Clayton, Sr., P.E., Inc.
Civil & Environmental Engineering

September 16, 2008

Ms. Jaclynne Drummond
Solid Waste Section
Division of Waste Management
North Carolina Department of Environment and Natural Resources
Mail Service Center 1646
Raleigh, NC 27699-1646

RE: STATISTICAL ANALYSIS/EVALUATION: APRIL 08
DUNN-ERWIN MUNICIPAL SOLID WASTE LANDFILL, PERMIT 43-02
HARNETT COUNTY, NORTH CAROLINA

Dear Ms. Drummond:

On behalf of Harnett County, C.T. Clayton, Sr., PE, Inc. (CTC) is pleased to herewith submit the results of the statistical analysis for the semi-annual groundwater monitoring event of April 2008 performed at the Dunn-Erwin Municipal Solid Waste Landfill in accordance with North Carolina Solid Waste Management Rules 15A N.C.A.C. 13 B, .1633 and .1634. The findings and conclusions of this report have been incorporated into the assessment of corrective measures (ACM) for the groundwater contamination plume, downgradient of the existing landfill in accordance with North Carolina Solid Waste Management Rules 15A N.C.A.C. 13 B, .1635.

The report is organized in sections entitled Executive Summary, Introduction, Methodology, and Results, and it has four appendices inclusive of the statistical model output.

Should you have any questions or comments, please contact me at our address shown above or by e-mail at tyrus@ctclayton.com.

Sincerely,

C. Tyrus Clayton, Jr., P.E.

cc. Jerry Blanchard - Harnett County
C. T. Clayton, Sr., P.E.
C. J. Poran, P.E. - ENSOL, Inc.

/attachments

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

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

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

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- In accordance with NC General Statutes Chapter 89C and 89E and NC Solid Waste Management Rules 15A NCAC 13B, be sure to affix a seal to the bottom of this page, when applicable.
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

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

C. T. Clayton, Sr., PE, Inc. (consultant)

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

Name: C. Tyrus Clayton, Jr., PE Phone: (910) 897-7070

E-mail: tyrus@ctclayton.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Dunn/Erwin Landfill	SR1725 Dunn, NC	43-02	.1600	April 22-23, 2008

Environmental Status: (Check all that apply)

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

Type of data submitted: (Check all that apply)

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

Notification attached?

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

Certification

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

C. Tyrus Clayton, Jr., PE	consultant	(910) 897-7070
Facility Representative Name (Print)	Title	(Area Code) Telephone Number
Signature	09/18/08 Date	Affix NC Licensed/ Professional Geologist/Engineer Seal here:

Digitally signed by C. Tyrus Clayton, Jr. PE
DN: cn=C. Tyrus Clayton, Jr., PE, o=C. T. Clayton, Sr., PE, Inc., ou
email=tyrus@ctclayton.com, c=US
Date: 2008.09.18 11:32:44 -04'00'

NORTH CAROLINA PROFESSIONAL SEAL 026609 ENGINEER C. TYRUS CLAYTON, JR.

9/18/08

Revised 01/2007

STATISTICAL ANALYSIS/EVALUATION
April 2008
DUNN-ERWIN MUNICIPAL SOLID WASTE LANDFILL
PERMIT #43-02
HARNETT COUNTY, NORTH CAROLINA

Submitted to:
Solid Waste Section
Division of Waste Management
NCDENR
1646 Mail Service Center
Raleigh, NC 27699-1646

Submitted by:
C.T. Clayton, Sr., P.E., Inc.
P. O. Box 578
Coats, NC 27521

Clayton, Sr., P.E., Inc.
Civil & Environmental Engineering

Submitted on behalf of:
Harnett County General Services
900 South 9th Street
Lillington, NC 27546

September 16, 2008

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EXECUTIVE SUMMARY

The April 2008 groundwater sampling event performed at the Dunn-Erwin Municipal Solid Waste Landfill (MSWLF) fulfilled the County's semi-annual groundwater sampling and analyses requirements in accordance with North Carolina Solid Waste Management Rules *15A N.C.A.C. 13 B, .1633* and *.1634.*

Prior to this report, an extensive study was completed in order to better understand the groundwater contamination plume at the site, as described in the report dated August 25, 2003, including the field investigation performed in October 2002 in conjunction with the scheduled October 2002 semi-annual sampling event. Also, 12 new observation wells were installed in the general area of the groundwater contamination plume during this field investigation. The field investigation was followed by additional laboratory testing, and an extensive analysis and computer modeling. Results from that study have been incorporated in this report also including the October 2002 delineation of the groundwater contaminant plume in the uppermost aquifer, downgradient of the MSWLF.

Several new wells (MW11, MW 12, MW 13, MW 14, and MW15) and piezometers (PZ-50, PZ-51, PZ-52, and PZ-53) have been installed and are associated with the proposed new construction and demolition debris (C&D) landfill in the southwest of the groundwater contaminant plume area.

Data from the April 2008 semi-annual sampling were evaluated in sets. Set 1 consists of wells monitoring the previously closed (December 1998) solid waste landfill portion of the site where active construction and demolition debris (C&D) placement is ongoing, including monitoring wells (MWs) MW1, MW2, MW3R, MW4, MW5, MW6, MW7B, MW8, and MW31. Monitoring well MW3, which was previously damaged during site operations prior to April 2005 sampling event has been replaced by MW3R as of June 2005. Monitoring wells MW9 and MW10 were installed in March 2001 and have been added to Data Set 1 as of April 2001. These wells have been incorporated into the statistical analysis as their background sampling was completed in October 2002.

In 2006, five (5) new MWs (MW11 - MW15) have been installed in conjunction with the proposed C&D landfill. Theoretically, these new wells belong to Set 1 since they are downgradient of the active C&D and closed MSWLF. These wells will be incorporated into the statistical analysis of Set 1 as Subset 1N after their background sampling is completed in October 2008. Within this Subset 1N, subject to the final proposed C&D landfill design and groundwater monitoring plan, one of these monitoring wells may be designated as an upgradient well to the new landfill. Additionally, one or more of the related four new piezometers (PZ-50 through PZ-53) could also be converted into monitoring wells for the new landfill, as needed.

Set 2 consists of wells monitoring the older closed portion of the landfill site, including MW16, MW23B, MW32, MW33, and the newer MW34 and MW35 installed in June 1996. Monitoring well MW23B is statistically compared with Set 1 as it appears to be located downgradient of these wells.

Set 3 consists of surface water monitoring points (SWPTs) along the wetlands between the

active and the closed areas, including SWPT1, SWPT2, and SWPT3.

Groundwater levels at all monitoring wells are also recorded, as shown in Table 1. As an overall average, groundwater levels during this latest sampling event were approximately 2.7 feet below the average groundwater level based on all sampling events, for each respective well. This value also includes groundwater levels for recently installed wells MW11 - MW15.

The North Carolina Groundwater Standards (NCGS) have been amended as per 15A NCAC 02L.0202. The amendment went into effect as of April 1, 2005. This report incorporates the revised NCGS. Historical data has been comprehensively re-evaluated taking into consideration the revised NCGS.

In addition, this reporting has been revised to comply with the updated reporting requirements of the Solid Waste Section (SWS), per the SWS Memoranda dated October 27, 2006, February 23, 2007, and October 16, 2007. Specifically, the Solid Waste Section Limits (SWSL) and lower Method Detection Limits (MDLs) have been incorporated. Also, the 15A NCAC 13B groundwater protection standards (GPS) are also considered for those constituents that lack a 2L NCGS. The 13B GPS have been incorporated only as of October 2007 and are not compared to historic data.

The new MDLs are significantly less than previous detection limits. The SWSLs are more similar to the previous detection limits but are lower for several constituents. Table 6 of this report provides a comprehensive comparison of 2L NCGS, 13B groundwater protection standards, SWSL, and current and historical (2006) MDLs for constituents commonly included in the statistical analysis at the Dunn-Erwin landfill.

As required, concentrations greater than the MDL but less than the SWSL are reported by the laboratory as *estimated values*. Because historic data, including background sampling, was reported using much higher detection limits, estimated values are not incorporated into the current statistical analysis, except for the prediction interval intra-well comparison as discussed in Section III, Methodology. Only results exceeding SWSLs are included in the statistical analysis and presented in the summary tables found in Appendices A-C, as the SWSLs allow for a more consistent comparison of current and historical data. For a complete listing of estimated concentrations, refer to the laboratory reports.

As required by the new rules, the Environmental Monitoring Reporting Form accompanies this submittal. Table 4B serves as the notification table required with this form and includes results which exceed a 2L NCGS or a 13B GPS. Because some of the SWSLs are greater than the NCGS or GPS, estimated values which exceed NCGS or GPS are included. GPS have been included with NCGS in the statistical analysis tables in the Appendices for detections above the SWSL. However, these tables do not include the estimated detections below the SWSL and are not intended to be an exhaustive comparison to NCGS and GPS.

When compared to historical detection limits, the use of the generally lower SWSLs has resulted in an increase in the number of reported detections. In addition, the lower SWSLs, which are now used in place of the detection limits in qualitative analyses (refer to Section III, Methodology), have resulted in more constituents being statistically significant over background levels (SSIOBL).

The statistical analysis results indicate that compliance wells MW6, MW7B, MW8, MW9, and MW10 in Set 1 have statistically significant levels of one or more organics over background levels when compared with the background wells. (cis-1,2-dichloroethylene now qualifies for the TOP and has resulted in SSIOBL for a number of wells.) In addition, the April 2008 results show that there were less organics detected in concentrations greater than NCGS or GPS when compared to the number of above NCGS or GPS organics detected in October 2007. The April 2008 above NCGS organics include: benzene, 1,4-dichlorobenzene, 1,2-dichloroethane (estimated value), tetrachloroethylene, trichloroethylene, and vinyl chloride in MW6; benzene, tetrachloroethylene, trichloroethylene, and vinyl chloride in MW7B; benzene, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride in MW8; benzene, 1,4-dichlorobenzene, 1,2-dichloroethane (estimated value), tetrachloroethylene, trichloroethylene, and vinyl chloride in MW9; and benzene, methylene chloride, and vinyl chloride in MW10.

As part of this event's statistical analysis, the prediction interval intra-well comparison was incorporated to verify certain Test of Proportions (TOP) results. In select cases the compliance-to-background well analyses are not accurate because natural, statistically significant variations existed prior to the facility operation commencement. If the TOP indicates a result of Statistically Significant Increase Over Background Level (SSIOBL) for such a constituent, the prediction interval intra-well comparison is used to verify the result. If the average post-operational concentrations of the constituent are within the prediction interval analysis calculated based on background concentrations, the result is not considered SSIOBL.

Using this methodology, beryllium is not SSIOBL for MW2, MW3, and MW4 and cobalt and lead are not SSIOBL for MW7B, which would have resulted as SSIOBL using just the TOP. Cobalt and mercury in MW6 and mercury in MW7B also show statistically significant levels through the TOP. However, cobalt was not detected during MW6's background sampling, and mercury was not included in either well's background sampling. Consequently, these constituents do not qualify for an intra-well comparison. The following inorganics exceeded NCGS or GPS during this sampling event, representing a decrease in the number of inorganics exceeding NCGS compared to the October 2007 results: vanadium in MW31, thallium in MW7B; and vanadium in MW10. The vanadium detections appear to be background, as vanadium was not SSIOBL for any well. The thallium detection is also likely trace background, and its concentration was above the 13B GPS but well below the SWSL. The thallium and vanadium exceedances were estimated concentration values.

In Set 2, no organics or inorganics are statistically significant. No organics were detected in April 2008, consistent with the results from October 2007. For inorganics, barium, cadmium, and lead were detected in Set 2. Of these results, lead was detected over the NCGS in MW32, representing and increase compared to the result from October 2007.

In Set 3, only zinc was detected. These locations were unavailable for sampling due to dry conditions in October 2007. However, zinc has been detected at these locations in the past. No organics or inorganics are statistically significant for Set 3.

Details of the statistical procedures employed are discussed in Section III of this report, entitled Methodology. The results of the April 2008 analysis are summarized and discussed for each constituent detected over the SWSL at each monitoring well or surface water monitoring point in Section III, entitled Results. Appendices A, B, C, and D contain tabulated data for the individual wells with computer-generated results of the statistical analyses performed and laboratory results with chain of custody forms, respectively. Based on these statistical analysis results and the August 2003 detailed plume investigation report, the following conclusions regarding groundwater contamination and future monitoring at the Dunn-Erwin MSWLF are presented:

- The previously active portion of the Dunn-Erwin solid waste landfill is now closed with a final cap. C&D waste is being placed on the cap area, as per SWS approval. All parameters that have been detected in concentrations that are statistically significant over background levels (SSIOBL) are being compared with North Carolina Groundwater Standards (NCGS), as appropriate.

- Harnett County continues groundwater Assessment Monitoring in accordance with North Carolina Solid Waste Management Rule *15A N.C.A.C. 13 B, .1634.* The findings and conclusions of this report are being incorporated into the assessment of corrective measures (ACM) for the groundwater contamination plume, downgradient of the existing landfill in accordance with North Carolina Solid Waste Management Rules *15A N.C.A.C. 13 B, .1635.*

- In 2007 the SWS reviewed the draft ACM and commented. The ACM was re-submitted to the SWS addressing the comments and was subsequently accepted by the SWS. Harnett County advertised the required public meeting and held it accordingly on March 31, 2008. There were no comments received during the public hearing.

- Harnett County is in the process of selecting the appropriate Corrective Action Plan (CAP) and beginning its implementation, possibly towards the end of 2008, subject to SWS final review and approval.

- Based on updated groundwater analytical data accumulated since October 1994 from the scheduled semi-annual sampling events, the top four organic contaminants most frequently detected in downgradient monitoring wells at concentrations that consistently have exceeded NCGS include 1,1-dichloroethane, methylene chloride, tetrachloroethylene, and trichloroethylene. Prior to this event and since October 2003, benzene had been detected in the downgradient plume only in MW9 (both results occurring during the 2006 events). However, benzene detections have increased over recent sampling events. The prevalence of benzene detections will be observed in future sampling events.

- Of these four organics 1,1-dichloroethane, methylene chloride and trichloroethylene have been consistently considered as statistically significant in the semi-annual assessments. However, only methylene chloride has been consistently detected in average concentrations that are about one order of magnitude greater than NCGS. Therefore, methylene chloride has remained the key organic constituent in the groundwater contamination plume, downgradient of the MSWLF.

- With 10 detections as of the October 2007 sampling event (including past events), vinyl chloride has qualified for inclusion into the contamination plume review starting October 2007. There were five additional vinyl chloride detections in April 2008. However, vinyl chloride results **are not** as prevalent as the other top organic contaminants, and because it has a **low 2L standard** the results show apparent large average concentration-to-NCGS ratios. It has been included in Figure 3 to observe in future events.

- As of October 1999 only wells MW6, MW7B, and MW8 require annual sampling for Appendix II constituents while in assessment monitoring. All other monitoring wells of Set 1 were excluded from Appendix II sampling requirements based on approval of the North Carolina Solid Waste Section (SWS) from October 1999. However, the SWS requested in March 2007 that MW9 and MW10 also be added to the Appendix II testing since they are within the contaminant plume. Therefore, these five wells will be sampled for Appendix II constituents in October annually, as required by the SWS.

- All active monitoring well locations in Set 1 should continue to be sampled and analyzed for Appendix I constituents semi-annually as per North Carolina Solid Waste Management Rules 15A N.C.A.C. 13 B, .1633, with the next Appendix I sampling event scheduled for October 2008. Monitoring well MW3 was replaced by MW3R in June 2005.

- All active monitoring wells in Set 2 should continue to be sampled and analyzed for Appendix I organics and the eight RCRA metals semi-annually while in detection monitoring. The next sampling event should occur in October 2008.

- All active surface water point locations in Set 3 should continue to be sampled and analyzed for Appendix I constituents semi-annually as per North Carolina Solid Waste Management Rules 15A N.C.A.C. 13 B, .1633, with the next Appendix I sampling event scheduled for October 2008.

- Background sampling of the new MWs (MW11 - MW15) should be completed in October 2008. These wells will be incorporated into the statistical analysis of Set 1 as a Subset 1N at that time. Currently, three sampling events have been completed for these wells.

- The new reporting requirements have been incorporated for this sampling event. Reporting will be adjusted if required by the SWS. This first submittal under the new SWS reporting requirements includes:
    - (i) Environmental Monitoring Reporting Form (hardcopy)
    - (ii) Summary Table 4B with the parameters that exceed 2L NCGS or 13B GPS in April 2008
    - (iii) A hardcopy of the EXCEL sheets from the E1I lab
    - (iv) A hard copy of the complete assessment report

I. Introduction

This statistical analysis was performed to evaluate whether groundwater and surface water monitoring results from the April 2008 sampling event at the Dunn-Erwin MSWLF in Harnett County demonstrate compliance with North Carolina Groundwater Standards (NCGS) with respect to Appendix I and Appendix II constituents of the North Carolina Solid Waste Management Rules *15A N.C.A.C. 13 B, .1633(a) and .1634(a).* The United States Environmental Protection Agency (EPA) Guidance Document, Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, April 1989, was used as the main reference for the statistical procedures followed in this study. Details of the procedures and results obtained from the analysis are described in the following sections.

Conclusions and recommendations regarding subsequent sampling at the Dunn-Erwin MSWLF are presented in the Executive Summary. Based on the groundwater contamination plume assessment report submitted to the NCDENR Solid Waste Section (SWS) on August 25, 2003, Figure 1 shows the downgradient area of the MSWLF with approximate contamination plume boundaries of October 2002. A layout of approximate monitoring wells and surface water sampling locations and the MSWLF facility is shown in Figure 2.

II. Groundwater Levels

Table 1 shows historic groundwater levels within monitoring wells at the Dunn-Erwin landfill. Generally, groundwater levels during the April 2008 sampling event were approximately 2.7 feet below the average groundwater level based on all sampling events, for each respective well. This value includes groundwater levels for recently installed wells MW11 - MW15.

Table 2 shows estimated groundwater velocity data, calculated based on groundwater levels recorded in the October 1995 sampling event and estimated range of site hydraulic conductivity and effective porosity values.

III. Methodology

An Excel™ adaptation of the EPA software GRITS/STAT (A Ground Water Information Tracking System with Statistical Analysis Capability, Version 4.2) was utilized to perform statistical calculations. Downgradient monitoring wells (MWs) MW2, MW3R, MW4, MW5, MW6, MW7B, MW8, MW9, MW10, and MW23B were each compared with the upgradient wells MW1 and MW31 (Data Set 1), and downgradient wells MW32, MW33, MW34, and MW35 were each compared to upgradient well MW16 (Data Set 2) to evaluate the existence of statistically significant increases over background levels (SSIOBL) for each detected constituent. Surface Water Monitoring Points (SWPTs) SWPT2 and SWPT3 are compared with upgradient SWPT1 (Data Set 3) to evaluate the existence of SSIOBL for each Appendix I constituent.

For the reasons discussed in the Executive Summary regarding differences between historic and current method detection limits (MDLs) and the Solid Waste Section Limits

(SWSLs), only detections exceeding the SWSLs are included in the statistical analysis. Estimated values (concentrations reported as greater than the MDL but less than the SWSL) are not included in the statistical analysis. When referring to the statistical analysis, a non-detect is a result less than the SWSL and a detection is a result greater than the SWSL. Where necessary, estimated values are compared to NCGS or 13B Groundwater Protection Standards (GPS). A comparison of NCGS and GPS standards, SWSLs, April 2008 MDLs and detection limits from 2006 for selected commonly detected constituents are presented in Table 6.

The one-way analysis of variance test (ANOVA) compares median concentrations of the respective upgradient and downgradient wells between data sets with at least four sampling events each. The Excel™ program was employed to perform the ANOVA for each parameter in a monitoring well group with less than 50% total non-detects in all wells over all sampling events.

All data sets with less than 15% non-detects were also tested for both normal and log-normal data distributions using EPA accepted normality tests. A parametric ANOVA was performed for those data sets meeting the normality and less than 15% non-detect requirements. The parametric ANOVA also tested for residual normality and homogeneity of variances (using Levene's Test) between data sets, both of which are necessary to determine those parameters that are SSIOBL using the parametric ANOVA. For both the parametric ANOVA and Levene's Test, non-detected concentrations were computed as on one-half (1/2) of the method detection limit. If any of the above tests produced a negative result, the parametric ANOVA was disregarded. (No data sets met the criteria for a parametric ANOVA test during the latest event).

All data sets with less than 50% non-detects and not fulfilling the requirements of the parametric ANOVA test received the non-parametric ANOVA test, which utilized the Kruskal-Wallace Test for making comparisons between data sets.

The Test of Proportions, as outlined in Section 8.1.2 of the EPA Guidance document, was utilized for all data sets for constituents with less than or equal to 50% and above 10% detects in all monitoring wells combined. This test was further defined to include only those compliance wells (individually coupled with the background wells) that produced a large enough data set such that the total number of detects for the particular constituent was greater than or equal to five (5).

In select cases the compliance-to-background well analyses are not accurate because natural, statistically significant variations existed prior to the facility operation commencement. If the Test of Proportions indicates a result of SSIOBL for such a constituent, the prediction interval intra-well comparison was used to verify the statistical significance of the concentrations. If the average post-operational concentrations of the constituent are within the prediction interval analysis calculated based on background concentrations, the result is not considered SSIOBL. Estimated values are used in the prediction interval analysis. Previously, a non-detect value was treated as half the detection limit to calculate the interval. However, use of the estimated values allows for a more accurate prediction than using half the SWSL.

For all other instances that did not qualify for the ANOVA tests or the Test of Proportions, the detections were analyzed qualitatively. The qualitative analysis was conducted for individual constituents at a particular compliance well. Initially, the number of detections for the constituent in the particular compliance well was considered as follows:

- A compliance well with only one detection was not considered SSIOBL.

- For a compliance well with two or more detections and without detections in the background well, the order of magnitude (OOM) above the SWSL was evaluated. The OOM was computed as the logarithm of the actual detected concentration over the SWSL. If the average concentrations had an OOM greater than or equal to 0.67 (five times greater than the SWSL), the constituent was considered SSIOBL for the particular well. Prior to October 2007, the detection limit was used because the SWSLs had not been incorporated. As noted in the Executed Summary, the SWSL is more consistent with historic detection limits, compared to the much lower MDLs (refer to Table 6). As such, use of the SWSL allows for a more uniform comparison to the historic data and is also consistent with the use of SWSL in the other statistical analyses.

- For a compliance well with two or more detections and with detections of the particular constituent also in the compliance well, the compliance well was evaluated depending on the number and magnitude of detections at the compliance well, the background well, and their respective average concentration differences.

Additionally, Table 5 includes the analysis of cumulative results from all sampling events of the ongoing scheduled semi-annual analyses since October 1994, showing the summary of all organic detections in Data Set 1 that includes downgradient (compliance) monitoring wells (MWs) MW2, MW3R, MW4, MW5, MW6, MW7B, MW8, MW9, MW10, and MW23B.

Page 11 of 12 in Table 5 shows overall average concentration of organics detections with respect to the number of detections, and the average-concentration-to-NCGS ratio (ANR). The criteria selected to identify main organic constituents include these that had 10 or more detections with an ANR that approaches or exceeds 1.0. Vinyl chloride was added to the list of main constituents now that it has had 10 detections.

IV. Results

This section reports results from the statistical tests performed on detected constituents (greater than SWSL as of October 2007). A summary of upgradient wells (background wells) precedes the downgradient wells for each data set. The upgradient well summaries include a complete detection history for all sampling events per upgradient well. Downgradient well summaries include a brief detection history followed by the results of the statistical tests per detected constituent.

Detections noted prior to October 2007 include all results which exceeded the

historic detection limits for the respective constituents. Unless otherwise noted, a detection is now defined as a result that exceeds the SWSL as of October 2007. Estimated values (greater than the current MDL but less than the SWSL) are not listed except for some instances to compare to NCGS or GPS.

A summary of the results of the statistical tests for inorganics is shown in Table 3. In addition to the types of statistical tests and inorganic results, Table 3 also shows which inorganics were detected, both above the MDL and also above the SWSL. Table 4A indicates those parameters that have been detected in concentrations that are statistically significant over background levels (SSIOBL). Table 4B lists parameters exceeding NCGS or GPS during the April 2008 sampling event. ***Table 4B is intended to also serve as the notification table that is required with the Environmental Monitoring Reporting Form.*** To allow for a concise and legible summary, only monitoring wells with results that exceeded NCGS or GPS are listed. Results for monitoring wells or parameters not listed did not exceed NCGS or GPS. It should also be noted that Table 4B includes estimated values.

Detailed summary tables of constituent detections over the SWSL per monitoring well, recommended statistical tests per constituent, and results of the respective statistical tests are enclosed in Appendices A, B, and C for Data Sets 1, 2, and 3, respectively. Laboratory analytical data and chain of custody forms are included in Appendix D.

In Table 5, Page 11 of 12, five organic compounds shown in bold face were identified as the top organic constituents in the groundwater contamination plume, including benzene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride. 1,1-dichloroethane has been added to this list due to its NCGS revision from 700 to 70 ug/l. Vinyl chloride has been added when after it had 10 detections (as of October 2007). Of these only 1,1-dichloroethane, methylene chloride, and trichloroethylene have consistently been identified as SSIOBL by the statistical analyses of the scheduled semi-annual sampling results.

An analysis to verify that these main organic constituents are consistent within the assumed area of the groundwater contamination plume was performed. The analysis included average concentration of organics detections, number of detections, and ANR values detected only in compliance wells MW6, MW7B, MW8, MW9, and MW10, and averaged only over these five (5) wells for all sampling events since October 1994. The results shown in Table 5, Page 12 of 12 verify that the main organic constituents that had 10 or more detections with an ANR that exceeds 1.0, shown in bold face, are benzene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride.

To obtain time-line perspective of these organics detections, Figure 3 shows the average ANR values per each scheduled semi-annual sampling event in the five downgradient wells located within the estimated groundwater contamination plume area for these five organic constituents. Of these five, methylene chloride has been detected most consistently with the highest ANR values, with a maximum of 31. The Figure also shows that 1,1-dichloroethane, trichloroethylene, and tetrachloroethylene have been

detected with ANR values exceeding 1.0 since the beginning of data collection in October 1994, while benzene has only been detected with ANR values exceeding 1.0 since March 1999. Vinyl chloride shows high ANR values due to a relatively lower NCGS, however, it shows ANR values greater than 1.0 much less frequently than the other constituents. It is likely the vinyl chloride detections are a result of the degradation of the larger chlorinated compounds.

Finally, methylene chloride is the only SSIOBL organic constituent that has consistently been detected in the plume area in concentrations that exceed NCGS by about one order of magnitude. Therefore, methylene chloride is identified as the key organic constituent in this groundwater contamination plume.

SET 1

Upgradient Wells (Background Wells):

MW1: MW1 is an upgradient well for MW2, MW3, MW4, MW5, MW6, MW7B, MW8, and MW23B (which is a Set 2 monitoring well). Historically, this well has shown inorganic concentrations above the detection limit for barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, tin, vanadium, and zinc. Of these constituents, cadmium exceeded NCGS in one sampling event with a concentrations of 0.004 mg/l in January 1995. Lead exceeded NCGS in five sampling events with concentrations of 0.104, 0.104, 0.02, 0.028, and 0.018 mg/l in January, March and September 1995, and April and October 1997, respectively. Historically, carbon disulfide and diethylphthalate have been the only organic constituents detected in MW1. No constituents were detected during this latest sampling event.

The following summarizes the history of detected concentrations for each metal constituent:

barium: Barium was detected in six sampling events for MW1 with concentrations of 0.252, 0.024, 1.68, 0.586, 0.083, and 0.1 mg/l in October and November 1994, January and March 1995, October 1997, and October 1998, respectively.

beryllium: Beryllium was detected in nine sampling events for MW1 with concentrations of 0.024, 0.006, 0.002, 0.002, 0.003, 0.006, 0.001, 0.004, 0.003, 0.002, and 0.002 mg/l in January, March, and September 1995, April and October 1996, April and October 1997, April and October 1998, October 1999, and April 2002, respectively.

cadmium: Cadmium was detected in four sampling events for MW1 with concentrations of 0.0008, 0.001, 0.004, and 0.011 mg/l, in October and November 1994 and January and March 1995, respectively.

chromium: Chromium was detected in five sampling events with concentrations of 0.005, 0.018, 0.011, 0.013, 0.02 mg/l in October 1994, January and March 1995, April 1997, and April and October 1998, respectively.

cobalt: Cobalt was detected in only one sampling event for MW1 with a concentration of 0.016 mg/l in January 1995.

copper: Copper was detected in four sampling events for MW1 with concentrations of 0.017, 0.078, 0.018, and 0.007 mg/l in October 1994, January and March 1995, and October 1997, respectively.

lead: Lead was detected in six sampling events for MW1 with concentrations of 0.005, 0.104, 0.104, 0.02, 0.028, and 0.018 mg/l in October 1994 and January, March, and September 1995, and April and October 1997, respectively.

nickel: Nickel was detected for one sampling event in MW1 with a concentration of 0.03 mg/l in January 1995.

vanadium: Vanadium was detected in two sampling events for MW1 with concentrations of 0.02 and 0.083 mg/l in October 1994, and January 1995, respectively.

zinc: Zinc was detected in eight sampling events in MW1 with concentrations of 0.098, 0.012, 0.237, 0.038, 0.08, 0.065, 0.08, and 0.011 mg/l in October and November 1994 and January , March, and September 1995, April 1997, April 2004, and May 2007, respectively.

The following organics have been detected in MW1:

carbon disulfide: Carbon disulfide was detected in two sampling event in MW1 with concentrations of 20.9 and 7.4 mg/l in November 1994 and October 1999, respectively.

diethylphthalate: Diethylphthalate was detected in three sampling events for MW1 with concentrations of 5.3, 5.3 and 9.8 ug/l in September 1995, April 1996 and April 1997, respectively.

MW31: MW31 is a background well for MW2, MW3, MW4, MW5, MW6, MW7B, MW8 and MW23B. The detected metals in MW31 have been barium, beryllium, cadmium, chromium, cobalt, copper, lead, vanadium, and zinc. Of these, arsenic exceeded NCGS in one sampling event with a concentrations of 0.055 mg/l in September 1995. Cadmium exceeded NCGS in three events with concentrations of 0.005, 0.003, and 0.003 in January 1995, March 1995, and September 1995, respectively. Chromium exceeded NCGS in five events with concentrations of 0.21, 0.124, 0.06, 0.08, and 0.1 mg/l in September 1995, April and October 1997, October 1998, and March and October 1999, respectively, and was detected at a concentration of 0.01 mg/l in April 2000. Lead exceeded NCGS in nine events with concentrations of 0.0052, 0.033, 0.17, 0.031, 0.088, 0.045, 0.03, 0.05, and 0.06 mg/l in January, March and September 1995, April 1996, April and October 1997, October 1998, and March and October 1999, respectively. Vanadium exceeded the 13B GPS with an

estimated result of 6.6 and 20.7 ug/l in October 2007 and April 2008. There have been no detected organics in MW31. Lead and zinc were detected during this latest sampling event.

The following summarizes the history of detected concentrations for each metal constituent in MW31:

arsenic: Arsenic was detected in five sampling events for MW31 with concentrations of 0.005, 0.055, 0.011, 0.032, and 0.005 mg/l in March and September 1995 April 1996, and April and October 1997, respectively.

barium: Barium was detected in four sampling events for MW31 with concentrations of 0.04, 0.157, 0.097, and 0.098 mg/l in October 1994, January and March 1995, and October 1997 respectively.

beryllium: Beryllium was detected in four sampling events for MW31 with concentrations of 0.028, 0.006, 0.003, 0.001 and 0.005 mg/l in November 1994, September 1995, April and October 1997, and October 1999, respectively.

cadmium: Cadmium was detected in four sampling events for MW31 with concentrations of 0.005, 0.003, 0.003, and 0.001 mg/l in January, March, and September 1995, and April 1997, respectively.

chromium: Chromium was detected in nine sampling events for MW31 with concentrations of 0.021, 0.015, 0.021, 0.21, 0.044, 0.124, 0.06, 0.04, 0.01, and 0.01 mg/l in October and November 1994, January and September 1995, April 1996, April and October 1997, October 1998, October 1999, and April 2000, respectively.

cobalt: Cobalt was detected in two sampling events for MW31 with concentrations of 0.007 and 0.02 mg/l in January and September 1995, respectively.

copper: Copper was detected in eight sampling events for MW31 with concentrations of 0.011, 0.006, 0.052, 0.033, 0.017, 0.033, 0.043, and 0.06 mg/l, in October and November 1994, January, March, and September 1995, April 1996, April 1997, and October 1998, respectively.

lead: Lead was detected in ten sampling events for MW31 with concentrations of 0.011, 0.006, 0.052, 0.033, 0.017, 0.031, 0.088, 0.045, 0.03, 0.06, and 0.014 mg/l, in October and November 1994, January, March, and September 1995, April 1996, April and October 1997, October 1998, October 1999, and April 2008, respectively.

vanadium: Vanadium was detected for nine sampling events for MW31 with concentrations of 0.045, 0.026, 0.032, 0.08, 041, 0.087, 0.235, 0.11, and

0.04 mg/l, in October and November 1994, January, March, and September 1995, April 1996, April and October 1997, and October 1998, respectively.

zinc: Zinc was detected for nine sampling events in MW31 with concentrations of 0.017, 0.01, 0.027, 0.037, 0.07, 0.05, 0.04, 0.01, 0.017, and 0.01 mg/l, in October and November 1994, January, March, and September 1995, April 1996, October 1997, October 1998, October 1999, May 2007, and April 2008, respectively.

Downgradient Wells (Compliance Wells):

MW2: Compliance well MW2 has shown inorganic detections for arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc. Of these, cadmium exceeded NCGS in two events, with concentrations of 0.003 and 0.004 mg/l in March and September 1995, respectively. Lead exceeded NCGS in four events, with concentrations of 0.025, 0.025, 0.041, and 0.025 mg/l in November 1994 and January, March and September 1995, respectively. Diethylphthalate, an Appendix II constituent not included in Appendix I, was detected in September 1995 in MW2. This was the only organic constituent detected for all sampling events in MW2. Beryllium and zinc were the only constituents detected during this latest sampling event.

