv*	*31.2*		*101*	*64-124*			

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FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
QM-11	Precision between duplicate matrix spikes of the same sample was outside acceptance limits.
QM-14	Confirmed matrix effects

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ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Golder Associates Inc	0636569011.300
5B Oak Branch Drive	Reg. Site JMN
Greensboro, NC 27407	
336 852 4905 / Fax 336-852-4904	Reporting Contact: Dusty Reedy
Nathan Rothjen, Golder	Billing Contact: Ray Hoffman
D. Reedy for Nathan Rothjen	

Requested Analyses: VOCs SL Method 8260 TO-15

Turnaround: ✓ Standard / Expedited / Due

Lab Worksheet: B1029168

#	Sample ID	Collection Date	Time	Matrix	Container	Preservative	Analyses
	MW-8	7-26-11	15:20	Gas	A	1	X

Relinquished: Dusty Reedy 8-1-11 15:45

Received: Marie [illegible] 8/1/11 10:00

Box @ N/A

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8/2/2011

Environmental Conservation Labs, Inc.

David Reedy II
Golder Associates, Inc. (GO007)
5B Oak Branch Drive
Greensboro, NC 27407
Phone: (336) 852-4903
Fax: (336) 852-4904

Reference : **Sample Receipt Confirmation - *Please Review***
Project Name / Number : Republic - JMN/Cleveland Container / 063-6569011.300
Purchase Order # :

Lab Reference # : B102968 Lab Receipt Date: 01-Aug-11 10:00
Anticipated ***(Estimated)*** Completion Date: 08-Aug-11 17:00

This is an automated notification from our laboratory information management system (LIMS), indicating the samples we have recently received and their associated analyses. Should any of the following information be in error, please contact us immediately.

Thank you for choosing Environmental Conservation Laboratories. Should any events occur that delay the processing of your samples or inhibit our ability to complete the project within the projected time frame you will be contacted.

Sincerely,

Chris Tompkins

Client:	Golder Associates, Inc. (GO007)	**Project Name:**	Republic - JMN/Cleveland Container
Requested TAT:	5	**Project Number:**	063-6569011.300

Sample ID: MW-8(Lab ID: B102968-01), Matrix: Air, Sampled: 26-Jul-11 15:20 Eastern

TO15 (SUMMA)	5	25-Aug-11 15:20	Reported

Client: Golder Associates, Inc. (GO007)	**Project Name:** Republic - JMN/Cleveland Container
Requested TAT: 5	**Project Number:** 063-6569011.300

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

ENCO

Page 1 of 1

Golder Associates Inc.
53 Oak Branch Drive
Greensboro NC 27407
336 292 7903 | 336-292-4904
Nathan Rahjan, Golder
Fritz Reedy for Nathan Rahjan

063-6569011.300
Republic JMN
Dusty Smith
Ray Hoffman

Sample ID	Collection Date	Collection Time	Matrix	Preservative	Requested Analyses	Container Type	Container Size	Sample Comments
MW-8	7-26-11	1520	GW	A	1			

Standard
Expedited
Due ___
Lab Workorder B109168

Sent
Received
Relinquished
Date 8/1/11 Time 10:30

Box @ N/A

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

Thursday, August 11, 2011

Golder Associates, Inc. (GO007)

Attn: Dusty Reedy

5B Oak Branch Drive

Greensboro, NC 27407

RE: Laboratory Results for
Project Number: 063-6569011.300, Project Name/Desc: Republic - JMN/CC
ENCO Workorder: C107917

Dear Dusty Reedy,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, July 28, 2011.

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

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

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

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

Sincerely,

Stephanie Franz
Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 15.

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PROJECT NARRATIVE

Date: 11 August 2011
Client: Golder Associates, Inc. (GO007)
Project: Republic - JMN/CC
Lab ID: C107917

Overview

Environmental Conservation Laboratories, Inc. (ENCO) analyzed all submitted samples in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by ENCO are discussed in the QC Remarks section below.