The following results were obtained for the detected metals in April 2008:

beryllium: Beryllium resulted as not SSIOBL for MW2 using the Prediction Interval Analysis.

zinc: Zinc resulted as not SSIOBL for MW2 using the Test of Proportions.

MW3R: Compliance well MW3R has replaced compliance well MW3. Groundwater data from sampling events prior to October 2005 from MW3 have been utilized to compare with the data for MW3R sampled beginning in October 2005.

Compliance well MW3 and/or MW3R previously had metal detections for barium, beryllium, cadmium, chromium, cobalt, copper, lead, vanadium, and zinc. Cadmium, exceeded NCGS in two sampling events with concentrations of 0.002 and 0.011 mg/l in November 1994 and March 1995, respectively. Carbon disulfide has been the only organic constituent detected in MW3/3R. Beryllium and zinc were the only constituents detected during this latest sampling event.

The following results were obtained for the detected metals in April 2008:

beryllium: Beryllium resulted as not SSIOBL for MW3 using the Prediction Interval Analysis.

zinc: Zinc resulted as not SSIOBL for MW3 using the Test of Proportions.

MW4: MW4 has had a history of detections of inorganics barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc. Cadmium has exceeded NCGS in one event with a concentration of 0.004 mg/l in March 1995. Lead has exceeded NCGS in two events: 0.018 mg/l in both November 1994 and October 1996. Carbon disulfide and diethylphthalate have been the only detected organics for MW4, however no organics were detected in this latest sampling. Beryllium and zinc were the only constituents detected during this latest sampling event.

The following results were obtained for the detected metals in April 2008:

beryllium: Beryllium resulted as not SSIOBL for MW4 using the Prediction Interval Analysis.

zinc: Zinc resulted as not SSIOBL for MW4 using the Test of Proportions.

MW5: Compliance well MW5 had shown above the detection limit inorganic concentrations for barium, cadmium, chromium, copper, lead, nickel, vanadium, and zinc. Of these, chromium exceeded NCGS in one sampling event with a concentration of 0.009 mg/l in October 1994. Carbon disulfide has been the only organic constituent detected with a concentration of 30.5 and 6.4 ug/l in November 1994 and October 1999. No constituents were detected during this latest sampling event.

MW6: Compliance well MW6 has a history of inorganic detections for arsenic, barium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, vanadium, and zinc. Of these, cadmium has exceeded NCGS in three sampling event with concentrations of 0.005, 0.009, and 0.004 mg/l in October and November 1994 and January 1995, respectively. Lead has exceeded NCGS in four sampling events with concentrations of 0.019, 0.033, 0.037, and 0.019 mg/l in November 1994, January and September 1995, and April 1996, respectively. Mercury exceeded NCGS in two sampling events with a concentration of 0.002 mg/l in October 1999. Zinc exceeded NCGS in one sampling event with a concentration of 91.5 mg/l in October 2004. Vanadium exceeded 13B GPS with an *estimated* result of 7.3 ug/l in October 2007. Barium, cobalt, and zinc were the only inorganic constituents detected during this latest sampling event at MW6.

Detected organics for MW6 include acetone, benzene, bis(2-ethylhexyl)phthalate, carbon disulfide, chlorobenzene, 1,4-dichlorobenzene, chloroethane, 1,1-dichloroethane, 1,1-dichloroethene, dichlorodifluoromethane, methylene chloride, 1,1,1-trichlroethane, trichloroethylene, vinyl chloride, and xylenes. Benzene has exceeded NCGS in five sampling events with concentrations of 2.7, 3.4, 9.5, 6.1, and 4.2 ug/l in March and October 1999, April 2001, October 2007, and April 2008, respectively. Chlorobenzene exceeded NCGS in October 1998 with a concentration of 70 ug/l. Chloromethane exceeded NCGS in one sampling event with a concentration of 46 ug/l in April 2000. 1,4-dichlorobenzene has exceeded NCGS in five sampling events with concentrations of 7.2, 6.9, 3.2, 7.7, and 7.4 ug/l in April 2001, October 2005, May 2007, October 2007, and April 2008, respectively. 1,1-dichloroethane has exceeded NCGS in seven sampling events with concentrations of 78.9, 105, 87.1, 80, 134, 160, and 88 ug/l in October 1994, January and March 1995, October 1996, April and October 1997, and March 1999, respectively. 1,1-dichloroethene has exceeded NCGS in one sampling event with a concentration of 83.2

ug/l in January 1995. 1,2-dichloroethane has exceeded 13B GPS in two sampling events with estimated concentrations of 0.6 and 0.4 ug/l in October 2007 and April 2008, respectively. Methylene chloride has exceeded NCGS in 12 sampling events with concentrations of 66, 109, 47, 37, 34.8, 28.2, 12.8, 64.5, 20.1, 12.9, 8.8, and 33 ug/l in October 2000, April and October 2001, April and October 2002, October 2003, April 2004, October 2005, April and October 2006, and May and October 2007, respectively. Tetrachloroethylene has exceeded NCGS in 11 sampling events with concentrations of 5.3, 3.8, 5.6, 1.9, 8.2, 7.1, 6.2, 8.0, 6.9, 9.3, and 4.5 ug/l in October 1994, January and March 1995, October 1999, April 2001, October 2005, April and October 2006, May and October 2007, and April 2008, respectively. Trichloroethylene has exceeded NCGS in 18 sampling events with concentrations of 8.4, 6.7, 10.6, 8.8, 7.2, 6.8, 11, 9.9, 8.7, 7.0, 17, 5.4, 5.2, 8.8, 7.1, 8.1, 7.7, 9.24, and 5.9 ug/l in October and November 1994, January and March 1995, February and October 1996, April and October 1997, October 1999, April 2000, April and October 2001, April 2002, October 2005, April and October 2006, May and October 2007, and April 2008, respectively. Vinyl chloride has exceeded NCGS in five sampling events with concentrations of 22, 11.2, 8, 7.2, and 6.3 ug/l in April 2001, April 2006, May and October 2007, and April 2008, respectively.

Benzene, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride were the detected organics at MW6 during this latest sampling event.

The following results were obtained for the detected metals in MW6 in April 2008:

barium: Barium resulted as not SSIOBL for MW6 using the Test of Proportions.

cobalt: Cobalt resulted as SSIOBL for MW6 using the Test of Proportions.

zinc: Zinc resulted as not SSIOBL for MW6 using the Test of Proportions.

The following results were obtained for the detected organics in April 2008:

benzene: Benzene resulted as SSIOBL for MW6 using the Qualitative Test.

1,4-dichlorobenzene: 1,4-dichlorobenzene resulted as SSIOBL for MW6 using the Qualitative Test.

cis-1,2-dichloroethene: cis-1,2-Dichloroethene resulted as SSIOBL for MW6 using the Test of Proportions.

1,1-dichloroethane: 1,1-dichloroethane resulted as SSIOBL for MW6 using the Test of Proportions.

methylene chloride: Methylene chloride resulted as SSIOBL for MW6 using the Test of Proportions.

tetrachloroethylene: Tetrachloroethylene resulted as SSIOBL for MW6 using the Qualitative Test.

trichloroethylene: Trichloroethylene resulted as SSIOBL for MW6 using the Test of Proportions.

vinyl chloride: Vinyl chloride resulted as SSIOBL for MW6 using the Qualitative Test.

MW7B: Compliance well MW7B has replaced compliance well MW7. Groundwater data from previous sampling events (October and November 1994, and January and March 1995) from MW7 have been utilized to compare with the data for MW7B sampled since September 1995.

Detected metals in MW7 and/or MW7B include arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, vanadium, zinc, and mercury. Of these, arsenic exceeded NCGS in one sampling event with a concentration of 0.279 mg/l in October 1997. Cadmium exceeded NCGS in two sampling events with a concentration of 0.004 in both September 1995 and April 1997. Chromium exceeded NCGS in three sampling events with concentrations of 0.04, 0.09, and 0.071 mg/l in March and September 1995, and April 1997, respectively. Lead exceeded NCGS in 19 sampling events with concentrations of 0.519, 0.044, 0.36, 0.196, 0.087, 0.264, 0.062, 0.070, 0.71, 0.05, 0.10, 0.036, 0.017, 0.020, 0.035, 0.018, 0.027, 0.019, and 0.031 mg/l in October 1994, March and September 1995, April and October 1996, April and October 1997, April 1998, March and October 1999, April and October 2000, October 2001, April 2002, October 2003, October 2004, and April and October 2005, and October 2007, respectively. Mercury exceeded NCGS in six sampling events with concentrations of 0.0027, 0.00142, 0.0011, 0.0015, 0.0046, and 0.0026 mg/l in October 2002, October 2003, October 2004, October 2005, October 2006, and October 2007, respectively. Thallium exceeded 13B GPS with an *estimated* results of 0.5 and 0.4 ug/l in October 2007 and April 2008, respectively. Vanadium exceeded 13B GPS with an *estimated* result of 14.2 ug/l in October 2007.

Barium and cobalt were the detected metals at MW7 during this latest sampling event.

Detected organics have included benzene, chlorobenzene, chloroethane, 1,1-dichloroethene, 1,1-dichloroethane, 1,2-dichloroethane, methylene chloride, toluene, 1,1,1-trichloroethane, tetrachloroethylene, trichloroethylene, trichlorofluoromethane, xylenes, dichlorodifluoromethane, diethylphthalate, and bis(2-ethylhexyl)phthalate. Of these, benzene has exceeded NCGS in four sampling events with concentrations of 1.1, 4.7, 4.1, and 4.2 ug/l in March 1999, May 2007, October 2007, and April 2008, respectively. Chloromethane has exceeded NCGS in one sampling event with a concentration of 64 ug/l in April 2000. 1,1-dichloroethane has exceeded NCGS in 22 sampling events with concentrations of 262, 100, 92, 77, 100, 99.5, 110, 210, 170, 90, 176, 230, 87.1, 220, 141, 137, 113, 147, 176, 174, 153, and 129 ug/l in October 1994, September 1995, February, April and October 1996, April 1998, March and October 1999, April and October 2000, October 2001, April and October 2002, April and October 2003, April and October 2004, April 2005, April and October 2006, and May and October 2007, respectively. 1,2-dichloroethane has exceeded NCGS in one sampling event with a concentration of 8.7 ug/l in April 2003. 1,1-dichloroethene has exceeded NCGS in one sampling event with a concentration of 8.1 ug/l in April 2003. Methylene chloride has exceeded NCGS in 15

sampling events with concentrations of 60, 75, 138, 154, 26.4, 174, 70.3, 93.3, 101, 75.1, 59.6, 79.9, 74.1, 74.5, and 45.5 ug/l in October 2000, April and October 2001, April and October 2002, April and October 2003, April and October 2004, April and October 2005, April and October 2006, and May and October 2007, respectively. Tetrachloroethylene exceeded NCGS in three sampling events with concentrations of 9.0, 3.7, and 3.2 ug/l in October 2005, October 2007, and April 2008, respectively. Trichloroethylene exceeded NCGS in 17 sampling events, with concentrations of 9.9, 10.7, 3.6, 7.8, 6.0, 5.3, 7.3, 8.8, 6.8, 7.6, 7.7, 7.5, 10.5, 9.9, 8.8, 9.2, and 9.1 ug/l in October and November 1994, March and October 1999, April 2000, April and October 2001, April 2002, October 2003, April and October 2004, April 2005, April and October 2006, May and October 2007, and April 2008, respectively. Vinyl chloride has exceeded NCGS in three sampling events with concentrations of 5, 5, and 3.9 ug/l in May and October 2007 and April 2008, respectively.

During this latest sampling event, benzene, chlorobenzene, tetrachloroethylene, trichloroethylene, trichloroflouromethane, and vinyl chloride were detected at MW7B.

The following results were obtained for the detected inorganics in MW7/7B in April 2008:

barium: Barium resulted as not SSIOBL for MW7/7B using the Test of Proportions.

cobalt: Cobalt resulted as not SSIOBL for MW7/7B using the Prediction Interval Analysis.

The following results were obtained for the detected organics in MW7/7B April 2008:

benzene: Benzene resulted as not SSIOBL for MW7/7B using the Qualitative Test.

chlorobenzene: Chlorobenzene resulted as not SSIOBL for MW7/7B using the Qualitative Test.

tetrachloroethylene: Tetrachloroethylene resulted as SSIOBL for MW7/7B using the Qualitative Test.

trichloroethylene: Trichloroethylene resulted as SSIOBL for MW7/7B using the Test of Proportions.

trichloroflouromethane: Trichloroflouromethane resulted as SSIOBL for MW7/7B using the Qualitative Test.

vinyl chloride: Vinyl chloride resulted as not SSIOBL for MW7/7B using the Qualitative Test.

MW8: Compliance well MW8 has shown above detection limit inorganic concentrations for barium, beryllium, cadmium, chromium, copper, lead, vanadium, zinc, cyanide, and mercury. Cadmium exceeded NCGS in two sampling event with a concentration of 0.002 mg/l in both November 1994 and April 1997. Chromium exceeded NCGS in one sampling

event with a concentration of 0.111 mg/l in April 1997. Lead exceeded NCGS in one sampling event with a concentration of 0.073 mg/l in April 1997. Cyanide exceeded NCGS in one sampling event with a concentration of 0.127 mg/l in October 1996. Mercury exceeded NCGS in one sampling event with a concentration of 0.002 mg/l in October 1998. Barium was the only detected metal at MW8 during this latest sampling event.

Detected organics at MW8 have included benzene, cis-1,2-dichloroethene, carbon disulfide, chloroethane, chloromethane, 1,4-dichlorobenzene, 1,1-dichloroethane, methylene chloride, dichlorodifluoromethane, and xylenes. Benzene exceeded NCGS in four sampling events, with concentrations of 2.1, 1.6, 2.6, and 2.5 ug/l in October 1997, March 1999, October 2007, and April 2008, respectively. Chloromethane exceeded NCGS in three sampling events, with concentrations of 6.1, 88, and 25 ug/l in October 1999, April 2000, and October 2001, respectively. 1,1-dichloroethane exceeded NCGS in five sampling events with concentrations of 92, 135, 80, 76.8, and 71.5 ug/l in April 2000, April 2001, April and October 2002, and April 2003, respectively. 1,1-dichloroethene exceeded NCGS in one sampling event, with a concentration of 81 ug/l in October 2001. Methylene chloride exceeded NCGS in 21 sampling events, with concentrations of 49, 31, 5.2, 25, 30, 74, 140, 92, 90, 80.5, 71.2, 69, 44.5, 39.9, 40.6, 63.3, 64, 67.2, 48.4, 35.9, and 31 ug/l in April and October 1997, April and October 1998, March 1999, October 2000, April and October 2001, April and October 2002, April and October 2003, April and October 2004, April and October 2005, April and October 2006, May and October 2007, and April 2008, respectively. Tetrachloroethylene exceeded NCGS in four sampling events, with concentrations of 5.2, 5, 6.5, and 5.5 ug/l in October 2006, May and October 2007, and April 2008, respectively. Trichloroethylene exceeded NCGS in five sampling events, with concentrations of 6.8, 5.3, 4, 4.4, and 4.8 ug/l in April and October 2001, May and October 2007, and April 2008, respectively. Vinyl chloride exceeded NCGS with an *estimated* result of 0.9 ug/l in October 2007 and a result of 1.0 in April 2008.

During this latest sampling event, benzene, 1,4-dichlorobenzene, cis-1,2-dichloroethene, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride were detected at MW8.

The following result was obtained for the detected inorganic in MW8 in April 2008:

barium: Barium resulted as not SSIOBL for MW8 using the Test of Proportions.

The following results were obtained for the detected organics in MW8 in April 2008:

benzene: Benzene resulted as not SSIOBL for MW8 using the Qualitative Test.

1,4-dichlorobenzene: 1,4-Dichlorobenzene resulted as not SSIOBL for MW8 using the Qualitative Test.

cis-1,2-dichloroethene: cis-1,2-Dichloroethene resulted as not SSIOBL for MW8 using the Test of Proportions.

1,1-dichloroethane: 1,1-Dichloroethane resulted as SSIOBL for MW8 using the Test of Proportions.

methylene chloride: Methylene chloride resulted as SSIOBL for MW8 using the Test of Proportions.

tetrachloroethylene: Tetrachloroethylene resulted as SSIOBL for MW8 using the Qualitative Test.

trichloroethylene: Trichloroethylene resulted as SSIOBL for MW8 using the Test of Proportions.

vinyl chloride: Vinyl chloride resulted as not SSIOBL for MW8 using the Qualitative Test.

MW9: Compliance well MW9 was installed in March 2001 and was sampled for the first time in April 2001. The data are now included in the statistical analysis.

Detected metals in MW9 include barium, chromium, copper, lead, mercury, and vanadium. Chromium exceeded NCGS in one sampling event with a concentration of 0.082 mg/l in October 2002. Mercury exceeded NCGS in one sampling event with a concentration of 0.005 mg/l in October 2007. Barium was the only detected inorganic during this latest sampling event.

Detected organics at MW9 have included benzene, chlorobenzene, chloroethane, chloromethane, 1,2-dibromoethane, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 1,1-dichloroethane, 1,2-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, vinyl chloride, and xylenes. Of these, benzene exceeded NCGS in 11 sampling events, with concentrations of 8.6, 11, 7.8, 8.2, 8.1, 6.4, 5.6, 5.2, 5, 5.4, and 11.5 ug/l in April and October 2001, April and October 2002, April and October 2003, April and October 2006, May and October 2007, and April 2008, respectively. Chloromethane exceeded NCGS in one sampling event, with a concentration of 189 ug/l in April 2001. 1,2-dibromoethane exceeded NCGS in one sampling event, with a concentration of 14 ug/l in October 2001. 1,4-dichlorobenzene exceeded NCGS in two sampling events, with concentrations of 2.5 and 6.6 ug/l in October 2007 and April 2008, respectively. 1,1-dichloroethane exceeded NCGS in 12 sampling events, with concentrations of 126, 219, 170, 202, 135, 122, 75.2, 81.9, 110, 103, 87, and 74.7 ug/l in October 2001, April and October 2002, April and October 2003, April and October 2004, April and October 2005, April and October 2006, and May 2007, respectively. 1,2-dichloroethane exceeded NCGS in two sampling event, with concentrations of 11.8 and 0.8 (estimated) ug/l in April 2003 and April 2008, respectively. Methylene chloride exceeded NCGS in 13 sampling events, with concentrations of 195, 231, 272, 197, 166, 127, 67.9, 56.7, 75.7, 122, 96.4, 64.2, and 49.6 ug/l in October 2001, April and October 2002, April and October 2003, April and October 2004, April and October 2005, April and October 2006, and May and October 2007, respectively. Tetrachloroethylene exceeded NCGS in five sampling events, with concentrations of 5.3, 5.3, 5.1, 2.9, and 4.4 ug/l in October 2001, October 2002, April 2003, October 2007, and April 2008, respectively. Trichloroethylene exceeded NCGS in 14 sampling events, with concentrations of 11, 15, 9.8, 10, 9.5, 8.2, 5.8, 7.0, 6.5, 6.2, 5.0, 4.7,

3.9, and 5.9 ug/l in April and October 2001, April and October 2002, October 2003, April and October 2004, April and October 2005, April and October 2006, May and October 2007, and April 2008, respectively. Vinyl chloride exceeded NCGS in three sampling events, with concentrations of 9.1, 5.9, and 6.5 ug/l in May and October 2007 and April 2008, respectively.

Benzene, chlorobenzene, chloroethane, 1,4-dichlorobenzene, cis-1,2-dichloroethene, tetrachloroethylene, trichloroethylene, vinyl chloride, and xylenes were detected at MW9 during this latest sampling event.

The following result was obtained for the detected inorganic in MW9 in April 2008:

barium: Barium resulted as not SSIOBL for MW9 using the Test of Proportions.

The following results were obtained for the detected organics in MW9 in April 2008:

benzene: Benzene resulted as SSIOBL for MW9 using the Qualitative Test.

chlorobenzene: Chlorobenzene resulted as not SSIOBL for MW9 using the Qualitative Test.

chloroethane: Chloroethane resulted as SSIOBL for MW9 using the Test of Proportions.

1,4-dichlorobenzene: 1,4-dichlorobenzene resulted as not SSIOBL for MW9 using the Qualitative Test.

cis-1,2-dichloroethene: cis-1,2-Dichloroethene resulted as SSIOBL for MW9 using the Test of Proportions.

tetrachloroethylene: Tetrachloroethylene resulted as not SSIOBL for MW9 using the Qualitative Test.

trichloroethylene: Trichloroethylene resulted as SSIOBL for MW9 using the Test of Proportions.

vinyl chloride: Vinyl chloride resulted as SSIOBL for MW9 using the Qualitative Test.

xylenes: Xylenes resulted as SSIOBL for MW9 using the Test of Proportions.

MW10: Compliance well MW10 was installed in March 2001 and was sampled for the first time in April 2001. The data are now included in the statistical analysis.

Detected metals in MW10 include chromium, copper, lead, vanadium and zinc. Chromium exceeded NCGS in one sampling event with a concentration of 0.118 mg/l in October

2002. Vanadium exceeded 13B GPS with *estimated* results of 12.2 and 3.7 ug/l in October 2007 and April 2008. Copper and zinc were the only inorganics detected during this latest sampling event.

Detected organics at MW10 have included acetone, benzene, chlorobenzene, chloroethane, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 1,2-dibromoethane, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, vinyl chloride, and xylenes. Of these, benzene exceeded NCGS in six sampling events, with concentrations of 6.9, 7.3, 6.2, 4.6, 2.0, and 4.5 ug/l in April and October 2001, April 2002, May and October 2007, and April 2008, respectively. 1,1-dichloroethane exceeded NCGS in three sampling events, with concentrations of 266, 109, and 606 ug/l, in Oct. 2001, April 2002, and April 2004, respectively. Methylene chloride exceeded NCGS in 11 sampling events, with concentrations of 120, 310, 132, 59.3, 19.7, 48.7, 48, 67.7, 51.6, 27.1, 14.4, and 4.1 ug/l in April and October 2001, April and October 2002, April and October 2003, April and October 2004, April 2005, April 2006, and April 2008, respectively. Tetrachloroethylene exceeded NCGS in six sampling events, with concentrations of 12, 11, 13, 6.8, 7.1, and 7.3 ug/l in April and October 2001, April and October 2002, and April and October 2003, respectively. Trichloroethylene exceeded NCGS in four sampling events, with a concentrations of 11, 11, 9.1, and 5.7 ug/l in April and October 2001, April 2002, and October 2003, respectively. Vinyl chloride exceeded NCGS in three sampling events, with concentrations of 10, 1.4, and 2 ug/l in April 2001, October 2007, and April 2008, respectively.

Benzene, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 1,1-dichloroethane, methylene chloride, trichloroethylene, and vinyl chloride were the detected organics at MW10 during this latest sampling event.

The following result was obtained for the detected inorganics in MW10 in April 2008:

copper: Copper resulted as not SSIOBL for MW10 using the Test of Proportions.

zinc: Zinc resulted as not SSIOBL for MW10 using the Test of Proportions.

The following results were obtained for the detected organics in MW10 in April 2008:

benzene: Benzene resulted as not SSIOBL for MW10 using the Qualitative Test.

1,4-dichlorobenzene: 1,4-Dichlorobenzene resulted as not SSIOBL for MW10 using the Qualitative Test.

cis-1,2-dichloroethene: cis-1,2-dichloroethene resulted as SSIOBL for MW10 using the Test of Proportions.

1,1-dichloroethane: 1,1-Dichloroethane resulted as SSIOBL for MW10 using the Test of Proportions.

methylene chloride: Methylene chloride resulted as SSIOBL for MW10 using the Test of Proportions.

trichloroethylene: Trichloroethylene resulted as SSIOBL for MW10 using the Test of Proportions.

vinyl chloride: Vinyl chloride resulted as not SSIOBL for MW10 using the Qualitative Test.

MW23B: MW23B is a Set 2 well. It does not follow the Set 1 analysis schedule since it is too remote to be a monitoring point for the active portion of the landfill. It is analyzed for Appendix I organics plus the eight RCRA metals as a part of Set 2. However, it is statistically compared with Set 1 because it appears to be located downgradient of the active landfill.

Compliance well MW23B had shown above the detection limit inorganic concentrations for barium, beryllium, cadmium, chromium, copper, lead, selenium, silver, zinc, and mercury. Of these, lead exceeded NCGS in March and September 1995, February 1996, March and October 1999 with concentrations of 0.018, 0.027, 0.0157, 0.049, and 0.089 mg/l, respectively. Arsenic exceeded NCGS in one sampling event with a concentration of 0.064 in October 1997. Silver exceeded NCGS in one sampling event with a concentration of 0.105 in January 1995. No organics have been detected in MW23B. Mercury also exceeded NCGS in one sampling event with a concentration of 0.0017 mg/l in March 1999. Barium was the only detected during the latest sampling event.

The following result was obtained for the detected inorganic in MW23B in April 2008:

barium: Barium resulted as not SSIOBL for MW8 using the Test of Proportions.

DATA SET 2

In April 2008, Set 2 monitoring wells were sampled, analyzed, and statistically evaluated for Appendix I organics and eight RCRA metals only as they monitor the older, closed-out portion of the landfill. Prior to September 1995, there are data for all Appendix I constituents. These data are reported, however analyses are performed for only the eight RCRA metals.

Upgradient Well (Background Well):

MW16: MW16 is a background well for MW32, MW33, MW34, and MW35 in this analysis. The detected inorganics in MW16 include barium, cadmium, chromium, cobalt, copper, lead, mercury, vanadium, and zinc. Of these, cadmium exceeded NCGS in six sampling events with concentrations of 0.0018, 0.006, 0.007, 0.002, 0.0075, and 0.0049 mg/l in October 1994, January, March, and September 1995, October 1996, and April 1997, respectively. Lead exceeded NCGS in two sampling events with a concentration of 0.02 and 0.039 ug/l in April 1997 and March 1999, respectively. Chromium exceeded NCGS in one sampling event with a concentration of 0.062 ug/l in March 1999. The only detected organic in MW16 was methylene chloride in January 1995, which exceeded NCGS with a concentration of 29.4 ug/l. No constituents were detected during the latest sampling event.

The following summarizes the history of detected concentrations for each metal constituent in MW16:

barium: Barium was detected in ten sampling events for MW16 with concentrations of 0.112, 0.194, 0.114, 0.147, 0.014, 0.099, 0.1, 0.281, 0.162, and 0.06 mg/l in October and November 1994, January and March 1995, October 1997, April and October 1998, March and October 1999, and April 2000, respectively.

cadmium: Cadmium was detected in eight sampling events for MW16 with concentrations of 0.0018, 0.001, 0.006, 0.007, 0.002, 0.0075, 0.0049, and 0.001 mg/l in October and November 1994, January, March, and September 1995, October 1996, April 1997, and March 1999, respectively.

chromium: Chromium was detected in eight sampling events for MW16 with concentrations of 0.004, 0.007, 0.005, 0.01, 0.019, 0.006, 0.008, 0.062 and 0.019 mg/l in October and November 1994, March, and September 1995, April 1997, April and October 1998, and March and October 1999, respectively.

copper: Copper was detected in four sampling events for MW16 with concentrations of 0.008, 0.009, 0.018, and 0.014 mg/l in October and November 1994 and January and March 1995, respectively.

lead: Lead was detected in ten sampling events for MW16 with concentrations of 0.002, 0.003, 0.004, 0.013, 0.012, 0.020, 0.002, 0.005, 0.039, 0.011, and 0.002 mg/l in October and November 1994, March and September 1995, October 1996, April and October 1997, October 1998, March and October 1999, and April 2000, respectively.

mercury: Mercury was detected in only one sampling event for MW16 with a concentration of 0.0002 mg/l in October 1998.

vanadium: Vanadium was detected in two sampling events for MW16 with concentrations of 0.005 and 0.012 mg/l in October and November 1994.

zinc: Zinc was detected in five sampling events for MW16 with concentrations of 0.012, 0.014, 0.015, 0.027, and 0.07 mg/l in October and November 1994, January and March 1995, and October 1996, respectively.

Downgradient Wells (Compliance Wells):

MW32: Compliance well MW32 has had detections for antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, vanadium, and zinc. Of these, cadmium exceeded NCGS in two sampling event with concentrations of 0.004 and 0.025 mg/l in November 1994 and October 1998. Chromium exceeded NCGS in two

sampling events with concentrations of 0.133 mg/l and 0.094 mg/l in November 1994 and April 2003, respectively. Lead exceeded NCGS in eight sampling events with concentrations of 0.09, 0.02, 0.064, 0.033, 0.063, 0.029, 0.021, and 0.024 mg/l in November 1994, March 1995, March and October 1999, April 2003, April 2005, April 2006, and April 2008, respectively. The only detected organic constituent for MW32 was MEK (2-butanone) with a concentration of 471 ug/l in January 1995. Barium, cadmium, and lead were the only constituents detected during the latest sampling event.

The following result was obtained for the detected inorganics in MW32 in April 2008:

barium: Barium resulted as not SSIOBL for MW32 using the Test of Proportions.

cadmium: Cadmium resulted as not SSIOBL for MW32 using the Test of Proportions.

lead: Lead resulted as not SSIOBL for MW32 using the Test of Proportions.

MW33: Compliance well MW33 has had detections for barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, vanadium, zinc. Of these, cadmium exceeded NCGS in three sampling events with concentrations of 0.0021, 0.003, and 0.005 mg/l in October and November 1994 and January 1995, respectively. Lead exceeded NCGS in two sampling events with concentrations of 0.014 and 0.016 mg/l in January 1995 and October 1998, respectively. Chromium exceeded NCGS in October 1998 with a concentration of 0.016 mg/l. The only detected organic was cis-1,2-dichloroethene, detected in October 1998 with a concentration of 1.8 ug/l. No constituents were detected in MW33 during the latest sampling event.

MW34: This compliance well, installed in June 1996, was sampled for Appendix I organics and the eight RCRA metals in April 1998. Inorganics barium, chromium, lead, and mercury have been detected in MW34. No organics have been detected at this monitoring well. Detections above NCGS include one detect of chromium with a concentration of 0.017 in October 1998 and three detects of lead with concentrations of 0.02, 0.025 and 0.02 mg/l in October 1998, and March and October 1999, respectively. Cadmium was the only detection in MW34 during the latest sampling event.

The following result was obtained for the detected inorganic in MW34 in April 2008:

cadmium: Cadmium resulted as not SSIOBL for MW34 using the Test of Proportions.

MW35: This compliance well, installed in June 1996, was analyzed for Appendix I organics and the eight RCRA metals in April 1998. Inorganics arsenic, barium, cadmium, chromium, lead, mercury and selenium have been detected at MW35. Of these arsenic exceeded NCGS in one sampling event with a concentration of 0.0681 in April 1997. Barium has exceeded NCGS in one sampling event with a concentration of 2.06 mg/l in April 1997. Cadmium has exceeded NCGS in two sampling events with concentrations of 0.0119 and 0.208 mg/l in April and October 1997. Chromium has exceeded NCGS in three sampling events with concentrations of 0.0119, 0.208, and 0.148 mg/l in April and October

1997, and March 1999. Lead has exceeded NCGS in five sampling events with concentrations of 0.355, 0.105, 0.055, 0.110 and 0.043 mg/l in April and October 1997, October 1998, and March and October 1999, respectively. Mercury exceeded NCGS in one sampling event with a concentration of 2.06 mg/l in 0.002 mg/l in April 1997. No organics have been detected in MW35. Barium was the only constituent detected during the latest sampling event.

The following result was obtained for the detected inorganic in MW35 in April 2008:

barium: Barium resulted as not SSIOBL for MW35 using the Test of Proportions.

SET 3: SURFACE WATER MONITORING POINTS

Set 3 surface water monitoring points were sampled, analyzed, and statistically evaluated for Appendix I parameters only.

Upgradient Surface Water Monitoring Point (Background):

SWPT1: SWPT1 is an upgradient surface water monitoring point for SWPT2 and SWPT3. SWPT1 has had detected metal concentrations for arsenic, barium, cadmium, chromium, copper, and zinc. There were no concentrations exceeding NCGS. The only organic detected at SWPT1 was toluene in October 1999. Zinc was detected at SWPT1 during this sampling event.

The following summarizes the detection history at SWPT1:

arsenic: Arsenic was detected in two sampling events for SWPT1 with concentrations of 0.007 and 0.013 mg/l in October 1994 and September 1995, respectively.

barium: Barium was detected in four sampling events for SWPT1 with concentrations of 0.045, 0.033, 0.03, and 0.029 mg/l in October and November 1994, and January and March 1995, respectively.

cadmium: Cadmium was detected in two sampling events for SWPT1 with concentrations of 0.001 mg/l in September 1995 and October 2003.

chromium: Chromium was detected in one sampling event for SWPT1 with a concentration of 0.002 mg/l in October 1994.

cobalt: Cobalt was detected in one sampling event for SWPT1 with a concentration of 0.010 mg/l in October 1999.

copper: Copper was detected in two sampling events for SWPT1 with concentrations of 0.006 and 0.006 mg/l in October 1994 and March 1995, respectively.

zinc: Zinc was detected in eight sampling events for SWPT1 with concentrations of 0.011, 0.016, 0.021, 0.013, 0.22, 0.04, 0.011, and 0.022 mg/l in October and November 1994, January and March 1995, October 1997, October 1998, May 2007, and April 2008, respectively.

toluene: Toluene was detected in one sampling event for SWPT1 with a concentration of 1.3 ug/l in October 1999.

Downgradient Surface Water Monitoring Points (Compliance):

SWPT2: SWPT2 is a compliance surface water monitoring point with previously detected metal concentrations for arsenic, barium, cadmium, chromium, copper, lead and zinc. There have been no concentrations exceeding NCGS. There were also no organics detected. Zinc was the only detection at SWPT2 during this sampling event.

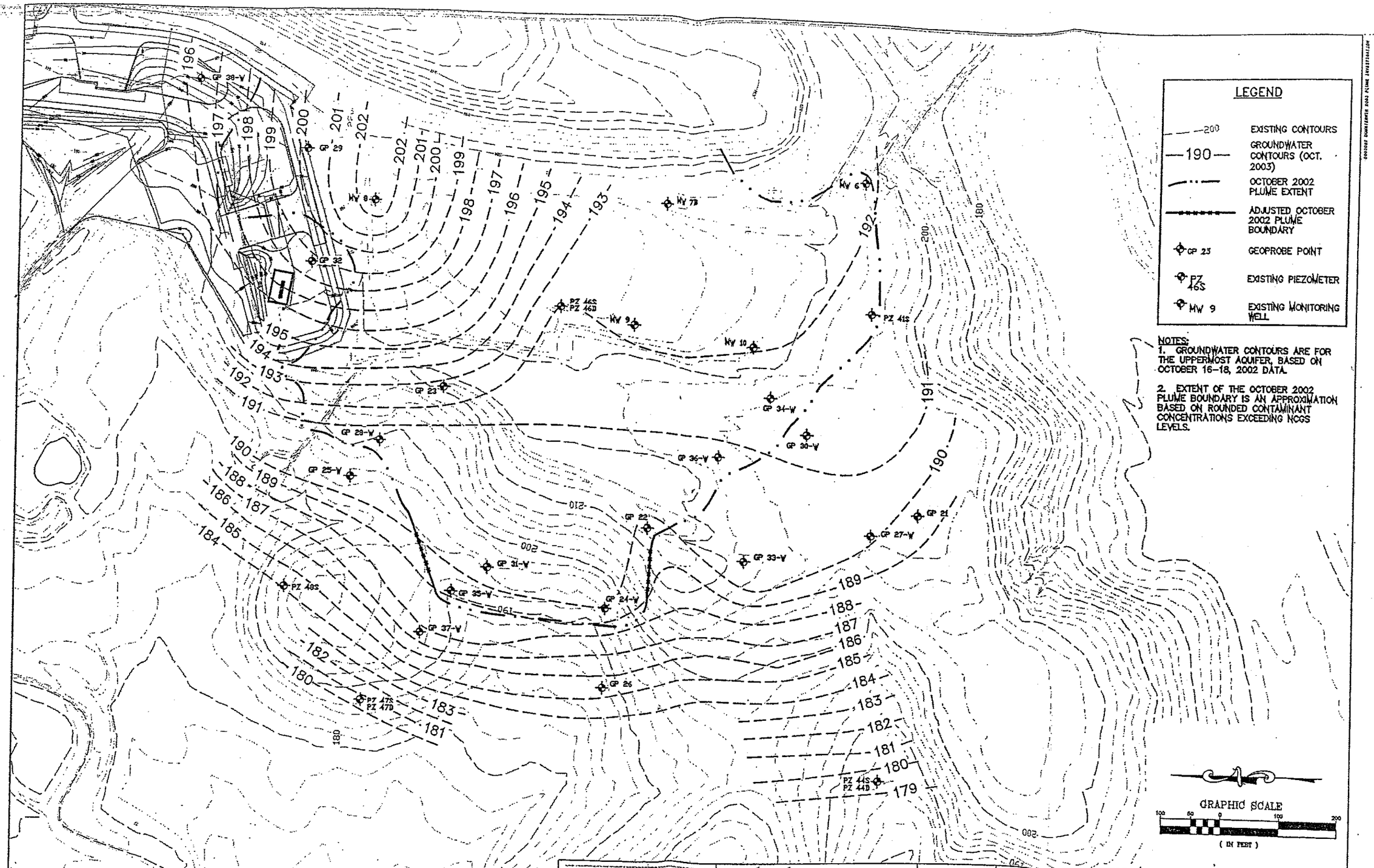
The following result was obtained for the detected inorganic in SWPT2 in April 2008:

zinc: Zinc resulted as not SSIOBL for SWPT2 using the Test of Proportions.

SWPT3: SWPT3 is a compliance surface water monitoring point with previously detected metal concentrations for arsenic, barium, cadmium, chromium, cobalt, copper, lead and zinc. Of these, cadmium exceeded NCGS in two sampling events with concentrations of 0.0045 and 0.006 mg/l in October 1994 and September 1995. Lead exceeded NCGS in one sampling event with a concentration of 0.02 mg/l in October 1998. Vanadium exceeded 13B GPS with an estimated value of 3.9 ug/l in April 2008. The previously detected organics for SWPT3 include benzene, cis-1,2-dichloroethene, ethylbenzene, toluene, vinyl chloride, and xylenes. Of these, benzene and vinyl chloride exceeded groundwater standards for the September 1995 sampling event with concentrations of 9.1 and 15 ug/l, respectively. Zinc was the only detection at SWPT3 during this sampling event.

The following result was obtained for the detected inorganic in SWPT3 in April 2008:

zinc: Zinc resulted as not SSIOBL for SWPT3 using the Test of Proportions.



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Home Fax: 910 897-0660 Fax: 252 672-8577
DATE:

FIGURE 1
CONTAMINANT PLUME ASSESSMENT
at
DUNN/ERWIN LANDFILL
HARNETT COUNTY NORTH CAROLINA

PROJECT # : 4003002
PROJ. ENG. : CTC
DRAWN BY : CTC Jr.
CHECKED BY : CJP
CAD FILE : SELF Plume 2003.dwg
SCALE : SEE GRAPHICAL SCALE
DATE : AUGUST 28, 2003
SHEET # : 1 OF 1
Email: ctcjr@cox.net

PROJECT # : 000002
PROJ. ENG. : CTC
DRAWN BY : CTC
FIELD FILE : CLP
CAD FILE : DELF Plume 2004.dwg

SCALE : 1" = 300'
DATE : APRIL 4, 2006
SHEET # : 1 OF 1

LAYOUT
of
DUNN-ERWIN LANDFILL
FIGURE 2A

HARNETT COUNTY NORTH CAROLINA

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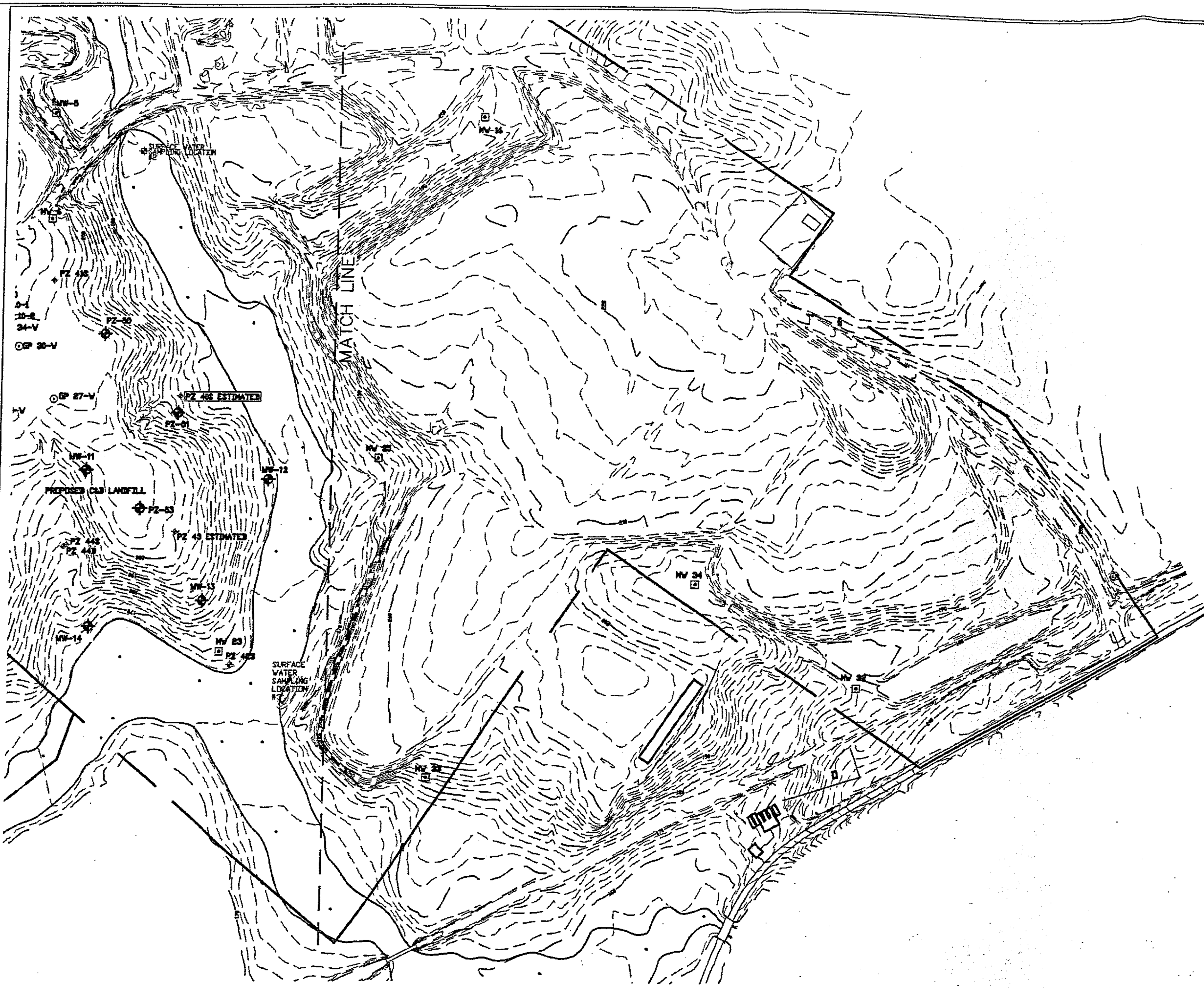
DATE

P:\03 Harnett County\03002 Dunn Erwin\CAD\3300\Plotw\03002MAS.dwg Nov 03, 2006 5:34pm



J:\Server\Projects\03 Harnett County\03002 Dunn Erwin\CAD\03002\dwg\03002MAS.dwg, Oct 31, 2006 4:33pm

LEGEND

GP 23-W	GEOPROBE WELL
PZ 46S	EXISTING PIEZOMETER
MW 9	EXISTING MONITORING WELL
	SURFACE WATER SAMPLING LOCATION

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DATE:

LAYOUT of DUNN-ERWIN LANDFILL
FIGURE 2B

HARNETT COUNTY NORTH CAROLINA

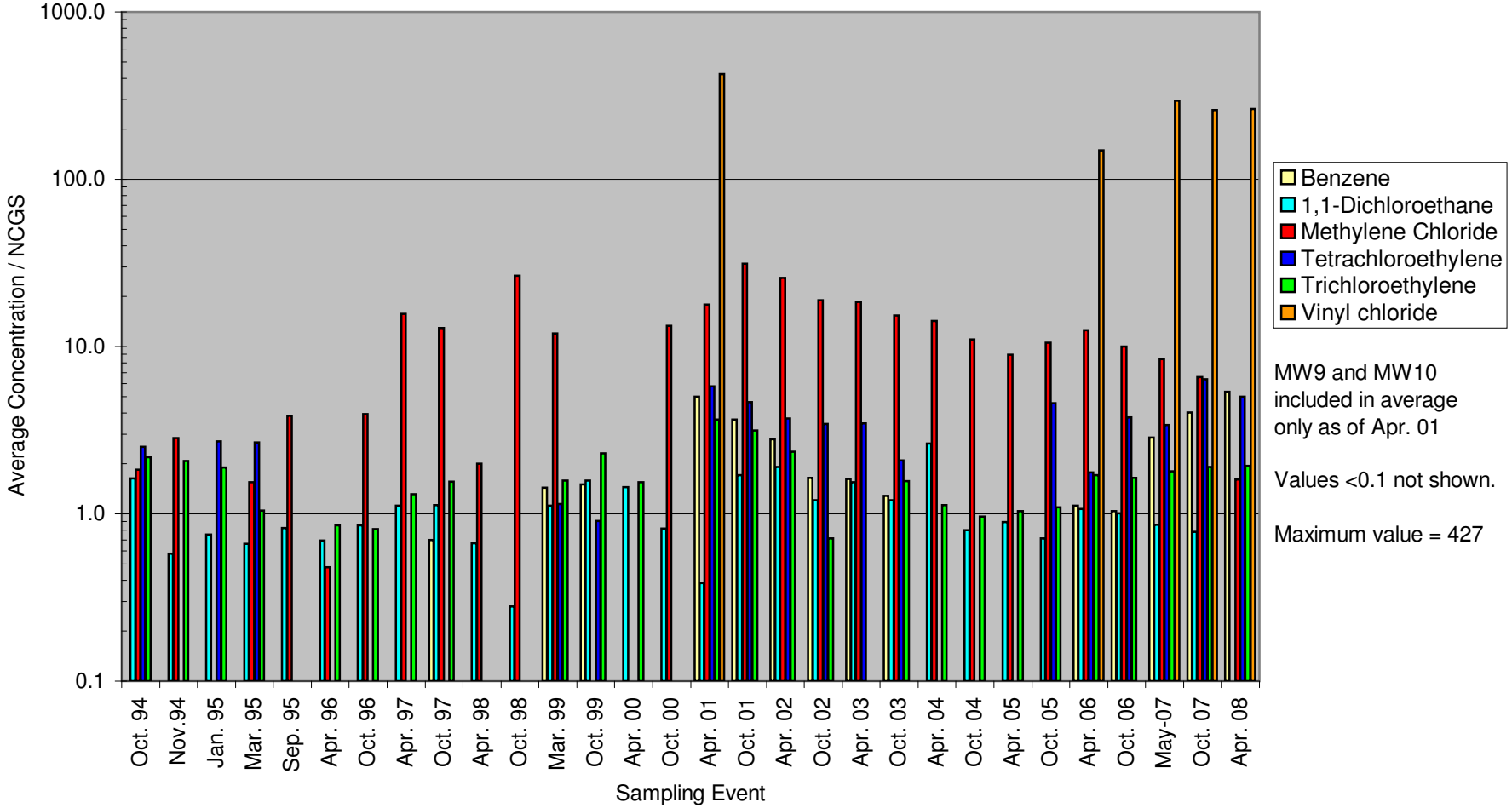
PROJECT # : 03003002
PROJ. ENG. : CTC
DRAWN BY : CTC Jr.
FIELD FILE : CJP
CAD FILE : Dslf Plans 2004.dwg

SCALE : 1" = 300'
DATE : APRIL 4, 2006

SHEET # : FIGURE 2B

Figure 3

Top Six, NCGS-Normalized Average Organics Concentrations per Sampling Event
Averages for Select Downgradient Wells (Contaminant Plume Area)
MW6, MW7B, MW8, MW9, MW10
Dunn-Erwin Landfill, Harnett County



MW9 and MW10 included in average only as of Apr. 01

Values <0.1 not shown.

Maximum value = 427

Table 1
Static Water Elevations for
Dunn/Erwin Landfill

Monitor Well	TOC Elevation	Ground Elevation	Screen Elevations		Static Water Elevations							
			Upper	Lower	9/-/86	23-Oct-94	16-Nov-94	10-Jan-95	17-Mar-95	28-Mar-95	27-Apr-95	03-Jun-95
MW1	235.67	234.27	no schematic		-	210.37	211.17	211.97	212.07	210.77	210.67	210.67
MW2	198.01	196.01	181.01	166.01	-	182.01	182.21	182.09	183.67	182.85	181.89	182.01
MW3	182.16	180.16	171.16	161.16	-	175.66	176.36	176.76	176.66	175.91	175.49	176.56
MW3R	181.52	179.44	168.52	158.52	-	-	-	-	-	-	-	-
MW4	178.72	176.12	167.12	157.12	-	173.72	174.12	173.02	175.22	173.82	173.89	175.02
MW5	188.75	186.75	167.75	152.75	-	173.45	173.15	172.75	172.75	172.08	172.25	173.75
MW6	208.60	205.60	no schematic		-	192.20	192.10	192.25	194.65	193.70	193.60	192.60
MW7	218.52	216.12	202.12	192.12	-	193.52	193.22	193.06	195.24	193.27	193.02	-
MW7B	219.33	216.10	204.10	189.10	-	-	-	-	-	-	-	-
MW8	218.71	216.01	207.01	192.01	-	201.01	200.71	200.51	202.56	201.21	201.70	-
MW9	219.43	217.17	202.17	187.17	-	-	-	-	-	-	-	-
MW10	214.54	211.57	203.57	188.57	-	-	-	-	-	-	-	-
MW11	203.41	200.88	188.41	178.41	-	-	-	-	-	-	-	-
MW12	172.48	169.95	162.48	152.48	-	-	-	-	-	-	-	-
MW13	187.39	184.80	154.39	139.39	-	-	-	-	-	-	-	-
MW14	170.91	168.59	162.91	142.91	-	-	-	-	-	-	-	-
MW15	190.18	187.80	183.18	178.18	-	-	-	-	-	-	-	-
MW16	195.61	194.20	188.54	170.54	188.20	192.81	191.91	190.47	189.81	190.61	190.61	191.11
MW23B	169.98	168.37	154.97	144.97	163.00	163.98	164.38	164.77	164.83	164.73	164.73	-
MW31	233.30	231.90	203.20	193.20	212.00	210.80	211.60	211.30	212.80	212.22	210.97	-
MW32	183.84	182.20	148.81	138.81	175.60	174.34	175.64	175.24	176.71	174.34	174.67	-
MW33	173.88	170.90	156.90	146.90	164.20	163.88	163.98	164.65	167.53	-	-	-
MW34**	194.06	191.12	no schematic		-	-	-	-	-	-	-	-
MW35**	181.77	179.31	no schematic		-	-	-	-	-	-	-	-
Averages						185.21	185.43	185.30	186.50	187.13	186.96	185.96

NOTES:

** MW34 and MW35 Ground Elevation and TOC elevation are estimated from the contour map (Fig. 1).

denotes day of highest groundwater level (of total days sampled) for the particular MW

denotes day of lowest groundwater level (of total days sampled) for the particular MW

Well 7B Installed Sept. 1995

MW3R replaced MW3 as of Oct. 2005.

Table 1
Static Water Elevations for Dunn/Erwin Landfill

Monitor Well	Static Water Elevations											
	07-Jul-95	21-Aug-95	9/13/95**	20-Sep-95	18-Oct-95	09-Feb-96	03-Apr-96	07-Oct-96	15-Apr-97	29-Sep-97	07-Oct-98	23-Mar-99
MW1	215.67	209.92	211.07	209.87	211.37	213.25	212.10	211.10	210.12	210.42	210.56	212.21
MW2	184.01	181.81	181.82	181.91	181.51	183.89	183.07	182.52	182.01	183.71	182.36	183.91
MW3	178.16	175.96	176.05	176.16	175.96	177.25	177.22	177.80	176.03	176.77	176.62	176.91
MW3R	-	-	-	-	-	-	-	-	-	-	-	-
MW4	174.72	173.72	173.70	173.82	173.92	174.81	174.61	174.97	172.91	175.04	174.09	175.47
MW5	173.75	173.15	173.47	173.45	173.55	172.76	172.62	173.85	172.50	173.76	173.55	173.88
MW6	194.60	194.00	193.48	193.30	193.50	193.11	193.21	193.77	193.09	192.45	192.08	192.64
MW7	-	195.42	-	194.62	194.22	-	-	-	-	-	-	-
MW7B	-	-	197.08	194.93	194.53	194.71	195.25	195.64	195.11	193.55	193.78	192.86
MW8	201.31	201.91	201.46	201.36	201.11	201.39	201.68	201.36	201.31	200.97	201.67	202.79
MW9	-	-	-	-	-	-	-	-	-	-	-	-
MW10	-	-	-	-	-	-	-	-	-	-	-	-
MW11	-	-	-	-	-	-	-	-	-	-	-	-
MW12	-	-	-	-	-	-	-	-	-	-	-	-
MW13	-	-	-	-	-	-	-	-	-	-	-	-
MW14	-	-	-	-	-	-	-	-	-	-	-	-
MW15	-	-	-	-	-	-	-	-	-	-	-	-
MW16	191.31	193.01	193.26	183.51	191.61	-	189.96	193.29	190.70	192.79	192.96	190.01
MW23B	165.28	164.48	164.85	164.88	164.60	-	165.40	166.80	164.99	164.92	164.33	164.61
MW31	212.30	210.90	210.59	210.90	211.00	212.51	210.40	213.94	212.84	209.93	210.48	211.00
MW32	176.34	-	175.79	-	176.14	-	176.09	176.46	175.48	176.15	176.09	175.25
MW33	-	-	163.96	163.88	163.68	-	165.63	166.04	164.74	165.62	163.95	165.71
MW34**	-	-	-	-	-	-	-	190.88	188.76	190.93	190.90	189.20
MW35**	-	-	-	-	-	-	-	176.56	176.04	176.58	175.99	172.72
Averages	187.95	188.57	185.89	186.35	186.19	191.52	185.94	186.33	185.11	185.57	185.29	185.28

NOTES:

** MW34 and MW35 Ground Elevation and TOC elevation are estimated from the contour map (Fig. 1).

denotes day of highest groundwater level (of total days sampled) for the particular MW

denotes day of lowest groundwater level (of total days sampled) for the particular MW

Well 7B Installed Sept. 1995

MW3R replaced MW3 as of Oct. 2005.

Table 1
Static Water Elevations for Dunn/Erwin Landfill

Monitor Well	Static Water Elevations											
	13-Oct-99	20-Apr-00	11-Oct-00	19-Apr-01	15-16-Oct-01	03-Apr-02	15-Oct-02	30-Apr-03	29-Oct-03	21-Apr-04	28-Oct-04	26-Apr-05
MW1	210.50	211.70	210.43	210.41	210.92	211.41	210.83	211.57	211.22	210.99	211.53	211.42
MW2	184.02	183.67	183.69	183.49	183.34	183.62	183.46	183.01	183.25	182.82	183.14	183.52
MW3	177.37	176.85	176.70	176.70	176.95	177.21	177.28	177.84	177.77	177.66	177.88	-
MW3R	-	-	-	-	-	-	-	-	-	-	-	-
MW4	175.78	174.67	174.66	174.54	174.73	175.19	175.57	175.68	175.78	176.98	176.58	174.35
MW5	174.40	172.67	173.90	172.66	174.10	173.14	174.40	173.55	175.15	175.61	176.26	173.18
MW6	193.21	193.05	192.74	192.62	192.70	192.68	192.15	194.11	192.75	192.81	192.95	193.12
MW7	-	-	-	-	-	-	-	-	-	-	-	-
MW7B	193.02	191.46	193.38	192.96	193.87	193.46	192.67	195.73	194.22	194.32	194.44	194.32
MW8	202.77	203.01	209.31	203.09	209.72	203.06	202.65	203.98	203.00	202.96	202.53	202.95
MW9	-	-	-	192.81	193.60	193.21	192.23	195.59	193.78	194.01	194.12	194.09
MW10	-	-	-	193.16	193.28	192.98	192.04	195.54	192.90	193.53	193.65	194.06
MW11	-	-	-	-	-	-	-	-	-	-	-	-
MW12	-	-	-	-	-	-	-	-	-	-	-	-
MW13	-	-	-	-	-	-	-	-	-	-	-	-
MW14	-	-	-	-	-	-	-	-	-	-	-	-
MW15	-	-	-	-	-	-	-	-	-	-	-	-
MW16	192.91	190.49	188.19	186.60	188.28	186.74	188.05	187.78	188.61	187.06	189.07	187.37
MW23B	164.84	164.14	164.67	164.06	164.39	164.46	164.58	164.35	164.18	164.23	163.67	163.94
MW31	211.60	209.98	210.96	210.27	211.21	210.12	210.40	211.03	210.55	209.86	211.30	211.02
MW32	176.75	175.63	181.16	178.28	181.16	178.21	181.12	178.80	181.02	178.31	181.06	180.40
MW33	167.33	165.59	165.59	165.63	164.43	165.20	164.68	166.21	164.08	164.53	164.45	165.65
MW34**	191.34	189.21	191.09	189.03	191.01	189.38	191.41	189.38	190.85	188.92	190.89	189.14
MW35**	176.67	175.84	176.47	175.35	176.35	175.46	176.81	175.67	176.36	176.16	176.42	175.49
Averages	186.17	185.20	186.20	185.98	187.06	186.21	186.49	187.05	186.79	186.52	187.06	187.13

NOTES:

** MW34 and MW35 Ground Elevation and TOC elevation are estimated from the contour map (Fig. 1).

denotes day of highest groundwater level (of total days sampled) for the particular MW

denotes day of lowest groundwater level (of total days sampled) for the particular MW

Well 7B Installed Sept. 1995

MW3R replaced MW3 as of Oct. 2005.

Table 1
Static Water Elevations for
Dunn/Erwin Landfill

Monitor Well	Static Water Elevations										
	18-Oct-05	19-Apr-06	10/23-24/06	02-May-07	24-Oct-07	23-Apr-08	Min	Max	Ave	Range	Std Dev
MW1	208.53	209.70	209.41	209.64	208.61	209.79	208.53	215.67	210.92	7.14	1.3
MW2	181.59	182.07	181.99	182.33	179.47	183.19	179.47	184.02	182.73	4.55	1.0
MW3	-	-	-	-	-	-	175.49	178.16	176.82	2.67	0.7
MW3R	177.12	175.64	176.43	175.72	171.57	176.30	171.57	177.12	175.46	5.55	2.0
MW4	174.45	174.33	174.88	174.39	171.22	174.97	171.22	176.98	174.58	5.76	1.0
MW5	174.19	172.64	173.98	172.81	171.05	173.29	171.05	176.26	173.44	5.21	1.0
MW6	191.99	192.50	192.17	191.75	191.84	193.61	191.75	194.65	192.95	2.90	0.7
MW7	-	-	-	-	-	-	193.02	195.42	193.95	2.40	0.9
MW7B	193.02	193.29	193.23	194.32	192.73	193.19	191.46	197.08	193.97	5.62	1.2
MW8	201.41	202.18	201.95	202.15	201.13	203.23	200.51	209.72	202.42	9.21	1.9
MW9	192.51	192.89	192.73	194.02	192.21	193.01	192.21	195.59	193.39	3.38	0.9
MW10	191.95	192.66	191.46	193.70	191.86	194.30	191.46	195.54	193.14	4.08	1.1
MW11	-	185.43	184.74	184.36	183.89	185.99	183.89	185.99	184.88		
MW12	-	166.16	165.65	166.23	163.37	166.25	163.37	166.25	165.53		
MW13	-	162.71	163.71	162.48	162.48	162.60	162.48	163.71	162.80		
MW14	-	161.61	164.44	163.61	160.85	163.61	160.85	164.44	162.82		
MW15	-	182.45	178.36	180.58	-	-	178.36	182.45	180.46		
MW16	186.87	186.75	188.36	187.21	187.62	188.23	183.51	193.29	189.57	9.78	2.4
MW23B	163.67	163.96	163.87	163.70	160.58	163.99	160.58	166.80	164.36	6.22	0.9
MW31	209.58	209.72	210.45	210.74	208.96	210.35	208.96	213.94	210.99	4.98	1.0
MW32	180.81	178.01	180.64	178.74	180.63	178.68	174.34	181.16	177.64	6.82	2.3
MW33	163.66	164.44	163.92	164.98	162.86	167.04	162.86	167.53	164.93	4.67	1.1
MW34**	190.85	189.13	190.96	189.29	190.97	189.81	188.76	191.41	190.14	2.65	0.9
MW35**	176.05	175.47	176.40	175.76	175.22	175.96	172.72	176.81	175.90	4.09	0.8
Averages	185.78	182.44	182.72	182.66	181.39	183.21	180.77	185.42	183.07	5.14	1.22

Range and Std Dev for wells MW11 - MW15 will be added after more data is available.

Table 1B
Piezometer Static Water Elevations for Dunn/Erwin Landfill

Piez. No.	TOC El.	Grnd. El.	Screen Elev. Upper	Screen Elev. Lower	Average Water Level	Date Sampled 3/19/1991	3/26/1991	4/12/1991	6/27/1991	3/28/1995	4/27/1995	7/7/1995	8/21/1995
40S	176.17	174.20	163.70	158.80	*168.12*	171.68	171.44	171.38	170.61	ND	ND	ND	168.77
41S	208.58	205.90	192.40	187.40	*192.69*	192.83	192.85	192.89	192.21	194.33	193.48	194.58	192.68
42S	168.05	166.00	152.40	142.50	*162.02*	163.03	162.81	162.32	162.63	163.15	163.30	163.55	164.25
44S	184.20	182.41	172.40	167.10	*179.52*	180.86	180.79	179.20	180.46	179.83	179.70	ND	180.90
45S	202.71	200.10	183.90	178.90	*180.74*	181.26	181.16	181.82	180.54	ND	181.51	ND	180.91
46S	220.77	218.20	197.70	187.70	*194.19*	193.17	194.14	193.23	193.76	195.87	195.27	196.77	195.17
47S	189.89	188.21	178.60	168.60	*181.84*	184.25	183.81	183.46	181.83	184.82	184.39	185.39	180.89
48S	208.27	207.20	195.10	185.10	*195.00*	197.22	197.01	196.85	196.41	197.52	196.52	198.57	196.37
GP-24-W	198.27	193.94	189.94	184.94	*190.40*	ND	ND	ND	ND	ND	ND	ND	ND
GP-25-W	200.69	196.45	191.45	186.45	*191.61*	ND	ND	ND	ND	ND	ND	ND	ND
GP-27-W	207.41	203.01	195.01	185.01	*190.78*	ND	ND	ND	ND	ND	ND	ND	ND
GP-28-W	204.26	199.79	194.79	184.79	*191.90*	ND	ND	ND	ND	ND	ND	ND	ND
GP-30-W	208.76	204.44	198.44	188.44	*192.71*	ND	ND	ND	ND	ND	ND	ND	ND
GP-31-W	199.44	195.24	190.24	185.24	*190.69*	ND	ND	ND	ND	ND	ND	ND	ND
GP-33-W	212.15	207.94	195.94	185.94	*191.94*	ND	ND	ND	ND	ND	ND	ND	ND
GP-34-W	210.15	205.77	197.77	187.77	*192.41*	ND	ND	ND	ND	ND	ND	ND	ND
GP-35-W	193.87	189.65	187.65	182.65	*189.54*	ND	ND	ND	ND	ND	ND	ND	ND
GP-36-W	211.71	207.34	195.34	185.34	*192.18*	ND	ND	ND	ND	ND	ND	ND	ND
GP-37-W	197.28	193.08	188.08	183.08	*188.16*	ND	ND	ND	ND	ND	ND	ND	ND
GP-38-W	215.79	211.09	206.09	196.09	*199.65*	ND	ND	ND	ND	ND	ND	ND	ND
PZ-50	205.53	204.00	195.53	185.53	*190.08*	ND	ND	ND	ND	ND	ND	ND	ND
PZ-51	179.75	177.24	168.75	153.75	*168.89*	ND	ND	ND	ND	ND	ND	ND	ND
PZ-52	198.49	197.00	185.49	175.49	*178.69*	ND	ND	ND	ND	ND	ND	ND	ND
PZ-53	201.27	198.96	186.27	181.27	*183.60*	ND	ND	ND	ND	ND	ND	ND	ND
Average Surficial	*NA*	*NA*	*NA*	*NA*	*185.55*	*183.04*	*183.00*	*182.64*	*182.31*	*185.92*	*184.88*	*187.77*	*182.49*
42D	167.96	165.80	126.60	116.70	*152.77*	148.23	148.08	148.07	147.68	ND	147.96	ND	147.06
44D	184.28	182.61	143.40	133.50	*173.06*	173.13	171.86	171.17	170.30	170.16	170.18	ND	170.48
46D	221.38	218.20	179.20	169.20	*193.10*	ND	ND	ND	ND	193.71	192.88	195.88	194.78
47D	190.10	189.16	145.20	135.20	*162.73*	163.39	161.38	161.13	161.03	ND	165.30	165.50	160.8
Average Deep	*NA*	*NA*	*NA*	*NA*	*173.03*	*161.58*	*160.44*	*160.12*	*159.67*	*181.93*	*169.08*	*180.69*	*168.28*
PB9	211.24		203.60	183.60	*190.31*	190.82	190.40	190.07	189.93	---	---	---	---

NOTE:
- [ ] Indicates LOW Water
- [ ] Indicates HIGH Water

ND= No Data

Range is the difference in high and low water levels for piezometer

Table 1B
Piezometer Static Water Elevations for Dunn/Erwin Landfill

Piez. No.	Date Sampled 9/20/1995	10/19/1995	10/5/1998	3/23/1999	10/14/1999	4/20/2000	10/11/2000	4/17/2001	9/13/2001	10/15/2001	4/3/2002
40S	167.57	167.77	156.72	Dry	Dry	Dry	167.11	ND	ND	ND	ND
41S	192.18	194.28	191.13	192.22	193.93	192.76	192.58	ND	ND	ND	ND
42S	164.65	163.85	ND	ND	ND	ND	168.05	154.20	160.44	154.91	157.11
44S	180.3	180.4	172.88	180.95	181.85	181.18	180.01	180.91	181.31	180.67	181.06
45S	179.81	180.01	179.11	180.76	182.63	181.22	179.91	181.03	181.22	180.41	180.82
46S	194.47	193.97	192.15	192.37	196.41	ND	196.09	ND	ND	193.39	192.98
47S	179.49	179.89	180.42	184.53	ND	184.93	182.67	178.85	183.14	182.07	183.84
48S	196.27	196.07	ND	ND	ND	ND	ND	192.63	195.87	195.77	193.55
GP-24-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190.09
GP-25-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190.95
GP-27-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190.10
GP-28-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190.79
GP-30-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	191.61
GP-31-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190.34
GP-33-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190.74
GP-34-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	191.52
GP-35-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	189.35
GP-36-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190.84
GP-37-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	187.98
GP-38-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	196.89
PZ-50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PZ-51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PZ-52	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PZ-53	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Surficial	*181.84*	*182.03*	*178.74*	*186.17*	*188.71*	*185.02*	*180.92*	*177.52*	*180.40*	*181.20*	*187.81*
42D	147.36	147.26	ND	ND	ND	ND	167.96	157.87	160.39	158.37	159.98
44D	171.18	171.28	179.57	173.11	174.02	172.59	174.03	172.17	173.61	174.32	173.55
46D	194.28	194.08	193.4	191.98	192.65	193.33	192.53	191.65	192.83	195.13	192.38
47D	161.10	160.60	162.22	161.64	ND	161.91	162.52	162.19	162.9	163.21	163.13
Average Deep	*168.48*	*168.31*	*178.40*	*175.58*	*183.34*	*175.94*	*174.26*	*170.97*	*172.43*	*172.76*	*172.26*
PB9	---	---	---	---	---	---	---	---	---	---	---