Quality Control Samples

The spike recoveries of Ammonia and Chloride were outside of control limits for the MS or MSD samples. The QC batches are approved based on acceptable LCS recovery of these analytes.

Quality Control Remarks

No Comments

Other Comments

All samples received under this work order arrived in acceptable conditions. The samples were not checked for residual chlorine, as it is not required. No volatile samples were received, negating the need to check for preservation or headspace.

The analytical data presented in this report are consistent with the methods as referenced in the analytical report. Any exceptions or deviations are noted in the QC remarks section of this narrative or in the Flags/Notes and Definitions section of the report.

Released By:
Environmental Conservation Laboratories, Inc.

Stephanie Franz
Project Manager

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: 2302-MW1B **Lab ID: C107917-01** **Sampled: 07/27/11 08:55** **Received: 07/28/11 09:50**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 310.2	08/10/11	08/10/11	07:24	8/10/2011 08:29
EPA 350.1	08/24/11	08/01/11	09:23	8/1/2011 13:59
EPA 6010C	01/23/12	08/01/11	09:58	8/2/2011 12:17
SM4500-Cl/E	08/24/11	08/03/11	10:55	8/7/2011 19:24

Client ID: 2302-MW1C **Lab ID: C107917-02** **Sampled: 07/27/11 08:45** **Received: 07/28/11 09:50**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 310.2	08/10/11	08/10/11	07:24	8/10/2011 08:32
EPA 350.1	08/24/11	08/01/11	09:23	8/1/2011 14:06
EPA 6010C	01/23/12	08/01/11	09:58	8/2/2011 12:19
SM4500-Cl/E	08/24/11	08/03/11	10:55	8/7/2011 19:26

Client ID: 2302-MW8 **Lab ID: C107917-03** **Sampled: 07/27/11 10:01** **Received: 07/28/11 09:50**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
EPA 310.2	08/10/11	08/10/11	07:24	8/10/2011 08:33
EPA 350.1	08/24/11	08/01/11	09:23	8/1/2011 14:08
EPA 6010C	01/23/12	08/01/11	09:58	8/2/2011 12:20
SM4500-Cl/E	08/24/11	08/03/11	10:55	8/7/2011 19:26

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: 2302-MW1B **Lab ID: C107917-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Calcium - Total	9640		1	20.0	100	NE	ug/L	EPA 6010C	
Chloride	5700		1	1900	5000	NE	ug/L	SM4500-Cl/E	
Magnesium - Total	7200		1	23.0	100	NE	ug/L	EPA 6010C	
Sodium - Total	3970		1	400	500	NE	ug/L	EPA 6010C	
Total Alkalinity as CaCO3	19000		1	12000	15000	NE	ug/L	EPA 310.2	

Client ID: 2302-MW1C **Lab ID: C107917-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Calcium - Total	22600		1	20.0	100	NE	ug/L	EPA 6010C	
Chloride	33000		1	1900	5000	NE	ug/L	SM4500-Cl/E	
Magnesium - Total	11100		1	23.0	100	NE	ug/L	EPA 6010C	
Sodium - Total	9940		1	400	500	NE	ug/L	EPA 6010C	
Total Alkalinity as CaCO3	31000		1	12000	15000	NE	ug/L	EPA 310.2	

Client ID: 2302-MW8 **Lab ID: C107917-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Ammonia as N	290		1	45	100	NE	ug/L	EPA 350.1	
Calcium - Total	2040		1	20.0	100	NE	ug/L	EPA 6010C	
Magnesium - Total	3240		1	23.0	100	NE	ug/L	EPA 6010C	
Sodium - Total	2730		1	400	500	NE	ug/L	EPA 6010C	
Total Alkalinity as CaCO3	24000		1	12000	15000	NE	ug/L	EPA 310.2	