NOTE:
Indicates LOW Water
Indicates HIGH Water
ND= No Data
Range is the difference in high and low water levels for piezometer

Table 1B
Piezometer Static Water Elevations for Dunn/Erwin Landfill

Piez. No.	Date Sampled 10/15/2002	4/30/2003	10/28/2003	4/21/2004	10/27/2004	4/25/2005	10/17/2005	4/18/2006	10/23/2006	10/23/2006	10/23/2007	4/22/2008
40S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41S	ND	194.23	191.58	192.27	192.35	193.22	190.71	191.80	191.58	192.58	190.37	194.38
42S	164.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44S	179.82	ND	179.8	171.66	181.07	181.44	171.66	180.16	179.88	180.91	175.03	181.33
45S	179.11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46S	192.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
47S	180.63	ND	182.31	178.88	182.44	179.08	176.58	182.58	179.18	183.18	174.92	184.86
48S	195.52	193.46	195.75	185.53	196.17	193.49	194.46	193.06	195.33	193.24	193.72	193.59
GP-24-W	ND	ND	191.11	189.76	191.59	190.04	189.72	190.78	190.57	191.51	189.47	189.73
GP-25-W	ND	192.89	191.81	192.04	192.07	192.33	190.55	191.31	190.95	191.94	189.63	192.84
GP-27-W	ND	ND	190.17	190.89	191.02	192.04	189.33	190.57	190.38	191.38	189.15	193.59
GP-28-W	ND	ND	192.29	192.65	192.58	192.97	190.85	191.76	191.23	192.63	190.17	193.00
GP-30-W	ND	195.21	192.19	192.84	192.95	193.76	190.98	192.16	191.92	193.24	190.84	194.76
GP-31-W	ND	ND	191.33	191.06	191.66	190.32	190.24	191.00	190.60	191.73	189.09	190.21
GP-33-W	ND	194.45	191.75	192.16	192.39	192.81	190.45	191.54	191.18	192.54	190.15	193.15
GP-34-W	ND	ND	192.38	193.04	193.19	193.75	191.11	192.22	191.96	192.33	190.82	194.21
GP-35-W	ND	ND	189.91	189.84	189.90	189.87	189.28	189.65	189.48	189.83	188.17	189.66
GP-36-W	ND	ND	192.25	192.80	192.91	193.35	191.00	191.95	191.70	193.04	190.58	193.52
GP-37-W	ND	188.73	188.17	188.79	188.23	188.66	187.62	188.50	188.01	188.52	185.58	189.09
GP-38-W	ND	200.37	200.19	199.75	199.98	199.79	199.90	199.67	199.91	199.78	199.84	199.73
PZ-50	ND	ND	ND	ND	ND	ND	ND	190.22	189.24	ND	ND	190.77
PZ-51	ND	ND	ND	ND	ND	ND	ND	168.96	169.52	168.33	168.43	169.22
PZ-52	ND	ND	ND	ND	ND	ND	ND	179.22	177.92	178.77	177.47	180.08
PZ-53	ND	ND	ND	ND	ND	ND	ND	183.71	183.28	183.61	182.36	185.02
Average Surficial	*181.86*	*194.19*	*190.81*	*189.62*	*191.28*	*191.06*	*189.03*	*188.54*	*188.19*	*188.90*	*186.62*	*189.64*
42D	152.48	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44D	174.63	ND	174.82	172.87	175.47	173.57	173.75	173.05	174.63	173.21	172.90	173.19
46D	192.16	ND	193.54	192.82	193.72	192.95	192.19	192.03	192.45	193.07	192.05	192.16
47D	163.45	ND	163.65	163.06	164.16	163.49	163.15	163.22	163.80	163.25	162.13	162.99
Average Deep	*170.68*	*ND*	*177.34*	*176.25*	*177.78*	*176.67*	*176.36*	*176.10*	*176.96*	*176.51*	*175.69*	*176.11*
PB9	---	---	---	---	---	---	---	---	---	---	---	---

NOTE: Indicates LOW Water
Indicates HIGH Water
ND= No Data
Range is the difference in high and low water levels for piezometer

Table 1B
Piezometer Static Water Elevations for Dunn/Erwin Landfill

Piez. No.	RANGE	MIN	MAX
40S	14.96	156.72	171.68
41S	4.21	190.37	194.58
42S	13.85	154.20	168.05
44S	10.19	171.66	181.85
45S	3.52	179.11	182.63
46S	4.77	192.00	196.77
47S	10.47	174.92	185.39
48S	13.04	185.53	198.57
GP-24-W	2.12	189.47	191.59
GP-25-W	3.26	189.63	192.89
GP-27-W	4.44	189.15	193.59
GP-28-W	2.83	190.17	193.00
GP-30-W	4.37	190.84	195.21
GP-31-W	2.64	189.09	191.73
GP-33-W	4.30	190.15	194.45
GP-34-W	3.39	190.82	194.21
GP-35-W	1.74	188.17	189.91
GP-36-W	2.94	190.58	193.52
GP-37-W	3.51	185.58	189.09
GP-38-W	3.48	196.89	200.37
PZ-50	1.53	189.24	190.77
PZ-51	1.19	168.33	169.52
PZ-52	2.61	177.47	180.08
PZ-53	2.66	182.36	185.02
Average Surficial			
42D	20.90	147.06	167.96
44D	9.41	170.16	179.57
46D	4.23	191.65	195.88
47D	4.90	160.60	165.50
Average Deep			
PB9	0.89	189.93	190.82

NOTE:

Table 1C
Turbidity and Specific Conductivity Measurements
Dunn-Erwin MSW Landfill
Harnett County, North Carolina

	Apr-08			
	Turbidity	Temp.	pH	Conductivity
	NTU	*°C*	*pH*	*uMhos*
MW1	17	18	5.6	61
MW2	35	16	4.6	94
MW3R	17	16	5.4	132
MW4	27	15	4.5	67
MW5	14	16	6.0	162
MW6	40	16	5.2	194
MW7	8.1	18	4.6	168
MW8	3.4	17	4.3	122
MW9	190	17	4.4	121
MW10	180	17	5.6	355
MW16	21	15	6.2	281
MW23B	37	15	5.2	40
MW31	1000	19	4.8	27
MW32	2200	16	6.2	59
MW33	9.1	15	5.0	77
MW34	5.7	15	6.1	83
MW35	45	15	5.4	391
SWPT1	21	16	6.3	85
SWPT2	30	15	6.2	83
SWPT3	40	16	6.4	92

Table 2
Harnett County Dunn-Erwin Landfill
Groundwater Velocity Data
Based on Groundwater Gradients Estimated for the October 1995 Sampling Event

	Shallow Wells							Estimated Velocities* (cm/s)			
	K (cm/sec)*		n values*				i*, Oct. 95	=(1)*i/(3)	=(1)*i/(4)	=(2)*i/(5)	=(2)*i/(6)
MW	Note Ref. (1)	(2)	(3)	(4)	(5)	(6)	(7)	(a)	(b)	(c)	(d)
MW1	7.9E-07	1.0E-03	0.1	0.2	0.3	0.4	3.3E-02	2.6E-07	1.3E-07	1.1E-04	8.3E-05
MW2	3.5E-05	1.0E-03	0.1	0.2	0.3	0.4	4.0E-02	1.4E-05	7.0E-06	1.3E-04	1.0E-04
MW3	1.2E-05	1.0E-03	0.1	0.2	0.3	0.4	8.0E-02	9.2E-06	4.6E-06	2.7E-04	2.0E-04
MW4	1.2E-05	1.0E-03	0.1	0.2	0.3	0.4	8.0E-02	9.9E-06	5.0E-06	2.7E-04	2.0E-04
MW5	4.0E-05	1.0E-03	0.1	0.2	0.3	0.4	1.0E-01	4.0E-05	2.0E-05	3.3E-04	2.5E-04
MW6	3.5E-05	1.0E-03	0.1	0.2	0.3	0.4	8.0E-02	2.8E-05	1.4E-05	2.7E-04	2.0E-04
MW7B	NA	1.0E-03	0.1	0.2	0.3	0.4	1.0E-02	NA	NA	3.3E-05	2.5E-05
MW8	2.0E-06	1.0E-03	0.1	0.2	0.3	0.4	1.3E-02	2.5E-07	1.3E-07	4.2E-05	3.1E-05
MW9	8.6E-04		0.25				1.5E-02	5.2E-05			
MW10	3.0E-06		0.25				1.7E-02	2.0E-07			
MW11	2.5E-05		NA				NA	NA			
MW12	2.3E-05		NA				NA	NA			
MW13	5.5E-06		NA				NA	NA			
MW14	7.4E-07		NA				NA	NA			
MW15	2.2E-05		NA				NA	NA			
MW16	7.3E-08	1.0E-03	0.1	0.2	0.3	0.4	NA	NA	NA	NA	NA
MW23B	2.8E-04	1.0E-03	0.1	0.2	0.3	0.4	2.0E-02	5.6E-05	2.8E-05	6.7E-05	5.0E-05
MW31	3.2E-06	1.0E-03	0.1	0.2	0.3	0.4	2.5E-02	8.0E-07	4.0E-07	8.3E-05	6.3E-05
MW32	2.9E-06	1.0E-03	0.1	0.2	0.3	0.4	NA	NA	NA	NA	NA
MW33	4.1E-06	1.0E-03	0.1	0.2	0.3	0.4	NA	NA	NA	NA	NA
MW34	NA	NA	0.1	0.2	0.3	0.4	NA	NA	NA	NA	NA
MW35	NA	NA	0.1	0.2	0.3	0.4	NA	NA	NA	NA	NA

*** Equation** **V=Ki/n (cm/sec)**

Where V = Mean groundwater velocity as calculated by the above equation
i= Hydraulic gradient (unitless), see note (7)
n = Effective porosity (unitless), see notes (3) through (6)
k = hydraulic conductivity, see notes (1) and (2)

Notes:

NA refers to wells where data is unavailable
(1) In situ hydraulic conductivity as estimated by Withers and Ravenel, "Evaluation of Groundwater Flow and Direction", November 1994
(2) In situ site hydraulic conductivity as estimated for "Field Investigation of Contaminant Plume", October 1996, except
MW9 and MW10 installed in March 2001, for which values are obtained from the Titan report.
MW11 - MW15 calculated by ENSOL, Inc., August 2006 (based on slug tests).
(3) Estimated as the lower limit for effective porosity, n, by Withers and Ravenel, Evaluation of Groundwater Flow and Direction, November 1994
(4) Estimated as the upper limit for effective porosity, n, by Withers and Ravenel, Evaluation of Groundwater Flow and Direction, November 1994
(5) Lower limit of effective porosity estimation in "Field Investigation of Contaminant Plume", October 1996.
(6) Upper limit of effective porosity estimation in "Field Investigation of Contaminant Plume", October 1996.
(7) Hydraulic gradient as estimated from groundwater contours based on groundwater data sampled in October 1995.

(a) Velocity as estimated using Withers and Ravenel estimated hydraulic conductivity (1), the lower limit for effective porosity (3), and the corresponding hydraulic gradient estimated from Figure 1.

(b) Velocity as estimated using Withers and Ravenel estimated hydraulic conductivity (1), the upper limit for effective porosity (4), and the corresponding hydraulic gradient estimated from Figure 1.

(c) Velocity as estimated using estimated hydraulic conductivity (2), the effective porosity (5), and the corresponding hydraulic gradient estimated from Figure 1.

(d) Velocity as estimated using estimated hydraulic conductivity (2), the effective porosity (6), and the corresponding hydraulic gradient estimated from Figure 1.

(e) For MW9 and MW10 installed in March 2001, velocity was computed for values obtained from the Titan report.

Table 3
Summary of Results of Various Statistical Analyses Detected Inorganics
April 2008

Constituent	Test Set 1[1]	Test Set 2[1]	Test Set 3	Monitoring Wells Indicating SSIOBL	Detected > MDL	Detected > SWSL
Arsenic	Qualitative	Qualitative	Qualitative	None	No	Yes
Barium	TOP[2]	TOP[2]	TOP[2]	None	Yes	Yes
Beryllium	TOP[2], PIA[5]	NA[3]	Qualitative	None	Yes	Yes
Cadmium	Qualitative	TOP[2]	Qualitative	None	Yes	Yes
Chromium	TOP[2]	TOP[2]	Qualitative	None	No	Yes
Cobalt	TOP[2], PIA[5]	NA[3]	Qualitative	MW6	Yes	Yes
Copper	TOP[2]	NA[3]	TOP[2]	None	Yes	Yes
Lead	TOP[2], PIA[5]	TOP[2]	Qualitative	None	Yes	Yes
Mercury	NA[4]	Qualitative	NA[4]	MW6, MW7	No	Yes
Nickel	Qualitative	NA[3]	Qualitative	None	No	Yes
Selenium	Qualitative	Qualitative	Qualitative	None	No	Yes
Silver	Qualitative	Qualitative	Qualitative	None	No	Yes
Thallium	NA[7]	NA[7]	NA[7]	NA[7]	No	Yes
Tin	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]
Vanadium	TOP[2]	NA[3]	Qualitative	None	No	Yes
Zinc	TOP[2]	NA[3]	TOP[2]	None	Yes	Yes

Notes to Table 1:

1 MW23B, a Set 2 well, is statistically compared with Set 1 since it is located downgradient of the Set 1 wells.
2 Those constituents which were tested using the test of proportions were also reviewed qualitatively.
3 These constituents are not included in the 8 RCRA metals sampled for in data Set 2.
4 Mercury is included only in Data Set 2 and only annually in monitoring wells MW6, MW7,7B, and MW8 in Data Set 1.
5 The Prediction Interval Analysis is used when the TOP results are not accurate due to natural, statistically significant variations in concentrations which existed prior to the facility operation commencement.
6 Tin was not included in this sampling event.
7 Thallium was only detected at estimated values below SWSL; estimated values not included in statistical analysis.

Abbreviations

NP ANOVA = Non-Parametric ANOVA
TOP = Test of Proportions
PIA = Prediction Interval Analysis
NA = Not applicable
MDL = Method Detection Limit
SWSL = Solid Waste Section Limit

Table 4A
Summary of Appendices I & II Statistical Analysis Results
April 2008

Monitoring Well	Parameters Indicating SSIOBL	
	Inorganics	Organics
Set 1		
MW1 [1]	NA [1]	NA [1]
MW31 [1]	NA [1]	NA [1]
MW2	none	none
MW3	none	none
MW4	none	none
MW5	none	none
MW6	cobalt, mercury	benzene, chlorobenzene, chloroethane, cis-1,2-Dichloroethylene, 1,4-dichlorobenzene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, 1,1,1-trichloroethane, trichloroethylene, vinyl chloride, xylenes, dichlorodifluoromethane
MW7B	mercury	chloroethane, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, toluene, 1,1,1-trichloroethane, trichloroethylene, trichlorofluoromethane, xylenes, dichlorodifluoromethane
MW8	none	chloroethane, chloromethane, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene
MW9	none	benzene, chloroethane, cis-1,2-Dichloroethylene, 1,1-dichloroethane, methylene chloride, trichloroethylene, vinyl chloride, xylenes
MW10	none	chloroethane, cis-1,2-Dichloroethylene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, xylenes
MW23B [2]	none	none
Set 2 [3]		
MW16 [1]	NA [1]	NA [1]
MW32	none	none
MW33	none	none
MW34	none	none
MW35	none	none
Set 3 [3]		
SWPT1 [1]	NA [1]	NA [1]
SWPT2	none	none
SWPT3	none	none

1. NA indicates Not Applicable. These are upgradient wells or surface water points.
2. MW23B, a set 2 well, is statistically compared with Set 1 as it is located downgradient of the active landfill.
3. Set 2 was sampled, analyzed, and evaluated for Appendix I organics plus the eight (8) RCRA metals only. Set 3 was sampled, analyzed, and evaluated for Appendix I parameters only.

Table 4B
Notification Table
NC Groundwater Exceedances
Dunn-Erwin Landfill
Harnett County, North Carolina
April 2008

Constituent	2L STD	13B STD	SWSL	MW31	MW6	MW7B	MW8	MW9	MW10	MW32	MW33	SWPT3	Notes
Inorganics													
Lead	15	--	10							24			Not SSIOBL, background
Thallium	NE	0.28	5.5			*0.4*							Probable trace background
Vanadium	NE	3.5	25	*20.7*					*3.7*			*3.9*	Not SSIOBL, background
Organics													
Benzene	1	--	1		4.2	4.2	2.5	11.5	4.5				MW6 - MW10 are located within previously identified contaminant plume. This area is included in pending corrective action. Source of vinyl chloride in MW33 undetermined at this time (will be monitored).
1,4-Dichlorobenzene	1.4	--	1		7.4			6.6					
1,2-Dichloroethane	0.38	--	1		*0.4*			*0.8*					
Methylene chloride	4.6	--	1				31		4.9				
Tetrachloroethylene	0.7	--	1		4.5	3.2	5.5	4.4					
Trichloroethylene	2.8	--	1		5.9	9.1	4.8	5.9					
Vinyl chloride	0.015	--	1		6.3	3.9	1.0	6.5	2		*0.4*		

NE = Not Established
All units are in (ug/L) unless noted.
Values in italics are estimated.
Only wells with exceedances shown.
Only values > 2L or 13B STD shown.

Table 5
Groundwater Monitoring Well Data
Monitoring Well 2 (MW2)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW2 Detects		NCGS	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	30	700	0	0
Benzene	0	30	1	0	0
Carbon Disulfide	0	30	700	0	0
Chlorobenzene	0	30	50	0	0
Chloroethane	0	30	2800	0	0
Chloromethane	0	30	2.6	0	0
1,2-Dibromoethane	0	30	0.0004	0	0
1,4-Dichlorobenzene	0	30	1.4	0	0
cis-1,2-Dichloroethene	0	30	70	0	0
1,1-Dichloroethane	0	30	70	0	0
1,2-Dichloroethane	0	30	0.38	0	0
1,1-Dichloroethene	0	30	7	0	0
Methylene Chloride	0	30	4.6	0	0
Tetrachloroethylene	0	30	0.7	0	0
Toluene	0	30	1000	0	0
1,1,1-Trichloroethane	0	30	200	0	0
Trichloroethylene	0	30	2.8	0	0
Trichloroflouromethane	0	30	2100	0	0
Vinyl Chloride	0	30	0.015	0	0
Xylenes	0	30	530	0	0
Dichlorodifluoromethane*	0	10	1400	0	0
Diethyphthalate*	13	10	5000	1	1.3
bis(2-ethylhexyl)phthalate*	0	10	NE	0	0
NOTES					

Table 5
Groundwater Monitoring Well Data
Monitoring Well 3 (MW3)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW3 Detects		NCGS	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	29	700	0	0
Benzene	0	29	1	0	0
Carbon Disulfide	64.4	29	700	1	2.22
Chlorobenzene	0	29	50	0	0
Chloroethane	0	29	2800	0	0
Chloromethane	0	29	2.6	0	0
1,2-Dibromoethane	0	29	0.0004	0	0
1,4-Dichlorobenzene	0	29	1.4	0	0
cis-1,2-Dichloroethene	0	29	70	0	0
1,1-Dichloroethane	0	29	70	0	0
1,2-Dichloroethane	0	29	0.38	0	0
1,1-Dichloroethene	0	29	7	0	0
Methylene Chloride	0	29	4.6	0	0
Tetrachloroethylene	0	29	0.7	0	0
Toluene	0	29	1000	0	0
1,1,1-Trichloroethane	0	29	200	0	0
Trichloroethylene	0	29	2.8	0	0
Trichloroflouromethane	0	29	2100	0	0
Vinyl Chloride	0	29	0.015	0	0
Xylenes	0	29	530	0	0
Dichlorodifluoromethane*	0	10	1400	0	0
Diethyphthalate*	0	10	5000	0	0
bis(2-ethylhexyl)phthalate*	0	10	NE	0	0
NOTES					

Table 5
Groundwater Monitoring Well Data
Monitoring Well 4 (MW4)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW4 Detects		NCGS	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	30	700	0	0
Benzene	0	30	1	0	0
Carbon Disulfide	48.8	30	700	3	1.63
Chlorobenzene	0	30	50	0	0
Chloroethane	0	30	2800	0	0
Chloromethane	0	30	2.6	0	0
1,2-Dibromoethane	0	30	0.0004	0	0
1,4-Dichlorobenzene	0	30	1.4	0	0
cis-1,2-Dichloroethene	0	30	70	0	0
1,1-Dichloroethane	0	30	70	0	0
1,2-Dichloroethane	0	30	0.38	0	0
1,1-Dichloroethene	0	30	7	0	0
Methylene Chloride	0	30	4.6	0	0
Tetrachloroethylene	0	30	0.7	0	0
Toluene	0	30	1000	0	0
1,1,1-Trichloroethane	0	30	200	0	0
Trichloroethylene	0	30	2.8	0	0
Trichloroflouromethane	0	30	2100	0	0
Vinyl Chloride	0	30	0.015	0	0
Xylenes	0	30	530	0	0
Dichlorodifluoromethane*	0	10	1400	0	0
Diethyphthalate*	26	10	5000	2	2.60
bis(2-ethylhexyl)phthalate*	0	10	NE	0	0
NOTES					

Table 5
Groundwater Monitoring Well Data
Monitoring Well 5 (MW5)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW5 Detects		NCGS
SAMPLING DATES	SUM	Events	(ug/l)
ORGANICS (ug/l)			
Acetone	0	30	700
Benzene	0	30	1
Carbon Disulfide	37.3	30	700
Chlorobenzene	0	30	50
Chloroethane	0	30	2800
Chloromethane	0	30	2.6
1,2-Dibromoethane	0	30	0.0004
1,4-Dichlorobenzene	0	30	1.4
cis-1,2-Dichloroethene	0	30	70
1,1-Dichloroethane	0	30	70
1,2-Dichloroethane	0	30	0.38
1,1-Dichloroethene	0	30	7
Methylene Chloride	0	30	4.6
Tetrachloroethylene	0	30	0.7
Toluene	0	30	1000
1,1,1-Trichloroethane	0	30	200
Trichloroethylene	0	30	2.8
Trichloroflouromethane	0	30	2100
Vinyl Chloride	0	30	0.015
Xylenes	0	30	530
Dichlorodifluoromethane*	0	10	1400
Diethyphthalate*	0	10	5000
bis(2-ethylhexyl)phthalate*	0	10	NE
NOTES			

Table 5
Groundwater Monitoring Well Data
Monitoring Well 6 (MW6)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW6 Detects		NCGS	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	170	31	700	1	5.48
Benzene	25.9	31	1	5	0.84
Carbon Disulfide	7.9	31	700	1	0.25
Chlorobenzene	135.6	31	50	7	4.37
Chloroethane	850.8	31	2800	17	27.45
Chloromethane	46	31	2.6	1	1.48
1,2-Dibromoethane	0	31	0.0004	0	0.00
1,4-Dichlorobenzene	32.4	31	1.4	5	1.05
cis-1,2-Dichloroethene	132.4	31	70	10	4.27
1,1-Dichloroethane	1403.9	31	70	29	45.29
1,2-Dichloroethane	0	31	0.38	0	0.00
1,1-Dichloroethene	84.6	31	7	2	2.73
Methylene Chloride	1342.9	31	4.6	25	43.32
Tetrachloroethylene	69.2	31	0.7	12	2.23
Toluene	0	31	1000	0	0.00
1,1,1-Trichloroethane	94.5	31	200	9	3.05
Trichloroethylene	167.44	31	2.8	20	5.40
Trichloroflouromethane	0	31	2100	0	0.00
Vinyl Chloride	54.7	31	0.015	5	1.76
Xylenes (total)	437	31	530	13	14.10
Dichlorodifluoromethane*	42.1	19	1400	7	2.22
Diethyphthalate*	0	19	5000	0	0.00
bis(2-ethylhexyl)phthalate*	6.8	19	NE	1	0.36
NOTES					

Table 5
Groundwater Monitoring Well Data
Monitoring Well 7,7B (MW7,7B)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW7,7B Detects		NCGS	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	29	700	0	0
Benzene	14.1	29	1	4	0.486207
Carbon Disulfide	0	29	700	0	0
Chlorobenzene	14.3	29	50	3	0.493103
Chloroethane	772.1	29	2800	25	26.62414
Chloromethane	64	29	2.6	1	2.206897
1,2-Dibromoethane	0	29	0.0004	0	0
1,4-Dichlorobenzene	0	29	1.4	0	0
cis-1,2-Dichloroethene	6	29	70	1	0.206897
1,1-Dichloroethane	3424.2	29	70	27	118.0759
1,2-Dichloroethane	8.7	29	0.38	1	0.3
1,1-Dichloroethene	188.6	29	7	20	6.503448
Methylene Chloride	1422.7	29	4.6	21	49.05862
Tetrachloroethylene	15.9	29	0.7	3	0.548276
Toluene	76.8	29	1000	7	2.648276
1,1,1-Trichloroethane	600.7	29	200	17	20.71379
Trichloroethylene	137.5	29	2.8	18	4.741379
Trichloroflouromethane	134	29	2100	14	4.62069
Vinyl Chloride	13.9	29	0.015	3	0.47931
Xylenes	54.7	29	530	8	1.886207
Dichlorodifluoromethane*	761.5	19	1400	16	40.07895
Diethyphthalate*	13	19	5000	1	0.684211
bis(2-ethylhexyl)phthalate*	24	19	NE	1	1.263158
NOTES					

Table 5
Groundwater Monitoring Well Data
Monitoring Well 8 (MW8)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW8 Detects		NCGS	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	31	700	0	0.00
Benzene	8.8	31	1	4	0.28
Carbon Disulfide	0	31	700	0	0.00
Chlorobenzene	0	31	50	0	0.00
Chloroethane	268.6	31	2800	14	8.66
Chloromethane	119.1	31	2.6	3	3.84
1,2-Dibromoethane	0	31	0.0004	0	0.00
1,4-Dichlorobenzene	2.5	31	1.4	2	0.08
cis-1,2-Dichloroethene	22.6	31	70	3	0.73
1,1-Dichloroethane	1217.5	31	70	24	39.27
1,2-Dichloroethane	0	31	0.38	0	0.00
1,1-Dichloroethene	81	31	7	1	2.61
Methylene Chloride	1191.7	31	4.6	21	38.44
Tetrachloroethylene	22.2	31	0.7	4	0.72
Toluene	0	31	1000	0	0.00
1,1,1-Trichloroethane	0	31	200	0	0.00
Trichloroethylene	32.1	31	2.8	8	1.04
Trichloroflouromethane	0	31	2100	0	0.00
Vinyl Chloride	1	31	0.015	1	0.03
Xylenes	5	31	530	1	0.16
Dichlorodifluoromethane*	20.4	19	1400	4	1.073684
Diethyphthalate*	0	19	5000	0	0
bis(2-ethylhexyl)phthalate*	0	19	NE	0	0
NOTES					

Table 5
Groundwater Monitoring Well Data
Monitoring Well 9 (MW9)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW9 Detects		NCGS	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	15	700	0	0
Benzene	82.8	15	1	11	5.52
Carbon Disulfide	0	15	700	0	0
Chlorobenzene	189	15	50	13	12.6
Chloroethane	410.9	15	2800	15	27.39333
Chloromethane	189	15	2.6	1	12.6
1,2-Dibromoethane	14	15	0.0004	1	0.933333
1,4-Dichlorobenzene	9.1	15	1.4	2	0.606667
cis-1,2-Dichloroethene	59.1	15	70	6	3.94
1,1-Dichloroethane	1563.9	15	70	13	104.26
1,2-Dichloroethane	11.8	15	0.38	1	0.786667
1,1-Dichloroethene	0	15	7	0	0
Methylene Chloride	1720.5	15	4.6	13	114.7
Tetrachloroethylene	23	15	0.7	5	1.533333
Toluene	0	15	1000	0	0
1,1,1-Trichloroethane	0	15	200	0	0
Trichloroethylene	108.5	15	2.8	14	7.233333
Trichloroflouromethane	0	15	2100	0	0
Vinyl Chloride	21.5	15	0.015	3	1.433333
Xylenes	174.8	15	530	10	11.65333
Dichlorodifluoromethane*	0	1	1400	0	NA
Diethyphthalate*	0	1	5000	0	NA
bis(2-ethylhexyl)phthalate*	0	1	NE	0	NA
NOTES					

Table 5
Groundwater Monitoring Well Data
Monitoring Well 10 (MW10)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW10 Detects		NCGS	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	939	15	700	4	62.6
Benzene	31.5	15	1	6	2.1
Carbon Disulfide	0	15	700	0	0
Chlorobenzene	122.9	15	50	9	8.193333
Chloroethane	285.4	15	2800	9	19.02667
Chloromethane	0	15	2.6	0	0
1,2-Dibromoethane	0	15	0.0004	0	0
1,4-Dichlorobenzene	2.6	15	1.4	2	0.173333
cis-1,2-Dichloroethene	165.7	15	70	14	11.04667
1,1-Dichloroethane	1321.5	15	70	14	88.1
1,2-Dichloroethane	0	15	0.38	0	0
1,1-Dichloroethene	0	15	7	0	0
Methylene Chloride	903.4	15	4.6	12	60.22667
Tetrachloroethylene	57.2	15	0.7	6	3.813333
Toluene	0	15	1000	0	0
1,1,1-Trichloroethane	0	15	200	0	0
Trichloroethylene	38.1	15	2.8	5	2.54
Trichloroflouromethane	0	15	2100	0	0
Vinyl Chloride	13.4	15	0.015	3	0.893333
Xylenes	145.9	15	530	9	9.726667
Dichlorodifluoromethane*	0	1	1400	0	NA
Diethyphthalate*	0	1	5000	0	NA
bis(2-ethylhexyl)phthalate*	0	1	NE	0	NA
NOTES					

Table 5
Groundwater Monitoring Well Data
Monitoring Well 23B (MW23B)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW23B Detects		NCGS	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	29	700	0	0
Benzene	0	29	1	0	0
Carbon Disulfide	0	29	700	0	0
Chlorobenzene	0	29	50	0	0
Chloroethane	0	29	2800	0	0
Chloromethane	0	29	2.6	0	0
1,2-Dibromoethane	0	29	0.0004	0	0
1,4-Dichlorobenzene	0	29	1.4	0	0
cis-1,2-Dichloroethene	0	29	70	0	0
1,1-Dichloroethane	0	29	70	0	0
1,2-Dichloroethane	0	29	0.38	0	0
1,1-Dichloroethene	0	29	7	0	0
Methylene Chloride	0	29	4.6	0	0
Tetrachloroethylene	0	29	0.7	0	0
Toluene	0	29	1000	0	0
1,1,1-Trichloroethane	0	29	200	0	0
Trichloroethylene	0	29	2.8	0	0
Trichloroflouromethane	0	29	2100	0	0
Vinyl Chloride	0	29	0.015	0	0
Xylenes	0	29	530	0	0
Dichlorodifluoromethane*	0	2	1400	0	0
Diethyphthalate*	0	2	5000	0	0
bis(2-ethylhexyl)phthalate*	0	2	NE	0	0
NOTES					

Table 5
Total Downgradient Detects and Averages
Set 1 Data
Dunn-Erwin MSW Landfill
Harnett County, NC

CONSTITUENT	# Detects	Average Conc	NCGS	Avg/NCGS
			(ug/l)	
ORGANICS (ug/l)				
Acetone	5	6.81	700	9.73E-03
Benzene	30	0.92	1	**0.92**
Carbon Disulfide	7	0.53	700	7.64E-04
Chlorobenzene	32	2.57	50	0.05
Chloroethane	80	10.92	2800	3.90E-03
Chloromethane	6	2.01	2.6	0.77
1,2-Dibromoethane	1	0.09	0.0004	233
1,4-Dichlorobenzene	11	0.19	1.4	1.36E-01
cis-1,2-Dichloroethene	34	2.02	70	0.03
1,1-Dichloroethane	107	39.50	70	**0.56**
1,2-Dichloroethane	2	0.11	0.38	0.29
1,1-Dichloroethene	23	1.18	7	0.17
Methylene Chloride	92	30.57	4.6	**6.65**
Tetrachloroethylene	30	0.88	0.7	**1.26**
Toluene	7	0.26	1000	2.65E-04
1,1,1-Trichloroethane	26	2.38	200	0.01
Trichloroethylene	65	2.10	2.8	**0.75**
Trichlorofluoromethane	14	0.46	2100	2.20E-04
Vinyl Chloride	15	0.46	0.015	**30.7**
Xylenes	41	3.75	530	0.01
Dichlorodifluoromethane**	27	5.42	1400	3.87E-03
Diethyphthalate**	4	0.57	5000	1.15E-04
bis(2-ethylhexyl)phthalate**	2	0.20	NE	NE

Table 5
Average Concentrations in Plume Wells
MW-6, MW-7B, MW-8, MW-9, and MW-10
Dunn-Erwin MSW Landfill
Harnett County, NC

CONSTITUENT	# Detects	Average Conc	NCGS	Avg/NCGS
ORGANICS (ug/l)				
Acetone	5	13.62	700	1.95E-02
Benzene	30	1.85	1	**1.85**
Carbon Disulfide	1	0.05	700	7.28E-05
Chlorobenzene	32	5.13	50	0.10
Chloroethane	80	21.83	2800	0.01
Chloromethane	6	4.03	2.6	1.55
1,2-Dibromoethane	1	0.19	0.0004	466.67
1,4-Dichlorobenzene	11	0.38	1.4	2.72E-01
cis-1,2-Dichloroethene	34	4.04	70	0.06
1,1-Dichloroethane	107	79.00	70	**1.13**
1,2-Dichloroethane	2	0.22	0.38	0.57
1,1-Dichloroethene	23	2.37	7	0.34
Methylene Chloride	92	61.15	4.6	**13.29**
Tetrachloroethylene	30	1.77	0.7	**2.53**
Toluene	7	0.53	1000	5.30E-04
1,1,1-Trichloroethane	26	4.75	200	0.02
Trichloroethylene	65	4.19	2.8	**1.50**
Trichlorofluoromethane	14	0.92	2100	4.40E-04
Vinyl Chloride	15	0.92	0.015	**61.37**
Xylenes	41	7.50	530	0.01
Dichlorodifluoromethane**	27	14.46	1400	0.01
Diethyphthalate**	1	0.23	5000	4.56E-05
bis(2-ethylhexyl)phthalate**	2	0.54	NE	NE

Table 6
Comparison of Standards, SWSL, Current and Historic Detection Limits
For selected Constituents
Dunn-Erwin Landfill
Harnett County, North Carolina
Apr-08

Constituent	2L STD	13B STD	SWSL	2008 MDL	2006 DL
Inorganics					
Antimony	NE	1.4	6	0.08	30
Arsenic	50	--	10	0.07	10
Barium	2000	--	100	0.11	500
Beryllium	NE	4	1	0.06	2
Cadmium	1.75	--	1	0.04	1
Chromium	50	--	10	0.11	10
Cobalt	NE	70	10	0.03	10
Copper	1000	--	10	0.05	200
Lead	15	--	10	0.04	10
Nickel	100	--	50	0.06	50
Selenium	50	--	10	0.14	20
Silver	17.5	--	10	0.04	10
Thallium	NE	0.28	5.5	0.04	10
Vanadium	NE	3.5	25	0.07	40
Zinc	1050	--	10	0.04	50
Cyanide	70	--	10	NA	50
Mercury	1.05	--	0.2	NA	1
Tin	NE	NE	100	NA	100
Organics					
Acetone	700	--	100	1.21	100
Benzene	1	--	1	0.16	5
Carbon disulfide	700	--	100	0.14	100
Chlorobenzene	50	--	3	0.13	5
Chloroethane	2800	--	10	0.29	10
Methyl chloride	2.6	--	1	0.18	10
1,2-Dibromoethane	0.0004	--	1	0.13	5
1,4-Dichlorobenzene	1.4	--	1	0.21	5
cis-1,2-Dichloroethene	70	--	5	0.14	5
1,1-Dichloroethane	70	--	5	0.16	5
1,2-Dichloroethane	0.38	--	1	0.12	5
1,1-Dichloroethene	7	--	5	0.14	5
Methylene chloride	4.6	--	1	0.14	10
Tetrachloroethylene	0.7	--	1	0.16	5
Toluene	1000	--	1	0.13	5
1,1,1-Trichloroethane	200	--	1	0.11	5
Trichloroethylene	2.8	--	1	0.13	5
Trichlorofluoromethane	2100	--	1	0.13	5
Vinyl chloride	0.015	--	1	0.34	10
Xylenes (total)	530	--	5	0.48	5

NE = Not Established
All units are in (ug/L) unless noted.

APPENDIX A

DATA SET 1

Groundwater Monitoring Well Data
Monitoring Well 1 (MW1)
Upgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW1																		
SAMPLING DATES	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	July 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01
INORGANICS (mg/l)																			
Antimony						NA	NA		NA										
Arsenic						NA	NA		NA										
Barium	0.252	0.024	1.68	0.586		NA	NA		NA			0.083		0.1					
Beryllium			0.024	0.006	0.002	NA	NA	0.002	NA	0.003	0.006	0.001	0.004	0.003		0.002			
Cadmium	0.0008	0.001	0.004	0.001		NA	NA		NA										
Chromium	0.005		0.018	0.011		NA	NA		NA		0.013		0.02						
Cobalt			0.016			NA	NA		NA										
Copper	0.017		0.078	0.018		NA	NA		NA			0.007							
Lead	0.005		0.104	0.104	0.02	NA	NA		NA		0.028	0.016							
Nickel			0.03			NA	NA		NA										
Selenium						NA	NA		NA										
Silver						NA	NA		NA										
Vanadium	0.02		0.083			NA	NA		NA										
Zinc	0.098	0.012	0.237	0.038	0.08	NA	NA		NA		0.0647								
t-Cyanide*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
Mercury*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
Tin*	NA	NA	NA	NA		NA	NA		NA		NA	0.1	NA		NA		NA	NA	NA
ORGANICS (ug/l)																			
Acetone						NA	NA		NA										
Benzene						NA	NA		NA										
Carbon Disulfide		20.9				NA	NA		NA							7.4			
Chlorobenzene						NA	NA		NA										
Chloroethane						NA	NA		NA										
Chloromethane						NA	NA		NA										
1,2-Dibromoethane						NA	NA		NA										
1,4-Dichlorobenzene						NA	NA		NA										
cis-1,2-Dichloroethene						NA	NA		NA										
1,1-Dichloroethane						NA	NA		NA										
1,2-Dichloroethane						NA	NA		NA										
1,1-Dichloroethene						NA	NA		NA										
Methylene Chloride						NA	NA		NA										
Tetrachloroethylene						NA	NA		NA										
Toluene						NA	NA		NA										
1,1,1-Trichloroethane						NA	NA		NA										
Trichloroethylene						NA	NA		NA										
Trichloroflouromethane						NA	NA		NA										
Vinyl Chloride						NA	NA		NA										
Xylenes						NA	NA		NA										
Dichlorodifluoromethane*	NA	NA	NA	NA									NA		NA		NA	NA	NA
Diethyphthalate*	NA	NA	NA	NA	5.3			5.3			9.8		NA		NA		NA	NA	NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA									NA		NA		NA	NA	NA

	- indicates concentrations exceeding NCGS
"NE"	- not established
"NA"	- not applicable
*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Well Data
Monitoring Well 1 (MW1)
Upgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT															MW1 detects		NCGS
SAMPLING DATES	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																	(mg/l)
Antimony															0	0%	0.0014**
Arsenic															0	0%	0.05
Barium															6	20%	2
Beryllium		0.002													11	37%	0.004**
Cadmium															4	13%	0.00175
Chromium															5	17%	0.05
Cobalt															1	3%	0.07**
Copper															4	13%	1
Lead															6	20%	0.015
Nickel															1	3%	0.1
Selenium															0	0%	0.05
Silver															0	0%	0.0175
Vanadium															2	7%	0.0035**
Zinc						0.08						0.011			8	27%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.07
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	17%	NE
ORGANICS (ug/l)																	(ug/l)
Acetone															0	0%	700
Benzene															0	0%	1
Carbon Disulfide															2	7%	700
Chlorobenzene															0	0%	50
Chloroethane															0	0%	2800
Chloromethane															0	0%	2.6
1,2-Dibromoethane															0	0%	0.0004
1,4-Dichlorobenzene															0	0%	1.4
cis-1,2-Dichloroethene															0	0%	70
1,1-Dichloroethane															0	0%	70
1,2-Dichloroethane															0	0%	0.38
1,1-Dichloroethene															0	0%	7
Methylene Chloride															0	0%	4.6
Tetrachloroethylene															0	0%	0.7
Toluene															0	0%	1000
1,1,1-Trichloroethane															0	0%	200
Trichloroethylene															0	0%	2.8
Trichloroflouromethane															0	0%	2100
Vinyl Chloride															0	0%	0.015
Xylenes															0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	1400
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3	30%	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE

NCGS = 2L STD or
** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 31 (MW31)
Upgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW31																		
SAMPLING DATES	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	July 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01
INORGANICS (mg/l)																			
Antimony						NA	NA		NA										
Arsenic				0.005	0.056	NA	NA	0.011	NA		0.032	0.005							
Barium	0.04		0.157	0.097		NA	NA		NA			0.098			0.1				
Beryllium		0.028			0.006	NA	NA		NA		0.003	0.001			0.002	0.005			
Cadmium			0.005	0.003	0.003	NA	NA		NA		0.00131								
Chromium	0.021	0.015	0.021		0.21	NA	NA	0.044	NA		0.124	0.060		0.04	0.08	0.1	0.01		
Cobalt			0.007		0.02	NA	NA		NA										
Copper	0.017	0.012	0.095	0.04	0.22	NA	NA	0.033	NA			0.043		0.06	0.07				
Lead	0.011	0.006	0.052	0.033	0.17	NA	NA	0.031	NA		0.088	0.045		0.03	0.05	0.06			
Nickel						NA	NA		NA										
Selenium						NA	NA		NA										
Silver						NA	NA		NA										
Vanadium	0.045	0.026	0.032	0.08	0.41	NA	NA	0.087	NA		0.235	0.11		0.04	0.13				
Zinc	0.017	0.01	0.027	0.037	0.07	NA	NA		NA			0.05		0.04	0.04	0.1			
t-Cyanide*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
Mercury*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
Tin*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
ORGANICS (ug/l)																			
Acetone						NA	NA		NA										
Benzene						NA	NA		NA										
Carbon Disulfide						NA	NA		NA										
Chlorobenzene						NA	NA		NA										
Chloroethane						NA	NA		NA										
Chloromethane						NA	NA		NA										
1,2-Dibromoethane						NA	NA		NA										
1,4-Dichlorobenzene						NA	NA		NA										
cis-1,2-Dichloroethene						NA	NA		NA										
1,1-Dichloroethane						NA	NA		NA										
1,2-Dichloroethane						NA	NA		NA										
1,1-Dichloroethene						NA	NA		NA										
Methylene Chloride						NA	NA		NA										
Tetrachloroethylene						NA	NA		NA										
Toluene						NA	NA		NA										
1,1,1-Trichloroethane						NA	NA		NA										
Trichloroethylene						NA	NA		NA										
Trichloroflouromethane						NA	NA		NA										
Vinyl Chloride						NA	NA		NA										
Xylenes						NA	NA		NA										
Dichlorodifluoromethane*	NA	NA	NA	NA									NA		NA		NA	NA	NA
Diethyphthalate*	NA	NA	NA	NA									NA		NA		NA	NA	NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA									NA		NA		NA	NA	NA

	- indicates concentrations exceeding NCGS
"NE"	- not established
"NA"	- not applicable
*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Well Data
Monitoring Well 31 (MW31)
Upgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT															MW31 Detects		NCGS
SAMPLING DATES	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																	(mg/l)
Antimony															0	0%	0.0014**
Arsenic															5	17%	0.05
Barium															5	17%	2
Beryllium															6	20%	0.004**
Cadmium															4	13%	0.00175
Chromium															11	37%	0.05
Cobalt															2	7%	0.07**
Copper															9	30%	1
Lead														0.014	12	40%	0.015
Nickel															0	0%	0.1
Selenium															0	0%	0.05
Silver															0	0%	0.0175
Vanadium															10	33%	0.0035**
Zinc												0.017		0.01	11	37%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.07
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE
ORGANICS (ug/l)																	(ug/l)
Acetone															0	0%	700
Benzene															0	0%	1
Carbon Disulfide															0	0%	700
Chlorobenzene															0	0%	50
Chloroethane															0	0%	2800
Chloromethane															0	0%	2.6
1,2-Dibromoethane															0	0%	0.0004
1,4-Dichlorobenzene															0	0%	1.4
cis-1,2-Dichloroethene															0	0%	70
1,1-Dichloroethane															0	0%	70
1,2-Dichloroethane															0	0%	0.38
1,1-Dichloroethene															0	0%	7
Methylene Chloride															0	0%	4.6
Tetrachloroethylene															0	0%	0.7
Toluene															0	0%	1000
1,1,1-Trichloroethane															0	0%	200
Trichloroethylene															0	0%	2.8
Trichloroflouromethane															0	0%	2100
Vinyl Chloride															0	0%	0.015
Xylenes															0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	1400
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE

NCGS = 2L STD or ** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 2 (MW2)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW2																		
SAMPLING DATES	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	July 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01
INORGANICS (mg/l)																			
Antimony						NA	NA		NA										
Arsenic				0.005	0.033	NA	NA		NA										
Barium	0.143	0.404	0.489	0.469	0.82	NA	NA		NA			0.05		0.1					
Beryllium			0.012	0.035		NA	NA	0.004	NA	0.005	0.005	0.002	0.004	0.003		0.008	0.002		0.002
Cadmium		0.001	0.001	0.003	0.004	NA	NA		NA										
Chromium	0.006	0.033		0.02	0.02	NA	NA		NA		0.0117					0.01			
Cobalt		0.009		0.01	0.07	NA	NA		NA										
Copper	0.027	0.046	0.037	0.041		NA	NA		NA			0.008							
Lead	0.006	0.025	0.025	0.041	0.026	NA	NA		NA		0.0148	0.004				0.01			
Nickel		0.02		0.01		NA	NA		NA										
Selenium						NA	NA		NA										
Silver						NA	NA		NA										
Vanadium	0.24		0.022	0.07	0.05	NA	NA		NA										
Zinc	0.037	0.026	0.096	0.104	0.05	NA	NA		NA	0.102		0.023				0.06			
t-Cyanide*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
Mercury*	NA	NA	NA	NA		NA	NA		NA		NA	0.0008	NA		NA		NA	NA	NA
Tin*	NA	NA	NA	NA		NA	NA		NA		NA	0.1	NA		NA		NA	NA	NA
ORGANICS (ug/l)																			
Acetone						NA	NA		NA										
Benzene						NA	NA		NA										
Carbon Disulfide						NA	NA		NA										
Chlorobenzene						NA	NA		NA										
Chloroethane						NA	NA		NA										
Chloromethane						NA	NA		NA										
1,2-Dibromoethane						NA	NA		NA										
1,4-Dichlorobenzene						NA	NA		NA										
cis-1,2-Dichloroethene						NA	NA		NA										
1,1-Dichloroethane						NA	NA		NA										
1,2-Dichloroethane						NA	NA		NA										
1,1-Dichloroethene						NA	NA		NA										
Methylene Chloride						NA	NA		NA										
Tetrachloroethylene						NA	NA		NA										
Toluene						NA	NA		NA										
1,1,1-Trichloroethane						NA	NA		NA										
Trichloroethylene						NA	NA		NA										
Trichloroflouromethane						NA	NA		NA										
Vinyl Chloride						NA	NA		NA										
Xylenes						NA	NA		NA										
Dichlorodifluoromethane*	NA	NA	NA	NA									NA		NA		NA	NA	NA
Diethyphthalate*	NA	NA	NA	NA	13								NA		NA		NA	NA	NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA									NA		NA		NA	NA	NA

	- indicates concentrations exceeding NCGS
"NE"	- not established
"NA"	- not applicable
*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Well Data
Monitoring Well 2 (MW2)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT															MW2 Detects		NCGS
SAMPLING DATES	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																	(mg/l)
Antimony															0	0%	0.0014**
Arsenic															2	7%	0.05
Barium															7	23%	2
Beryllium	0.002	0.002		0.004		0.002	0.003					0.002	0.0015	0.002	19	63%	0.004**
Cadmium															4	13%	0.00175
Chromium															6	20%	0.05
Cobalt															3	10%	0.07**
Copper															5	17%	1
Lead															8	27%	0.015
Nickel															2	7%	0.1
Selenium															0	0%	0.05
Silver															0	0%	0.0175
Vanadium															4	13%	0.0035**
Zinc												0.013		0.012	10	33%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.07
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	17%	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	17%	NE
ORGANICS (ug/l)																	(ug/l)
Acetone															0	0%	700
Benzene															0	0%	1
Carbon Disulfide															0	0%	700
Chlorobenzene															0	0%	50
Chloroethane															0	0%	2800
Chloromethane															0	0%	2.6
1,2-Dibromoethane															0	0%	0.0004
1,4-Dichlorobenzene															0	0%	1.4
cis-1,2-Dichloroethene															0	0%	70
1,1-Dichloroethane															0	0%	70
1,2-Dichloroethane															0	0%	0.38
1,1-Dichloroethene															0	0%	7
Methylene Chloride															0	0%	4.6
Tetrachloroethylene															0	0%	0.7
Toluene															0	0%	1000
1,1,1-Trichloroethane															0	0%	200
Trichloroethylene															0	0%	2.8
Trichloroflouromethane															0	0%	2100
Vinyl Chloride															0	0%	0.015
Xylenes															0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	1400
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	10%	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE

NCGS = 2L STD or ** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 3 (MW3)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW3																		
SAMPLING DATES	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	July 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01
INORGANICS (mg/l)																			
Antimony						NA	NA		NA										
Arsenic						NA	NA		NA										
Barium	0.095	0.174	0.083	0.061		NA	NA		NA			0.062			0.1				
Beryllium		0.004	0.08	0.007	0.007	NA	NA	0.007	NA	0.011	0.009	0.004	0.005	0.005	0.011	0.008	0.004	0.005	0.006
Cadmium		0.002	0.001	0.011		NA	NA		NA										
Chromium	0.005			0.003		NA	NA		NA							0.01			
Cobalt		0.005	0.012			NA	NA		NA										
Copper				0.006		NA	NA		NA			0.006							
Lead	0.006					NA	NA		NA			0.003				0.01			
Nickel						NA	NA		NA										
Selenium						NA	NA		NA										
Silver						NA	NA		NA										
Vanadium	0.009			0.07		NA	NA		NA										
Zinc	0.023	0.039	0.018	0.018	0.06	NA	NA		NA			0.03				0.05			
t-Cyanide*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
Mercury*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
Tin*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
ORGANICS (ug/l)																			
Acetone						NA	NA		NA										
Benzene						NA	NA		NA										
Carbon Disulfide		64.4				NA	NA		NA										
Chlorobenzene						NA	NA		NA										
Chloroethane						NA	NA		NA										
Chloromethane						NA	NA		NA										
1,2-Dibromoethane						NA	NA		NA										
1,4-Dichlorobenzene						NA	NA		NA										
cis-1,2-Dichloroethene						NA	NA		NA										
1,1-Dichloroethane						NA	NA		NA										
1,2-Dichloroethane						NA	NA		NA										
1,1-Dichloroethene						NA	NA		NA										
Methylene Chloride						NA	NA		NA										
Tetrachloroethylene						NA	NA		NA										
Toluene						NA	NA		NA										
1,1,1-Trichloroethane						NA	NA		NA										
Trichloroethylene						NA	NA		NA										
Trichloroflouromethane						NA	NA		NA										
Vinyl Chloride						NA	NA		NA										
Xylenes						NA	NA		NA										
Dichlorodifluoromethane*	NA	NA	NA	NA									NA		NA		NA	NA	NA
Diethyphthalate*	NA	NA	NA	NA									NA		NA		NA	NA	NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA									NA		NA		NA	NA	NA

	- indicates concentrations exceeding NCGS
"NE"	- not established
"NA"	- not applicable
*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Well Data
Monitoring Well 3 (MW3)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT									MW3R						MW3 Detects		NCGS
SAMPLING DATES	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																	(mg/l)
Antimony								NA							0	0%	0.0014**
Arsenic								NA							0	0%	0.05
Barium								NA							6	21%	2
Beryllium	0.005	0.005	0.005	0.005	0.005	0.005	0.006	NA						0.001	23	79%	0.004**
Cadmium								NA							3	10%	0.00175
Chromium		0.014						NA							4	14%	0.05
Cobalt								NA							2	7%	0.07**
Copper								NA							2	7%	1
Lead								NA							3	10%	0.015
Nickel								NA							0	0%	0.1
Selenium								NA							0	0%	0.05
Silver								NA							0	0%	0.0175
Vanadium								NA							2	7%	0.0035**
Zinc								NA				0.015		0.014	9	31%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.07
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE
ORGANICS (ug/l)																	(ug/l)
Acetone								NA							0	0%	700
Benzene								NA							0	0%	1
Carbon Disulfide								NA							1	3%	700
Chlorobenzene								NA							0	0%	50
Chloroethane								NA							0	0%	2800
Chloromethane								NA							0	0%	2.6
1,2-Dibromoethane								NA							0	0%	0.0004
1,4-Dichlorobenzene								NA							0	0%	1.4
cis-1,2-Dichloroethene								NA							0	0%	70
1,1-Dichloroethane								NA							0	0%	70
1,2-Dichloroethane								NA							0	0%	0.38
1,1-Dichloroethene								NA							0	0%	7
Methylene Chloride								NA							0	0%	4.6
Tetrachloroethylene								NA							0	0%	0.7
Toluene								NA							0	0%	1000
1,1,1-Trichloroethane								NA							0	0%	200
Trichloroethylene								NA							0	0%	2.8
Trichloroflouromethane								NA							0	0%	2100
Vinyl Chloride								NA							0	0%	0.015
Xylenes								NA							0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	1400
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE

NCGS = 2L STD or
** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 4 (MW4)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW4																		
SAMPLING DATES	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sept. 95	Dec. 95	Feb. 96	Apr. 96	July 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01
INORGANICS (mg/l)																			
Antimony						NA	NA		NA										
Arsenic						NA	NA		NA										
Barium	0.106	0.47	0.07	0.041		NA	NA		NA			0.127			0.1				
Beryllium			0.003	0.003	0.006	NA	NA	0.006	NA	0.014	0.006	0.009	0.003	0.004	0.01	0.012	0.004	0.003	0.002
Cadmium		0.001		0.004		NA	NA		NA										
Chromium	0.003	0.024				NA	NA		NA	0.011		0.01			0.01	0.03			
Cobalt		0.011				NA	NA		NA							0.01			
Copper	0.01	0.033	0.005	0.006		NA	NA		NA			0.01							
Lead	0.004	0.018	0.002	0.002		NA	NA		NA	0.018	0.012	0.013			0.01	0.02			
Nickel						NA	NA		NA			0.01							
Selenium						NA	NA		NA										
Silver						NA	NA		NA										
Vanadium		0.034				NA	NA		NA							0.05			
Zinc	0.026	0.093	0.028	0.026		NA	NA		NA		0.052	0.042			0.04	0.12			
t-Cyanide*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
Mercury*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
Tin*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
ORGANICS (ug/l)																			
Acetone																			
Benzene						NA	NA		NA										
Carbon Disulfide		21.3	21.3	6.2		NA	NA		NA										
Chlorobenzene						NA	NA		NA										
Chloroethane						NA	NA		NA										
Chloromethane						NA	NA		NA										
1,2-Dibromoethane						NA	NA		NA										
1,4-Dichlorobenzene						NA	NA		NA										
cis-1,2-Dichloroethene						NA	NA		NA										
1,1-Dichloroethane						NA	NA		NA										
1,2-Dichloroethane						NA	NA		NA										
1,1-Dichloroethene						NA	NA		NA										
Methylene Chloride						NA	NA		NA										
Tetrachloroethylene						NA	NA		NA										
Toluene						NA	NA		NA										
1,1,1-Trichloroethane						NA	NA		NA										
Trichloroethylene						NA	NA		NA										
Trichloroflouromethane						NA	NA		NA										
Vinyl Chloride						NA	NA		NA										
Xylenes						NA	NA		NA										
Dichlorodifluoromethane*	NA	NA	NA	NA									NA		NA		NA	NA	NA
Diethyphthalate*	NA	NA	NA	NA		13			13				NA		NA		NA	NA	NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA									NA		NA		NA	NA	NA

	- indicates concentrations exceeding NCGS
"NE"	- not established
"NA"	- not applicable
*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Well Data
Monitoring Well 4 (MW4)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT															MW4 Detects		NCGS
SAMPLING DATES	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																	(mg/l)
Antimony															0	0%	0.0014**
Arsenic															0	0%	0.05
Barium															6	20%	2
Beryllium	0.003	0.003	0.003	0.003		0.002	0.004		0.002	0.002	0.002	0.002	0.0026	0.003	26	87%	0.004**
Cadmium															2	7%	0.00175
Chromium															6	20%	0.05
Cobalt															2	7%	0.07**
Copper															5	17%	1
Lead															9	30%	0.015
Nickel															1	3%	0.1
Selenium															0	0%	0.05
Silver															0	0%	0.0175
Vanadium															2	7%	0.0035**
Zinc												0.019		0.017	10	33%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.07
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE
ORGANICS (ug/l)																	(ug/l)
Acetone															0	0%	700
Benzene															0	0%	1
Carbon Disulfide															3	10%	700
Chlorobenzene															0	0%	50
Chloroethane															0	0%	2800
Chloromethane															0	0%	2.6
1,2-Dibromoethane															0	0%	0.0004
1,4-Dichlorobenzene															0	0%	1.4
cis-1,2-Dichloroethene															0	0%	70
1,1-Dichloroethane															0	0%	70
1,2-Dichloroethane															0	0%	0.38
1,1-Dichloroethene															0	0%	7
Methylene Chloride															0	0%	4.6
Tetrachloroethylene															0	0%	0.7
Toluene															0	0%	1000
1,1,1-Trichloroethane															0	0%	200
Trichloroethylene															0	0%	2.8
Trichloroflouromethane															0	0%	2100
Vinyl Chloride															0	0%	0.015
Xylenes															0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	1400
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2	20%	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE

NCGS = 2L STD or ** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 5 (MW5)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW5																		
SAMPLING DATES	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	July 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01
INORGANICS (mg/l)																			
Antimony						NA	NA		NA										
Arsenic						NA	NA		NA								0.02		
Barium	0.208	0.142	0.243	0.104		NA	NA		NA			0.127	0.1	0.2	0.2				
Beryllium						NA	NA		NA	0.002				0.002	0.003	0.006			
Cadmium			0.001			NA	NA	0.001	NA										
Chromium	0.009					NA	NA		NA										
Cobalt						NA	NA		NA										
Copper	0.017	0.006	0.007	0.006		NA	NA		NA										
Lead	0.008	0.002	0.008			NA	NA		NA			0.002							
Nickel				0.08		NA	NA		NA										
Selenium						NA	NA		NA										
Silver						NA	NA		NA										
Vanadium	0.006					NA	NA		NA										
Zinc	0.027	0.019	0.026	0.01		NA	NA		NA			0.019							
t-Cyanide*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
Mercury*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
Tin*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
ORGANICS (ug/l)																			
Acetone						NA	NA		NA										
Benzene						NA	NA		NA										
Carbon Disulfide		30.5				NA	NA		NA							6.8			
Chlorobenzene						NA	NA		NA										
Chloroethane						NA	NA		NA										
Chloromethane						NA	NA		NA										
1,2-Dibromoethane						NA	NA		NA										
1,4-Dichlorobenzene						NA	NA		NA										
cis-1,2-Dichloroethene						NA	NA		NA										
1,1-Dichloroethane						NA	NA		NA										
1,2-Dichloroethane						NA	NA		NA										
1,1-Dichloroethene						NA	NA		NA										
Methylene Chloride						NA	NA		NA										
Tetrachloroethylene						NA	NA		NA										
Toluene						NA	NA		NA										
1,1,1-Trichloroethane						NA	NA		NA										
Trichloroethylene						NA	NA		NA										
Trichloroflouromethane						NA	NA		NA										
Vinyl Chloride						NA	NA		NA										
Xylenes						NA	NA		NA										
Dichlorodifluoromethane*	NA	NA	NA	NA									NA		NA		NA	NA	NA
Diethyphthalate*	NA	NA	NA	NA									NA		NA		NA	NA	NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA									NA		NA		NA	NA	NA

	- indicates concentrations exceeding NCGS
"NE"	- not established
"NA"	- not applicable
*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Well Data
Monitoring Well 5 (MW5)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT															MW5 Detects		NCGS
SAMPLING DATES	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																	(mg/l)
Antimony															0	0%	0.0014**
Arsenic															1	3%	0.05
Barium												0.112	0.103		10	33%	2
Beryllium															4	13%	0.004**
Cadmium															2	7%	0.00175
Chromium															1	3%	0.05
Cobalt															0	0%	0.07**
Copper															4	13%	1
Lead															4	13%	0.015
Nickel															1	3%	0.1
Selenium															0	0%	0.05
Silver															0	0%	0.0175
Vanadium															1	3%	0.0035**
Zinc															5	17%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.07
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE
ORGANICS (ug/l)																	(ug/l)
Acetone															0	0%	700
Benzene															0	0%	1
Carbon Disulfide															2	7%	700
Chlorobenzene															0	0%	50
Chloroethane															0	0%	2800
Chloromethane															0	0%	2.6
1,2-Dibromoethane															0	0%	0.0004
1,4-Dichlorobenzene															0	0%	1.4
cis-1,2-Dichloroethene															0	0%	70
1,1-Dichloroethane															0	0%	70
1,2-Dichloroethane															0	0%	0.38
1,1-Dichloroethene															0	0%	7
Methylene Chloride															0	0%	4.6
Tetrachloroethylene															0	0%	0.7
Toluene															0	0%	1000
1,1,1-Trichloroethane															0	0%	200
Trichloroethylene															0	0%	2.8
Trichloroflouromethane															0	0%	2100
Vinyl Chloride															0	0%	0.015
Xylenes															0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	1400
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE

NCGS = 2L STD or
** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 6 (MW6)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW6																		
SAMPLING DATES	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	July 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01
INORGANICS (mg/l)																			
Antimony						NA	NA		NA										
Arsenic				0.005		NA	NA		NA										
Barium	0.068	0.096	0.141	0.062		NA	NA		NA			0.084	0.1	0.1					
Beryllium						NA	NA		NA										
Cadmium	0.005	0.009	0.004			NA	NA		NA										
Chromium	0.003	0.033		0.005		NA	NA	0.020	NA		0.012								
Cobalt						NA	NA		NA		0.011	0.009			0.01		0.01		0.011
Copper		0.019	0.01	0.008		NA	NA		NA			0.020							
Lead	0.009	0.019	0.033	0.007	0.037	NA	NA	0.019	NA		0.011	0.007							
Nickel	0.005					NA	NA		NA										
Selenium						NA	NA		NA										
Silver						NA	NA		NA										
Vanadium	0.008	0.074	0.026			NA	NA	0.055	NA										
Zinc	0.038	0.047	0.029	0.018		NA	NA		NA			0.017							
t-Cyanide*	NA	NA	NA	NA		NA	NA		NA		NA				NA		NA		NA
Mercury*	NA	NA	NA	NA		NA	NA		NA		NA	0.0004	0.0004	0.0004	NA	0.002	NA		NA
Tin*	NA	NA	NA	NA		NA	NA		NA		NA	0.1			NA		NA		NA
ORGANICS (ug/l)																			
Acetone						NA			NA								170		
Benzene						NA			NA						2.7	3.4			9.50
Carbon Disulfide		7.9				NA			NA										
Chlorobenzene		4	8.5			NA			NA		13	24		70	11	5.1			
Chloroethane					38	NA	40	40	NA	64	91	46	28.6	190	44	53	53	21	78
Chloromethane						NA			NA								46		
1,2-Dibromoethane						NA			NA										
1,4-Dichlorobenzene						NA			NA										7.20
cis-1,2-Dichloroethene						NA			NA						1.9	2.6			13
1,1-Dichloroethane	76.9	51.7	105	87.1	67	NA	66	61	NA	80	134	160	30.1		88	64	41	37	
1,2-Dichloroethane						NA			NA										
1,1-Dichloroethene			83.2			NA			NA						1.4				
Methylene Chloride	27.5	31.4		23.2	58	NA	7.2	7.2	NA	46	158	160	10.2	240	96			66	109
Tetrachloroethylene	5.3		3.8	5.6		NA			NA						2.4	1.9			8.20
Toluene						NA			NA										
1,1,1-Trichloroethane	15.4	16	15.1	8.3	10	NA	13	7.1	NA		7.2				2.4				
Trichloroethylene	8.4	6.7	10.6	8.8		NA	7.2		NA	6.8	11	9.9			7.9	8.7	7		17
Trichloroflouromethane						NA			NA										
Vinyl Chloride						NA			NA										22
Xylenes	46.7	83.8	68.9	74.8	24	NA	22	23	NA	24	32				11		6		11
Dichlorodifluoromethane*	NA	NA	NA	NA	6.4		5	6.8	10.9		7.9		NA		2.4	2.7	NA		NA
Diethyphthalate*	NA	NA	NA	NA									NA				NA		NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA					6.8				NA				NA		NA

	- indicates concentrations exceeding NCGS
"NE"	- not established
"NA"	- not applicable
*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Well Data
Monitoring Well 6 (MW6)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT															MW6 Detects		NCGS
SAMPLING DATES	Oct .01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																	(mg/l)
Antimony															0	0%	0.0014**
Arsenic															1	3%	0.05
Barium												0.148	0.103	0.14	10	33%	2
Beryllium															0	0%	0.004**
Cadmium															3	10%	0.00175
Chromium		0.017													6	20%	0.05
Cobalt	0.012	0.013		0.019	0.015	0.015	0.019	0.017	0.013	0.017	0.016	0.028	0.017	0.03	18	60%	0.07**
Copper															4	13%	1
Lead															8	27%	0.015
Nickel															1	3%	0.1
Selenium															0	0%	0.05
Silver															0	0%	0.0175
Vanadium															4	13%	0.0035**
Zinc							91.5						0.015	0.016	8	27%	1.05
t-Cyanide*		NA		NA		NA		NA		NA		NA		NA	0	0%	0.07
Mercury*		NA	0.00059	NA	0.0008	NA		NA		NA		NA	0.00036	NA	7	47%	0.00105
Tin*		NA		NA		NA		NA		NA		NA		NA	1	7%	NE
ORGANICS (ug/l)																	(ug/l)
Acetone															1	3%	700
Benzene													6.1	4.2	5	16%	1
Carbon Disulfide															1	3%	700
Chlorobenzene															7	23%	50
Chloroethane	17	19				15.9			12.3						17	55%	2800
Chloromethane															1	3%	2.6
1,2-Dibromoethane															0	0%	0.0004
1,4-Dichlorobenzene									6.9			3.2	7.7	7.4	5	16%	1.4
cis-1,2-Dichloroethene		5.8							17.3	11.9	12.8	12.6	23.1	31.4	10	32%	70
1,1-Dichloroethane	27	28	27.7	6.6	18.4	13.1	7.4	8.9	33.2	18.6	18.4	13.9	22.7	9.2	29	94%	70
1,2-Dichloroethane															0	0%	0.38
1,1-Dichloroethene															2	6%	7
Methylene Chloride	47	37	34.8		28.2	12.8			64.5	20.1	12.9	8.8	33	4.1	25	81%	4.6
Tetrachloroethylene									7.1	6.2	8	6.9	9.3	4.5	12	39%	0.7
Toluene															0	0%	1000
1,1,1-Trichloroethane															9	29%	200
Trichloroethylene	5.4	5.2							8.8	7.1	8.1	7.7	9.24	5.9	20	65%	2.8
Trichloroflouromethane															0	0%	2100
Vinyl Chloride										11.2		8	7.2	6.3	5	16%	0.015
Xylenes									9.8						13	42%	530
Dichlorodifluoromethane*		NA		NA		NA		NA		NA		NA		NA	7	37%	1400
Diethyphthalate*		NA		NA		NA		NA		NA		NA		NA	0	0%	5000
bis(2-ethylhexyl)phthalate*		NA		NA		NA		NA		NA		NA		NA	1	5%	NE