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ANALYTICAL RESULTS

Description: 2302-MW1B
Matrix: Ground Water
Project: Republic - JMN/CC

Lab Sample ID: C107917-01
Sampled: 07/27/11 08:55
Sampled By: Jeremy DeVore

Received: 07/28/11 09:50
Work Order: C107917

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Calcium [7440-70-2] ^	**9640**		ug/L	1	20.0	100	NE	EPA 6010C	08/02/11 12:17	JDH	
Magnesium [7439-95-4] ^	**7200**		ug/L	1	23.0	100	NE	EPA 6010C	08/02/11 12:17	JDH	
Sodium [7440-23-5] ^	**3970**		ug/L	1	400	500	NE	EPA 6010C	08/02/11 12:17	JDH	

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Description: 2302-MW1B
Matrix: Ground Water
Project: Republic - JMN/CC

Lab Sample ID: C107917-01
Sampled: 07/27/11 08:55
Sampled By: Jeremy DeVore

Received: 07/28/11 09:50
Work Order: C107917

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Ammonia as N [7664-41-7] ^	45	U	ug/L	1	45	100	NE	EPA 350.1	08/01/11 13:59	CCB	
Chloride [16887-00-6] ^	**5700**		ug/L	1	1900	5000	NE	SM4500-Cl/E	08/07/11 19:24	CCB	
Total Alkalinity as CaCO3 [471-34-1] ^	**19000**		ug/L	1	12000	15000	NE	EPA 310.2	08/10/11 08:29	CCB	

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

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Description: 2302-MW1C
Matrix: Ground Water
Project: Republic - JMN/CC

Lab Sample ID: C107917-02
Sampled: 07/27/11 08:45
Sampled By: Jeremy DeVore

Received: 07/28/11 09:50
Work Order: C107917

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Calcium [7440-70-2] ^	**22600**		ug/L	1	20.0	100	NE	EPA 6010C	08/02/11 12:19	JDH	
Magnesium [7439-95-4] ^	**11100**		ug/L	1	23.0	100	NE	EPA 6010C	08/02/11 12:19	JDH	
Sodium [7440-23-5] ^	**9940**		ug/L	1	400	500	NE	EPA 6010C	08/02/11 12:19	JDH	

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Description: 2302-MW1C
Matrix: Ground Water
Project: Republic - JMN/CC

Lab Sample ID: C107917-02
Sampled: 07/27/11 08:45
Sampled By: Jeremy DeVore

Received: 07/28/11 09:50
Work Order: C107917

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Ammonia as N [7664-41-7] ^	45	U	ug/L	1	45	100	NE	EPA 350.1	08/01/11 14:06	CCB	
Chloride [16887-00-6] ^	**33000**		ug/L	1	1900	5000	NE	SM4500-Cl/E	08/07/11 19:26	CCB	
Total Alkalinity as CaCO3 [471-34-1] ^	**31000**		ug/L	1	12000	15000	NE	EPA 310.2	08/10/11 08:32	CCB	

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

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Description: 2302-MW8
Matrix: Ground Water
Project: Republic - JMN/CC

Lab Sample ID: C107917-03
Sampled: 07/27/11 10:01
Sampled By: Jeremy DeVore

Received: 07/28/11 09:50
Work Order: C107917

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Calcium [7440-70-2] ^	**2040**		ug/L	1	20.0	100	NE	EPA 6010C	08/02/11 12:20	JDH	
Magnesium [7439-95-4] ^	**3240**		ug/L	1	23.0	100	NE	EPA 6010C	08/02/11 12:20	JDH	
Sodium [7440-23-5] ^	**2730**		ug/L	1	400	500	NE	EPA 6010C	08/02/11 12:20	JDH	

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Description: 2302-MW8
Matrix: Ground Water
Project: Republic - JMN/CC

Lab Sample ID: C107917-03
Sampled: 07/27/11 10:01
Sampled By: Jeremy DeVore

Received: 07/28/11 09:50
Work Order: C107917

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Ammonia as N [7664-41-7] ^	**290**		ug/L	1	45	100	NE	EPA 350.1	08/01/11 14:08	CCB	
Chloride [16887-00-6] ^	1900	U	ug/L	1	1900	5000	NE	SM4500-Cl/E	08/07/11 19:26	CCB	
Total Alkalinity as CaCO3 [471-34-1] ^	**24000**		ug/L	1	12000	15000	NE	EPA 310.2	08/10/11 08:33	CCB	