NCGS = 2L STD or ** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 7,7B (MW7,7B)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW7				MW7B														
SAMPLING DATES	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	July 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct.00	Apr. 01
INORGANICS (mg/l)																			
Antimony		NA	NA			NA	NA		NA					NT					
Arsenic		NA	NA		0.033	NA	NA	0.010	NA	0.01	0.032	0.279		NT					
Barium	0.892	NA	NA	0.2	0.55	NA	NA		NA				0.3	NT	0.9		0.5		
Beryllium		NA	NA	0.001	0.003	NA	NA		NA		0.003			NT	0.004				
Cadmium	0.0013	NA	NA	0.001	0.004	NA	NA		NA		0.004			NT					
Chromium	0.03	NA	NA	0.040	0.09	NA	NA	0.020	NA	0.021	0.071	0.011	0.010	NT	0.09	0.01		0.014	
Cobalt	0.146	NA	NA	0.013	0.04	NA	NA	0.012	NA		0.018	0.011		NT	0.07	0.02		0.019	0.020
Copper	0.034	NA	NA	0.036		NA	NA		NA			0.013		NT	0.08				
Lead	0.519	NA	NA	0.044	0.36	NA	NA	0.196	NA	0.087	0.264	0.062	0.070	NT	0.71	0.05	0.1	0.036	
Nickel	0.02	NA	NA			NA	NA		NA					NT					
Selenium		NA	NA			NA	NA		NA					NT					
Silver		NA	NA			NA	NA		NA					NT					
Vanadium	0.197	NA	NA	0.06	0.23	NA	NA	0.064	NA	0.054	0.169			NT	0.21				
Zinc	0.051	NA	NA	0.065	0.06	NA	NA		NA			0.026		NT	0.15	0.05			
t-Cyanide*	NA	NA	NA	NA		NA	NA		NA		NA		NA	NT	NA		NA		NA
Mercury*	NA	NA	NA	NA		NA	NA		NA		NA	0.0006	NA	NT	NA	0.001	NA		NA
Tin*	NA	NA	NA	NA		NA	NA		NA		NA		NA	NT	NA		NA		NA
ORGANICS (ug/l)																			
Acetone			NA			NA			NA										
Benzene			NA			NA			NA					NT	1.1				
Carbon Disulfide			NA			NA			NA					NT					
Chlorobenzene			NA			NA			NA					NT					
Chloroethane			NA	29.3	30	NA	13	14	NA	37		4.8	177	NT	31	68	44	21	31
Chloromethane			NA			NA			NA					NT			64		
1,2-Dibromoethane			NA			NA			NA					NT					
1,4-Dichlorobenzene			NA			NA			NA					NT					
cis-1,2-Dichloroethene			NA			NA			NA					NT					
1,1-Dichloroethane	262	69.7	NA	52.4	100	NA	92	77	NA	100	56	30	99.5	NT	110	210	170	90	
1,2-Dichloroethane			NA			NA			NA					NT					
1,1-Dichloroethene	8.6	8.1	NA	6.2	17	NA	15	8.8	NA	15	14	12	14.7	NT	7.2	7.4			10
Methylene Chloride		11.2	NA			NA			NA	13	28	2.2	14.6	NT	53			60	75
Tetrachloroethylene			NA			NA			NA					NT					
Toluene	31.4	13.2	NA	3.8	11	NA	9		NA					NT	3.4		5		
1,1,1-Trichloroethane	59.1	59.3	NA	29.1	78	NA	65	75	NA	65	49	27	33.4	NT	11	12	12		8.20
Trichloroethylene	9.9	10.7	NA			NA			NA			1		NT	3.6	7.8	6		5.30
Trichloroflouromethane			NA	11.7	14	NA	8.7	11	NA	22	11	13	9.4	NT	8.3				9.10
Vinyl Chloride			NA			NA			NA					NT					
Xylenes	6.5	5.4	NA			NA			NA					NT	4.8		12		
Dichlorodifluoromethane*	NA	NA	NA	NA	56	155	34	53	69.2	110	94		33.2	NT	31	41	NA		NA
Diethyphthalate*	NA	NA	NA	NA	13									NT			NA		NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	24									NT			NA		NA

	- indicates concentrations exceeding NCGS
"NE"	- not established
"NA"	- not applicable
*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Well Data
Monitoring Well 7,7B (MW7,7B)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT															MW7,7B Detects		NCGS
SAMPLING DATES	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																	(mg/l)
Antimony															0	0%	0.0014**
Arsenic															5	19%	0.05
Barium												0.341	0.345	0.268	9	33%	2
Beryllium															4	15%	0.004**
Cadmium															4	15%	0.00175
Chromium		0.013													12	44%	0.05
Cobalt	0.014		0.024	0.017	0.025	0.022	0.019	0.015	0.022	0.032	0.031	0.025	0.026	0.031	23	85%	0.07**
Copper															4	15%	1
Lead	0.017	0.020			0.035		0.018	0.027	0.019	0.010	0.015	0.014	0.031		22	81%	0.015
Nickel															1	4%	0.1
Selenium															0	0%	0.05
Silver															0	0%	0.0175
Vanadium															7	26%	0.0035**
Zinc															6	22%	1.05
t-Cyanide*		NA		NA		NA		NA		NA		NA		NA	0	0%	0.07
Mercury*	0.00099	NA	0.0027	NA	0.00142	NA	0.0011	NA	0.0015	NA	0.0046	NA	0.0026	NA	9	69%	0.00105
Tin*		NA	0.179	NA		NA		NA		NA		NA		NA	1	8%	NE
ORGANICS (ug/l)																	(ug/l)
Acetone															0	0%	700
Benzene												4.7	4.1	4.2	4	14%	1
Carbon Disulfide															0	0%	700
Chlorobenzene				6			5.3							3	3	10%	50
Chloroethane	22	34	14.9	19.9	30.7	28.5	22.6	13.6	21.9	24.9	16.1	10.5	12.4		25	86%	2800
Chloromethane															1	3%	2.6
1,2-Dibromoethane															0	0%	0.0004
1,4-Dichlorobenzene															0	0%	1.4
cis-1,2-Dichloroethene												6			1	3%	70
1,1-Dichloroethane	176	230	87.1	220	141	137	113	147	22.5	176	174	153	129		27	93%	70
1,2-Dichloroethane				8.7											1	3%	0.38
1,1-Dichloroethene	5.3	7.4	6.5	8.1	6	5.9		5.4							20	71%	7
Methylene Chloride	138	154	26.4	174	70.3	93.3	101	75.1	59.6	79.9	74.1	74.5	45.5		21	72%	4.6
Tetrachloroethylene									9				3.7	3.2	3	10%	0.7
Toluene															7	24%	1000
1,1,1-Trichloroethane	5.6	6.9		5.1											17	59%	200
Trichloroethylene	7.3	8.8			6.8	7.6	7.7	7.5		10.5	9.9	8.8	9.2	9.1	18	62%	2.8
Trichloroflouromethane		7	5.1										1.5	2.2	14	48%	2100
Vinyl Chloride												5	5	3.9	3	10%	0.015
Xylenes		9.3		6.3			5.6					4.8			8	28%	530
Dichlorodifluoromethane*		NA	24.7	NA	20.6	NA	10.7	NA	12.6	NA	9.5	NA	7	NA	16	84%	1400
Diethyphthalate*		NA		NA		NA		NA		NA		NA		NA	1	5%	5000
bis(2-ethylhexyl)phthalate*		NA		NA		NA		NA		NA		NA		NA	1	5%	NE

NCGS = 2L STD or
** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 8 (MW8)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW8																		
SAMPLING DATES	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	July 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01
INORGANICS (mg/l)																			
Antimony						NA	NA		NA										
Arsenic						NA	NA		NA		0.015								
Barium	0.043	0.05	0.025	0.032		NA	NA		NA			0.037					0.08		
Beryllium						NA	NA		NA		0.004					0.007			
Cadmium		0.002	0.001			NA	NA		NA		0.002								
Chromium		0.013				NA	NA		NA		0.111	0.009							
Cobalt						NA	NA		NA										
Copper	0.005	0.015	0.09	0.005		NA	NA		NA			0.007							
Lead		0.008			0.011	NA	NA		NA		0.073	0.008							
Nickel						NA	NA		NA										
Selenium						NA	NA		NA										
Silver						NA	NA		NA										
Vanadium		0.045				NA	NA		NA		0.410								
Zinc	0.02	0.035	0.019	0.009		NA	NA		NA		0.056	0.020		0.040					
t-Cyanide*	NA	NA	NA	NA		NA	NA		NA	0.127	NA		NA		NA		NA		NA
Mercury*	NA	NA	NA	NA		NA	NA		NA		NA		NA	0.002	NA		NA		NA
Tin*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA		NA
ORGANICS (ug/l)																			
Acetone						NA			NA										
Benzene						NA			NA			2.1			1.6				
Carbon Disulfide						NA			NA										
Chlorobenzene						NA			NA										
Chloroethane					16	NA	7.2		NA		31	22	12.2		14	21	41	16	19
Chloromethane						NA			NA							6.1	88		
1,2-Dibromoethane						NA			NA										
1,4-Dichlorobenzene						NA			NA										
cis-1,2-Dichloroethene						NA			NA										
1,1-Dichloroethane					6.4	NA	11	7.8	NA		45	47	10.2	39	37	59	92	44	135
1,2-Dichloroethane						NA			NA										
1,1-Dichloroethene						NA			NA										
Methylene Chloride						NA			NA		49	31	5.2	25	30			74	140
Tetrachloroethylene						NA			NA										
Toluene						NA			NA										
1,1,1-Trichloroethane						NA			NA										
Trichloroethylene						NA			NA			2.2			1.8	2.8			6.80
Trichloroflouromethane						NA			NA										
Vinyl Chloride						NA			NA										
Xylenes						NA			NA										5.00
Dichlorodifluoromethane*	NA	NA	NA	NA	7	6.8							NA		2.3	4.3	NA		NA
Diethyphthalate*	NA	NA	NA	NA									NA				NA		NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA									NA				NA		NA

	- indicates concentrations exceeding NCGS
"NE"	- not established
"NA"	- not applicable
*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Well Data
Monitoring Well 8 (MW8)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT															MW8 Detects		NCGS
SAMPLING DATES	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																	(mg/l)
Antimony															0	0%	0.0014**
Arsenic															1	3%	0.05
Barium														0.115	7	23%	2
Beryllium															2	7%	0.004**
Cadmium															3	10%	0.00175
Chromium	0.022														4	13%	0.05
Cobalt															0	0%	0.07**
Copper															5	17%	1
Lead															4	13%	0.015
Nickel			0.053												1	3%	0.1
Selenium															0	0%	0.05
Silver															0	0%	0.0175
Vanadium	0.063														3	10%	0.0035**
Zinc															7	23%	1.05
t-Cyanide*		NA		NA		NA		NA		NA		NA		NA	1	7%	0.07
Mercury*		NA		NA		NA		NA		NA		NA		NA	1	7%	0.00105
Tin*		NA		NA		NA		NA		NA		NA		NA	0	0%	NE
ORGANICS (ug/l)																	(ug/l)
Acetone															0	0%	700
Benzene													2.6	2.5	4	13%	1
Carbon Disulfide															0	0%	700
Chlorobenzene															0	0%	50
Chloroethane		28	15.3	12.7	13.2										14	45%	2800
Chloromethane	25														3	10%	2.6
1,2-Dibromoethane															0	0%	0.0004
1,4-Dichlorobenzene													1.3	1.2	2	6%	1.4
cis-1,2-Dichloroethene												7	5.4	10.2	3	10%	70
1,1-Dichloroethane		80	76.8	71.5	59.2	42.7	31	38.9	59	58.6	63	49.1	54.3		24	77%	70
1,2-Dichloroethane															0	0%	0.38
1,1-Dichloroethene	81														1	3%	7
Methylene Chloride	92	90	80.5	71.2	69	44.5	39.9	40.6	63.3	64	67.2	48.4	35.9	31	21	68%	4.6
Tetrachloroethylene											5.2	5	6.5	5.5	4	13%	0.7
Toluene															0	0%	1000
1,1,1-Trichloroethane															0	0%	200
Trichloroethylene	5.3											4	4.4	4.8	8	26%	2.8
Trichloroflouromethane															0	0%	2100
Vinyl Chloride														1	1	3%	0.015
Xylenes															1	3%	530
Dichlorodifluoromethane*		NA		NA		NA		NA		NA		NA		NA	4	21%	1400
Diethyphthalate*		NA		NA		NA		NA		NA		NA		NA	0	0%	5000
bis(2-ethylhexyl)phthalate*		NA		NA		NA		NA		NA		NA		NA	0	0%	NE

NCGS = 2L STD or ** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 9 (MW9)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW9															MW9 Detects		NCGS
SAMPLING DATES	Apr. 01	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																		(mg/l)
Antimony																0	0%	0.0014**
Arsenic																0	0%	0.05
Barium													0.103	0.123	0.129	3	20%	2
Beryllium																0	0%	0.004**
Cadmium																0	0%	0.00175
Chromium		0.038	0.015	0.082												3	20%	0.05
Cobalt																0	0%	0.07**
Copper														0.013		1	7%	1
Lead				0.014												1	7%	0.015
Nickel																0	0%	0.1
Selenium																0	0%	0.05
Silver																0	0%	0.0175
Vanadium		0.078		0.189												2	13%	0.0035**
Zinc																0	0%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	0	NA	0.07
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.005	NA	1	NA	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	0	NA	NE
ORGANICS (ug/l)																		(ug/l)
Acetone																0	0%	700
Benzene	8.6	11	7.8	8.2	8.1	6.4					5.6	5.2	5	5.4	11.5	11	73%	1
Carbon Disulfide																0	0%	700
Chlorobenzene			18	23.6	19.8	18	16.2	10.3	10.1	12.1	18.2	11.7	11.1	11.8	8.1	13	87%	50
Chloroethane	65	51	39	35.7	27.4	36	21.4	16.5	15.7	22.4	23.5	20.3	13	12.4	11.6	15	100%	2800
Chloromethane	189															1	7%	2.6
1,2-Dibromoethane		14														1	7%	0.0004
1,4-Dichlorobenzene														2.5	6.6	2	13%	1.4
cis-1,2-Dichloroethene				6							6.5	7.9	5.7	8	25	6	40%	70
1,1-Dichloroethane		126	219	170	202	135	122	75.2	81.9	110	103	87	74.7	58.1		13	87%	70
1,2-Dichloroethane					11.8											1	7%	0.38
1,1-Dichloroethene																0	0%	7
Methylene Chloride		195	231	272	197	166	127	67.9	56.7	75.7	122	96.4	64.2	49.6		13	87%	4.6
Tetrachloroethylene		5.3		5.3	5.1									2.9	4.4	5	33%	0.7
Toluene																0	0%	1000
1,1,1-Trichloroethane																0	0%	200
Trichloroethylene	11	15	9.8	10		9.5	8.2	5.8	7	6.5	6.2	5	4.7	3.9	5.9	14	93%	2.8
Trichloroflouromethane																0	0%	2100
Vinyl Chloride													9.1	5.9	6.5	3	20%	0.015
Xylenes	26	39	25	24.5	19.6	15.6	7.3				7.1	5.6			5.1	10	67%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	0	NA	1400
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	0	NA	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	0	NA	NE

		- indicates concentrations exceeding NCGS
	"NE"	- not established
	"NA"	- not applicable
	*	-denotes an Appendix II constituent not included in Appendix I

NCGS = 2L STD or ** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 10 (MW10)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW10															MW10 Detects		NCGS
SAMPLING DATES	Apr. 01	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																		(mg/l)
Antimony																0	0%	0.0014**
Arsenic																0	0%	0.05
Barium																0	0%	2
Beryllium																0	0%	0.004**
Cadmium																0	0%	0.00175
Chromium	0.014		0.013	0.118						0.012						4	27%	0.05
Cobalt																0	0%	0.07**
Copper														0.018	0.021	2	13%	1
Lead				0.012												1	7%	0.015
Nickel																0	0%	0.1
Selenium																0	0%	0.05
Silver																0	0%	0.0175
Vanadium				0.246												1	7%	0.0035**
Zinc	0.052												0.019		0.013	3	20%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	0	NA	0.07
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	0	NA	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	0	NA	NE
ORGANICS (ug/l)																		(ug/l)
Acetone					156				130	419	234					4	27%	700
Benzene	6.9	7.3	6.2										4.6	2	4.5	6	40%	1
Carbon Disulfide																0	0%	700
Chlorobenzene	25	33	21	9.2		6.8	5.7	6.7					3.4			8	53%	50
Chloroethane	72	47	51	16.7	11.6	18.8	19.1	19.8	12.2							9	60%	2800
Chloromethane																0	0%	2.6
1,2-Dibromoethane																0	0%	0.0004
1,4-Dichlorobenzene														1.3	1.3	2	13%	1.4
cis-1,2-Dichloroethene	17	17	20	6.9		6.8	11.7	12.6	10.7	6.5	15.8	7.9	16.9	6.9	9	14	93%	70
1,1-Dichloroethane		266	109	59.3	42.6	69.1	608	53.3	34.9	25.2	19.1	9.4	10.9	9.2	7.5	14	93%	70
1,2-Dichloroethane																0	0%	0.38
1,1-Dichloroethene																0	0%	7
Methylene Chloride	120	310	132	59.3	19.7	48.7	48	67.7	51.6		27.1		14.4		4.9	12	80%	4.6
Tetrachloroethylene	12	11	13	6.8	7.1	7.3										6	40%	0.7
Toluene																0	0%	1000
1,1,1-Trichloroethane																0	0%	200
Trichloroethylene	11	11	9.1			5.7									1.3	5	33%	2.8
Trichloroflouromethane																0	0%	2100
Vinyl Chloride	10													1.4	2	3	20%	0.015
Xylenes	35	39	30	7.4	5	6.4		12.3	5.5		5.3					9	60%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	0	NA	1400
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	0	NA	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	0	NA	NE

		- indicates concentrations exceeding NCGS
	"NE"	- not established
	"NA"	- not applicable
	*	-denotes an Appendix II constituent not included in Appendix I

NCGS = 2L STD or ** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 23B (MW23B)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW23B																			
SAMPLING DATES	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Mar. 96	July 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	Oct. 01
INORGANICS (mg/l)																				
Antimony						NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	NA
Arsenic						NA			NA	NA		0.064			0.006	0.015				
Barium	0.071	0.17	0.109	0.228		NA	0.076		NA	NA			0.029	0.077	0.26	1.64	0.084			
Beryllium		0.002		0.02	0.019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	NA
Cadmium	0.0008	0.001				NA			NA	NA										
Chromium	0.009	0.025		0.012	0.01	NA	0.0105		NA	NA					0.025	0.104				
Cobalt						NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	NA
Copper	0.015	0.034	0.02	0.037		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	NA
Lead	0.005	0.015	0.006	0.018	0.027	NA	0.0157		NA	NA		0.005	0.002	0.009	0.049	0.089				
Nickel						NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	NA
Selenium						NA			NA	NA						0.002				
Silver			0.105			NA			NA	NA										
Vanadium	0.013	0.05	0.006	0.04		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	NA
Zinc	0.043	0.035	0.021	0.047	0.06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	NA
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					0.0017	0.0003				
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
ORGANICS (ug/l)																				
Acetone						NA			NA	NA	NA									
Benzene						NA			NA	NA	NA									
Carbon Disulfide						NA			NA	NA	NA									
Chlorobenzene						NA			NA	NA	NA									
Chloroethane						NA			NA	NA	NA									
Chloromethane						NA			NA	NA	NA									
1,2-Dibromoethane						NA			NA	NA	NA									
1,4-Dichlorobenzene						NA			NA	NA	NA									
cis-1,2-Dichloroethene						NA			NA	NA	NA									
1,1-Dichloroethane						NA			NA	NA	NA									
1,2-Dichloroethane						NA			NA	NA	NA									
1,1-Dichloroethene						NA			NA	NA	NA									
Methylene Chloride						NA			NA	NA	NA									
Tetrachloroethylene						NA			NA	NA	NA									
Toluene						NA			NA	NA	NA									
1,1,1-Trichloroethane						NA			NA	NA	NA									
Trichloroethylene						NA			NA	NA	NA									
Trichloroflouromethane						NA			NA	NA	NA									
Vinyl Chloride						NA			NA	NA	NA									
Xylenes						NA			NA	NA	NA									
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

MW23B, a Set 2 well, is statistically compared with Set 1 since it is downgradient of Set 1 wells.

	- indicates concentrations exceeding NCGS
"NE"	- not established
"NA"	- not applicable
*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Well Data
Monitoring Well 23B (MW23B)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT														MW23B Detects		NCGS
SAMPLING DATES	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 04	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																(mg/l)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.0014**
Arsenic														3	10%	0.05
Barium													0.101	11	37%	2
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3	43%	0.004**
Cadmium														2	7%	0.00175
Chromium														7	23%	0.05
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.07**
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	57%	1
Lead														11	37%	0.015
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.1
Selenium														1	3%	0.05
Silver														1	3%	0.0175
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	57%	0.0035**
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	71%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.07
Mercury*														2	9%	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE
ORGANICS (ug/l)																(ug/l)
Acetone														0	0%	700
Benzene														0	0%	1
Carbon Disulfide														0	0%	700
Chlorobenzene														0	0%	50
Chloroethane														0	0%	2800
Chloromethane														0	0%	2.6
1,2-Dibromoethane														0	0%	0.0004
1,4-Dichlorobenzene														0	0%	1.4
cis-1,2-Dichloroethene														0	0%	70
1,1-Dichloroethane														0	0%	70
1,2-Dichloroethane														0	0%	0.38
1,1-Dichloroethene														0	0%	7
Methylene Chloride														0	0%	4.6
Tetrachloroethylene														0	0%	0.7
Toluene														0	0%	1000
1,1,1-Trichloroethane														0	0%	200
Trichloroethylene														0	0%	2.8
Trichloroflouromethane														0	0%	2100
Vinyl Chloride														0	0%	0.015
Xylenes														0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	1400
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	NE

NCGS = 2L STD or
** 13B GWPS as of Oct 07

Recommended Test Per Constituent
Total Detects and Percentages
Set 1 Data
Dunn-Erwin MSW Landfill
Harnett County, NC

CONSTITUENT	SET 1 DATA		RECOMMENDED TEST
	Detect #	Detect %	
INORGANICS (mg/l)			
Antimony	0	0%	QUALITATIVE
Arsenic	18	6%	QUALITATIVE
Barium	80	25%	TEST OF PROPORTIONS*
Beryllium	98	32%	TEST OF PROPORTIONS*
Cadmium	31	10%	QUALATATIVE
Chromium	69	21%	TEST OF PROPORTIONS*
Cobalt	51	17%	TEST OF PROPORTIONS*
Copper	49	16%	TEST OF PROPORTIONS*
Lead	89	27%	TEST OF PROPORTIONS*
Nickel	8	3%	QUALITATIVE
Selenium	1	0%	QUALITATIVE
Silver	1	0%	QUALITATIVE
Vanadium	42	14%	TEST OF PROPORTIONS*
Zinc	82	27%	TEST OF PROPORTIONS*
t-Cyanide**	1	1%	QUALITATIVE
Mercury**	21	20%	TEST OF PROPORTIONS*
Tin**	4	5%	QUALITATIVE
ORGANICS (ug/l)			
Acetone	5	2%	QUALITATIVE
Benzene	30	9%	QUALITATIVE
Carbon Disulfide	9	3%	QUALITATIVE
Chlorobenzene	31	9%	QUALITATIVE
Chloroethane	80	24%	TEST OF PROPORTIONS*
Chloromethane	6	2%	QUALITATIVE
1,2-Dibromoethane	1	0%	QUALITATIVE
1,4-Dichlorobenzene	11	3%	QUALITATIVE
cis-1,2-Dichloroethene	34	10%	TEST OF PROPORTIONS*
1,1-Dichloroethane	107	33%	TEST OF PROPORTIONS*
1,2-Dichloroethane	2	1%	QUALITATIVE
1,1-Dichloroethene	23	7%	QUALITATIVE
Methylene Chloride	92	28%	TEST OF PROPORTIONS*
Tetrachloroethylene	30	9%	QUALITATIVE
Toluene	7	2%	QUALITATIVE
1,1,1-Trichloroethane	26	8%	QUALITATIVE
Trichloroethylene	65	20%	TEST OF PROPORTIONS*
Trichlorofluoromethane	14	4%	QUALITATIVE
Vinyl Chloride	15	5%	QUALITATIVE
Xylenes	41	12%	TEST OF PROPORTIONS*
Dichlorodifluoromethane**	27	23%	TEST OF PROPORTIONS*
Diethyphthalate**	7	6%	QUALITATIVE
bis(2-ethylhexyl)phthalate**	2	2%	QUALITATIVE

NOTES:

* The Test of Proportions may be performed jointly with a qualitative test to ensure more accurate results.

** These constituents are Appendix II constituents which were analyzed for the first time in September 1995.

Test of Proportions
Data Set 1
Dunn-Erwin MSW Landfill
Harnett County, North Carolina

Parameter	Nt	PDt	B*C	B*(1-C)	n	Pu	m	Pd	SD	Z	notes
DATA SET 1											
MW2											
METALS											
Barium	90	0.2	18	72	60	0.1833	30	0.2333	0.0894	-0.55902	not SSIOBL
Beryllium	90	0.4	36	54	60	0.2833	30	0.6333	0.1095	-3.19505	SSIOBL
Cadmium	90	0.1333	12	78	60	0.1333	30	0.1333	0.076	0	not SSIOBL
Chromium	90	0.2444	22	68	60	0.2667	30	0.2	0.0961	0.693746	not SSIOBL
Cobalt	90	0.0667	6	84	60	0.05	30	0.1	0.0558	-0.89642	not SSIOBL
Copper	90	0.2	18	72	60	0.2167	30	0.1667	0.0894	0.559017	not SSIOBL
Lead	90	0.2889	26	64	60	0.3	30	0.2667	0.1013	0.328897	not SSIOBL
Vanadium	90	0.1778	16	74	60	0.2	30	0.1333	0.0855	0.779813	not SSIOBL
Zinc	90	0.3222	29	61	60	0.3167	30	0.3333	0.1045	-0.15949	not SSIOBL
Mercury	18	0.0556	1	17	12	0	6	0.1667	0.1145	-1.45521	*
ORGANICS											
Chloroethane	90	0	0	90	60	0	30	0	0	NA	*
cis-1,2-Dichloroethene	90	0	0	90	60	0	30	0	0	NA	*
1,1 Dichloroethane	90	0	0	90	60	0	30	0	0	NA	*
Methylene Chloride	90	0	0	90	60	0	30	0	0	NA	*
Trichloroethylene	90	0	0	90	60	0	30	0	0	NA	*
Xylenes	90	0	0	90	60	0	30	0	0	NA	*
Dichlorodifluoromethane	30	0	0	30	20	0	10	0	0	NA	*
MW3											
METALS											
Barium	89	0.191	17	72	60	0.1833	29	0.2069	0.0889	-0.26504	not SSIOBL
Beryllium	89	0.4494	40	49	60	0.2833	29	0.7931	0.1125	-4.53123	SSIOBL
Chromium	89	0.2247	20	69	60	0.2667	29	0.1379	0.0944	1.363731	not SSIOBL
Cobalt	89	0.0562	5	84	60	0.05	29	0.069	0.0521	-0.36417	not SSIOBL
Copper	89	0.1685	15	74	60	0.2167	29	0.069	0.0847	1.744585	not SSIOBL
Lead	89	0.236	21	68	60	0.3	29	0.1034	0.096	2.046833	not SSIOBL
Vanadium	89	0.1573	14	75	60	0.2	29	0.069	0.0823	1.591331	not SSIOBL
Zinc	89	0.3146	28	61	60	0.3167	29	0.3103	0.105	0.060196	not SSIOBL
Mercury	18	0	0	18	12	0	6	0	0	NA	*
ORGANICS											
Chloroethane	89	0	0	89	60	0	29	0	0	NA	*
cis-1,2-Dichloroethene	89	0	0	89	60	0	29	0	0	NA	*
1,1 Dichloroethane	89	0	0	89	60	0	29	0	0	NA	*
Methylene Chloride	89	0	0	89	60	0	29	0	0	NA	*
Trichloroethylene	89	0	0	89	60	0	29	0	0	NA	*
Xylenes	89	0	0	89	60	0	29	0	0	NA	*
Dichlorodifluoromethane	30	0	0	30	20	0	10	0	0	NA	*
MW4											
METALS											
Barium	90	0.1889	17	73	60	0.1833	30	0.2	0.0875	-0.19042	not SSIOBL
Beryllium	90	0.4778	43	47	60	0.2833	30	0.8667	0.1117	-5.22265	SSIOBL
Chromium	90	0.2444	22	68	60	0.2667	30	0.2	0.0961	0.693746	not SSIOBL
Cobalt	90	0.0556	5	85	60	0.05	30	0.0667	0.0512	-0.3254	not SSIOBL
Copper	90	0.2	18	72	60	0.2167	30	0.1667	0.0894	0.559017	not SSIOBL

Test of Proportions
Data Set 1
Dunn-Erwin MSW Landfill
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Parameter	Nt	PDt	B*C	B*(1-C)	n	Pu	m	Pd	SD	Z	notes
Lead	90	0.3	27	63	60	0.3	30	0.3	0.1025	0	not SSIOBL
Vanadium	90	0.1556	14	76	60	0.2	30	0.0667	0.081	1.645225	not SSIOBL
Zinc	90	0.3222	29	61	60	0.3167	30	0.3333	0.1045	-0.15949	not SSIOBL
Mercury	18	0	0	18	12	0	6	0	0	NA	*
ORGANICS											
Chloroethane	90	0	0	90	60	0	30	0	0	NA	*
cis-1,2-Dichloroethene	90	0	0	90	60	0	30	0	0	NA	*
1,1 Dichloroethane	90	0	0	90	60	0	30	0	0	NA	*
Methylene Chloride	90	0	0	90	60	0	30	0	0	NA	*
Trichloroethylene	90	0	0	90	60	0	30	0	0	NA	*
Xylenes	90	0	0	90	60	0	30	0	0	NA	*
Dichlorodifluoromethane	30	0	0	30	20	0	10	0	0	NA	*
MW5											
Barium	90	0.2333	21	69	60	0.1833	30	0.3333	0.0946	-1.58604	not SSIOBL
Beryllium	90	0.2333	21	69	60	0.2833	30	0.1333	0.0946	1.586042	not SSIOBL
Chromium	90	0.1889	17	73	60	0.2667	30	0.0333	0.0875	2.665928	not SSIOBL
Cobalt	90	0.0333	3	87	60	0.05	30	0	0.0401	1.245682	*
Copper	90	0.1889	17	73	60	0.2167	30	0.1333	0.0875	0.952117	not SSIOBL
Lead	90	0.2444	22	68	60	0.3	30	0.1333	0.0961	1.734365	not SSIOBL
Vanadium	90	0.1444	13	77	60	0.2	30	0.0333	0.0786	2.12026	not SSIOBL
Zinc	90	0.2667	24	66	60	0.3167	30	0.1667	0.0989	1.51695	not SSIOBL
Mercury	18	0	0	18	12	0	6	0	0	NA	*
ORGANICS											
Chloroethane	90	0	0	90	60	0	30	0	0	NA	*
cis-1,2-Dichloroethene	90	0	0	90	60	0	30	0	0	NA	*
1,1 Dichloroethane	90	0	0	90	60	0	30	0	0	NA	*
Methylene Chloride	90	0	0	90	60	0	30	0	0	NA	*
Trichloroethylene	90	0	0	90	60	0	30	0	0	NA	*
Xylenes	90	0	0	90	60	0	30	0	0	NA	*
Dichlorodifluoromethane	30	0	0	30	20	0	10	0	0	NA	*
MW6											
METALS											
Barium	90	0.2333	21	69	60	0.1833	30	0.3333	0.0946	-1.58604	not SSIOBL
Beryllium	90	0.1889	17	73	60	0.2833	30	0	0.0875	3.237198	not SSIOBL
Chromium	90	0.2444	22	68	60	0.2667	30	0.2	0.0961	0.693746	not SSIOBL
Cobalt	90	0.2333	21	69	60	0.05	30	0.6	0.0946	-5.81549	SSIOBL
Copper	90	0.1889	17	73	60	0.2167	30	0.1333	0.0875	0.952117	not SSIOBL
Lead	90	0.2889	26	64	60	0.3	30	0.2667	0.1013	0.328897	not SSIOBL
Vanadium	90	0.1778	16	74	60	0.2	30	0.1333	0.0855	0.779813	not SSIOBL
Zinc	90	0.3	27	63	60	0.3167	30	0.2667	0.1025	0.48795	not SSIOBL
Mercury	27	0.2593	7	20	12	0	15	0.4667	0.1697	-2.74955	SSIOBL
ORGANICS											
Chloroethane	91	0.1868	17	74	60	0	31	0.5484	0.0862	-6.36098	SSIOBL
cis-1,2-Dichloroethene	91	0.1099	10	81	60	0	31	0.3226	0.0692	-4.66308	SSIOBL
1,1 Dichloroethane	91	0.3187	29	62	60	0	31	0.9355	0.1031	-9.0765	SSIOBL
Methylene Chloride	91	0.2747	25	66	60	0	31	0.8065	0.0987	-8.16796	SSIOBL
Trichloroethylene	91	0.2198	20	71	60	0	31	0.6452	0.0916	-7.04371	SSIOBL

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Parameter	Nt	PDt	B*C	B*(1-C)	n	Pu	m	Pd	SD	Z	notes
Xylenes	91	0.1429	13	78	60	0	31	0.4194	0.0774	-5.41801	SSIOBL
Dichlorodifluoromethane	39	0.1795	7	32	20	0	19	0.3684	0.1229	-2.99671	SSIOBL
MW7,7B											
METALS											
Barium	87	0.2299	20	67	60	0.1833	27	0.3333	0.0975	-1.53835	not SSIOBL
Beryllium	87	0.2414	21	66	60	0.2833	27	0.1481	0.0992	1.363216	not SSIOBL
Chromium	87	0.3218	28	59	60	0.2667	27	0.4444	0.1083	-1.64206	not SSIOBL
Cobalt	87	0.2989	26	61	60	0.05	27	0.8519	0.1061	-7.55892	SSIOBL
Copper	87	0.1954	17	70	60	0.2167	27	0.1481	0.0919	0.745678	not SSIOBL
Lead	87	0.4598	40	47	60	0.3	27	0.8148	0.1155	-4.45748	SSIOBL
Vanadium	87	0.2184	19	68	60	0.2	27	0.2593	0.0957	-0.61893	not SSIOBL
Zinc	87	0.2874	25	62	60	0.3167	27	0.2222	0.1049	0.900591	not SSIOBL
Mercury	25	0.36	9	16	12	0	13	0.6923	0.1922	-3.60288	SSIOBL
ORGANICS											
Chloroethane	89	0.2809	25	64	60	0	29	0.8621	0.1016	-8.48109	SSIOBL
cis-1,2-Dichloroethene	89	0.0112	1	88	60	0	29	0.0345	0.0238	-1.44654	*
1,1 Dichloroethane	89	0.3034	27	62	60	0	29	0.931	0.104	-8.95484	SSIOBL
Methylene Chloride	89	0.236	21	68	60	0	29	0.7241	0.096	-7.54096	SSIOBL
Trichloroethylene	89	0.2022	18	71	60	0	29	0.6207	0.0908	-6.83249	SSIOBL
Xylenes	89	0.0899	8	81	60	0	29	0.2759	0.0647	-4.26456	SSIOBL
Dichlorodifluoromethane	39	0.4103	16	23	20	0	19	0.8421	0.1576	-5.344	SSIOBL
MW8											
METALS											
Barium	90	0.2	18	72	60	0.1833	30	0.2333	0.0894	-0.55902	not SSIOBL
Beryllium	90	0.2111	19	71	60	0.2833	30	0.0667	0.0913	2.374344	not SSIOBL
Chromium	90	0.2222	20	70	60	0.2667	30	0.1333	0.093	1.434274	not SSIOBL
Cobalt	90	0.0333	3	87	60	0.05	30	0	0.0401	1.245682	*
Copper	90	0.2	18	72	60	0.2167	30	0.1667	0.0894	0.559017	not SSIOBL
Lead	90	0.2444	22	68	60	0.3	30	0.1333	0.0961	1.734365	not SSIOBL
Vanadium	90	0.1667	15	75	60	0.2	30	0.1	0.0833	1.2	not SSIOBL
Zinc	90	0.2889	26	64	60	0.3167	30	0.2333	0.1013	0.822242	not SSIOBL
Mercury	26	0.0385	1	25	12	0	14	0.0714	0.0757	-0.94415	*
ORGANICS											
Chloroethane	91	0.1538	14	77	60	0	31	0.4516	0.0798	-5.65893	SSIOBL
cis-1,2-Dichloroethene	91	0.033	3	88	60	0	31	0.0968	0.0395	-2.45039	*
1,1 Dichloroethane	91	0.2637	24	67	60	0	31	0.7742	0.0975	-7.94298	SSIOBL
Methylene Chloride	91	0.2308	21	70	60	0	31	0.6774	0.0932	-7.26902	SSIOBL
Trichloroethylene	91	0.0879	8	83	60	0	31	0.2581	0.0626	-4.12023	SSIOBL
Xylenes	91	0.011	1	90	60	0	31	0.0323	0.0231	-1.39892	*
Dichlorodifluoromethane	39	0.1026	4	35	20	0	19	0.2105	0.0972	-2.16604	*
MW9											
METALS											
Barium	75	0.1867	14	61	60	0.1833	15	0.2	0.1125	-0.14817	not SSIOBL
Beryllium	75	0.2267	17	58	60	0.2833	15	0	0.1209	2.344289	not SSIOBL
Chromium	75	0.2533	19	56	60	0.2667	15	0.2	0.1256	0.530994	not SSIOBL
Cobalt	75	0.04	3	72	60	0.05	15	0	0.0566	0.883883	*
Copper	75	0.1867	14	61	60	0.2167	15	0.0667	0.1125	1.333565	not SSIOBL

Test of Proportions
Data Set 1
Dunn-Erwin MSW Landfill
Harnett County, North Carolina

Parameter	Nt	PDt	B*C	B*(1-C)	n	Pu	m	Pd	SD	Z	notes
Lead	75	0.2533	19	56	60	0.3	15	0.0667	0.1256	1.85848	not SSIOBL
Vanadium	75	0.1867	14	61	60	0.2	15	0.1333	0.1125	0.592696	not SSIOBL
Zinc	75	0.2533	19	56	60	0.3167	15	0	0.1256	2.522223	not SSIOBL
Mercury	13	0.0769	1	12	12	0	1	1	0.2774	-3.60555	*
ORGANICS											
Chloroethane	75	0.2	15	60	60	0	15	1	0.1155	-8.66025	SSIOBL
cis-1,2-Dichloroethene	75	0.08	6	69	60	0	15	0.4	0.0783	-5.10754	SSIOBL
1,1 Dichloroethane	75	0.1733	13	62	60	0	15	0.8667	0.1093	-7.93116	SSIOBL
Methylene Chloride	75	0.1733	13	62	60	0	15	0.8667	0.1093	-7.93116	SSIOBL
Trichloroethylene	75	0.1867	14	61	60	0	15	0.9333	0.1125	-8.29774	SSIOBL
Xylenes	75	0.1333	10	65	60	0	15	0.6667	0.0981	-6.79366	SSIOBL
Dichlorodifluoromethane	21	0	0	21	20	0	1	0	0	NA	*
MW10											
METALS											
Barium	75	0.1467	11	64	60	0.1833	15	0	0.1021	1.795176	not SSIOBL
Beryllium	75	0.2267	17	58	60	0.2833	15	0	0.1209	2.344289	not SSIOBL
Chromium	75	0.2667	20	55	60	0.2667	15	0.2667	0.1277	0	not SSIOBL
Cobalt	75	0.04	3	72	60	0.05	15	0	0.0566	0.883883	*
Copper	75	0.2	15	60	60	0.2167	15	0.1333	0.1155	0.721688	not SSIOBL
Lead	75	0.2533	19	56	60	0.3	15	0.0667	0.1256	1.85848	not SSIOBL
Vanadium	75	0.1733	13	62	60	0.2	15	0.0667	0.1093	1.220178	not SSIOBL
Zinc	75	0.2933	22	53	60	0.3167	15	0.2	0.1314	0.887666	not SSIOBL
Mercury	13	0	0	13	12	0	1	0	0	NA	*
ORGANICS											
Chloroethane	75	0.12	9	66	60	0	15	0.6	0.0938	-6.39602	SSIOBL
cis-1,2-Dichloroethene	75	0.1867	14	61	60	0	15	0.9333	0.1125	-8.29774	SSIOBL
1,1 Dichloroethane	75	0.1867	14	61	60	0	15	0.9333	0.1125	-8.29774	SSIOBL
Methylene Chloride	75	0.16	12	63	60	0	15	0.8	0.1058	-7.55929	SSIOBL
Trichloroethylene	75	0.0667	5	70	60	0	15	0.3333	0.072	-4.6291	SSIOBL
Xylenes	75	0.12	9	66	60	0	15	0.6	0.0938	-6.39602	SSIOBL
Dichlorodifluoromethane	21	0	0	21	20	0	1	0	0	NA	*
MW23B											
METALS											
Barium	90	0.2444	22	68	60	0.1833	30	0.3667	0.0961	-1.9078	not SSIOBL
Cadmium	90	0.1111	10	80	60	0.1333	30	0.0667	0.0703	0.948683	not SSIOBL
Chromium	90	0.2556	23	67	60	0.2667	30	0.2333	0.0975	0.341771	not SSIOBL
Lead	90	0.3222	29	61	60	0.3	30	0.3667	0.1045	-0.63797	not SSIOBL
Mercury	35	0.0571	2	33	12	0	23	0.087	0.0827	-1.05201	*
ORGANICS											
Chloroethane	89	0	0	89	60	0	29	0	0	NA	*
cis-1,2-Dichloroethene	89	0	0	89	60	0	29	0	0	NA	*
1,1 Dichloroethane	89	0	0	89	60	0	29	0	0	NA	*
Methylene Chloride	89	0	0	89	60	0	29	0	0	NA	*
Trichloroethylene	89	0	0	89	60	0	29	0	0	NA	*
Xylenes	89	0	0	89	60	0	29	0	0	NA	*

Test of Proportions
Data Set 1
Dunn-Erwin MSW Landfill
Harnett County, North Carolina

Parameter	Nt	PDt	B*C	B*(1-C)	n	Pu	m	Pd	SD	Z	notes

NOTES:
Nt = total number of well samples analyzed (upgradient + particular downgradient analyzed) = m + n
PDt = total proportion of detects for Nt for parameter analyzed
m = total number of compliance well samples analyzed = # of sampling events for particular well analyzed
n = total number of upgradient well samples analyzed = # of sampling events X # of upgradient wells
Pu = proportion of upgradient detects for parameter analyzed
Pd = proportion of downgradient detects for parameter and individual well analyzed
Sd = standard error of the difference in proportions (8-4, Interim Final Guidance Doc.)
Z = If the absolute value of Z is greater than 1.96, then there is a statistically significant difference between the upgradient well detection for the given parameter and the particular dowgradient well analyzed.
* = Columns headed with B*C and B*(1-C) require values greater than or equal to 5 in order to perform the test of proportions. An asterisk denotes that the constituent did not qualify for the test of proportions for that particular well.
NA = Not Applicable. There are no detects of the particular constituent in the particular well analyzed.
Mercury and Dichlorodifluoromethane not included in sampling at MW9 and MW10.
Dichlorodifluoromethane not included in sampling at MW23B.

APPENDIX B

DATA SET 2

Groundwater Monitoring Well Data
Monitoring Well 16 (MW16)
Upgradient Well - Set2
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW16																	
SAMPLE DATE	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01
INORGANICS (mg/l)																		
Antimony						NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic						NA	NA											
Barium	0.112	0.194	0.114	0.147		NA	NA				0.104	0.099	0.1	0.281	0.162	0.06		
Beryllium						NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.0018	0.001	0.006	0.007	0.002	NA	NA		0.0075	0.0049				0.001				
Chromium	0.004	0.007		0.005	0.01	NA	NA			0.019		0.006	0.008	0.062	0.019			
Cobalt						NA	NA		0.011	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.008	0.009	0.018	0.014		NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.002	0.003		0.004	0.013	NA	NA		0.012	0.020	0.002		0.005	0.039	0.011	0.002		
Mercury						NA	NA						0.0002					
Nickel						NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium						NA	NA											
Silver						NA	NA											
Vanadium	0.005	0.012				NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	0.012	0.014	0.015	0.027		NA	NA		0.070	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORGANICS (ug/l)																		
cis-1,2-dichloroethene						NA	NA											
methylene chloride			29.4			NA	NA											
mek; 2-butanone						NA	NA											

NOTES		
		- indicates concentrations exceeding NCGS
	"NE"	- not established
	"NT"	- not tested
	"NA"	- not applicable
	*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Well Data
Monitoring Well 16 (MW16)
Upgradient Well - Set2
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT															MW16 Detects		NCGS
SAMPLE DATE	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																	(mg/l)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.0014**
Arsenic															0	0%	0.05
Barium															10	33%	2
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.004**
Cadmium															8	27%	0.00175
Chromium															9	30%	0.05
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	14%	0.07**
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	57%	1
Lead															11	37%	0.015
Mercury															1	3%	0.00105
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.1
Selenium															0	0%	0.05
Silver															0	0%	0.0175
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2	29%	0.0035**
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	71%	1.05
ORGANICS (ug/l)																	(ug/l)
cis-1,2-dichloroethene															0	0%	70
methylene chloride															1	3%	4.6
mek; 2-butanone															0	0%	4200

NOTES

NCGS = 2L STD or

** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 32 (MW32)
Downgradient Well - Set2
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW32																		
SAMPLE DATE	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	Oct. 01
INORGANICS (mg/l)																			
Antimony		0.004				NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic		0.015		0.007		NA	NA							0.006	0.005				
Barium	0.097	0.646	0.145	0.251		NA	NA					0.043	0.249	0.352	0.303	0.067			
Beryllium				0.004		NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.0013	0.004				NA	NA						0.025	0.001	0.001				
Chromium	0.004	0.133	0.015	0.022		NA	NA							0.038	0.041				
Cobalt		0.039	0.013	0.009		NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.006	0.094	0.017	0.026		NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.002	0.09	0.01	0.02		NA	NA				0.004	0.002	0.012	0.064	0.033				
Mercury						NA	NA												
Nickel		0.05				NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium		0.002				NA	NA												
Silver						NA	NA												
Vanadium	0.005	0.41	0.045	0.09		NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	0.008	0.189	0.029	0.051		NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORGANICS (ug/l)																			
cis-1,2-dichloroethene						NA	NA												
methylene chloride						NA	NA												
mek; 2-butanone			471			NA	NA												

NOTES		
		- indicates concentrations exceeding NCGS
	"NE"	- not established
	"NT"	- not tested
	"NA"	- not applicable
	*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Well Data
Monitoring Well 32 (MW32)
Downgradient Well - Set2
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT														MW32 Detects		NCGS
SAMPLE DATE	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																(mg/l)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	14%	0.0014**
Arsenic														4	13%	0.05
Barium													0.105	10	33%	2
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	14%	0.004**
Cadmium													0.001	6	20%	0.00175
Chromium			0.094	0.012										8	27%	0.05
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3	43%	0.07**
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	57%	1
Lead			0.063				0.029		0.021		0.011	0.011	0.024	15	50%	0.015
Mercury														0	0%	0.00105
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	14%	0.1
Selenium														1	3%	0.05
Silver														0	0%	0.0175
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	57%	0.0035**
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	57%	1.05
ORGANICS (ug/l)																(ug/l)
cis-1,2-dichloroethene														0	0%	70
methylene chloride														0	0%	4.6
mek; 2-butanone														1	3%	4200
NOTES																
																NCGS =
																2L STD or
														** 13B GWPS as of Oct 07		

Groundwater Monitoring Well Data
Monitoring Well 33 (MW33)
Downgradient Well - Set2
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW33																		
SAMPLE DATE	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	Oct. 01
INORGANICS (mg/l)																			
Antimony						NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic						NA	NA												
Barium	0.1	0.332	0.184	0.12		NA	NA				0.135	0.005	0.185	0.107	0.121	0.06			
Beryllium				0.008	0.007	NA	NA		0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.0021	0.003	0.005			NA	NA												
Chromium	0.005	0.012	0.014	0.006		NA	NA						0.012	0.007					
Cobalt		0.006	0.006			NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.013	0.02	0.028	0.015		NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.004	0.012	0.014	0.006		NA	NA				0.004		0.016	0.01	0.011				
Mercury						NA	NA				0.0004							0.0005	
Nickel						NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium						NA	NA												
Silver						NA	NA												
Vanadium	0.008	0.02	0.02			NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	0.011	0.026	0.42	0.023		NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORGANICS (ug/l)																			
cis-1,2-dichloroethene						NA	NA						1.8	1.2	1.8				
methylene chloride						NA	NA												
mek; 2-butanone						NA	NA												

NOTES		
		- indicates concentrations exceeding NCGS
	"NE"	- not established
	"NT"	- not tested
	"NA"	- not applicable
	*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Well Data
Monitoring Well 33 (MW33)
Downgradient Well - Set2
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT														MW33 Detects		NCGS
SAMPLE DATE	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																(mg/l)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.0014**
Arsenic														0	0%	0.05
Barium														10	33%	2
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3	43%	0.004**
Cadmium														3	10%	0.00175
Chromium														6	20%	0.05
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2	29%	0.07**
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	57%	1
Lead														8	27%	0.015
Mercury														2	7%	0.00105
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.1
Selenium														0	0%	0.05
Silver														0	0%	0.0175
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3	43%	0.0035**
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	57%	1.05
ORGANICS (ug/l)																(ug/l)
cis-1,2-dichloroethene														3	10%	70
methylene chloride														0	0%	4.6
mek; 2-butanone														0	0%	4200
NOTES																
																NCGS = 2L STD or
																** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 34 (MW34)
Downgradient Well - Set2
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW34																	
SAMPLE DATE	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05
INORGANICS (mg/l)																		
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic																		
Barium			0.112	0.005	0.201	0.246	0.221	0.062										
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium																		
Chromium					0.017	0.031	0.012											
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead			0.003	0.002	0.02	0.025	0.02											
Mercury					0.0003	0.0003												
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium																		
Silver																		
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORGANICS (ug/l)																		
cis-1,2-dichloroethene																		
methylene chloride																		
mek; 2-butanone																		

NOTES

MW34 was installed in June 1996 therefore no data prior to this date are available.

	- indicates concentrations exceeding NCGS
"NE"	- not established
"NT"	- not tested
"NA"	- not applicable
*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Well Data
Monitoring Well 34 (MW34)
Downgradient Well - Set2
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT							MW34 Detects		NCGS
SAMPLE DATE	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)									(mg/l)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	0.0014**
Arsenic							0	0%	0.05
Barium							6	25%	2
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.004**
Cadmium						0.001	0	4%	0.00175
Chromium							3	16%	0.05
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	0.07**
Copper	NA	NA	NA	NA	NA	NA	NA	NA	1
Lead							5	26%	0.015
Mercury							2	11%	0.00105
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	0.1
Selenium							0	0%	0.05
Silver							0	0%	0.0175
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	0.0035**
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	1.05
ORGANICS (ug/l)									(ug/l)
cis-1,2-dichloroethene							0	0%	70
methylene chloride							0	0%	4.6
mek; 2-butanone							0	0%	4200
NOTES									
MW34 was installed in Ju									NCGS =
									2L STD or
"NE"							** 13B GWPS as of Oct 07		
"NT"									
"NA"									
*									

Groundwater Monitoring Well Data
Monitoring Well 35 (MW35)
Downgradient Well - Set2
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW35																	
SAMPLE DATE	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05
INORGANICS (mg/l)																		
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic		0.0681	0.021		0.016	0.008	0.010											
Barium		2.06	0.877	0.005	0.489	0.848	0.512	0.132										
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium		0.0119	0.208			0.001												
Chromium		0.406			0.077	0.148	0.035	0.006										
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead		0.355	0.105	0.002	0.055	0.110	0.043	0.003										
Mercury		0.002			0.0002	0.0004												
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium			0.004															
Silver																		
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORGANICS (ug/l)																		
cis-1,2-dichloroethene																		
methylene chloride																		
mek; 2-butanone																		

NOTES

MW35 was installed in June 1996 therefore no data prior to this date are available.

	- indicates concentrations exceeding NCGS
"NE"	- not established
"NT"	- not tested
"NA"	- not applicable
*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Well Data
Monitoring Well 35 (MW35)
Downgradient Well - Set2
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT							MW35 Detects		NCGS
SAMPLE DATE	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)									(mg/l)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	0.0014**
Arsenic							5	21%	0.05
Barium				0.132	0.318	0.225	7	42%	2
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.004**
Cadmium							3	13%	0.00175
Chromium							5	26%	0.05
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	0.07**
Copper	NA	NA	NA	NA	NA	NA	NA	NA	1
Lead							7	37%	0.015
Mercury							3	16%	0.00105
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	0.1
Selenium							1	4%	0.05
Silver							0	0%	0.0175
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	0.0035**
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	1.05
ORGANICS (ug/l)									(ug/l)
cis-1,2-dichloroethene							0	0%	70
methylene chloride							0	0%	4.6
mek; 2-butanone							0	0%	4200
NOTES									
MW35 was installed in Ju									NCGS =
									2L STD or
"NE"							** 13B GWPS as of Oct 07		
"NT"									
"NA"									
*									

Recommended Test Per Constituent
Total Detects and Percentages
Set 2 Data
Dunn-Erwin MSW Landfill
Harnett County, NC

CONSTITUENT	SET 2 DATA		RECOMMENDED TEST
	Detect #	Detect %	
INORGANICS (mg/l)			
Arsenic	9	7%	QUALITATIVE
Barium	43	31%	TEST OF PROPORTIONS*
Cadmium	20	14%	TEST OF PROPORTIONS*
Chromium	31	22%	TEST OF PROPORTIONS*
Lead	46	33%	TEST OF PROPORTIONS*
Mercury	8	6%	QUALITATIVE
Selenium	2	1%	QUALITATIVE
Silver	0	0%	QUALITATIVE
ORGANICS (ug/l)			
cis-1,2-dichloroethene	3	2%	QUALITATIVE
methylene chloride	1	1%	QUALITATIVE
mek; 2-butanone	1	1%	QUALITATIVE

NOTES:
* The Test of Proportions may be performed jointly with a qualitative test to ensure more accurate results.

Test of Proportions
Data Set 2
Dunn-Erwin MSW Landfill
Harnett County, North Carolina

Parameter	Nt	PDt	B*C	B*(1-C)	n	Pu	m	Pd	SD	Z	notes
DATA SET 2											
MW32											
Barium	60	0.333	20	40	30	0.333	30	0.333	0.122	0.000	not SSIOBL
Cadmium	60	0.233	14	46	30	0.267	30	0.200	0.109	0.610	not SSIOBL
Chromium	60	0.283	17	43	30	0.300	30	0.267	0.116	0.286	not SSIOBL
Lead	60	0.433	26	34	30	0.367	30	0.500	0.128	-1.042	not SSIOBL
MW33											
Barium	60	0.333	20	40	30	0.333	30	0.333	0.122	0.000	not SSIOBL
Cadmium	60	0.183	11	49	30	0.267	30	0.100	0.100	1.668	not SSIOBL
Chromium	60	0.250	15	45	30	0.300	30	0.200	0.112	0.894	not SSIOBL
Lead	60	0.317	19	41	30	0.367	30	0.267	0.120	0.833	not SSIOBL
MW34											
Barium	54	0.296	16	38	30	0.333	24	0.250	0.125	0.666	not SSIOBL
Cadmium	54	0.148	8	46	30	0.267	24	0.042	0.097	2.313	not SSIOBL
Chromium	54	0.222	12	42	30	0.300	24	0.158	0.114	1.248	not SSIOBL
Lead	54	0.296	16	38	30	0.367	24	0.263	0.125	0.828	not SSIOBL
MW35											
Barium	54	0.315	17	37	30	0.333	24	0.417	0.127	-0.655	not SSIOBL
Cadmium	54	0.204	11	43	30	0.267	24	0.125	0.110	1.284	not SSIOBL
Chromium	54	0.259	14	40	30	0.300	24	0.263	0.120	0.307	not SSIOBL
Lead	54	0.333	18	36	30	0.37	24	0.368	0.129	-0.014	not SSIOBL

NOTES:
Nt = total number of well samples analyzed (upgradient + particular downgradient analyzed) = m + n
PDt = total proportion of detects for Nt for parameter analyzed
m = total number of compliance well samples analyzed = # of sampling events for particular well analyzed
n = total number of upgradient well samples analyzed = # of sampling events X # of upgradient wells
Pu = proportion of upgradient detects for parameter analyzed
Pd = proportion of downgradient detects for parameter and individual well analyzed
Sd = standard error of the difference in proportions (8-4, Interim Final Guidance Doc.)
Z = If the absolute value of Z is greater than 1.96, then there is a statistically significant difference between the upgradient well detection for the given parameter and the particular dowgradient well analyzed.
* = Columns headed with B*C and B*(1-C) require values greater than or equal to 5 in order to perform the test of proportions. An asterisk denotes that the constituent did not qualify for the test of proportions for that particular well.
NA = Not Applicable. There are no detects of the particular constituent in the particular well analyzed.

APPENDIX C

DATA SET 3

Groundwater Monitoring Point Data
Surface Water Monitoring Point 1 (SWPT1)
Upgradient Point - Set 3
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	SWPT1																		
SAMPLE DATE	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Mar. 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	Oct. 01
INORGANICS (mg/l)																			
Antimony						NA	NA												
Arsenic	0.007				0.013	NA	NA												
Barium	0.045	0.033	0.03	0.029		NA	NA												
Beryllium						NA	NA												
Cadmium					0.001	NA	NA												
Chromium	0.002					NA	NA												
Cobalt						NA	NA								0.010				
Copper	0.006			0.006		NA	NA												
Lead						NA	NA												
Nickel						NA	NA												
Selenium						NA	NA												
Silver						NA	NA												
Vanadium						NA	NA												
Zinc	0.011	0.016	0.021	0.013		NA	NA				0.022		0.04						
ORGANICS (ug/l)																			
Benzene						NA	NA												
cis-1,2 Dichloroethene						NA	NA												
Ethylbenzene						NA	NA												
Toluene						NA	NA								1.3				
Vinyl chloride						NA	NA												
Xylenes						NA	NA												

NOTES		
		- indicates concentrations exceeding NCGS
	"NE"	- not established
	"NT"	- not tested
	"NA"	- not applicable
	*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Point Data
Surface Water Monitoring Point 1 (SWPT1)
Upgradient Point - Set 3
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT														SWPT1 Detects		NCGS
SAMPLE DATE	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																(mg/l)
Antimony								NA				NA		0	0%	0.0014**
Arsenic								NA				NA		2	7%	0.05
Barium								NA				NA		4	14%	2
Beryllium								NA				NA		0	0%	0.004**
Cadmium				0.001				NA				NA		2	7%	0.00175
Chromium								NA				NA		1	4%	0.05
Cobalt								NA				NA		1	4%	0.07**
Copper								NA				NA		2	7%	1
Lead								NA				NA		0	0%	0.015
Nickel								NA				NA		0	0%	0.1
Selenium								NA				NA		0	0%	0.05
Silver								NA				NA		0	0%	0.0175
Vanadium								NA				NA		0	0%	0.0035**
Zinc								NA			0.011	NA	0.022	8	29%	1.05
ORGANICS (ug/l)																(ug/l)
Benzene								NA				NA		0	0%	1
cis-1,2 Dichloroethene								NA				NA		0	0%	70
Ethylbenzene								NA				NA		0	0%	550
Toluene								NA				NA		1	4%	1000
Vinyl chloride								NA				NA		0	0%	0.015
Xylenes								NA				NA		0	0%	530
NOTES																NCGS = 2L STD or ** 13B GWPS

Groundwater Monitoring Point Data
Surface Water Monitoring Point 2 (SWPT2)
Set 3 - Downgradient Point
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	SWPT2																		
SAMPLE DATE	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Mar. 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr .01	Oct. 01
INORGANICS (mg/l)																			
Antimony						NA	NA												
Arsenic		0.005				NA	NA												
Barium	0.032	0.027	0.025	0.028		NA	NA				0.01								
Beryllium						NA	NA												
Cadmium		0.001				NA	NA												
Chromium				0.002		NA	NA												
Cobalt						NA	NA								0.01				
Copper	0.005		0.006	0.005		NA	NA												
Lead			0.002			NA	NA												
Nickel						NA	NA												
Selenium						NA	NA												
Silver						NA	NA												
Vanadium						NA	NA												
Zinc	0.007	0.005	0.01	0.016		NA	NA				0.007								
ORGANICS (ug/l)																			
Benzene						NA	NA												
cis-1,2 Dichloroethene						NA	NA												
Ethylbenzene						NA	NA												
Toluene						NA	NA												
Vinyl chloride						NA	NA												
Xylenes						NA	NA												

NOTES		
		- indicates concentrations exceeding NCGS
	"NE"	- not established
	"NT"	- not tested
	"NA"	- not applicable
	*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Point Data
Surface Water Monitoring Point 2 (SWPT2)
Set 3 - Downgradient Point
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT														SWPT2 Detects		NCGS
SAMPLE DATE	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																(mg/l)
Antimony												NA		0	0%	0.0014**
Arsenic												NA		1	3%	0.05
Barium												NA		5	17%	2
Beryllium												NA		0	0%	0.004**
Cadmium												NA		1	3%	0.00175
Chromium												NA		1	3%	0.05
Cobalt												NA		1	3%	0.07**
Copper												NA		3	10%	1
Lead												NA		1	3%	0.015
Nickel												NA		0	0%	0.1
Selenium												NA		0	0%	0.05
Silver												NA		0	0%	0.0175
Vanadium												NA		0	0%	0.0035**
Zinc												NA	0.02	6	21%	1.05
ORGANICS (ug/l)																(ug/l)
Benzene												NA		0	0%	1
cis-1,2 Dichloroethene												NA		0	0%	70
Ethylbenzene												NA		0	0%	550
Toluene												NA		0	0%	1000
Vinyl chloride												NA		0	0%	0.015
Xylenes												NA		0	0%	530
NOTES																NCGS = 2L STD or ** 13B GWPS

Groundwater Monitoring Point Data
Surface Water Monitoring Point 3 (SWPT3)
Set 3 - Downgradient Point
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	SWPT3																		
SAMPLE DATE	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Mar. 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	Oct. 01
INORGANICS (mg/l)																			
Antimony						NA	NA												
Arsenic					0.023	NA	NA												
Barium	0.035	0.03	0.025	0.029		NA	NA				0.032		0.2		0.036				
Beryllium						NA	NA												
Cadmium	0.0045				0.006	NA	NA												
Chromium				0.002		NA	NA					0.02							
Cobalt	0.006					NA	NA												
Copper	0.009	0.005	0.007	0.005		NA	NA												
Lead	0.003					NA	NA						0.02						
Nickel						NA	NA												
Selenium						NA	NA												
Silver						NA	NA												
Vanadium						NA	NA												
Zinc	0.013	0.005	0.009	0.01		NA	NA				0.026		0.1						
ORGANICS (ug/l)																			
Benzene					9.1	NA	NA												
cis-1,2 Dichloroethene					11	NA	NA												
Ethylbenzene					14	NA	NA												
Toluene					14	NA	NA								5.6				
Vinyl chloride					15	NA	NA												
Xylenes					20	NA	NA												

NOTES		
		- indicates concentrations exceeding NCGS
	"NE"	- not established
	"NT"	- not tested
	"NA"	- not applicable
	*	-denotes an Appendix II constituent not included in Appendix I

Groundwater Monitoring Point Data
Surface Water Monitoring Point 3 (SWPT3)
Set 3 - Downgradient Point
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT														SWPT3 Detects		NCGS
SAMPLE DATE	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	detect#	detect%	
INORGANICS (mg/l)																(mg/l)
Antimony												NA		0	0%	0.0014**
Arsenic												NA		1	3%	0.05
Barium												NA		7	24%	2
Beryllium												NA		0	0%	0.004**
Cadmium												NA		2	7%	0.00175
Chromium												NA		2	7%	0.05
Cobalt		0.002										NA		2	7%	0.07**
Copper												NA		4	14%	1
Lead												NA		2	7%	0.015
Nickel												NA		0	0%	0.1
Selenium												NA		0	0%	0.05
Silver												NA		0	0%	0.0175
Vanadium												NA		0	0%	0.0035**
Zinc					0.366							NA	0.016	8	28%	1.05
ORGANICS (ug/l)																(ug/l)
Benzene												NA		1	3%	1
cis-1,2 Dichloroethene												NA		1	3%	70
Ethylbenzene												NA		1	3%	550
Toluene												NA		2	7%	1000
Vinyl chloride												NA		1	3%	0.015
Xylenes												NA		1	3%	530
NOTES																NCGS = 2L STD or ** 13B GWPS

Recommended Test Per Constituent
Total Detects and Percentages
Set 3 Data
Dunn-Erwin MSW Landfill
Harnett County, NC

CONSTITUENT	SET 3 DATA		RECOMMENDED TEST
	Detect #	Detect %	
INORGANICS (mg/l)			
Antimony	0	0%	QUALITATIVE
Arsenic	4	5%	QUALITATIVE
Barium	16	19%	TEST OF PROPORTIONS*
Beryllium	0	0%	QUALITATIVE
Cadmium	5	6%	QUALITATIVE
Chromium	4	5%	QUALITATIVE
Cobalt	4	5%	QUALITATIVE
Copper	9	10%	TEST OF PROPORTIONS*
Lead	3	3%	QUALITATIVE
Nickel	0	0%	QUALITATIVE
Selenium	0	0%	QUALITATIVE
Silver	0	0%	QUALITATIVE
Vanadium	0	0%	QUALITATIVE
Zinc	22	26%	TEST OF PROPORTIONS*
ORGANICS (ug/l)			
Benzene	1	1%	QUALITATIVE
cis-1,2 Dichloroethene	1	1%	QUALITATIVE
Ethylbenzene	1	1%	QUALITATIVE
Toluene	3	3%	QUALITATIVE
Vinyl chloride	1	1%	QUALITATIVE
Xylenes	1	1%	QUALITATIVE

NOTES:
* The Test of Proportions may be performed jointly with a qualatative test to ensure more accurate results.