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

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QUALITY CONTROL

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

Batch 1H01014 - EPA 3005A

Blank (1H01014-BLK1) Prepared: 08/01/2011 09:58 Analyzed: 08/02/2011 11:56

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Calcium	20.0	U	100	ug/L							
Magnesium	23.0	U	100	ug/L							
Sodium	400	U	500	ug/L							

LCS (1H01014-BS1) Prepared: 08/01/2011 09:58 Analyzed: 08/02/2011 11:59

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Calcium	5150		100	ug/L	5000		103	80-120			
Magnesium	5190		100	ug/L	5000		104	80-120			
Sodium	25600		500	ug/L	25000		103	80-120			

Matrix Spike (1H01014-MS1) Prepared: 08/01/2011 09:58 Analyzed: 08/02/2011 12:09

Source: C109019-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Calcium	20000		100	ug/L	5000	15300	95	75-125			
Magnesium	11200		100	ug/L	5000	6320	98	75-125			
Sodium	33000		500	ug/L	25000	7530	102	75-125			

Matrix Spike Dup (1H01014-MSD1) Prepared: 08/01/2011 09:58 Analyzed: 08/02/2011 12:11

Source: C109019-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Calcium	19500		100	ug/L	5000	15300	85	75-125	2	20	
Magnesium	11300		100	ug/L	5000	6320	100	75-125	1	20	
Sodium	32400		500	ug/L	25000	7530	99	75-125	2	20	

Post Spike (1H01014-PS1) Prepared: 08/01/2011 09:58 Analyzed: 08/02/2011 12:13

Source: C109019-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Calcium	24.3		0.100	mg/L	10.0	15.3	90	80-120			
Magnesium	15.6		0.100	mg/L	10.0	6.32	93	80-120			
Sodium	55.6		0.500	mg/L	50.0	7.53	96	80-120			

Classical Chemistry Parameters - Quality Control

Batch 1H01011 - NO PREP

Blank (1H01011-BLK1) Prepared: 08/01/2011 09:23 Analyzed: 08/01/2011 13:49

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Ammonia as N	45	U	100	ug/L							

LCS (1H01011-BS1) Prepared: 08/01/2011 09:23 Analyzed: 08/01/2011 13:51

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 1H01011 - NO PREP

LCS (1H01011-BS1) Continued Prepared: 08/01/2011 09:23 Analyzed: 08/01/2011 13:51

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Ammonia as N	1.0		0.10	mg/L	1.00		101	90-110			

Matrix Spike (1H01011-MS1) Prepared: 08/01/2011 09:23 Analyzed: 08/01/2011 13:53

Source: C106364-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Ammonia as N	1.3		0.10	mg/L	0.400	0.87	97	90-110			

Matrix Spike Dup (1H01011-MSD1) Prepared: 08/01/2011 09:23 Analyzed: 08/01/2011 13:55

Source: C106364-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Ammonia as N	1.2		0.10	mg/L	0.400	0.87	88	90-110	3	10	QM-05

Batch 1H03019 - NO PREP

Blank (1H03019-BLK1) Prepared: 08/03/2011 10:55 Analyzed: 08/07/2011 19:22

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloride	1900	U	5000	ug/L							

LCS (1H03019-BS1) Prepared: 08/03/2011 10:55 Analyzed: 08/07/2011 19:23

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloride	100		5.0	mg/L	100		105	80-120			

Matrix Spike (1H03019-MS1) Prepared: 08/03/2011 10:55 Analyzed: 08/07/2011 19:24

Source: C107917-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloride	51		5.0	mg/L	37.5	5.7	122	80-120			QM-05

Matrix Spike Dup (1H03019-MSD1) Prepared: 08/03/2011 10:55 Analyzed: 08/07/2011 19:25

Source: C107917-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloride	49		5.0	mg/L	37.5	5.7	115	80-120	5	25	