Test of Proportions
Data Set 3
Dunn-Erwin MSW Landfill
Harnett County, North Carolina

Parameter	Nt	PDt	B*C	B*(1-C)	n	Pu	m	Pd	SD	Z	notes
DATA SET 3											
SWPT2											
Barium	57	0.158	9	48	28	0.143	29	0.172	0.097	-0.306	not SSIOBL
Copper	57	0.088	5	52	28	0.071	29	0.103	0.075	-0.427	not SSIOBL
Zinc	57	0.246	14	43	28	0.286	29	0.207	0.114	0.691	not SSIOBL
SWPT3											
Barium	57	0.193	11	46	28	0.143	29	0.241	0.105	-0.942	not SSIOBL
Copper	57	0.105	6	51	28	0.071	29	0.138	0.081	-0.818	not SSIOBL
Zinc	57	0.281	16	41	28	0.286	29	0.276	0.119	0.083	not SSIOBL

NOTES:
Nt = total number of well samples analyzed (upgradient + particular downgradient analyzed) = m + n
PDt = total proportion of detects for Nt for parameter analyzed
m = total number of compliance well samples analyzed = # of sampling events for particular well analyzed
n = total number of upgradient well samples analyzed = # of sampling events X # of upgradient wells
Pu = proportion of upgradient detects for parameter analyzed
Pd = proportion of downgradient detects for parameter and individual well analyzed
Sd = standard error of the difference in proportions (8-4, Interim Final Guidance Doc.)
Z = If the absolute value of Z is greater than 1.96, then there is a statistically significant difference between the upgradient well detection for the given parameter and the particular dowgradient well analyzed.
* = Columns headed with B*C and B*(1-C) require values greater than or equal to 5 in order to perform the test of proportions. An asterisk denotes that the constituent did not qualify for the test of proportions for that particular well.
NA = Not Applicable. There are no detects of the particular constituent in the particular well analyzed.

APPENDIX D

LABORATORY RESULTS AND CHAIN OF CUSTODY FORMS

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6040 A

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON ,NC 27546

DATE COLLECTED: 04/22/08
DATE REPORTED : 05/21/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	SW-1	SW-2	SW-3	Analysis Date	Analyst	Method Code
PH (field measurement), Units			6.3	6.2	6.4	04/22/08	RJH	SM4500HB
Antimony, ug/l	0.08	6.0	0.1 J	0.1 J	--- U	04/25/08	CMF	EPA200.8
Arsenic, ug/l	0.07	10.0	1.1 J	0.9 J	0.9 J	04/25/08	CMF	EPA200.8
Barium, ug/l	0.11	100.0	34.5 J	32.5 J	30.4 J	04/25/08	CMF	EPA200.8
Beryllium, ug/l	0.06	1.0	--- U	--- U	--- U	04/25/08	CMF	EPA200.8
Cadmium, ug/l	0.04	1.0	0.2 J	0.1 J	0.2 J	04/25/08	CMF	EPA200.8
Cobalt, ug/l	0.03	10.0	0.5 J	0.6 J	0.6 J	04/25/08	CMF	EPA200.8
Copper, ug/l	0.05	10.0	2.7 J	2.4 J	2.3 J	04/25/08	CMF	EPA200.8
Total Chromium, ug/l	0.11	10.0	0.8 J	0.8 J	1.2 J	04/25/08	CMF	EPA200.8
Lead, ug/l	0.04	10.0	1.1 J	1.1 J	1.3 J	04/25/08	CMF	EPA200.8
Nickel, ug/l	0.06	50.0	1.6 J	1.1 J	1.2 J	04/25/08	CMF	EPA200.8
Selenium, ug/l	0.14	10.0	0.4 J	0.3 J	0.3 J	04/25/08	CMF	EPA200.8
Silver, ug/l	0.04	10.0	0.1 J	--- U	--- U	04/29/08	CMF	EPA200.8
Thallium, ug/l	0.04	5.0	--- U	--- U	--- U	04/25/08	CMF	EPA200.8
Vanadium, ug/l	0.07	25.0	2.2 J	2.8 J	3.9 J	04/25/08	CMF	EPA200.8
Zinc, ug/l	0.04	10.0	22	20	16	04/25/08	CMF	EPA200.8
Turbidity, NTU	1.0	1.0	21	30	40	04/23/08	MDM	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	85	83	92	04/22/08	RJH	SM2510B
Temperature, °C			16	15	16	04/22/08	RJH	SM2550B

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON, NC 27546

REVIEWED BY:

CLIENT ID: 6040 A

ANALYST: MAO
DATE COLLECTED: 04/22/08
DATE ANALYZED: 05/02/08
DATE REPORTED: 05/21/08

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	SW-1	SW-2	SW-3
1. Chloromethane	0.18	1.0	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U
7. Acetone	1.21	100.0	6.00 J	8.80 J	6.60 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6040 A **Week: 18**

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON NC 27546

(919) 233-0407

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

PARAMETERS	Field pH	Metals	Turbidity	Conductivity	Temperature	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION								
pH CHECK (LAB)		12				12	12	12
CONTAINER TYPE, P/G	P	P	P	P	P	G	G	G
CHEMICAL PRESERVATION	A	A	A	A	A	E	E	E

A - NONE, B - HNO_3, C - H_2SO_4, D - NAOH, E - HCL, F - ZINC ACETATE, G - NA THIOSULFATE

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field pH	Metals	Turbidity	Conductivity	Temperature	EPA 8260B	8260 Dup. 1	8260 Dup. 2
SW-1	042208	0840		15	6	G	G	G	G	G	G	G	G
SW-2	042208	0915		15	5	G	G	G	G	G	G	G	
SW-3	042208	1035		16	5	G	G	G	G	G	G	G	

CLASSIFICATION:
- ☐ WASTEWATER (NPDES)
- ☐ DRINKING WATER
- ☐ DWQ/GW
- ☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: (Y) N

SAMPLES COLLECTED BY: (Please Print) H Cagle / Fol

SAMPLES RECEIVED IN LAB AT 6.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
BO H Cagle	042208	BD	4/22 3:25
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

FORM #5

№ 162151

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6040 B

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON ,NC 27546

DATE COLLECTED: 04/23/08
DATE REPORTED : 05/22/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-1	MW-2	MW-3R	MW-4	MW-5	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.6	4.6	5.4	4.5	6.0	04/23/08	RJH	SM4500HB
Antimony, ug/l	0.08	6.0	--- U	--- U	--- U	--- U	--- U	04/30/08	CMF	EPA200.8
Arsenic, ug/l	0.07	10.0	--- U	--- U	--- U	0.3 J	--- U	04/30/08	CMF	EPA200.8
Barium, ug/l	0.11	100.0	37.7 J	50.9 J	82.7 J	56.9 J	95.2 J	04/30/08	CMF	EPA200.8
Beryllium, ug/l	0.06	1.0	0.9 J	2	1	3	0.2 J	04/30/08	CMF	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	0.3 J	0.1 J	0.3 J	0.1 J	04/30/08	CMF	EPA200.8
Cobalt, ug/l	0.03	10.0	0.5 J	1.3 J	2.2 J	1.9 J	1.6 J	04/30/08	CMF	EPA200.8
Copper, ug/l	0.05	10.0	1.0 J	1.1 J	1.0 J	1.1 J	0.4 J	04/30/08	CMF	EPA200.8
Total Chromium, ug/l	0.11	10.0	--- U	--- U	--- U	--- U	--- U	04/30/08	CMF	EPA200.8
Lead, ug/l	0.04	10.0	0.3 J	0.7 J	0.4 J	0.5 J	0.1 J	04/30/08	CMF	EPA200.8
Nickel, ug/l	0.06	50.0	0.5 J	1.4 J	2.3 J	1.7 J	1.6 J	04/30/08	CMF	EPA200.8
Selenium, ug/l	0.14	10.0	--- U	0.2 J	--- U	1.0 J	--- U	04/30/08	CMF	EPA200.8
Silver, ug/l	0.04	10.0	--- U	--- U	--- U	--- U	--- U	04/30/08	CMF	EPA200.8
Thallium, ug/l	0.04	5.0	--- U	--- U	--- U	--- U	--- U	04/30/08	CMF	EPA200.8
Vanadium, ug/l	0.07	25.0	0.4 J	1.2 J	0.7 J	0.5 J	0.1 J	04/30/08	CMF	EPA200.8
Zinc, ug/l	0.04	10.0	3.8 J	12	14	17	2.9 J	04/30/08	CMF	EPA200.8
Turbidity, NTU	1.0	1.0	17	35	17	27	14	04/23/08	MDM	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	61	94	132	67	162	04/23/08	RJH	SM2510B
Temperature, °C			18	16	16	15	16	04/23/08	RJH	SM2550B
Static Water Level, feet			25.88	14.82	5.22	3.75	15.46	04/23/08	RJH	
Well Depth, feet			65.18	30.21	25.12	20.21	40.14	04/23/08	RJH	
Water Bailed, Gals.			19.2	7.2	9.3	7.8	11.7	04/23/08	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6040 B

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON ,NC 27546

DATE COLLECTED: 04/23/08
DATE REPORTED : 05/22/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-6	MW-7B	MW-8	MW-9	MW-10	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.2	4.6	4.3	4.4	5.6	04/23/08	RJH	SM4500HB
Antimony, ug/l	0.08	6.0	0.2 J	0.3 J	--- U	--- U	0.1 J	04/30/08	CMF	EPA200.8
Arsenic, ug/l	0.07	10.0	2.2 J	0.2 J	--- U	0.5 J	9.1 J	04/30/08	CMF	EPA200.8
Barium, ug/l	0.11	100.0	140	268	115	129	76.7 J	04/30/08	CMF	EPA200.8
Beryllium, ug/l	0.06	1.0	0.2 J	0.3 J	0.8 J	0.2 J	--- U	04/30/08	CMF	EPA200.8
Cadmium, ug/l	0.04	1.0	0.8 J	0.2 J	0.1 J	0.1 J	0.1 J	04/30/08	CMF	EPA200.8
Cobalt, ug/l	0.03	10.0	30	31	1.9 J	1.5 J	3.1 J	04/30/08	CMF	EPA200.8
Copper, ug/l	0.05	10.0	2.7 J	1.7 J	1.9 J	3.0 J	21	04/30/08	CMF	EPA200.8
Total Chromium, ug/l	0.11	10.0	0.2 J	--- U	--- U	1.1 J	1.0 J	04/30/08	CMF	EPA200.8
Lead, ug/l	0.04	10.0	2.0 J	9.9 J	1.2 J	1.9 J	1.0 J	04/30/08	CMF	EPA200.8
Nickel, ug/l	0.06	50.0	2.5 J	1.9 J	2.1 J	1.2 J	3.0 J	04/30/08	CMF	EPA200.8
Selenium, ug/l	0.14	10.0	1.0 J	0.5 J	0.4 J	0.9 J	1.7 J	04/30/08	CMF	EPA200.8
Silver, ug/l	0.04	10.0	--- U	0.1 J	0.1 J	--- U	0.1 J	04/30/08	CMF	EPA200.8
Thallium, ug/l	0.04	5.0	0.1 J	0.4 J	0.2 J	0.1 J	--- U	04/30/08	CMF	EPA200.8
Vanadium, ug/l	0.07	25.0	2.0 J	0.3 J	0.4 J	3.2 J	3.7 J	04/30/08	CMF	EPA200.8
Zinc, ug/l	0.04	10.0	16	3.6 J	7.1 J	3.2 J	13	04/30/08	CMF	EPA200.8
Turbidity, NTU	1.0	1.0	40	8.1	3.4	190	180	04/23/08	MDM	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	194	168	122	121	355	04/23/08	RJH	SM2510B
Temperature, °C			16	18	17	17	17	04/23/08	RJH	SM2550B
Static Water Level, feet			14.99	26.14	15.48	26.42	20.24	04/23/08	RJH	
Well Depth, feet			19.34	30.23	25.22	32.74	26.30	04/23/08	RJH	
Water Bailed, Gals.			2.1	2.1	2.5	3.0	2.4	04/23/08	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
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ID#: 6040 B

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON ,NC 27546

DATE COLLECTED: 04/23/08
DATE REPORTED : 05/22/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-31	Trip Blank	Equipment Blank	Analysis Date	Analyst	Method Code
PH (field measurement), Units			4.8			04/23/08	RJH	SM4500HB
Antimony, ug/l	0.08	6.0	--- U		--- U	04/30/08	CMF	EPA200.8
Arsenic, ug/l	0.07	10.0	4.4 J		--- U	04/30/08	CMF	EPA200.8
Barium, ug/l	0.11	100.0	33.2 J		--- U	04/30/08	CMF	EPA200.8
Beryllium, ug/l	0.06	1.0	0.4 J		--- U	04/30/08	CMF	EPA200.8
Cadmium, ug/l	0.04	1.0	0.5 J		--- U	04/30/08	CMF	EPA200.8
Cobalt, ug/l	0.03	10.0	0.5 J		--- U	04/30/08	CMF	EPA200.8
Copper, ug/l	0.05	10.0	6.1 J		0.4 J	04/30/08	CMF	EPA200.8
Total Chromium, ug/l	0.11	10.0	9.5 J		--- U	04/30/08	CMF	EPA200.8
Lead, ug/l	0.04	10.0	14		0.1 J	04/30/08	CMF	EPA200.8
Nickel, ug/l	0.06	50.0	0.6 J		--- U	04/30/08	CMF	EPA200.8
Selenium, ug/l	0.14	10.0	0.3 J		--- U	04/30/08	CMF	EPA200.8
Silver, ug/l	0.04	10.0	0.1 J		--- U	04/30/08	CMF	EPA200.8
Thallium, ug/l	0.04	5.0	0.1 J		--- U	04/30/08	CMF	EPA200.8
Vanadium, ug/l	0.07	25.0	20.7 J		0.1 J	04/30/08	CMF	EPA200.8
Zinc, ug/l	0.04	10.0	10		1.6 J	04/30/08	CMF	EPA200.8
Turbidity, NTU	1.0	1.0	1000			04/23/08	MDM	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	27			04/23/08	RJH	SM2510B
Temperature, °C			19			04/23/08	RJH	SM2550B
Static Water Level, feet			22.95			04/23/08	RJH	
Well Depth, feet			39.33			04/23/08	RJH	
Water Bailed, Gals.			7.8			04/23/08	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

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CLIENT: HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON, NC 27546

CLIENT ID: 6040 B

ANALYST: MAO
DATE COLLECTED: 04/23/08
DATE REPORTED: 05/22/08

Page: 1

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	Date Analyzed: MDL	SWSL	05/06/08 MW-1	05/02/08 MW-2	05/02/08 MW-3R	05/02/08 MW-4	05/03/08 MW-5
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	5.20 J	5.50 J	4.10 J	4.80 J	3.80 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	0.40 J	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

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CLIENT: HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON, NC 27546

CLIENT ID: 6040 B

ANALYST: MAO
DATE COLLECTED: 04/23/08
DATE REPORTED: 05/22/08

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	05/03/08 MW-6	05/06/08 MW-7B	05/06/08 MW-8	05/06/08 MW-9	05/06/08 MW-10
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	0.30 J	--- U
2. Vinyl Chloride	0.34	1.0	6.30	3.90	1.00	6.50	2.00
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	4.20 J	8.60 J	2.90 J	11.60	4.40 J
5. Trichlorofluoromethane	0.13	1.0	--- U	2.20	--- U	0.40 J	--- U
6. 1,1-Dichloroethene	0.14	5.0	0.30 J	4.20 J	0.40 J	0.70 J	--- U
7. Acetone	1.21	100.0	17.20 J	22.90 J	6.20 J	5.50 J	--- U
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	4.10	--- U	31.00	--- U	4.90
11. trans-1,2-Dichloroethene	0.13	5.0	0.20 J	--- U	--- U	0.20 J	--- U
12. 1,1-Dichloroethane	0.16	5.0	9.20	--- U	--- U	--- U	7.50
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	31.40	4.60 J	10.20	25.00	9.00
15. 2-Butanone	0.85	100.0	2.10 J	--- U	--- U	--- U	16.80 J
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	0.20 J	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	0.80 J	--- U	0.80 J	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	4.20	4.20	2.50	11.50	4.50
21. 1,2-Dichloroethane	0.12	1.0	0.40 J	0.30 J	--- U	0.80 J	--- U
22. Trichloroethene	0.13	1.0	5.90	9.10	4.80	5.90	1.30
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	0.20 J	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U	--- U	0.80 J
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	4.50	3.20	5.50	4.40	0.60 J
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	0.50 J	3.00	0.30 J	8.10	1.70 J
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	1.30 J	1.70 J	--- U	5.10	2.70 J
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	7.40	0.90 J	1.20	6.60	1.30
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	0.30 J	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

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CLIENT: HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON, NC 27546

CLIENT ID: 6040 B

ANALYST: MAO
DATE COLLECTED: 04/23/08
DATE REPORTED: 05/22/08

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	05/06/08 MW-31	05/06/08 Trip Blank	05/06/08 Equipment Blank
	Date Analyzed:				
1. Chloromethane	0.18	1.0	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U
7. Acetone	1.21	100.0	9.60 J	1.90 J	2.50 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	0.20 J
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

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CHAIN OF CUSTODY RECORD

CLIENT: 6040 B **Week: 18**

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
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(919) 233-0407

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field pH	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION														
pH CHECK (LAB)							L2					L2	L2	L2
CONTAINER TYPE, P/G						P	P	P	P	P		G	G	G
CHEMICAL PRESERVATION						A	A	A	A	A		E	E	E
MW-1	04 23 08	0935		18	6	G	G	G	G	G	G	G	G	G
MW-2	04 23 08	0940		16	5	G	G	G	G	G	G	G	G	
MW-3R	04 23 08	0945		16	5	G	G	G	G	G	G	G	G	
MW-4	04 23 08	0950		15	5	G	G	G	G	G	G	G	G	
MW-5	04 23 08	0955		16	5	G	G	G	G	G	G	G	G	
MW-6	04 23 08	1000		16	5	G	G	G	G	G	G	G	G	
MW-7B	04 23 08	1020		18	5	G	G	G	G	G	G	G	G	
MW-8	04 23 08	1005		17	5	G	G	G	G	G	G	G	G	
MW-9	04 23 08	1010		17	5	G	G	G	G	G	G	G	G	
MW-10	04 23 08	1015		17	5	G	G	G	G	G	G	G	G	
MW-31	04 23 08	1120		19	6	G	G	G	G	G	G	G	G	G

PARAMETERS

CHEMICAL PRESERVATION: A - NONE; B - HNO_3; C - H_2SO_4; D - NAOH; E - HCL; F - ZINC ACETATE; G - NA THIOSULFATE

CLASSIFICATION:
☐ WASTEWATER (NPDES)
☐ DRINKING WATER
☐ DWQ/GW
☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: (Y) N

SAMPLES COLLECTED BY: (Please Print) H Lage / Fox

SAMPLES RECEIVED IN LAB AT 0 8 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bob H Lage	04 23 08	BO	4/23 11:40
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

FORM #5

№ 162150

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6040 B **Week: 18**

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON NC 27546

(919) 233-0407

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field pH	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION														
pH CHECK (LAB)							12					12	12	
CONTAINER TYPE, P/G						P	P	P	P	P		G	G	G
CHEMICAL PRESERVATION						A	A	A	A	A		E	E	E
Trip Blank					2									
Equipment Blank	04 23 08				3		G					G	G	

PARAMETERS

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
☐ WASTEWATER (NPDES)
☐ DRINKING WATER
☐ DWQ/GW
☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: (Y) N

SAMPLES COLLECTED BY: (Please Print) H Page / fat

SAMPLES RECEIVED IN LAB AT 6.8 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
BH Page	04 23 08	BC	4/22 1:40
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

FORM #5

№ 162149

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6040 C

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON ,NC 27546

DATE COLLECTED: 04/23/08
DATE REPORTED : 05/22/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-16	MW23-B	MW-32	MW-33	MW-34	Analysis Date	Analyst	Method Code
PH (field measurement), Units			6.2	5.2	6.2	5.0	6.1	04/23/08	RJH	SM4500HB
Arsenic, ug/l	0.07	10.0	0.1 J	--- U	3.6 J			04/30/08	CMF	EPA200.8
Arsenic, ug/l	0.07	10.0				0.1 J	--- U	05/01/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	61.7 J	101	105			04/30/08	CMF	EPA200.8
Barium, ug/l	0.11	100.0				59 J	42.6 J	05/01/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	--- U	1			04/30/08	CMF	EPA200.8
Cadmium, ug/l	0.04	1.0				0.7 J	1.0	05/01/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	0.2 J	--- U	9.5 J			04/30/08	CMF	EPA200.8
Total Chromium, ug/l	0.11	10.0				--- U	--- U	05/01/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	0.5 J	0.8 J	24			04/30/08	CMF	EPA200.8
Lead, ug/l	0.04	10.0				0.4 J	0.1 J	05/01/08	LFJ	EPA200.8
Mercury, ug/l	0.01	0.20	--- U	--- U	0.03 J			04/30/08	CMF	EPA200.8
Mercury, ug/l	0.01	0.20				0.01 J	0.01 J	05/01/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	--- U	--- U	0.6 J			04/30/08	CMF	EPA200.8
Selenium, ug/l	0.14	10.0				--- U	--- U	05/01/08	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U	--- U	0.1 J			04/30/08	CMF	EPA200.8
Silver, ug/l	0.04	10.0				--- U	0.1 J	05/01/08	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	21	37	2200	9.1	5.7	04/23/08	MDM	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	281	40	59	77	83	04/23/08	RJH	SM2510B
Temperature, °C			15	15	16	15	15	04/23/08	RJH	SM2550B
Static Water Level, feet			7.38	5.99	5.16	6.84	4.25	04/23/08	RJH	
Well Depth, feet			45.23	24.55	24.55	26.43	40.23	04/23/08	RJH	
Water Bailed, Gals.			18.3	9.3	8.7	9.3	17.4	04/23/08	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6040 C

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON ,NC 27546

DATE COLLECTED: 04/23/08
DATE REPORTED : 05/22/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-35	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.4	04/23/08	RJH	SM4500HB
Arsenic, ug/l	0.07	10.0	0.8 J	05/01/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	225	05/01/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	05/01/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	0.2 J	05/01/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	0.7 J	05/01/08	LFJ	EPA200.8
Mercury, ug/l	0.01	0.20	--- U	05/01/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	1.0 J	05/01/08	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U	05/01/08	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	45	04/23/08	MDM	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	391	04/23/08	RJH	SM2510B
Temperature, °C			15	04/23/08	RJH	SM2550B
Static Water Level, feet			5.81	04/23/08	RJH	
Well Depth, feet			22.15	04/23/08	RJH	
Water Bailed, Gals.			7.8	04/23/08	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON, NC 27546

REVIEWED BY:

CLIENT ID: 6040 C

ANALYST: MAO
DATE COLLECTED: 04/23/08
DATE ANALYZED: 05/06/08
DATE REPORTED: 05/22/08

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-16	MW23-B	MW-32	MW-33	MW-34
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	0.40 J	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	5.50 J	5.50 J	6.10 J	6.00 J	5.90 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	0.20 J	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	0.70 J	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	1.60 J	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 10
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON, NC 27546

REVIEWED BY:

CLIENT ID: 6040 C

ANALYST: MAO
DATE COLLECTED: 04/23/08
DATE ANALYZED: 05/06/08
DATE REPORTED: 05/22/08

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-35
1. Chloromethane	0.18	1.0	--- U
2. Vinyl Chloride	0.34	1.0	--- U
3. Bromomethane	0.26	10.0	--- U
4. Chloroethane	0.29	10.0	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U
7. Acetone	1.21	100.0	5.80 J
8. Iodomethane	0.12	10.0	--- U
9. Carbon Disulfide	0.14	100.0	--- U
10. Methylene Chloride	0.14	1.0	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U
13. Vinyl Acetate	0.20	50.0	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U
15. 2-Butanone	0.85	100.0	--- U
16. Bromochloromethane	0.11	3.0	--- U
17. Chloroform	0.13	5.0	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U
20. Benzene	0.16	1.0	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U
22. Trichloroethene	0.13	1.0	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U
24. Bromodichloromethane	0.13	1.0	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U
27. Toluene	0.13	1.0	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U
30. Tetrachloroethene	0.16	1.0	--- U
31. 2-Hexanone	1.00	50.0	--- U
32. Dibromochloromethane	0.14	3.0	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U
34. Chlorobenzene	0.13	3.0	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U
36. Ethylbenzene	0.16	1.0	--- U
37. Xylenes	0.48	5.0	--- U
38. Dibromomethane	0.17	10.0	--- U
39. Styrene	0.16	1.0	--- U
40. Bromoform	0.11	3.0	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U
46. Acrylonitrile	1.49	200.0	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6040 C **Week:** 18

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON NC 27546

(919) 233-0407

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

CHLORINE NEUTRALIZED AT COLLECTION																					
pH CHECK (LAB)				12						12	12	12									
CONTAINER TYPE, P/G			P	P	P	P	P		G	G	G										
CHEMICAL PRESERVATION			A	A	A	A	A		E	E	E										
SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field pH	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2							
MW-16	04 23 08	0910		15	6	G	G	G	G	G	G	G	G	G							
MW23-B	04 23 08	1040		15	5	G	G	G	G	G	G	G	G								
MW-32	04 23 08	0840		16	5	G	G	G	G	G	G	G	G								
MW-33	04 23 08	0855		15	5	G	G	G	G	G	G	G	G								
MW-34	04 23 08	0845		15	5	G	G	G	G	G	G	G	G								
MW-35	04 23 08	0905		15	5	G	G	G	G	G	G	G	G								

PARAMETERS

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
☐ WASTEWATER (NPDES)
☐ DRINKING WATER
☐ DWQ/GW
☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: Y N

SAMPLES COLLECTED BY: (Please Print) H Wayne Fox

SAMPLES RECEIVED IN LAB AT 0.8 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
H Wayne	04 23 08		4/23 1:40
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

FORM #5

№ 162148

Environment 1, Incorporated

Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6040 E

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON ,NC 27546

DATE COLLECTED: 04/22/08
DATE REPORTED : 05/22/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	Piezometer #41S	Piezometer #44S	Piezometer #44D	Piezometer #46D	Piezometer #47S	Analysis Date	Analyst	Method Code
Static Water Level, feet			14.20	2.87	11.09	29.22	5.03	04/22/08	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6040 E

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON ,NC 27546

DATE COLLECTED: 04/22/08
DATE REPORTED : 05/22/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	Piezometer #47D	Piezometer #48S	Pizeometer #50	Piezometer #51	Piezometer #52	Analysis Date	Analyst	Method Code
Static Water Level, feet			27.11	14.68	14.76	10.53	18.41	04/22/08	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6040 E

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON ,NC 27546

DATE COLLECTED: 04/22/08
DATE REPORTED : 05/22/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	Piezometer #53	GP-24-W	GP-25-W	GP-27-W	GP-28-W	Analysis Date	Analyst	Method Code
Static Water Level, feet			16.25	8.54	7.85	13.82	11.26	04/22/08	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6040 E

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON ,NC 27546

DATE COLLECTED: 04/22/08
DATE REPORTED : 05/22/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	GP-30-W	GP-31-W	GP-33-W	GP-34-W	GP-35-W	Analysis Date	Analyst	Method Code
Static Water Level, feet			14.00	9.23	19.00	15.94	4..21	04/22/08	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

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GREENVILLE, N.C. 27835-7085

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ID#: 6040 E

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON ,NC 27546

DATE COLLECTED: 04/22/08
DATE REPORTED : 05/22/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	GP-36-W	GP-37-W	GP-38-W	Analysis Date	Analyst	Method Code
Static Water Level, feet			18.19	8.19	16.06	04/22/08	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
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CLIENT: HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON, NC 27546

REVIEWED BY:

CLIENT ID: 6040 E

ANALYST: MAO
DATE COLLECTED: 04/22/08
DATE ANALYZED: 05/02/08
DATE REPORTED: 05/22/08

Page: 1

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	Piezometer #41S	GP-25-W	GP-30-W	GP-37-W	GP-38-W
1. Chloromethane	0.18	1.0	0.20 J	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	1.50
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	1.30 J
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	5.00 J	9.30 J	8.80 J	5.80 J	4.40 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	0.50 J	--- U	--- U	--- U	0.40 J
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	0.20 J
12. 1,1-Dichloroethane	0.16	5.0	0.50 J	--- U	--- U	3.90 J	2.00 J
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	0.30 J	--- U	--- U	--- U	18.30
15. 2-Butanone	0.85	100.0	--- U	--- U	1.40 J	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	0.20 J	--- U	--- U	--- U	3.60
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	0.20 J	--- U	--- U	--- U	3.10
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	0.20 J	1.10
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	0.30 J
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6040 E **Week: 18**

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON NC 27546

(919) 233-0407

DISINFECTION
- [ ] CHLORINE
- [ ] UV
- [ ] NONE
- [ ] _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION									
pH CHECK (LAB)							12	12	12
CONTAINER TYPE, P/G							G	G	G
CHEMICAL PRESERVATION							E	E	E
Piezometer #41S	04 22 08	0925			4	G	G	G	G
Piezometer #44S	04 22 08				1	G			
Piezometer #44D	04 22 08				1	G			
Piezometer #46D	04 22 08				1	G			
Piezometer #47S	04 22 08				1	G			
Piezometer #47D	04 22 08				1	G			
Piezometer #48S	04 22 08				1	G			
Pizeometer #50	04 22 08				1	G			
Piezometer #51	04 22 08				1	G			
Piezometer #52	04 22 08				1	G			
Piezometer #53	04 22 08				1	G			

PARAMETERS

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
- [ ] WASTEWATER (NPDES)
- [ ] DRINKING WATER
- [ ] DWQ/GW
- [x] SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
Y N

SAMPLES COLLECTED BY: (Please Print)
H Page / Fox

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bob H Page	042208	[signature]	4/22 3:34
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

FORM #5

№ 162147

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6040 E **Week: 18**

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON NC 27546

(919) 233-0407

DISINFECTION
- [ ] CHLORINE
- [ ] UV
- [ ] NONE
- [ ] _____

																				CHLORINE NEUTRALIZED AT COLLECTION
								L2	L2	L2										pH CHECK (LAB)
								G	G	G										CONTAINER TYPE, P/G
								E	E	E										CHEMICAL PRESERVATION
SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2											PARAMETERS
GP-24-W	04/22/08				1	G														
GP-25-W	04/22/08	1135			3	G	G	G												
GP-27-W	04/22/08				1	G														
GP-28-W	04/22/08				1	G														
GP-30-W	04/22/08	0955			3	G	G	G												
GP-31-W	04/22/08				1	G														
GP-33-W	04/22/08				1	G														
GP-34-W	04/22/08				1	G														
GP-35-W	04/22/08				1	G														
GP-36-W	04/22/08				1	G														
GP-37-W	04/22/08	1130			3	G	G	G												

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
- [ ] WASTEWATER (NPDES)
- [ ] DRINKING WATER
- [ ] DWQ/GW
- [x] SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
Y N

SAMPLES COLLECTED BY:
(Please Print)
H Lagoe / Fat

SAMPLES RECEIVED IN LAB AT 0.7 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bob H Lagoe	04/22/08	[signature]	4/22 934
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

FORM #5

№ 162146

Environment 1, Inc.
P.O. Box 7085; 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6040 E **Week:** 18

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON NC 27546

(919) 233-0407

DISINFECTION
- [ ] CHLORINE
- [ ] UV
- [ ] NONE
- [ ] _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
							L2L2		
						G	G	G	
						E	E	E	
GP-38-W	04/22/08	1300			3	G	G	G	

PARAMETERS

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB)

CONTAINER TYPE, P/G

CHEMICAL PRESERVATION

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
- [ ] WASTEWATER (NPDES)
- [ ] DRINKING WATER
- [ ] DWQ/GW
- [x] SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
(Y) N

SAMPLES COLLECTED BY:
(Please Print)
H Gore / Fo

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bob H Gore	04/22/08	BG	4/22 3:25
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

FORM #5

№ 162145

Environment 1, Incorporated

Drinking Water ID: 37215
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6040 F

HARNETT CO. (DUNN/ERWIN)
GENERAL SERVICES HARNETT CO.
MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON ,NC 27546

DATE COLLECTED: 04/23/08
DATE REPORTED : 05/22/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-11	MW-12	MW-13	MW-14	MW-15	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.1	5.2	6.1	5.6	5.1	04/23/08	RJH	SM4500HB
Antimony, ug/l	0.08	6.0	0.1 J	--- U	0.5 J	0.1 J	0.1 J	05/01/08	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	--- U	--- U	0.1 J	0.1 J	1.6 J	05/01/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	17.7 J	42.2 J	82.8 J	47.3 J	32.7 J	05/01/08	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	0.2 J	1.5	0.3 J	0.6 J	--- U	05/01/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	0.1 J	0.1 J	0.1 J	0.2 J	05/01/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	0.6 J	0.8 J	1.6 J	0.7 J	1.2 J	05/01/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0	1.4 J	2.7 J	1.1 J	1.3 J	0.9 J	05/01/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	0.9 J	0.2 J	0.3 J	0.5 J	0.2 J	05/01/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	2.1 J	1.8 J	1.2 J	1.7 J	0.7 J	05/01/08	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	--- U	0.2 J	0.2 J	0.2 J	0.7 J	05/01/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	0.4 J	--- U	--- U	0.2 J	--- U	05/01/08	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	0.1 J	0.1 J	0.1 J	--- U	--- U	05/01/08	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	0.1 J	--- U	0.1 J	--- U	--- U	05/01/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	1.9 J	2.8 J	1.9 J	2.9 J	1.8 J	05/01/08	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0	6.5 J	8.5 J	6.0 J	8.7 J	8.3 J	05/01/08	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	50	220	45	85	16	04/23/08	MDM	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	68	70	154	112	70	04/23/08	RJH	SM2510B
Temperature, °C			16	15	16	16	15	04/23/08	RJH	SM2550B
Static Water Level, feet			17.42	6.23	24.79	7.30	7.48	04/23/08	RJH	
Well Depth, feet			27.60	16.30	25.77	29.92	14.55	04/23/08	RJH	
Water Bailed, Gals.			4.8	7.8	12.0	10.5	3.6	04/23/08	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.