Batch 1H10004 - NO PREP

Blank (1H10004-BLK1) Prepared: 08/10/2011 07:24 Analyzed: 08/10/2011 08:27

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity as CaCO3	12000	U	15000	ug/L							

LCS (1H10004-BS1) Prepared: 08/10/2011 07:24 Analyzed: 08/10/2011 08:28

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 1H10004 - NO PREP

LCS (1H10004-BS1) Continued Prepared: 08/10/2011 07:24 Analyzed: 08/10/2011 08:28

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity as CaCO3	99		15	mg/L	100		99	80-120			

Matrix Spike (1H10004-MS1) Prepared: 08/10/2011 07:24 Analyzed: 08/10/2011 08:30

Source: C107917-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity as CaCO3	53		15	mg/L	40.5	19	85	80-120			

Matrix Spike Dup (1H10004-MSD1) Prepared: 08/10/2011 07:24 Analyzed: 08/10/2011 08:31

Source: C107917-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity as CaCO3	58		15	mg/L	40.5	19	97	80-120	9	25	

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

10775 Central Port Dr.
Orlando, FL 32824
(407) 826-5314 Fax (407) 850-6945

4810 Executive Park Court, Suite 211
Jacksonville, FL 32216-6069
(904) 296-3007 Fax (904) 296-6210

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

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Page 1 of 1

Client Name: Golder Associates, Inc. (GO007)	Project Number: 063-6569011.300
Address: 5B Oak Branch Drive	Project Name/Desc: Republic - JMN/CC
City/ST/Zip: Greensboro, NC 27407	PO # / Billing Info: 2011: PO2220318
Tel: (336) 852-4903 Fax: (336) 852-4904	Reporting Contact: Dusty Reedy
Sampler(s) Name, Affiliation (Print): Jeremy DeVore - Golder	Billing Contact: Ray Hoffman
Sampler(s) Signature:	Site Location / Time Zone:

Requested Analyses: Alkalinity 310.1, Chloride SM4500-Cl E; Ammonia 350.1; Ca,Mg,Na

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C107917

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	Alkalinity 310.1, Chloride SM4500-Cl E	Ammonia 350.1	Ca,Mg,Na	Sample Comments
	2302-MW1B	7/27/11	8:55	G	GW	3	X	X	X	
	2302-MW1C	7/27/11	8:45	G	GW	3	X	X	X	
	2302-MW8	7/27/11	10:01	G	GW	3	X	X	X	

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
			7/27/11 10:20	Briana Gregory	7/28/11 09:50
Comments/Special Reporting Requirements: 1) Level 2 data report 2) Invoice Republic, files to Golder.		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: C-705 1.9°C		Condition Upon Receipt: X Acceptable ___ Unacceptable	

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

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

WORK ORDER

Printed: 8/11/2011 9:53:46AM

C107917

ENCO Cary

Sample Receipt Conditions

Client:	**Golder Associates, Inc. (GO007)**	**Lab Project Mgr:**	**Stephanie Franz**
Project:	**Republic - JMN/CC**	**Project Number:**	**063-6569011.300**
PO #:	**2011: PO2220318**		

Report To:

Golder Associates, Inc. (GO007)
Dusty Reedy
5B Oak Branch Drive
Greensboro, NC 27407
Phone: (336) 852-4903
Fax: (336) 852-4904

Invoice To:

Republic Services of NC (RE014)
Ray Hoffman
P.O. Box 2943
Hickory, NC 28603
Phone :(828) 464-2414
Fax:

Received By:	Briana J Gregory	Date Received:	28-Jul-11 09:50
Logged In By:	Briana J Gregory	Date Logged In:	28-Jul-11 11:06

Work Order Comments:

C-705 received at 1.9°C

Containers Intact	**Y**	Containers Properly Preserved	**Y**	Proper Containers Received	**Y**	All Samples in PreLog Received	**Y**	COC/Labels Agree	**Y**
Custody Seals Intact	**Y**	Volatile Containers Preserved	**N**	Volatile Containers Headspace Free	**N**	Aqueous Samples Checked for Residual Cl	**N**	Received On Ice	**Y**